



255TH AMERICAN CHEMICAL SOCIETY
NATIONAL MEETING AND EXPOSITION

Nexus of

FOOD
ENERGY
& WATER.

NEW ORLEANS
LOUISIANA

MARCH 2018
18 — 22

PROGRAM BOOK

Visit the ACS Exposition & Career Fair!

Halls B2/C, Ernest N. Morial Convention Center

Join us for the Welcome Reception & Poster Sessions

Sunday, March 18

6:00 PM – 8:30 PM

Come back on Monday and Tuesday to continue visiting over 250 companies!

- Learn more about ACS benefits, products, services and merchandise at the ACS Booth
- Attend exhibitor workshops and demonstrations
- Network at the recharge lounge
- Meet recruiters from top companies at the Career Fair

This and much more is all happening on the newly designed ACS Expo Floor!

Monday, March 19

9:00 AM – 5:00 PM

Tuesday, March 20

9:00 AM – 5:00 PM

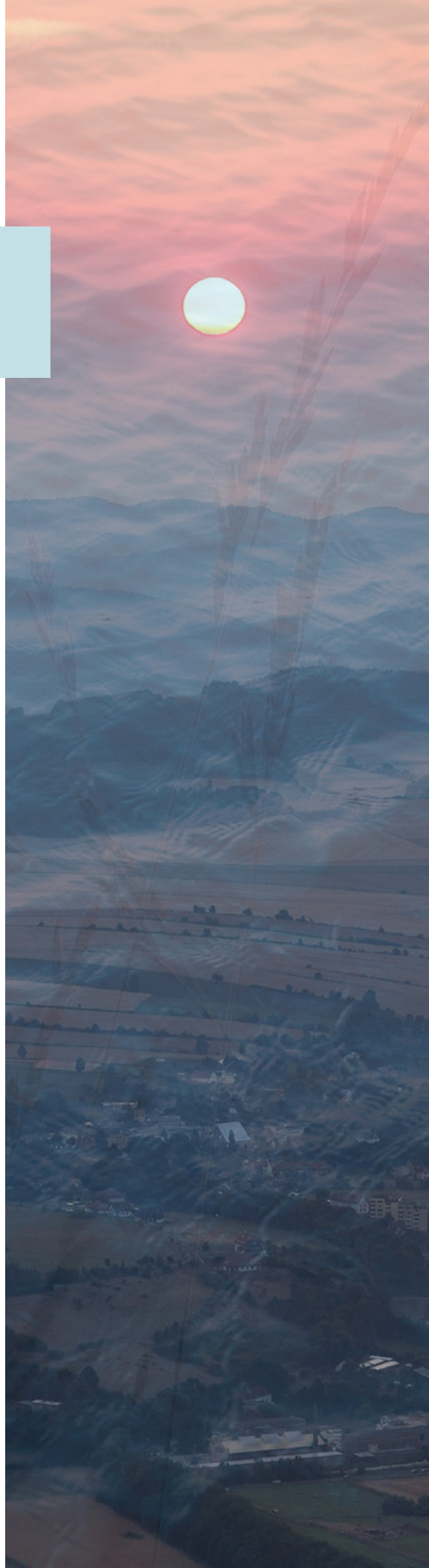
Caffeinate and communicate during coffee breaks!

Monday, March 19

1:00 PM – 3:00 PM

Tuesday, March 20

3:00 PM – 5:00 PM



255TH AMERICAN CHEMICAL SOCIETY NATIONAL MEETING & EXPOSITION

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SYMPOSIUM

NANO IN FOOD, ENERGY, & WATER

MONDAY, MARCH 19, 1 PM

ROOM 215 | ERNEST N. MORIAL CONVENTION CENTER

SPEAKERS

JILLIAN M. BURIAK

University of Alberta

YURY GOGOTSI

Drexel University

YI CUI

Stanford University

BRIAN A. KORGEL

University of Texas at Austin

DELIA J. MILLIRON

University of Texas at Austin

HARRY ATWATER

California Institute of Technology

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ACS
Photonics

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MATERIALS

NANO
LETTERS



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The American Chemical Society is a self-governed individual membership organization of members at all degree levels and in all fields of chemistry. The Society provides a broad range of opportunities for peer interaction and career development, regardless of professional or scientific interests. The programs and activities conducted by ACS today are the products of a tradition of excellence in meeting member needs that dates from the Society's founding in 1876.

This Program Book is published by the American Chemical Society as a service to its meeting attendees. Information contained herein is subject to change without notice. While every effort is made to ensure accuracy, ACS makes no warranties, expressed or implied, related to the information. For the official technical program for the 255th National Meeting & Exposition, refer to www.acs.org/nationalmeeting.

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American Chemical Society

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A WELCOME LETTER FROM ACS PRESIDENT, PETER K. DORHOUT

Welcome to New Orleans, Louisiana, and the site of the 255th ACS National Meeting. It is my pleasure to welcome all of you to The Big Easy.

With thousands of presenters and attendees, and hundreds of expo booths, there are tremendous opportunities to share your science, network, and catch up with colleagues. There are noteworthy technical symposia organized under the theme of this meeting: the Nexus of Food, Energy & Water.

On Sunday morning, I hope you are able to attend the Presidential symposium on Water, Water Everywhere But not a Drop to Drink, where we hear from renowned scientists discussing methods of preserving, protecting and delivering clean water. Later that afternoon, join your colleagues at another Presidential symposium exploring Science Cafes and Engaging the Public. Science cafes are an exceptional method of delving into a scientific issue within a community in a fun and lively manner. Speakers will discuss best practices and tips for initiating Science Cafes in your communities, with a reception to follow (both symposia are in the Hilton New Orleans Riverside, Grand Salon B, Sections 9-12).

On Monday at noon, join your colleagues at the ACS Board of Directors Regular Session where our featured speaker, Lisa Balbes, will discuss Nontraditional Careers for Chemists: Thinking Outside the Beaker (Ernest N. Morial Convention Center, Great Hall A). Later that afternoon, Emily Cranston from McMaster University will present the Kavli Foundation Emerging Leader in Chemistry Lecture on Transforming nanocellulose into sustainable products through surface engineering. Following her presentation, Angela Belcher of the Massachusetts Institute of Technology will give the Fred Kavli Innovations in Chemistry Lecture on Giving new life to materials for energy, the environment and medicine (both lectures are in the Ernest N. Morial Convention Center, Great Hall A).

On Tuesday evening, we recognize the outstanding accomplishments of our ACS National Award winners. If you are unable to attend the full program, please note that anyone can attend the Priestley Medal address, this year honoring Geraldine Richmond (New Orleans Marriott, Grand Ballroom).

Many career development programs for undergraduate and graduate students, postdocs, and chemical professionals will be offered. For job seekers and employers, the career fair will provide opportunities for on-site interviews, one-on-one career assistance, and career-related workshops. The exposition will feature several hundred companies showcasing services, instruments, books, and lab equipment in more than 300 booths.

As with any gathering of professional colleagues, we owe it to ourselves to be mindful of safety. Please become familiar with the emergency procedures in your hotel, your meeting rooms, and in other gatherings, and be aware of your surroundings. If you observe unsafe practices or situations, please say something to help our members stay safe. I love safety!

My personal thanks go to our hosts at the Louisiana Section, and the divisional program chairs and symposium chairs responsible for organizing the technical sessions. I know this will be a tremendously successful meeting, and I thank you all for your contributions.



Peter K. Dorhout
ACS President



Peter K. Dorhout, Ph.D.
ACS President

PRESIDENTIAL SYMPOSIA AND EVENTS

SPONSORED AND RECOMMENDED BY THE ACS PRESIDENT

SATURDAY, MARCH 17, 2018

Presidential Outreach Event: Exploring Our World Through Chemistry

Cosponsored by CCA

Lyons Recreation Center

624 Louisiana Ave, New Orleans

10:00 AM - 1:00 PM

SUNDAY, MARCH 18, 2018

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clear Water

Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, INOR, I&EC, MPPG, SCHB & YCC

Hilton New Orleans Riverside | Grand Salon B

Sections 9/12 | First Floor

8:30 AM - 10:50 AM

Science Cafes and Engaging the Public: Techniques for Hosting Successful Events

Cosponsored by CATL, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, INOR, I&EC, MPPG, SCHB & YCC

Hilton New Orleans Riverside

Grand Salon B | Sections 9/12 | First Floor

1:30 PM - 5:20 PM

Nexus of Food, Energy, & Water

Sponsored by MPPG and Cosponsored by PRES

Ernest N. Morial Convention Center

Great Hall A First Floor

3:00 PM - 6:00 PM

MONDAY, MARCH 20, 2018

Community Sharing of Chemical Safety Data: Yes, No, Maybe?

Sponsored by CINF and Cosponsored by PRES, CA & CHAS

New Orleans Marriott Convention Center

River Bend 1 | Second Floor

8:20 AM - 12:20 PM

TUESDAY, MARCH 20, 2018

GSSPC: Finding Our Place at the Bottom: A Symposium in Memory of Richard Feynman

Sponsored by CHED and Cosponsored by PRES, ANYL, COLL, ENVR, INOR & PMSE

New Orleans Marriott Convention Center

Blaine Kern C | First Floor

1:30 PM - 4:55 PM

OTHER SYMPOSIA RECOMMENDED BY THE ACS PRESIDENT

SUNDAY, MARCH 18, 2018

Science of Sexual Harassment

Sponsored by WCC and Cosponsored by PRES, C&EN, PROF & YCC

Hilton New Orleans Riverside | Grand Salon C
Section 13 | First Floor

9:00 AM - 4:50 PM

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF and Cosponsored by PRES, ANYL, BIOT, BIOL, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, POLY, PMSE, WCC & YCC

Hilton New Orleans Riverside

Grand Salon D Section 22 | First Floor

9:00 AM - 4:50 PM

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Scholar Research Symposium

CHED, DAC, MPPG & Louisiana Local Section

Hilton New Orleans Riverside | Grand Salon D
Section 24 | First Floor

1:00 PM - 4:40 PM

MONDAY, MARCH 19, 2018

State-of-the-Art: Two Decades Advancing the 12 Principles of Green Chemistry

Sponsored by CHED and Cosponsored by PRES, New Orleans Marriott Convention Center |

Blaine Kern E | First Floor

8:30 AM - 3:50 PM

Excellence in Graduate Polymer Research

Sponsored POLY and Cosponsored by PRES, PROF, SOCED & YCC

New Orleans Marriott Canal Street | Studio 5
Second Floor

8:00 AM - 4:40 PM

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST and Cosponsored by PRES, AGFD, CHED, DAC, MPPG & Louisiana Local Section

Hilton New Orleans Riverside | Grand Salon D
Section 24 | First Floor

8:30 AM - 5:40 PM

Information Legacy of Eugene Garfield: From the Chicken Coop to the World Wide Web

Sponsored by CINF and Cosponsored by PRES & HIST

New Orleans Marriott Convention Center | River Bend 1 | Second Floor

1:15 PM - 5:05 PM

Science of Sexual Harassment

Sponsored by WCC and Cosponsored by PRES, C&EN, PROF & YCC

Hilton New Orleans Riverside | Grand Salon C
Section 13 | First Floor

3:00 PM - 5:00 PM

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF and Cosponsored by PRES, ANYL, BIOT, BIOL, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, POLY, PMSE, WCC & YCC

Hilton New Orleans Riverside | Grand Salon D
Section 22 | First Floor

3:00 PM - 5:00 PM

TUESDAY, MARCH 20, 2018

Excellence in Graduate Polymer Research

Sponsored POLY and Cosponsored by PRES, PROF, SOCED & YCC

New Orleans Marriott Canal Street | Studio 5
Second Floor

8:00 AM - 5:40 PM

Ernest N. Morial Convention Center | Hall D
First Floor

6:00 PM - 8:00 PM

Water Supply Safety

Sponsored by CHAS and Cosponsored by PRES, CCS & ENVR

Hilton New Orleans Riverside | Grand Salon D
Section 21

First Floor

9:00 AM - 11:30 AM

Science Cafés and Engaging the Public: Techniques for Hosting Successful Events

Cosponsored by CATL, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, INOR, I&EC, MPPG, SCHB & YCC

Hilton New Orleans Riverside

Grand Salon B | Sections 9/12 | First Floor

1:30 PM - 5:20 PM

WELCOME MESSAGE FROM JERALD L. SCHNOOR, NEW ORLEANS THEMATIC CHAIR



The 255th ACS National Meeting will showcase topics on the *Nexus of Food, Energy and Water*. Food, energy and water are vital for life and for advancing the human condition. Yet, poverty, increasing population and burgeoning consumption cause acute and chronic shortages of these staples throughout the world. Inextricably

linked are food, energy and water. At the nexus of energy and water, we understand that one cannot obtain freshwater without an investment in energy, and vice versa. It is also difficult for agriculture to grow more food without abundant water for irrigation. Still, cheap energy is key to obtaining both food and water, but the constraints of climate change make low-carbon energy a necessity. As scientists and engineers, we understand that chemistry can play a huge role in achieving food, energy and water security. For example, novel chemical materials can help to develop solar energy cells more cheaply, membranes for separation of water from brines, and new pesticides and fertilizers, which conserve the diversity of ecosystems, soil and water Thematic Program Chair quality. At the 255th ACS National Meeting, we will explore green chemistry, nanoscience, biofuels and many other sustainable solutions at the nexus of all three — food, energy and water.

The Opening Session on Sunday afternoon, March 18, will inaugurate the theme, *Nexus of Food, Energy and Water: Adapting to Future Challenges*, with five guest lecturers:

- Professor Mark Jacobson (Stanford University) will lead with a solution, “Transitioning World Energy for All Purposes to Stable Electricity Powered by 100% Wind, Water, and Sunlight”
- Professor Yun Hang Hu (Michigan Technological University) will present an overview of “Advanced Materials and Processes for Energy and Water”
- Professor Pratim Biswas (Washington University) will discuss his lab’s innovative material science solutions, “Nanoparticle Technology Enabling Smart Agriculture Solutions: Nexus of Food and Environment”
- Professor David Dzombak (Carnegie Mellon University) will describe water problems with the energy revolution in shale gas, “Hydraulic Fracturing and Drinking Water Resources”
- Professor Amy Childress (University of Southern California) will speak at the water/energy nexus, “Integrating Systems of Water Reuse and Desalination: More Water, Less Energy”

On Monday, March 19, Professor Angie Belcher of the Massachusetts Institute of Technology will deliver the Fred Kavli Innovations in Chemistry Lecture. Professor Belcher’s fascinating work using nature and biomaterials to grow batteries (novel energy systems) will be the foundation of her remarks. The session will be coupled with the Kavli Foundation Emerging Leader in Chemistry Lecture, and you will not want to miss it.

An exceptional technical program constructed by the ACS divisions includes both topical sessions and symposia honoring the winners of ACS awards. Nineteen divisions offer 63 symposia on the theme. In addition, our Multidisciplinary Planning Group MPPG and partner divisions add multiple half and full day symposia focused on the theme, *Nexus of Food, Energy and Water*, such as:

- Food vs. Fuels (ENFL/AGFD/ENVR): Ms. Lisa Houston (Process Analytics, PAC LP).
- Water in Foods Symposium in honor of Louise Slade & Harry Levine (AGFD): Dr. John Finley (LSU) and Dr. Emily Maung-Douglass (LSU).
- Plant Omics (MPPG): Professor Leslie Hicks (UNC).
- Food at the Crossroads: Chemistry’s Role in Sustainability, Past & Present (HIST): Professor Mary Virginia Orna (CNR) and Professor Alvin Bopp (SUNO).
- Contaminants in Water Sources Impacted by FEW Systems: Emerging Challenges & Opportunities (ENVR): Professor Gregory LeFevre (Ulowa).

The program for the meeting and other information is available online at the website for the New Orleans 2018 National ACS meeting, www.acs.org/nationalmeeting. The final day of the meeting, Thursday, March 22, is fittingly the *United Nations World Water Day*, and we have several technical sessions on producing abundant and clean freshwater for people.

I am very grateful to the theme session chairs for their efforts, the program chairs of a broad range of 19 divisions, and the ACS staff for their continuous aid in developing the *Nexus of Food, Energy and Water* theme. I look forward to seeing you in New Orleans.

A handwritten signature in dark ink that reads "Jerald L. Schnoor".

Jerald L. Schnoor
Thematic Program Chair

OPENING SESSION & WELCOME RECEPTION

Sunday, March 18, 2018

Opening Session

3:00 PM–6:00 PM

Great Hall A, Ernest N. Morial Convention Center

Kick off the National Meeting & Exposition in New Orleans with the Opening Session on *Nexus of Food, Energy & Water: Adapting to Future Challenges*.



Professor Mark Jacobson (Stanford University) will lead with a solution, “Transitioning World Energy for All Purposes to Stable Electricity Powered by 100% Wind, Water, and Sunlight”



Professor Yun Hang Hu (Michigan Technological University) will present an overview of “Advanced Materials and Processes for Energy and Water”



Professor Pratim Biswas (Washington University) will discuss his lab’s innovative material science solutions, “Nanoparticle Technology Enabling Smart Agriculture Solutions: Nexus of Food and Environment”



Professor David Dzombak (Carnegie Mellon University) will describe water problems with the energy revolution in shale gas, “Hydraulic Fracturing and Drinking Water Resources”



Professor Amy Childress (University of Southern California) will speak at the water/energy nexus, “Integrating Systems of Water Reuse and Desalination: More Water, Less Energy”

Welcome Reception

6:00 PM–8:30 PM

Halls B2/C, Ernest N. Morial Convention Center

Join us Monday, March 19 for the Kavli Lecture Series



4:00 PM
The Kavli Foundation Emerging Leader in Chemistry Lecture

Dr. Emily Cranston (McMaster University in Canada) describes recent advances in hybrid cellulose nanocrystal (CNC) material development and show applications in emulsions/emulsion polymerization, injectable hydrogels and cross-linked aerogels. This new understanding can be used to extend food, cosmetic, paint and adhesive products, encapsulation technologies, tissue engineering scaffolds, and water purification and energy storage devices.



5:15 PM
The Fred Kavli Innovations in Chemistry Lecture

Prof. Angela Belcher (Massachusetts Institute of Technology) speaks on her fascinating work using nature and biomaterials as inspiration to design biological hybrid multidimensional materials. This talk will address conditions under which organisms first evolved to make materials and scientific approaches to move beyond naturally evolved materials to genetically imprint advanced technologies with examples in lithium and sodium ion batteries, lithium-air batteries, environmental clean-up and ovarian cancer imaging and treatment.



ACS Resource Hub

Lounge Room, Ernest E. Morial Convention Center

Hours

Sunday, 7:30 AM – 5:00 PM

Monday, 7:30 AM – 5:00 PM

Tuesday, 7:30 AM – 5:00 PM

Wednesday, 7:30 AM – 4:00 PM

Thursday, 7:30 AM - 1:00 PM

What Element Are You?

Take the quiz at www.acs.org/ElementQuiz. Come by the Hub to pick up your element free gift!

ACS Store Kiosk

Pick up gifts for yourself or a chemist in your life!

Mobile App Help Desk

Questions about the ACS Meetings & Events mobile app? Stop by for all the answers.

Louisiana Local Section

Learn more about the ACS Local Section in our host state!

Lounge Area with Charging Spots

Meet up with colleagues and recharge your devices.

Greater Boston Convention & Visitors Bureau

The Fall National Meeting & Exposition in August is around the corner. Chat with locals to hear more about the city we're traveling to.

Housing Help Desk

Have a burning question about your hotel reservation? ConferenceDirect is here to help.

JOIN US FOR THE ACS BOARD OF DIRECTORS REGULAR SESSION

Sunday, March 18, 2018 | 12:00 PM – 1:00 PM

New Orleans Ernest N. Morial Convention Center | Great Hall A

“Nontraditional Careers for Chemists: Thinking Outside the Beaker”

A chemistry background prepares you for much more than a laboratory career. The broad science education, analytical thinking, research methods, and other skills learned are of value to a wide variety of employers, and essential for a plethora of positions. By understanding your own personal values and interests, you can make informed decisions about what career paths to explore, and identify positions that match your needs. This talk will provide a broad overview of nontraditional careers for chemists, such as chemical information, patent work, technical writing, education, human resources, sales and marketing, and much more. We will discuss typical tasks, education or training requirements, and personal characteristics that will also be provided.

Dr. Lisa M. Balbes has been an American Chemical Society volunteer career consultant since 1993, providing career management advice and information to literally thousands of scientists. She is the author of “Nontraditional Careers for Chemists: New Formulas in Chemistry”, published by Oxford University Press, an ACS certified master workshop facilitator, and an internationally invited speaker on various career topics. She earned her Ph.D. in chemistry from the University of North Carolina at Chapel Hill, and her undergraduate degrees in chemistry and psychology from Washington University in St Louis.



Featured Speaker

Lisa M. Balbes, Ph.D.

Balbes Consultants, LLC

Doors open at 11:45 AM

Sandwiches and soft drinks available while supplies last.

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A WELCOME LETTER FROM MAYOR MITCHELL J. LANDRIEU

City Of New Orleans



Welcome!

As Mayor of New Orleans, it is my pleasure to welcome the American Chemical Society. Thank you for choosing to celebrate your annual national meeting in New Orleans.

You will experience the warm hospitality and unique culture that New Orleans has to offer. I am certain that New Orleans will serve as the perfect destination for the meeting and provide the best opportunities for the group. While you are here, take some time to relax and explore the City. Dine in our incomparable restaurants; enjoy some of the great music we have to offer, tour historic neighborhoods like the French Quarter and Treme, and shop in our antique and specialty shops throughout New Orleans, including the bustling Magazine Street corridor. It is my hope that your stay will be memorable and that you leave with new knowledge and relationships.

I extend my best wishes to the American Chemical Society, as well as those traveling to partake in the meeting. I want to thank you again for choosing New Orleans.

Sincerely,

A handwritten signature in black ink that reads "mitch". The signature is written in a cursive, lowercase style.

Mitchell J. Landrieu, Mayor
City of New Orleans

A WELCOME LETTER FROM THE NEW ORLEANS CONVENTION & VISITORS BUREAU



Dear attendees of the American Chemical Society,

It is my pleasure to welcome the American Chemical Society (ACS) to New Orleans for the ACS National Meeting & Expo. It is a great honor to host you all in one of America's most historic and culturally rich destinations...a city that visitors have loved for centuries.

New Orleans has always been a destination that welcomes all and there has never been a better time to experience the Crescent City. Thanks to the dedication of locals and visitors alike, New Orleans is experiencing a true economic and cultural renaissance. As we prepare for our tricentennial celebration in 2018, the city is bustling with progress and innovation. From the development of a new world class airport opening in 2019, a re-energizing billion-dollar project along the riverfront, to small independent businesses in the eclectic, historic neighborhoods of Tremé, Bywater, Magazine Street and Faubourg Marigny, business and culture are booming.

While you are here, you owe it to your soul to immerse yourself in our rich culture and enjoy all that our beautiful, sensory and authentic city has to offer. I'm certain you will see that New Orleans is the perfect backdrop for your historic anniversary meeting. Be sure to explore our 1,500+ restaurants from the traditional pillars of New Orleans dining celebrated throughout the years, to the emergent new chefs offering stunningly innovative international cuisine and world-class fusions of culinary traditions... all here in the most award-winning city for food per capita in the world. No place has a better combination of elegant fine dining, food under ten dollars and the greatest mixology found anywhere on Earth from morning till long past midnight, while the riffs of jazz music fill your ears everywhere you stroll. On behalf of the entire hospitality community – chefs, street performers, musicians, bellmen, artists, actors, writers and housekeepers – welcome to New Orleans. We are thrilled to host this event and are happy to be your "source for exploration" for the next few days. We hope you enjoy your stay and return often to our wonderful city.

Best Regards,

A handwritten signature in black ink that reads "Stephen".

Stephen Perry

President and CEO

New Orleans Convention & Visitors Bureau

acs.axial.com/new-orleans

Join us in welcoming new journals to the ACS Publications family

Meet the Editors



Kirk S. Schanze
University of Texas,
San Antonio



Gerald J. Meyer
University of North
Carolina at Chapel Hill



T. Randall Lee
University of Houston



Shu Wang
Institute of Chemistry,
Chinese Academy
of Sciences

Monday, March 19, 2018

10AM, ACS Booth Theater, Exhibits Hall

Refreshments provided

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GENERAL MEETING INFORMATION

Welcome to New Orleans, home of the 255th National Meeting of the American Chemical Society. Over the next five days, as you explore the Nexus of Food, Energy & Water, you will have opportunities to connect with thousands of chemical professionals from around the globe to share ideas and examine emerging scientific and technical knowledge in the field of chemistry. The meeting agenda includes educational offerings complemented by social events and networking opportunities.

Your meeting registration gives you entry to a range of programming activities, including:

- Award Presentations
- Exposition Hall and Career Fair
- Invited Symposia
- Scientific and Poster Sessions
- Special Lectures, Workshops, and Events

Meeting activities will take place in the Ernest N. Morial Convention Center and nearby hotels. All meeting venues have an ACS Operations Office with available staff to answer your questions.

Program Book

A limited number of Program Books are available for sale if you did not purchase one when you registered. You can buy the book in the Attendee Registration Office located in Lobby A of the Ernest N. Morial Convention Center, Rivergate Ballroom. The cost is \$20, payable by credit card, debit card, or check.

We encourage meeting attendees to download the ACS Meetings & Events Mobile App or access the Online Planner from the ACS website. The ACS Meetings & Events Mobile App is the official final meeting program and will provide quick access to the full technical program along with special features so you can easily build your schedule.

ACS Operations Offices

- **Embassy Suites New Orleans, Fountainbleu 3**
504-378-4046
- **Ernest N. Morial Convention Center, Rivergate Ballroom**
504-670-6704
- **Hampton Inn & Suites Convention Center, Dauphine I Meeting Room**
504-566-9990 Ext. 7906
- **Hilton Garden Inn Convention Center, Library**
504-310-1149
- **Hilton New Orleans Riverside, Magazine**
504-586-4613
- **InterContinental New Orleans, Acadian II**
504-585-7847
- **Le Meridien New Orleans, Salon 4**
504-525-9444 Ext. 4872
- **Loews New Orleans Hotel, Guest Room 1121**
504-595-5362
- **New Orleans Marriott Canal Street, Bonaparte**
504-553-5678
- **New Orleans Marriott Convention Center, Delta Queen**
504-613-2397
- **Renaissance New Orleans Art Hotel, Blue Dog**
504-613-2357

ACS Specialty Offices

- **Awards Office:**
New Orleans Marriott, Balcony N
504-553-5665
- **Governance Office:**
Hilton New Orleans Riverside, Jackson
504-586-4608
- **Society Programs Office:**
Hilton New Orleans Riverside, Camp
504-586-4612

ACKNOWLEDGEMENTS

ACS Divisions and Committees are grateful for the financial donations and other contributions received throughout the year and specifically toward the National Meeting. Our accomplishments are due in large part to this support. All of us at ACS acknowledge our appreciation to the many government agencies, educational institutions, organizations, and companies listed below as well as the others omitted from this list because of printing deadlines.

Division of Agricultural and Food Chemistry

- Ajinomoto Co., Inc

Division of Analytical Chemistry

- Falcon Analytical
- Infometrix Inc
- Meinhard
- The College of the Holy Cross
- Thermo Fisher Scientific

Division of Biological Chemistry

- Journal of Biological Chemistry
- University of Massachusetts Amherst

Division of Business Development and Management

- CIEC

Division of Carbohydrate Chemistry

- Glen Research
- Shimadzu

Division of Cellulose and Renewable Materials

- Adolphe Merkle Institute, University of Fribourg
- Department of Sustainable Biomaterials: Virginia Tech
- Elsevier: Carbohydrate Polymers
- EPNOE
- MDPI Fibers
- School of Forest Resources: University of Maine
- The Center for Renewable Carbon: University of Tennessee

Division of Chemical Education

- ACS Green Chemistry Institute
- Anasazi Instruments
- Bruker BioSpin

- GCI: ACS Green Chemistry Institute
- I&EC Green Chemistry Subdivision
- IPEC
- JEOL
- Magritek
- Mestrelab

Division of Chemical Health and Safety

- AACT
- CANN

Division of Chemical Information

- Chemical Structure Association Trust
- Clarivate Analytics
- IUPAC for Committee on Publications and
- Cheminformatics Data Standards

Division of Colloid and Surface Chemistry

- Henan University
- King Abdullah University of Science and Technology

Division of Computers in Chemistry

- Gaussian Inc.
- OpenEye

Division of Environmental Chemistry

- AEESP
- Environmental Science & Technology
- Environmental Science & Technology Letters
- EuChEMS

Division of Organic Chemistry

- Biogen
- Boehringer Ingelheim
- Chem (Cell Press)
- ChemComm/ChemSci
- ChemPhotoChem
- Denison University
- STREM
- Thieme

Division of Physical Chemistry

- U.S. Army Research Office

Division of Polymer Chemistry

- 3M

- Anton Paar USA, Inc.
- Arkema
- Bruker AXS, Inc.
- Cambridge Isotope
- Exxon
- ExxonMobil
- JEOL
- MR Resources
- New Era Enterprises
- NMR Service
- Pfizer
- POLY Industrial Advisory Board
- Rototec-Spintec
- Solvay
- The Dow Chemical Company
- Tosoh
- Wiley
- Wyatt Technology

Division of Polymeric Materials Science and Engineering

- ACS Brazil Chapter
- Anasys Instruments
- Applied Minerals, Inc.
- BASF
- Danimer Scientific
- Department of Chemistry & Biochemistry at Florida State University
- DuPont
- Eastman Chemical Company
- Elsevier
- ExxonMobil
- ExxonMobil Chemical Company
- IBM
- LG MMA
- MilliporeSigma
- North American Membrane Society
- NSF
- Ondax
- Tosoh Biosciences LLC
- Toyo Styrene Co., Ltd.
- University of Delaware Department of Materials Science & Engineering
- Wyatt Technology

- Zeon Corporation
- Zibo Zhangdian Oriental Chemical Co., Ltd.

Division of Small Chemical Businesses

- Saul Ewing LLP

Division of the History of Chemistry

- ACS Louisiana Local Section

Women Chemists Committee

- C&EN

Younger Chemists Committee

- C&EN

We Thank Our Volunteers for Their Dedication and Hard Work

ACS Volunteers contribute thousands of hours of service to create and implement programs that promote our science, benefit our members, and contribute to the development of our communities. Thanks to your contributions, the Society provides its over 150,000 members with:

- Powerful networks on the local, regional, and national levels
- Specialized technical information and research
- Expansive career enhancement materials
- Award winning publications
- Meetings & expositions that set industry standards for excellence.

ACS salutes the outstanding volunteer efforts that have contributed to the success of this year's national and regional meetings, including division chairs, national meeting program officers, regional meeting organizers and program chairs, symposium organizers, session and award presiders, short course and workshop instructors, career counselors, and all members of the Society's governance. To get involved, go to www.acs.org.

ACS VOLUNTEER/NATIONAL MEETING ATTENDEE CONDUCT POLICY

One of the key strengths of the ACS has been the enduring and varied contributions made by its thousands of dedicated volunteers.

Another unassailable strength of the ACS is its outstanding national meetings program. ACS national meetings are among the most respected scientific meetings in the world. ACS national meetings offer scientific professionals a legitimate platform to present, publish, discuss, and exhibit the most exciting research discoveries and technologies in chemistry and its related disciplines. Furthermore, ACS national meetings facilitate networking opportunities, career development and placement, and provide organizations with opportunities to exhibit products and services to targeted audiences.

The Society's Congressional Charter explicitly lists among its objectives "the improvement of the qualifications and usefulness of chemists through high standards of professional ethics, education and attainments...." The ACS expects its volunteers and national meeting attendees to display the highest qualities of personal and professional integrity in all aspects of their ACS related activities. Indeed, every chemical professional has obligations to the public, to volunteer and staff colleagues, and to science.

Accordingly, and to foster a positive environment built upon a foundation of trust, respect, open communications, and ethical behavior, the ACS Board of Directors has issued this Conduct Policy. It applies to ACS Volunteers, i.e., it applies to individuals conducting the business and affairs of the ACS without compensation for that conduct. It also applies to attendees at ACS national meetings. Volunteers and national meeting attendees should at all times abide by this Conduct Policy. Specifically:

- Volunteers should understand and support ACS's vision and mission.
- Volunteers and national meeting attendees should contribute to a collegial, inclusive, positive, and respectful environment for their fellow volunteers and attendees, as well as for other stakeholders, including national meeting vendors and ACS staff.
- Volunteers and national meeting attendees must avoid

taking any inappropriate actions based on race, gender, age, religion, ethnicity, nationality, sexual orientation, gender expression, gender identity, marital status, political affiliation, presence of disabilities, or educational background. They should show consistent respect to colleagues, regardless of the level of their formal education and whether they are from industry, government or academia, or other scientific and engineering disciplines.

- Volunteers and national meeting attendees should interact with others in a cooperative and respectful manner. Volunteers and national meeting attendees should refrain from using insulting, harassing, or otherwise offensive language in their ACS interactions. Disruptive, harassing, or inappropriate behavior toward other volunteers, stakeholders, or staff is unacceptable. Personal boundaries set by others must be observed. Harassment of any kind, including but not limited to unwelcome sexual advances, requests for sexual favors, and other verbal or physical harassment will not be tolerated.
- Volunteers must obey all applicable laws and regulations of the relevant government authorities while acting on behalf of the ACS. Likewise, national meeting attendees must obey all applicable laws and regulations of the relevant government authorities while attending ACS national meetings. Volunteers and national meeting attendees alike should also ensure that they comply with all applicable safety guidelines relating to public chemistry demonstrations.
- Volunteers and national meeting attendees should only use ACS's trademarks, insignia, name, logos, and other intellectual property in compliance with ACS regulations and directives as may be issued from time to time.
- Violations of this Conduct Policy should be reported promptly to the ACS Secretary and General Counsel or to the Chair of the ACS Board of Directors. In cases of alleged persistent and/or serious violations of this Conduct Policy, the Board shall review the evidence and shall take such actions as may be appropriate, including but not limited to requiring volunteers to leave their volunteer position(s); precluding volunteers from serving in Society volunteer roles in the future; requiring national meeting attendees to leave the meeting; and, precluding meeting attendees from attending future ACS national meetings. ACS, through its Board of Directors, reserves the right to pursue additional measures as it may determine are appropriate.

ATTENDEE REGISTRATION

Registration Fees

Members

50-Year Member No Fee
ACS Affiliate \$570
Emeritus or Retired \$290
Graduate student \$240
One-Day Registrant \$290
Precollege Teacher \$120
Undergraduate \$120
Unemployed No Fee
Dues waiver required
Guest of Registrants* \$50

* Restricted to a spouse or family member of an attendee having no affiliation with the field of chemical science and who is not eligible to become an ACS member. Only one guest registration is allowed per registered attendee, and the guest registration must be completed and paid by the registering attendee at time of original registration.

Join ACS Before You Register

Save up to \$400 before you register! Visit the Membership Desk at registration in the Ernest N. Morial Convention Center, Lobby A, for more information and to complete your application.

Nonmember Fees

Chemical Scientist \$995
Graduate student \$475
One-day Registrant \$570
Precollege teacher \$120
Undergraduate \$240

Expo-Only Admission

Adults Only \$60
Students Only \$30

Members of the Press

Registration is complimentary for credentialed members of the news media who are approved by the ACS Office of Communications. Press badges may be picked up in the ACS Press Center, Great Hall B/C, Ernest N. Morial Convention Center.

Attendee Registration

Ernest N. Morial Convention Center, Lobby A

Hours of Operation

Saturday, March 17, 3:00 PM to 6:00 PM
Sunday, March 18, 7:30 AM to 7:30 PM
Monday, March 19, 7:30 AM to 9:00 PM
Tuesday, March 20, 7:30 AM to 5:00 PM
Wednesday, March 21, 7:30 AM to 4:00 PM
Thursday, March 22, 7:30 AM to 1:00 PM

Satellite Registration Office:

Hilton New Orleans Riverside Hotel
First Floor Registration Center

Hours of Operation

Saturday, March 17, 3:00 PM to 6:00 PM
Sunday, March 18, 7:30 AM to 7:30 PM
Monday, March 19, 7:30 PM to 5:00 PM
Tuesday, March 20, 7:30 AM to 5:00 PM

What You Can Do at the Registration Desk

- Register for the meeting
- Pick up your badge & registration credentials (Persons who registered after February 5 & all international attendees.)
- Get a replacement badge
- Make changes to your registration (Bring your badge and or registration credentials with you for faster processing.)
- Pick up your Program Book (if purchased in advance.)
- Request a scooter
- Purchase a Program Book (limited number available)
- Purchase special & social event tickets

Reminders

- All attendees, including speakers and poster presenters, must register for the meeting to participate in the technical sessions.
- Remember to wear your badge at all times for admission to all official ACS sessions and events.

Shuttle Hours of Operation

SUNDAY, March 18

7:00 AM - 10:00 AM 15 minute service
10:00 AM - 4:00 PM 30 minute service
4:00 PM - 7:00 PM 15 minute service
7:00 PM - 11:00 PM 30 minute service

MONDAY, March 19

7:00 AM - 10:00 AM 15 minute service
10:00 AM - 4:00 PM 30 minute service
4:00 PM - 11:00 PM 15 minute service

TUESDAY, March 20

7:00 AM - 10:00 AM 15 minute service
10:00 AM - 4:00 PM 30 minute service
4:00 PM - 11:00 PM 15 minute service

WEDNESDAY, March 21

6:30 AM - 11:00 PM 30 minute service

THURSDAY, March 22

7:00 AM - 6:00 PM 60 minute service



Scan here to download a copy of this schedule onto your smart phone or device.

New Orleans Map



Key	Hotel	Route	Shuttle Boarding Location
1	Astor Crowne Plaza New Orleans French Quarter	1	Main Entrance - Canal St. & Bourbon St
2	Courtyard New Orleans Downtown Near the French Quarter	2	Walk to Sheraton New Orleans-Canal & Camp St
3	Courtyard New Orleans Downtown/Convention Center	W	Walk to Ernest N. Morial Convention Center
4	Courtyard New Orleans Downtown/Iberville	1	Walk to Astor Crowne Plaza - Canal St. & Bourbon St
5	DoubleTree by Hilton Hotel New Orleans	3	Walk to Le Meridien - Poydras St. & Tchoupitoulas St
6	Embassy Suites New Orleans	W	Walk to Ernest N. Morial Convention Center
7	Hampton Inn & Suites New Orleans-Convention Center	W	Walk to Ernest N. Morial Convention Center
8	Hilton Garden Inn New Orleans Convention Center	W	Walk to Ernest N. Morial Convention Center
9	Hilton New Orleans Riverside	W	Walk to Ernest N. Morial Convention Center
10	Hotel Monteleone New Orleans	1	Walk to Astor Crowne Plaza - Canal St. & Bourbon St
11	Hyatt Place New Orleans Convention Center	W	Walk to Ernest N. Morial Convention Center
12	InterContinental New Orleans	3	on Poydras St. & St. Charles
13	JW Marriott New Orleans	2	Walk to Sheraton New Orleans-Canal & Camp St
14	Le Meridien New Orleans	3	Main Entrance - Poydras St. & Tchoupitoulas St
15	Loews New Orleans Hotel	3	Walk to Le Meridien - Poydras St. & Tchoupitoulas St
16	New Orleans Downtown Marriott at the Convention Center	W	Walk to Ernest N. Morial Convention Center
17	New Orleans Marriott	1	Main Entrance - Canal St. & Chartres St
18	Omni Riverfront Hotel	W	Walk to Ernest N. Morial Convention Center
19	Omni Royal Crescent Hotel	2	Walk to Sheraton New Orleans-Canal & Camp St
20	Renaissance New Orleans Arts Hotel	W	Walk to Ernest N. Morial Convention Center
21	Residence Inn New Orleans Downtown	W	Walk to Ernest N. Morial Convention Center
22	Sheraton New Orleans	2	Main Entrance - Canal & Camp St
23	SpringHill Suites New Orleans Downtown/Convention Center	W	Walk to Ernest N. Morial Convention Center
24	The Westin New Orleans Canal Place	1	Iberville St. Entrance
25	W New Orleans - French Quarter	1	Walk to New Orleans Marriott - Canal St
26	Wyndham New Orleans - French Quarter	1	Walk to Astor Crowne Plaza - Canal St. & Bourbon St



For all shuttle and wheelchair assistance inquiries, please call:
1-866-439-8564

Shuttle service managed and operated by:



**TRANSPORTATION
MANAGEMENT
SERVICES**



Carbon Neutral Shuttles



#	LOCATION
1.	Astor Crowne Plaza New Orleans French Quarter
2.	Courtyard New Orleans Downtown Near the French Quarter
3.	Courtyard New Orleans Downtown/Convention Center
4.	Courtyard New Orleans Downtown/Iberville
5.	DoubleTree by Hilton Hotel New Orleans
6.	Embassy Suites New Orleans FLUO, NUCL
7.	Hampton Inn & Suites New Orleans-Convention Center CATL
8.	Hilton Garden Inn New Orleans Convention Center
9.	Hilton New Orleans Riverside BMGT, CHAS, CMA, CPRC, HIST, PRES, PROF, SCHB WCC, YCC
10.	Hotel Monteleone New Orleans
11.	Hyatt Place New Orleans Convention Center
12.	InterContinental New Orleans BIOT
13.	JW Marriott New Orleans POLY, PMSE
14.	Le Meridien
15.	Loews New Orleans Hotel CARR, CELL, I&EC
16.	New Orleans Downtown Marriott at the Convention Center CHED, CINF, COMP
17.	New Orleans Marriott
18.	Omni Riverfront Hotel
19.	Omni Royal Crescent Hotel
20.	Renaissance New Orleans Arts Hotel
21.	Residence Inn New Orleans Downtown
22.	Sheraton New Orleans
23.	SpringHill Suites New Orleans Downtown/Convention Center
24.	The Westin New Orleans Canal Place
25.	W New Orleans - French Quarter
26.	Wyndham New Orleans - French Quarter
27.	Ernest N. Morial Convention Center AGFD, ANYL, BIOL, CHAL, COLL, ENFL, ENVR, GEOG INOR, MEDI, MPPG, ORGN, PHYS, SOCED



ACCOMMODATIONS & TRAVELING TO MEETING SESSIONS

Accommodations

For attendees in need of housing, some official National Meeting hotels may still have rooms available. Visit the meeting website, www.acs.org/nationalmeeting, for the listing of official hotels.

ConferenceDirect is the official housing bureau for the National Meeting and ACS does not endorse booking hotel reservations through any other source. Attendee support of the official hotels allows ACS to use meeting space at a discount and to keep registration fees to a minimum. All attendees who make reservations through ConferenceDirect will receive complimentary internet access in their rooms.

Staff in the Housing Office will be available throughout the conference to assist you with last minute housing changes or needs. This office is in the ACS Resource Hub, located in the Ernest N. Morial Convention Center Lounge Room.

Getting to the Sessions

ACS Greeters:

Our greeters are positioned throughout the meeting venues and they can help you navigate the Program Book to find a particular session or room, and answer your meeting-related questions.

ACS Shuttle Bus:

The Ernest N. Morial Convention Center is located at 900 Convention Center Blvd. Many of the official hotels are in walking distance to the convention center. ACS will provide complimentary shuttle bus service between the Ernest N. Morial Convention Center and official hotels that are not in walking distance.

Parking:

The Ernest N. Morial Convention Center parking lot is directly across the street from the facility and the cost is \$15.00 for the day.

Streetcar:

The Convention Center is a designated station along the Riverfront Streetcar route. The streetcar operates from 5:00 PM – 11:00 PM seven days a week.

Taxi Service:

The city of New Orleans has an extensive taxi service. Your hotel concierge can assist you with arranging taxi service.

Share Driving:

Lyft (lyft.com) and Uber (uber.com/ride) operate in New Orleans. Download the respective apps by visiting the websites.

HAPPENINGS AT THE ERNEST N. MORIAL CONVENTION CENTER

Points of Interest

- Attendee Registration, Lobby A, 504-670-6712
- Bus Shuttle Desk, Ticket Office, 504-670-6701
- Career Fair Information Center, Hall C, 504-670-6700
- Exhibitor Registration, Lobby B, 504-670-6717
- Finance Office, 504-670-6710
- Louisiana Local Section Booth, Lounge Room
504-670-6720
- Housing Assistance, Lounge Room, 504-670-6703
- Member Services, Lobby A, 504-670-6719
- Press Center, Great Hall B, 504-670-6721

Meetings

Sunday, March 18

- 3:00 PM to 6:00 PM: Opening Session, Ernest N. Morial Convention Center, Grand Hall A
- 6:00 PM to 8:30 PM: Welcome Reception in the Expo & Career Fair, Halls B2/C

Monday, March 19

- 4:00 PM to 6:30 PM: Kavli Lecture Series, Grand Hall A
- 8:00 PM to 10:00 PM: SciMix, Halls D & E

The UPS Store

The UPS Store, located in Lobby F, is both a self-service and full-service operation. A wide range of services are available, including digital printing, packing & shipping, notary services, and computer services. You can also copy and fax documents, purchase shipping materials and other supplies, and send & receive money via Western Union.

THINGS TO KNOW

ACS National Awards

The ACS National Awards recognize individual or team accomplishments in diverse fields of chemical science. This year's ACS Awards dinner will be held on the evening of Tuesday, March 20, at the New Orleans Marriott Hotel. Dinner begins at 7:30 PM, and the general meeting begins at 8:30 PM. Learn more about the awards dinner and the honorees at the meeting website, www.acs.org/nationalmeeting.

Camp ACS

Camp ACS is available to all meeting attendees free of charge from 7:00 AM to 6:00 PM, Sunday, March 18 through Thursday, March 22. If you wish for your child to participate in Camp ACS and you did not complete the registration by the March 2, deadline, go to the Convention Center ACS Operations Office located in the Rivergate Ballroom to speak with a staff person. Note: There is no guarantee the space is still available.

At Camp ACS, children two (and potty trained) to 16 years of age will participate in age-appropriate activities, including arts and crafts and active games, while you enjoy the meeting. For safety reasons, the location of Camp ACS is communicated to only attendees with enrolled children.

Emergencies During ACS Meeting Events

ACS has placed detailed instructions inside each meeting room to be used if an emergency occurs during an ACS meeting event. These instructions revolve around following the established emergency guidelines of the facility where the emergency occurs. Report all emergencies to the nearest security guard or to any ACS Operations Office during the meeting.

If an emergency occurs outside an ACS event, contact the police or emergency assistance by dialing 911 or seeking assistance from the facility where the emergency has occurred.

Should a catastrophic event occur while the meeting is under way, follow safety and security instructions issued by the facility where you are located at the time of the event.

Lost-& Found

Lost items turned into an ACS Operations Office can be retrieved, with acceptable identification, during office operating hours. Items that are not returned by the close of the meeting will be turned over to the venue's security office.

Luggage & Coat Check

The luggage and coat check station is in the ACS Resource Hub located in the Convention Center Lounge Room.

Hours of operation are:

- Saturday, March 17: 3:00 PM to 6:30 PM
- Sunday, March 18: 7:30 AM to 7:30 PM
- Monday, March 19: 7:30 AM to 9:00 PM
- Tuesday, March 20: 7:30 AM to 7:00 PM
- Wednesday, March 21: 7:30 AM to 4:00 PM
- Thursday, March 22: 7:30 AM to 3:00 PM

Items left beyond the published hours of operation will be turned over to building security at the end of each day.

Mother's Room

For convenience and privacy, ACS has designated a room in the Ernest N. Morial Convention Center for nursing mothers. Please speak with a member of the Convention Center ACS Operations Office to gain access to the room.

Quiet Room

For those needing a space for quiet reflection while at the Ernest N. Morial Convention Center, you may go to the Information Booth or the ACS Operations at the Ernest N. Morial Convention to gain access to the room.

Sales Tax in New Orleans

The combined sales tax rate in New Orleans is 10%.

General Tipping Guidelines

Airport Porters & Bell Staff: \$1.00/bag
Bartenders: 15-20%; Restaurant Wait Staff: 18-20%
Housekeeping Staff: \$1-2/night

Wi-Fi Service

Enjoy free Wi-Fi service in the common areas of the Ernest N. Morial Convention Center.

MEETING POLICIES

ADA Compliance

ACS is dedicated to ensuring that no individual with a disability is excluded, denied services, segregated, or otherwise treated differently because of the absence of auxiliary aids and services identified in the Americans with Disabilities Act. If you have an emergency or need immediate assistance during the meeting, please contact any ACS Operations Office.

The Ernest N. Morial Convention Center is ADA compliant. It is equipped with service ramps to entrances and elevated areas; an array of passenger elevators, restroom facilities for the disabled; brailled instructions/directions at strategic locations throughout the building; and pay phones located at each level of the facility with (TDD) hearing-impaired functions.

Audio Taping, Photography & Videotaping

The use of any device to capture images (e.g., cameras and camera phones) or sound (e.g., tape and digital recorders) or stream, upload or rebroadcast speakers or presentations is strictly prohibited at all official ACS meetings and events without express written consent from the ACS.

Badge & Badge Replacement

All attendees are required to wear their badges for all technical sessions, poster sessions, and all other official meeting events. Meeting badge holders are recyclable and biodegradable.

Please discard appropriately in the Badge Recycle bins positioned throughout the meeting venues.

If you misplace your badge and need a replacement please go to the Registration Office in Lobby A of the Ernest N. Morial Convention Center Rivergate Ballroom.

The badge replacement fees are:

- 1st replacement: free
- 2nd: \$25 (cash/credit card)
- 3rd: \$50 (cash/credit card)
- 4th & beyond: \$100 each occurrence (cash/credit card)

Cancellation/Refund

Cancellation/refund requests received by February 27, 2018 will receive a refund, minus a \$50 administrative fee. Requests received after February 27, 2018 are not eligible for a refund. Please direct questions regarding refunds to CDS at 508-743-0192 or 800-251-8629. Abstract USB drives and Program Books do not qualify for a refund.

Electronic Devices

As a courtesy to other meeting attendees, electronic devices must be operated in silent/ vibrate mode within technical or educational sessions. Cell phone conversations are not permitted in meeting rooms.

Literature & Product Distribution

Promotions, posters, and literature distribution by attendees, exhibitors, or other groups during the meeting must be done within their own contracted meeting space or exhibit booth and not in public meeting space, with the exception of designated marketing opportunities. Only ACS Operations Office staff is authorized to place any promotional items in public meeting space. Items left in violation of this policy will be removed and discarded.

Literature distribution at specific division tables is under the control of that division, and permission must be secured from the division before placing any items on its table.

Smoking

ACS policy prohibits smoking in all official meeting venue rooms during ACS functions. Additionally, as a reminder, the Convention Center and hotels are self-determined smoke-free environments at all times.

BE MINDFUL & AWARE

Everyday Safety Tips

- Be aware of your surroundings at all times.
- If someone or some place looks suspicious, report it and/or avoid it.
- Walk in open and well-lit areas at night.
- Travel in groups; do not be a loner, particularly in the evening.

Hotel Safety & Security

- Use the hotel safe deposit service or the in-room safe for valuables.
- If you leave items in your luggage, lock it when you leave the room.
- In crowded areas where you can be overheard, do not reveal your room number or discuss plans for leaving the hotel.

To & From Your Room

- If for any reason you are uncomfortable going to your room alone, ask a bellman or security officer to escort you and to check the room before you enter.
- Do not automatically open your door when someone knocks; use the door peephole to identify visitors before opening the door.
- Look into the elevator carefully before you enter. If you are uncertain of an occupant, wait for the next elevator.
- Look down the corridor carefully for suspicious activity before leaving the elevator.

To & From Events

- Remain alert at all times and be aware of your surroundings and the people you encounter.
- Remove your name badge when you are outside conference venues.

EXPOSITION AND CAREER FAIR HIGHLIGHTS

Exposition admission is complimentary for all national meeting registrants; however, you are required to wear your badge. Individuals who want to visit the exhibits without registering for the technical component of the national meeting can obtain an expo-only badge for \$60. Students with school identification can obtain an expo-only badge for \$30. Registration can be handled online, by mail, or in person at ACS attendee registration at the Ernest N. Morial Convention Center.

See What's New Inside the Exposition

Visit the ACS National Exposition at the Ernest N. Morial Convention Center, Halls B2/C, from Sunday, March 18, through Tuesday, March 20. Show hours are Sunday, 6:00 PM to 8:30 PM, and Monday and Tuesday, 9:00 AM to 5:00 PM.

Companies will display their most cutting edge services, instruments, computer hardware, scientific software, and a vast array of chromatographic, lab, and safety equipment. Technical personnel will give demonstrations, answer questions, and discuss your needs and interests. Join us at the ACS booth where ACS staff members will present the many benefits, services, products, and merchandise offered by ACS.

Exhibitor List & Floor Plan

Attendees can view a current list of exhibitors, videos, press releases, brochures, and flyers of participating exhibitors. Access the exposition at www.acs.org/nationalmeeting to learn more about exhibiting companies, plan your visit to the show floor, and download product information.

Exhibitor Workshops

Free workshops will be hosted by exhibitors on the exposition floor and in private rooms inside the Convention Center. These workshops will hone your skills with specific tools and techniques and highlight innovative applications that will improve your productivity. Exhibitor workshop information is available at www.acs.org/nationalmeeting.

NEW: Recharge Lounge. Relax and recharge in our new networking lounge, located on the exhibit floor. Take a moment to chat with your fellow attendees while giving your devices an extra boost. Open during show hours.

Special Events in the Expo Hall

ACS Division Poster Sessions and Attendee Welcome Reception

Sunday, 6:00 PM – 8:30 PM

Afternoon Breaks

Monday, 1:00 PM – 3:00 PM

Tuesday, 3:00 PM – 5:00 PM

Exhibitors

101 375 South End Avenue Apt. 9G, New York, NY 10280, United States, Phone: 917-587-7883, Email: jb@101edu.co, Web: www.101edu.co, *101 develops Chem 101, the next-generation active learning platform for chemistry courses.*

1107

AAAS/Science & Technology Policy Fellowship 1200 New York Ave., NW, Washington, DC 20005, United States, Phone: 202-326-6700, Fax: 202-289-4950, Email: fellowships@aaas.org, Web: go.stpf-aaas.org, *AAAS S&T Policy Fellowships provides opportunities to learn first-hand about federal policymaking while using your knowledge and analytical skills to address today's most pressing societal challenges.*

1122

abcr GmbH Im Schleher 10, Karlsruhe, 76187, Germany, Phone: +49 721 950 61101, Fax: +49 721 950 6133, Email: j.ehle@abcr.de, Web: www.abcr.de, *abcr. Gute Chemie - passion for the production, sale, research and development of special chemicals. Gute Chemie - created in Germany & Europe.*

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Ace Glass, Inc. 1430 N. West Blvd. POBox 688, Vineland, NJ 08360, United States, Phone: 800-223-4524, Fax: 800-543-6752, Email: marketing@aceglass.com, Web: www.aceglass.com, *Ace Glass Inc has been a leader and innovator of scientific glassware and lab equipment for over 80 years, providing a wide variety of quality US manufactured standard and custom products.*

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Acrotein ChemBio Inc. 2194 Suite K, Parkway Lake Drive, Hoover, AL 35244, United States, Phone: 205-730-9388, Fax: 205-730-9519, Email: sales@acrotein.com, Web: www.acrotein.com, *Acrotein ChemBio Inc. is a US-based supplier and manufacturer of special research chemicals: unnatural amino acids organic acids, amines, heterocycles & inhibitors etc. 8000+ rare compounds in stock.*

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ACS Benefits, Programs, Services 1155 16th St. NW, Washington, DC 20036, United States, Phone: 202-872-4600, Email: c_allender@acs.org, Web: www.acs.org

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ACS Career Fair 1155 16th Street, NW, Washington, DC 20036, United States *Get personalized career advice from an ACS Career Consultant, sign up for a mock-interview, upload your resume, and visit recruiters in the Exhibit Hall & Career Fair.*

1053

ACS Division of Small Chemical Businesses (SCHB) 4344 Moorpark Ave. Ste # 1, San Jose, CA 95129, United States, Phone: 408-834-8597, Fax: 408-351-7900, Email: expo-booth@acs-schb.org, Web: www.acs-schb.org, *SCHB is a network of entrepreneurs for formation- growth of small chemical businesses. It organizes programs on legal, educational, regulatory, economic aspects of business. Take part in lively Expo.*

1141

ACS Education 1155 16th Street, NW, Washington, DC 20036, United States, Phone: 202-872-6269, Fax: 202-833-7732, Email: education@acs.org, Web: www.acs.org/education, *ACS Education Division serves learners and educators by building communities and providing education resources, grants, professional development opportunities, and guidelines.*

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ACS Green Chemistry Institute 1155 16th Street, NW, Washington, DC 20036, United States, Phone: 202-872-6102, Fax: 202-776-8009, Email: gci@acs.org, Web: www.acs.org/gci

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ACS Meetings & Expositions 1155 Sixteenth Street NW, Washington, DC 20036, United States, Phone: 800-227-5558, Fax: 202-872-6128, Email: b_kashawlic@acs.org, Web: www.acs.org

acs.org/meetings

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ACS Member Insurance Program 1155 16th Street, N.W. , Washington, DC 20036, United States, Phone: 800-227-5558-6037, Fax: 202-872-4435, Email: memins@acs.org, Web: www.acs.org/insurance, Explore a wide array of insurance solutions available to ACS members, such as Life & Disability Insurance, Auto & Homeowners, Long Term Care, Professional Liability and more.

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TTP Labtech | New Exhibitor Melbourn Science Pk, Melbourn , Royston, Herts SG8 6EE, United Kingdom, Phone: +44 (0)1763 262626, Email: discover@ttpkabtech.com, Web: www.ttplabtech.com, *TTP Labtech solutions for medicinal Chemistry include the "mosquito" liquid handler for high throughput analog synthesis/testing and the "lab2lab" auto sample submission and on-line analysis system.*

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University Science Books 20 Edgehill Rd. , Mill Valley, CA 94941, United States, Phone: 415-332-5390, Fax: 415-383-3167, Email: univscibks@igc.org, Web: www.uscibooks.com, *Displaying fine new titles in chemistry, including Schrier's INTRODUCTION TO COMPUTATIONAL PHYSICAL CHEMISTRY, Wulfsberg's FOUNDATIONS OF INORGANIC CHEMISTRY, and Smith's THE BOLTZMANN FACTOR.*

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Vacuubrand, Inc. 11 Bokum Rd. , Essex, CT 06426, United States, Phone: 860-767-2562, Fax: 860-767-2563, Email: kpouliot@brandtech.com, Web: www.vacuubrand.com

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Vacuum Atmospheres Co. 4652 West Rosecrans Ave , Hawthorne, CA 90250, United States, Phone: 310-644-0255, Fax: 310-970-0980, Email: info@vac-atm.com, Web: www.vac-atm.com, VAC has set the standards for gloveboxes and inert gas purification for over 50 years. Once again, our ongoing research and development has produced a proven revolutionary design. NO REGENERATION.

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Vacuum Technology Inc. 15 Great Republic Drive, Unit #4 , Gloucester, MA 01930, United States, Phone: 978-879-4302, Fax: 978-879-4387, Email: eva.zhang@vti-glovebox.com, Web: www.vti-glovebox.com, Vacuum Technology Inc. builds and services the glove box needs of educational and industrial clients worldwide by integrating best-in-class components sourced from Europe, Asia, UK and the USA.

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Vapourtec Ltd. Unit 21, Park Farm Business Centre Fornham St Genevieve, Bury St Edmunds, Suffolk IP28 6TS, , United Kingdom, Phone: +44 (0) 1284 728659, Fax: +44 (0) 1284 728352, Email: duncan.guthrie@vapourtec.com, Web: www.vapourtec.com

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Vernier Software & Technology 13979 SW Millikan Way, Beaverton, OR 97005, United States, Phone: 888-837-6437, Fax: 503-277-2440, Email: info@vernier.com, Web: www.vernier.com, Educators worldwide use Vernier scientific data-collection technology, including a benchtop gas chromatograph and spectrophotometers, to teach and engage students in chemistry investigations.

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Vescent Photonics | New Exhibitor 6770 W. 52nd Ave., Suite B , Arvada, CO 80002, United States, Phone: 303-296-6766, Email: info@vescent.com, Web: www.vescent.com, We supply a fine line of precision control electronics as well as DBR diode lasers and electro-optic modules for spectroscopic applications, including frequency references and servo controllers.

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Vigor Tech USA, LLC 5100 Westheimer Road Suite 200, Houston, TX 77056, United States, Phone: 716-200-1200, Email:

info@vigor-glovebox.com, Web: www.vigor-glovebox.com, Vigor Tech USA, LLC is the world's most innovative glovebox and purification system supplier. Vigor's patented sealing technology and high capacity purifiers are unbeatable. Your research wants one!

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W.W. Norton 500 Fifth Ave. , New York, NY 10110, United States, Phone: 212-790-4357, Fax: 212-790-4261, Email: hventura@wwnorton.com, Web: www.wwnorton.com,

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Waters Corp. 34 Maple Street , Milford, MA 01757, United States, Phone: 508-482-2000, Fax: 508-482-2674, Email: info@waters.com, Web: www.waters.com, Waters Corp., the world's leading specialty measurement company, has pioneered chromatography, mass spec and thermal analysis innovations serving the life, materials and food sciences for 60 years.

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Wavefunction, Inc. 18401 Von Karman Suite 370, Irvine, CA 92612, United States, Phone: 949-955-2120, Fax: 949-955-2118, Email: sales@wavefun.com, Web: www.wavefun.com, Wavefunction, Inc. provides Spartan and Odyssey molecular modeling solutions. Cutting edge software for research and education. Now available...Spartan'18 Parallel Suite.

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Welch by Gardner Denver 1601 Feehanville Drive Suite 550, Mount Prospect, IL 60056, United States, Phone: 847-676-8800, Fax: 847-677-8606, Email: mark.suda@gardnerdenver.com, Web: www.welchvacuum.com, Welch is the global leader in applied vacuum technology. Welch is featuring the new CRVpro rotary vane vacuum pump family, flow rates up to 22 cfm, with advanced features to extend service intervals.

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08360, United States, Phone: 856-691-3200, Fax: 856-691-6206, Email: cs@wilmad-labglass.com, Web: www.wilmad-labglass.com, *Wilmad-LabGlass provides over 7,000 products including NMR / EPR consumables and specialty glassware, as well as custom fabrication for individual glassware, glass repair services and OEM glass parts.*

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Workrite Uniform Company 1701 North Lombard St. , Oxnard, CA 93030, United States, Phone: 800-521-1888, Fax: 805-483-0678, Email: info@workrite.com, Web: www.workritefrcp.com, *Workrite Uniform Company has a new lab coat and coverall that provides flame-resistant properties and chemical splash protection. It's the first of it's kind in offering simultaneous protection.*

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Wyatt Technology Corp. 6300 Hollister Avenue , Santa Barbara, CA 93117, United States, Phone: 805-681-9009, Fax: 805-681-0123, Email: info@wyatt.com, Web: www.wyatt.com, *Wyatt Technology provides instruments for determining the absolute molar mass, size, charge and interactions of macromolecules and nanoparticles in solution with multi-angle light scattering (MALS).*

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X-Ability Co., Ltd. Ishiwata Building, 3rd Floor 4-1-5 Hongo, Bunkyo-Ku, Tokyo, 113-0033, Japan, Phone: +81-3-5800-7731, Email: rkoga@x-ability.jp, Web: www.x-ability.co.jp

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ACS Career Fair

Job seekers, are you looking to jump-start job search or enhance your professional development?

Employers, are you looking to hire scientists and engineers?

Then you need to attend the ACS Career Fair, open Sunday-Tuesday, March 18-20, 9:00 AM to 5:00 PM. The career fair is the place where the best talent and the best employers in chemistry meet.

The ACS Career Fair provides on-site activities for job seekers to help them reach their career goals. ACS will help you prepare

for your next career move by providing resources that make it possible to map out your personal job search strategy, strengthen your resume, and build your interview skills, all with the support of career consultants.

During the career fair, ACS members can take full advantage of the following:

- Networking opportunities
- Resume reviews
- One-on-one career consulting
- Interview practice and skills building
- Career-related workshops
- Keynote speakers presented live and via webcast
- Live, on-site interviews on request

Not an ACS member? You are welcome to network and engage with employers on the expo floor.

Please note: We cannot guarantee that you will secure interviews at the ACS Career Fair. Interviewing is strictly contingent on the availability of positions and the credentials and qualifications that employers are seeking.

One-On-One Career Consulting

Individual, 30-minute appointments with career consultants are available on-site and online. These consultants can help you strengthen your resume, improve your interviewing skills, and design a job search or comprehensive professional growth strategy. Please bring a copy of your resume or CV to all appointments. All one-on-one on-site career consulting sessions will take place in the Resume Review/Mock Interview area in the ACS Career Fair. Sign-up begins 9:00 am on Sunday, March 18, on a first-come, first-served basis.

GOVERNANCE & BUSINESS MEETINGS

Many members participate in meetings concerning the business of the Society, technical divisions, and governance committees in conjunction with the National Meeting. The following pages list the open meetings scheduled for New Orleans, LA. ACS encourages its members to get active in governance at all levels in order to contribute their vision to the direction of the Society.

You can share ideas and insights into the Society and the chemical profession, network with peers, and catch up friends through these volunteer connections. With nearly 30 national governance committees and leadership opportunities in technical divisions and local sections to choose from, there are many opportunities for members to become actively involved in ACS at the national level.

If you are an ACS member interested in volunteering for a governance committee, contact the Office of the Secretary at secretary@acs.org or by telephone at 202-872-4461. Someone will put you in contact with the ACS Committee on Committees to discuss your desire to volunteer for a committee assignment. If you wish to volunteer for a specific technical division or local section, contact the officers listed at www.acs.org to explore your specific interests.

ACS Board of Directors

The ACS Board of Directors meeting, open to all members who wish to participate, will be held at the Ernest N. Morial Convention Center from 12:00 PM to 1:00 PM on Sunday, March 18.

ACS Council

The ACS Council meeting will begin at 8:00 am, Wednesday, March 21, at the Hilton New Orleans Riverside Hotel. Councilor check in and a continental breakfast start at 7:00 am and will continue until the meeting opens at 8:00 am. Space will be available for ACS members and nonmembers to observe the council in action.

We hope that many will take advantage of this opportunity to learn firsthand about the Society's operation. Alternate councilors and division and local section officers are particularly urged to attend.

Council Policy Committee

The Council Policy Committee will open the floor during its meeting at 11:30 am on Tuesday, March 20, to councilors who would like to raise issues of concern that affect them and/or their local sections or divisions. For additional information, contact CPC Vice Chair Mary Carol at cpc@acs.org.

Committee on Committees Agenda

The Committee on Committees has clarified three types of committee meetings:

1. Closed

The committee chair must declare any executive session closed when confidential or sensitive personnel, financial, or legal matters of the Society are discussed. At that point, only officially appointed or elected committee members, associates, consultants, staff liaisons, and the appointed Committee on Committees liaison shall remain in the session. Others may stay in the session at the discretion of the chair. Once these discussions have been completed, the committee should return to executive mode.

2. Executive

Attendance and participation are limited to officially appointed or elected committee members, associates, advisers, consultants, staff liaisons, and the appointed Committee on Committees liaison. Committee chairs may extend meeting participation to other Committee on Committees liaisons, ex-officio officers, and elected councilors. Only committee members can vote.

3. Open

May be attended by any ACS member. At these sessions, members are encouraged to voice concerns, issue compliments, offer suggestions, and express interest in or raise questions about matters over which the committee has purview. The assumption is that participation is welcomed and will be orderly and courteous. Only committee members can vote.

During the Executive and Open committee meetings, ACS members will have an opportunity to express their views on issues under consideration before they are acted on by the board or the council. Members can also bring up other subjects that deserve attention. Members are urged to examine the agenda and make known any opinions or ideas they may have. If you are unable

to attend the meeting, send an email to the officer listed, or ask someone attending the session to speak on your behalf.

Governance and Business Meetings

All governance and business meetings will be held at the Hilton New Orleans Riverside unless noted otherwise.

Budget & Finance

Joseph A. Heppert, Chair, b_feedback@acs.org
Open Session: Saturday, March 17, 8:00 AM to 10:30 PM,
Grand Ballroom B

Chemical Safety

Ralph Stuart, Chair, safety@acs.org
Open Executive Session: Saturday, March 17, 8:15 AM to
9:45 PM, Grand Ballroom B, and Monday, March 19, 7:00 AM
to 8:30 AM

Chemistry & Public Affairs

Raymond E. Forslund, Chair, refoerslund@me.com
Open Session: Saturday, March 17, 3:00 PM to 4:30 PM, Grand
Ballroom C

Chemists with Disabilities

James Schiller, Chair, james.schiller@merck.com
Combined Open and Executive Session: Sunday, March 18, 8:30
AM to 4:30 PM, Grand Salon A Section 3/6

Committees

Carolyn Ribes, Chair, cribes@dow.com
Open Session: Monday, March 19, 1:30 PM to 2:00 PM, Grand
Salon A Section 3/6

Community Activities

Michael B. McGinnis, Chair, outreach@acs.org
Closed Executive Session: Sunday, March 18, 7:00 AM to
12:00 PM, Grand Salon A Section 3/6

CCA/LSAC

Joint Open Session: Tuesday, March 20, 2:00 PM to 3:30 PM,
Grand Salon A Section 3/6

Constitution & Bylaws

V. Dean Adams, Chair, bylaws@acs.org

Executive Session: Sunday, March 18, 10:00 AM to 11:30 AM
and 1:45 PM to 4:30 PM

Open Session: Sunday, March 18, 1:30 PM to 1:45 PM, Grand
Salon A Section 3/6

Corporation Associates

Diane Grob Schmidt, Chair, d_schmidt@acs.org
Open Session: Monday, March 19, 8:00 AM to 12:00 PM

Council Policy

Mary K. Carroll, Vice Chair, cpc@acs.org
Open Executive Session: Tuesday, March 20, 9:30 AM to
12:00 PM, St. Charles Ballroom

Divisional Activities

Rodney M. Bennett, Chair, rodbennett@acs.org
Open Executive Session: Sunday, March 18, 8:00 AM to
12:00 PM, Kabacoff

Economic & Professional Affairs

Tiffany Hoerter, Chair, thoerter@gmail.com
Executive Session: Saturday, March 17, 8:00 AM to 3:00 PM
Open Session: Saturday, March 17, 3:00 PM to 5:30 PM, Grand
Salon C Section 15/18

Education

Jennifer Nielson, Chair, jnielson@chem.byu.edu
Open Session Monday, March 19, 3:00 PM to 4:00 PM, Grand
Salon B Section 12
Executive Session: Friday, March 16, 1:00 PM to 5:30 PM, Grand
Salon C Section 15/18

Environmental Improvement

Anthony (Tony) Noce, Chair, cei@acs.org
Breakfast/Open Session: Monday, March 19, 7:45 AM to
9:00 AM, Ernest N. Morial Convention Center, Room 345

Ethics

Judith Currano, Chair, currano@pobox.upenn.edu
Open Executive Session: Sunday, March 18, 9:00 AM to
4:30 PM, Grand Salon B Section 10

International Activities

Jens Breffke, Chair, breffke@gmail.com

Open Session: Saturday, March 17, 1:00 PM to 3:00 PM,
Chart A/B

Local Section Activities

Jason Ritchie, Chair, jritchie@olemiss.edu

LSAC/CCA Joint Open Session: Tuesday, March 20, 2:00 PM to
3:30 PM, Grand Salon B Section 9/12

Open Executive Session: Sunday, March 18, 8:00 AM to
12:00 PM, Grand Ballroom D

Meetings & Expositions

Kevin J. Edgar, Chair, M&E@acs.org

Closed Executive Session Sunday, March 18, 10:00 AM to
12:00 PM, Ernest N. Morial Convention Center, Room 206

Open Session: Sunday, March 18, 7:30 AM to 10:00 AM,
Ernest N. Morial Convention Center, Room 206

Membership Affairs

Margaret J. Schooler, margaret.j.schooler@axaltacs.com

Closed Executive Session: Sunday, March 18, 7:15 AM to
3:00 PM, Jefferson Ballroom

Open Executive Session Sunday, March 18, 3:00 PM to 4:00 PM,
Jefferson Ballroom

Minority Affairs

Ann Kimble-Hill, Chair, ankimble@umail.iu.edu

Closed Executive Session: Sunday, March 18, 8:00 AM to
12:30 PM, Grand Ballroom C

Open Session: Sunday, March 18, 12:30 PM to 2:00 PM, Grand
Ballroom C

Nomenclature, Terminology & Symbols

Michael D. Mosher, Chair, michael.mosher@unco.edu

Open Session: Monday, March 19, 2:00 PM to 5:00 PM, Grand
Ballroom B

Nominations & Elections

Les W. McQuire, Chair, nomelect@acs.org

Open Executive Session: Monday, March 19, 11:30 AM to
12:00 PM, Marlborough B

Patents & Related Matters

Kirby Drake, Chair, kirby.drake@klemchuk.com

Open Session: Saturday, March 17, 9:00 AM to 4:00 PM,
Windsor

Professional Training

Edgar Arriaga, Chair, cpt@acs.org

Open Session: Sunday, March 18, 4:00 PM to 6:00 PM,
Renaissance New Orleans Arts Hotel, Patrons Ballroom III

Project SEED

Don Warner, Chair, dwarner@boisestate.edu

Closed Executive Session: Saturday, March 17, 10:30 AM to 5:00
PM, Grand Salon B Section 9

Open Session: Sunday, March 18, 9:30 AM to 10:30 AM,
Burgundy

Public Relations & Communications

Jennifer Maclachlan, Chair, pidgirl@gmail.com

Open Executive Session: Monday, March 19, 8:00 AM to
1:00 PM, Kabacoff

Publications

Nicole S. Sampson, Chair, nicole.sampson@stonybrook.edu

Closed Executive Session: Friday, March 16, 1:00 PM to
5:00 PM, Ascot/Newberry

Open Session: Friday, March 16, 4:30 PM to 5:00 PM, Ascot/
Newberry

Science

Mark C. Cesa, Chair, markcesa@comcast.net

Open Session: Saturday, March 17, 8:30 AM to 4:30 PM, Grand
Salon A Section 3/6

Senior Chemists

Thomas R. Beattie, Chair, seniorchemists@acs.org

Open Executive Session: Monday, March 19, 8:00 PM to
1:00 PM, Compass

Technician Affairs

Aimee Tomlinson, Chair, cta@acs.org

Closed Executive Session: Sunday, March 18, 8:00 AM to
12:30 PM

Open Executive Session: Sunday, March 18, 12:30 PM to
1:00 PM, St. James Ballroom

Women Chemists

Kimberly A. Woznack, Chair, wcc@acs.org

Executive Session: Saturday, March 17, 8:00 AM to 5:00 PM,
Jefferson Ballroom

Younger Chemists

Natalie A. LaFranzo, Chair, nlafranzo@gmail.com

Closed Session: Saturday, March 17, 8:00 AM to 3:00 PM, St.
James Ballroom

Open Session: Sunday, March 18, 8:00 AM to 12:00 PM,
Chart C

For the complete list of committee meetings with the associated
agenda, please visit the meeting website,

www.acs.org/nationalmeeting.

Councilor Caucus Meetings

All Councilor Caucus Meetings will be held on Sunday, March 18,
from 6:00 PM to 7:00 PM at the Hilton New Orleans Riverside
unless noted otherwise.

District I Councilor Caucus, Chart A

District II Councilor Caucus, Chart B

District III Councilor Caucus, Chart C

District IV Councilor Caucus, Kabacoff

District V Councilor Caucus, Port

District VI Councilor Caucus, Starboard

Division Officers/Councilors Caucus, Grand Salon B Section 7
Tuesday, March 20, 4:00 PM to 6:00 pm

DIVISION MEETINGS AND SOCIAL EVENTS

Division of Analytical Chemistry – ANYL

ANYL Poster Session	Sunday, March 18	7:00 PM – 9:00 PM	Ernest N. Morial Convention Center	Hall E
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Division of Agriculture & Food Chemistry – AGFD

AGFD Special Topics Meeting	Sunday, March 18	12:00 PM – 1:00 PM	Ernest N. Morial Convention Center	Room 218
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AGFD Poster Session and Reception	Sunday, March 18	5:30 PM – 8:00 PM	Ernest N. Morial Convention Center	Hall E
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General & AGFD All-Star Posters	Sunday, March 18	5:30 PM – 7:30 PM	Ernest N. Morial Convention Center	Hall E
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AGFD Future Programs Meeting	Sunday, March 18	12:00 PM – 1:00 PM	Ernest N. Morial Convention Center	Room 218
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AGFD Executive Committee Meeting	Monday, March 19	5:30 PM – 8:30 PM	Ernest N. Morial Convention Center	Room 218
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C4, Communicating Chemistry: \hat{A} Creole Cooking	Tuesday, March 20	10:30 PM – 1:30 PM	Off-Site	Dickie Brennan's Steakhouse 716 Iberville Street
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Division of Biological Chemistry – BIOL

BIOL Current Topics Posters	Sunday, March 18	7:00 PM – 9:00 PM	Ernest N. Morial Convention Center	Hall E
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ACS Chemical Biology Lectureship Award Reception	Tuesday, March 20	12:00 PM – 1:30 PM	Ernest N. Morial Convention Center	Room 244
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BIOL Current Topics Posters	Tuesday, March 20	7:00 PM – 9:00 PM	Ernest N. Morial Convention Center	Hall E
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Division of Biochemical Technology – BIOT

BIOT Strategic Planning Meeting	Saturday, March 17	8:00 AM – 4:00 PM	InterContinental New Orleans	Poydras Room
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BIOT Future Programming Meeting	Tuesday, March 20	12:30 PM – 2:00 PM	InterContinental New Orleans	La Salle B/C
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BIOT Poster Session	Tuesday, March 20	6:00 PM – 8:00 PM	Ernest N. Morial Convention Center	Hall E
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Division of Carbohydrate Chemistry – CARB

ACS Division of Carbohydrate Chemistry - Strategic Planning Meeting	Saturday, March 17	3:00 PM – 9:00 PM	Loews New Orleans Hotel	St. Landry
NIH - Facile Methods and Technologies for Synthesis of Biomedically Relevant Carbohydrates (U01)	Sunday, March 18	5:00 PM – 7:00 PM	Le Meridien New Orleans	Salon 7
ACS Division of Carbohydrate Chemistry - Executive Committee Meeting	Monday, March 19	7:00 PM – 10:00 PM	Le Meridien New Orleans	Salon 6
CARB Awards Dinner	Monday, March 19	7:00 PM – 10:00 PM	Off-Site	Hilton New Orleans/St. Charles Avenue, 333 St. Charles Avenue
CARB General Posters	Monday, March 19	7:30 PM – 9:30 PM	Ernest N. Morial Convention Center	Hall E

Division of Cellulose and Renewable Materials - CELL

CELL Executive Committee Meeting	Saturday, March 17	4:00 PM – 7:30 PM	Loews New Orleans Hotel	Point Coupee
CELL Poster Session	Sunday, March 18	7:00 PM – 9:00 PM	Ernest N. Morial Convention Center	Hall D
CELL Awards Banquet	Tuesday, March 20	6:00 PM – 10:00 PM	Pat O'Brien's on the River	600 Decatur Street
CELL Business Meeting	Wednesday, March 21	5:30 PM – 7:00 PM	Loews New Orleans Hotel	Lafourche
CELL Technical Programming Meeting	Wednesday, March 21	7:00 PM – 8:00 PM	Loews New Orleans Hotel	Lafourche

Division of Chemical Education – CHED

DivCHED Finance Committee Meeting	Friday, March 16	3:00 PM – 6:30 PM	New Orleans Marriott Convention Center	Fleur De Lis
ACS Exams Institute Board of Trustees Meeting	Saturday, March 17	7:30 PM – 12:00 PM	New Orleans Marriott Convention Center	Blaine Kern A
Journal of Chemical Education Board of Publication Meeting	Saturday, March 17	7:30 PM – 12:00 PM	New Orleans Marriott Convention Center	Blaine Kern B
ACS Exams Committee 1	Saturday, March 17	8:00 AM – 5:00 PM	Le Meridien New Orleans	Uptown 1-3
ACS Exams Committee 2	Saturday, March 17	8:00 AM – 5:00 PM	Le Meridien New Orleans	Salon 3
ACS Exams Committee 3	Saturday, March 17	8:00 AM – 5:00 PM	Le Meridien New Orleans	Salon 6
ACS Exams Committee 4	Saturday, March 17	8:00 AM – 5:00 PM	Le Meridien New Orleans	Salon 7
DivCHED Biennial Conference Committee Meeting	Saturday, March 17	10:30 AM – 12:00 PM	New Orleans Marriott Convention Center	Julia
DivCHED Program Committee Meeting	Saturday, March 17	10:30 AM – 12:00 PM	New Orleans Marriott Convention Center	River Bend 1/2
DivCHED Executive Committee Meeting	Saturday, March 17	10:30 AM – 12:00 PM	New Orleans Marriott Convention Center	River Bend 1/2
DivCHED Pre-college Committee	Saturday, March 17	5:00 PM – 8:00 PM	Ernest N. Morial Convention Center	Room 215
ACS Exams Workshop	Sunday, March 18	8:00 AM – 5:00 PM	Le Meridien New Orleans	Salon 1/2
DivCHED International Activities Committee Meeting	Sunday, March 18	8:00 AM – 10:00 PM	Hilton Garden Inn Convention Center	Carmellia Room
ACS DivCHED Regional Meetings Committee Meeting	Sunday, March 18	12:00 PM – 2:00 PM	Hilton Garden Inn Convention Center	St. Charles Room
Chemistry Educators Luncheon	Sunday, March 18	12:00 PM – 1:00 PM	New Orleans Marriott Convention Center	Blaine Kern C/D
DivCHED Chemical Education Research Committee Meeting	Sunday, March 18	12:00 PM – 1:30 PM	Hilton Garden Inn Convention Center	Carmellia Room

Division of Chemical Education – CHED (contd.)

DivCHED Long Range Planning Committee Meeting	Sunday, March 18	2:30 PM – 4:30 PM	Hilton Garden Inn Convention Center	Carmellia Room
DivCHED Safety Committee Meeting	Sunday, March 18	4:00 PM – 5:30 PM	Hilton Garden Inn Convention Center	St. Charles Room
DivCHED Business Meeting	Sunday, March 18	4:30 PM – 5:00 PM	Hilton Garden Inn Convention Center	Carmellia Room
Division of Chemical Education Social Reception	Sunday, March 18	5:30 PM – 7:00 PM	Ernest N. Morial Convention Center	Great Hall D
General Posters	Sunday, March 18	7:00 PM – 9:00 PM	Ernest N. Morial Convention Center	Hall D
ACS Exams Workshop	Monday, March 19	8:00 AM – 5:00 PM	Le Meridien New Orleans	Salon 1/2
DivCHED Younger Chemistry Education Scholars Committee Meeting	Monday, March 19	12:00 PM – 2:00 PM	Hilton Garden Inn Convention Center	Gardenia Room
Undergraduate Research Posters	Monday, March 19	12:00 PM – 2:00 PM	Ernest N. Morial Convention Center	Halls D/E
DivCHED New Member Meeting	Monday, March 19	12:30 PM – 2:30 PM	Hilton Garden Inn Convention Center	Carmellia Room
Graduate Student Symposium Information Session	Monday, March 19	1:00 PM – 1:30 PM	Hilton Garden Inn Convention Center	Carmellia Room
Two-Year College Chemistry Consortium Meeting	Monday, March 19	3:00 PM – 5:00 PM	Hilton Garden Inn Convention Center	Carmellia Room
Successful Student Chapters	Monday, March 19	8:00 PM – 10:00 PM	Ernest N. Morial Convention Center	Halls D/E

Division of Colloid and Surface Chemistry - COLL

COLL Program & Executive Committee Meeting	Saturday, March 17	4:00 PM – 7:00 PM	Ernest N. Morial Convention Center	Room 237
COLL Poster Session	Sunday, March 18	6:00 PM – 8:00 PM	Ernest N. Morial Convention Center	Halls B2/C

Division of Computers in Chemistry - COMP

Computers in Chemistry Programming and Executive Committee Meeting	Saturday, March 17	3:00 PM – 6:00 PM	New Orleans Marriott Convention Center	Blaire Kern B
COMP Poster Session	Tuesday, March 20	Tuesday, March 20	Ernest N. Morial Convention Center	Hall E

Division of Geochemistry – GEOC

GEOC Executive Committee Meeting	Sunday, March 18	6:00 PM – 8:00 PM	Ernest N. Morial Convention Center	Room 213
GEOC Poster Session	Wednesday, March 21	6:00 PM – 8:00 PM	Ernest N. Morial Convention Center	Hall D

Division of Inorganic Chemistry – INOR

INOR Poster Session	Sunday, March 18	5:30 PM – 7:30 PM	Ernest N. Morial Convention Center	Hall D
INOR Poster Session	Tuesday, March 20	5:30 PM – 7:30 PM	Ernest N. Morial Convention Center	Hall D

Division of Industrial and Engineering Chemistry – I&EC

I&EC Division Committee Meetings	Saturday, March 17	12:00 PM – 4:00 PM	Loews New Orleans Hotel	Lafourche
I&EC Division Open Meeting	Saturday, March 17	4:00 PM – 5:00 PM	Loews New Orleans Hotel	Lafourche

Division of Medicinal Chemistry – MEDI

Strategic Meeting	Saturday, March 17	8:30 AM – 5:30 PM	Ernest N. Morial Convention Center	Room 210
MEDI Business Meeting	Sunday, March 18	5:30 PM – 6:30 PM	Ernest N. Morial Convention Center	Room 216
MEDI Executive Committee	Sunday, March 18	8:30 AM – 1:00 PM	Hilton Garden Inn Convention Center	Gardenia Room
MEDI Long Range Planning Committee Meeting	Monday, March 19	5:30 PM – 10:30 PM	Ernest N. Morial Convention Center	Room 215
MEDI General Posters	Sunday, March 18	7:00 PM – 9:00 PM	Ernest N. Morial Convention Center	Hall E
MEDI/ORGN Poster Session	Wednesday, March 21	7:00 PM – 9:00 PM	Ernest N. Morial Convention Center	Hall B1

Division of Organic Chemistry - ORGN

ORGN Poster Session	Sunday, March 18	5:30 PM – 7:30 PM	Ernest N. Morial Convention Center	Hall D
ORGN Poster Session	Tuesday, March 20	5:30 PM – 7:30 PM	Ernest N. Morial Convention Center	Hall D
MEDI/ORGN Poster Session	Wednesday, March 21	7:00 PM – 9:00 PM	Ernest N. Morial Convention Center	Hall B1
ORGN Executive Committee Meeting	Sunday, March 18	1:00 PM – 6:00 PM	Ernest N. Morial Convention Center	Room 206

Division of Polymeric Materials: Science and Engineering - PMSE

PMSE Membership Desk	Saturday, March 17	8:00 AM – 5:00 PM	New Orleans Marriott Canal Street	Studio Foyer
PMSE Membership Desk	Sunday, March 18	8:00 AM – 5:00 PM	New Orleans Marriott Canal Street	Studio Foyer
PMSE Executive Committee	Sunday, March 18	4:30 PM – 7:30 PM	Astor Crowne Plaza New Orleans	St. Charles Ballroom A/B
PMSE Membership Desk	Monday, March 19	8:00 AM – 5:00 PM	New Orleans Marriott Canal Street	Studio Foyer
PMSE Business Meeting & PMSE/POLY Coordination Meeting	Monday, March 19	5:00 PM – 6:00 PM	New Orleans Marriott Canal Street	Studio 9
PMSE Membership Desk	Tuesday, March 20	8:00 AM – 5:00 PM	New Orleans Marriott Canal Street	Studio Foyer
Joint PMSE/POLY Poster Session	Tuesday, March 20	6:00 AM – 8:00 PM	Ernest N. Morial Convention Center	Hall E
PMSE Membership Desk	Wednesday, March 21	8:00 AM – 5:00 PM	New Orleans Marriott Canal Street	Studio Foyer
POLY/PMSE Plenary Award Session	Wednesday, March 21	5:30 AM – 8:00 PM	New Orleans Marriott Canal Street	Acadia
PMSE Membership Desk	Thursday, March 22	8:00 AM – 12:00 PM	New Orleans Marriott Canal Street	Studio Foyer

Division of Polymer Chemistry - POLY

PMSE Membership Desk	Sunday, March 18	12:00 PM – 2:00 PM	Astor Crowne Plaza New Orleans	St. Charles Ballroom A/B
PMSE Membership Desk	Sunday, March 18	2:00 PM – 3:00 PM	Astor Crowne Plaza New Orleans	Burgundy
PMSE Executive Committee	Sunday, March 18	3:00 PM – 4:00 PM	Astor Crowne Plaza New Orleans	Burgundy
PMSE Membership Desk	Sunday, March 18	4:00 PM – 5:30 PM	Astor Crowne Plaza New Orleans	Burgundy
PMSE Business Meeting & PMSE/POLY Coordination Meeting	Monday, March 19	12:30 PM – 2:00 PM	Astor Crowne Plaza New Orleans	Burgundy
PMSE Membership Desk	Tuesday, March 20	9:00 AM – 12:00 PM	Astor Crowne Plaza New Orleans	Burgundy
Joint PMSE/POLY Poster Session	Tuesday, March 20	1:00 PM – 2:00 PM	Astor Crowne Plaza New Orleans	St. Charles Ballroom A/B

Division of Polymer Chemistry - POLY (contd.)

PMSE Membership Desk	Tuesday, March 20	2:00 AM – 3:00 PM	Astor Crowne Plaza New Orleans	Burgundy
POLY/PMSE Plenary Award Session	Tuesday, March 20	6:00 PM – 8:00 PM	Ernest N. Morial Convention Center	Hall E

Division of Small Chemical Businesses – SCHB

SCHB Business Meetings	Saturday, March 17	7:00 PM – 7:15 PM	Loews New Orleans Hotel	Lafourche
SCHB Executive Committee	Saturday, March 17	7:15 PM – 9:00 PM	Loews New Orleans Hotel	Lafourche
SCHB Poster Session	Sunday, March 18	6:00 PM – 8:00 PM	Ernest N. Morial Convention Center	Halls B2/C

STUDENT AND EDUCATOR ACTIVITIES

Undergraduate students, graduate students, high school teachers, and chemical professionals will have the opportunity to participate in a number of education-focused programs and specialty activities.

Chemistry Teachers Day Program

The Division of Chemical Education and the ACS Education Division are sponsoring the Chemistry Teacher Program. It will include presentations on current pedagogies, resources, and activities.

The High School-College Interface Luncheon will bring together educators from all grade levels with the goal of facilitating an exchange of ideas and networking among teachers and professors.

Sunday, March 18, 8:00 am to 5:00 pm, New Orleans Marriott Convention, Blaine Kern C/D.

Participation requires a separate registration. If you need to register, you can do so in the Attendee Registration Office, Lounge A in the Convention Center Rivergate Ballroom.

Workshops

Laboratory Waste Management

Presenter: Russ Phifer

CHAS offers the Laboratory Waste Management workshop to assist participants with the various regulatory requirements that apply to laboratories, which generate hazardous waste, as well as to provide insight into the options for on-site management and off-site disposal. Focus will include discussion on recycling/reclamation techniques, economical handling of wastes and liability issues. There is extensive opportunity for questions both during the workshop with follow-up by phone and email.

Laboratory Safety Workshop – Beyond the Fundamentals

Presenter: Jim Kaufman

The Laboratory Safety Workshop– Beyond the Fundamentals is a new ACS National Meetings course offered by the Laboratory Safety Institute. The goal of the course is to meet the needs of

scientists and science educators wanting to learn more about laboratory safety. “Lab Safety–Beyond the Fundamentals” continues where LSI’s introductory course (The Laboratory Safety Workshop) leaves off and explores new areas in lab safety. There is an emphasis on simple and inexpensive steps to create more effective lab safety programs and grow the culture of lab safety. There is extensive opportunity for questions both during the workshop with follow-up by phone and email. This includes a one-hour conference call to help with the implementation of course concepts.

Course participants are encouraged to submit in advance five questions/topics they wish to have addressed in the course. Send questions/topics to: jim@labsafetyinstitute.org

How to Be a More Effective Chemical Hygiene Officer

Presenter: Russ Phifer

CHAS offers the How to be a more effective Chemical Hygiene Officer workshop to provide participants with a detailed analysis of the CHO position and to prepare for the “CHO” Certification exam. Participants receive a clear perspective on safety issues in the laboratory, focusing on what the CHO does and how to do it better. The workshop covers the content areas of the certification exam, including a sample test in the same format as the real one. Whether you are a new Chemical Hygiene Officer or an “old” one, you will find something to put to real use in this fast-paced presentation.

There is extensive opportunity for questions during the workshop and with follow-up by phone and email.

Reactive Chemical Management for Laboratories & Pilot Plants

Presenters: Neal Langerman, Harry Elston

Chemical reactivity hazards contribute to a significant number of incidents in laboratories and pilot plants. This workshop will provide participants with the knowledge and skill to screen processes for potential hazards, recognize when reactive hazards are present, and implement appropriate controls to reduce the risk of an incident associated with the hazards. Workshop attendees will review case studies of actual incidents and do screening examples in order to understand the screening and recognition process. Group discussions of control methods will allow participants to share their experiences and to evaluate methods for controlling reactivity risks.

Developing Graduate Student Leadership Skills in Laboratory Safety

Presenters: Kali Serrano of the University of Illinois and Michail Vlysidis of University of Minnesota

Co-sponsor: ACS Committee on Chemical Safety and the ACS Office of Graduate Education

Recently, several research-intensive chemistry departments have instituted Joint Safety Teams (JSTs) and similar programs to support graduate student empowerment around laboratory safety issues. This three-hour workshop will describe these efforts at the University of Illinois and University of Minnesota as well as literature from the ACS and the National Academy of Sciences that describes the opportunities and challenges of safety culture in the academic environment. These topics will be followed by discussion of practical steps graduate students can take at their institution to support improved safety cultures. The presenters are graduate students with hands-on experience in the workshop focus. Leadership of the ACS Division of Chemical Health and Safety will provide technical support. Participants will receive a "Graduate Student Safety Leader" certificate.

ACS Career Navigator

ACS Career Navigator is your home for career services, leadership development, professional education, and market intelligence resources. We offer comprehensive and easily identified tools to help you achieve your career goals by landing a new job, finding a new career path, comparing your salary, and viewing current trends in the chemistry enterprise to make more informed decisions.

Opportunities for career development abound at the ACS National Meeting in New Orleans. Take advantage of the resources and tools the ACS Career Navigator offers to help you succeed in the global scientific enterprise. Are you ready to get started? Refresh your skills and branch into new areas of emerging science and advanced applications with an ACS Short Course. Take an ACS Leadership Development System course to gain skills that can be immediately applied in school or on the job. If you are an ACS member, stop by the ACS Career Fair in the Ernest N. Morial Convention Center to speak to a personal career consultant or to have a professional head shot taken. In short, whatever your career goals, the ACS Career Navigator is here to help you achieve and exceed them.

Career and Professional Development Workshops

Our career-related workshops on varying topics will help you with everything from improving your resume to optimizing job performance to acing an interview. Workshop times are subject to change. Please consult the online workshop schedule at the meeting website.

Sunday, March 18

- New Technology to Find Jobs & Manage Your Career, 9:00 AM - 10:30 AM
- ChemIDP- Planning for Your Career, 11:00 AM - 12:45 PM
- Finding Yourself: Identifying a Career that Matches your Strengths and Values, 1:00 PM - 4:00 PM
- Networking: How to Get Started, 4:30 PM - 5:30 PM
- Setting Yourself Up for Success in an Interview, 1:00 PM - 3:00 PM
- Making the Most of Your Interview: Outshine the Competition, 3:30 PM - 5:30 PM
- Careers in Industrial Chemistry: Identifying Your Role in the Industrial Value Chain, 1:00 PM - 3:00 PM
- Résumé Development: Marketing Your Brand for an Industrial Chemistry Position, 3:30 PM - 5:30 PM

Monday, March 19

- Opportunities for Chemists in the Federal Government, 8:00 AM - 10:00 AM
- Finding Your Market, Defining Your Business, 8:00 AM - 10:00 AM
- How to Find and Apply for a Chemistry Position in the Federal Government, 10:30 AM - 12:30 PM
- Your Sales Marketing and Financing Plan, 10:30 AM - 12:30 PM
- Finding Yourself: Identifying a Career that Matches your Strengths and Values, 1:00 PM - 4:00 PM
- Networking: How to Get Started, 4:30 PM - 5:30 PM
- Setting Yourself Up for Success in an Interview, 1:00 PM - 3:00 PM
- Making the Most of Your Interview: Outshine the Competition, 3:30 PM - 5:30 PM
- The Higher Ed Landscape, 8:00 AM - 10:00 AM
- Higher Ed-Presenting Yourself, 10:30 AM - 12:30 PM
- Careers in Industrial Chemistry: Identifying Your Role in the Industrial Value Chain, 1:00 PM - 3:00 PM
- Résumé Development: Marketing Your Brand for an Industrial Chemistry Position, 3:30 PM - 5:30 PM

Tuesday, March 20

- Finding Yourself: Identifying a Career that Matches your Strengths and Values, 8:00 AM - 11:00 AM
- Networking: How to Get Started, 11:30 AM - 12:30 PM
- Opportunities for Chemists in the Federal Government, 1:00 PM - 3:00 PM
- How to Find and Apply for a Chemistry Position in the Federal Government, 3:30 PM - 5:30 PM
- Setting Yourself Up for Success in an Interview, 8:00 AM - 10:00 AM
- Making the Most of Your Interview: Outshine the Competition, 10:30 AM - 12:30 PM
- Foreign National Scientist Obtaining a Job in the U.S, 1:30 PM - 3:00 PM
- Writing Excellent Proposals, 3:30 PM - 5:00 PM
- Careers in Industrial Chemistry: Identifying Your Role in the Industrial Value Chain, 8:00 AM - 10:00 AM
- Résumé Development: Marketing Your Brand for an Industrial Chemistry Position, 10:30 AM - 12:30 PM
- The Higher Ed Landscape, 1:00 PM - 3:00 PM
- Higher Ed-Presenting Yourself, 3:30 PM - 5:30 PM

Wednesday, March 21

- Finding Yourself: Identifying a Career that Matches your Strengths and Values, 8:00 AM - 11:00 AM
- Networking: How to Get Started, 11:30 AM - 12:30 PM
- Setting Yourself Up for Success in an Interview, 8:00 AM - 10:00 AM
- Making the Most of Your Interview: Outshine the Competition, 10:30 AM - 12:30 PM
- Careers in Industrial Chemistry: Identifying Your Role in the Industrial Value Chain, 8:00 AM - 10:00 AM
- Résumé Development: Marketing Your Brand for an Industrial Chemistry Position, 10:30 AM - 12:30 PM

ACS Professional Education Short Courses

The following short courses, specifically designed to improve the skills and marketability of chemical scientists and technicians, are offered in conjunction with the national meeting. ACS member, early registration, and group discount rates are available.

Register for these courses when you register for the meeting.

For more information on ACS Short Courses, to obtain pricing details, or to view a full course catalog, visit www.proed.acs.org/neworleans2018. If you have questions, call (202) 872-4508, fax (202) 872-6336, or email proed@acs.org.

Computers/Statistics/Engineering

- Chemical Engineering for Chemists, March 17-18
- Experimental Design for Productivity and Quality in Research & Development, March 17-19
- Chemometric Techniques for Quantitative Analysis, March 19

General Chemistry

- Survey of Flavor Science, March 17-18

Organic/Physical Chemistry

- Dispersions in Liquids: Suspensions, Emulsions, and Foams, March 17-18

Polymer Chemistry

- Polymeric Science and Technology, March 17-18

Professional Development

- Effective Science Communication: How to Use Storytelling and Other Delivery Techniques to Successfully Discuss Your Work with the Public and Colleagues in Unrelated Fields, March 18

2018 ACS Leadership Development System Course Offerings

Whether you are a manager, experienced professional, or new member of the workforce, we invite you to attend an ACS Leadership Development System® course held at the ACS National Meeting. The following four-hour facilitated courses have a deposit of \$50 each (refunded after attendance) for ACS members and \$300 fee each for nonmembers. Register for these courses when you register for the meeting. For more information and full course description, visit www.acs.org/leadershipdevelopment.

Coaching and Feedback

- March 18, 2018, 1:00 PM to 5:00 PM
Learn how to increase performance, expand the skills of your team, encourage creativity and improve the morale of team members.

Developing Communication Strategies

- March 19, 2018, 8:00 AM to 12:00 PM
Develop and practice your own effective communication strategy and discover how communication can make your goals possible.

Engaging and Motivating Volunteers

- March 19, 2018, 1:00 PM to 5:00 PM
Learn practical tools to engage volunteers and to ensure successful and professional rewarding assignments, for the purpose of encouraging volunteer participation in future assignments.

Strategic Planning

- March 20, 2018, 8:00 AM to 12:00 PM
Improve your understanding of the planning process and take advantage of the opportunity to develop your own strategic plan that aligns with the ACS Board of Director's strategic goals.

Leading without Authority

- March 20, 2018, 1:00 PM to 5:00 PM
Learn how to gain cooperation without formal authority and motivate others to accomplish important goals.

Ticketed Social and Special Events

Organizers have planned a variety of social and special events that will take place during the meeting. Event participation is open to all interested meeting attendees. View an updated listing of social and special events, including event locations, at www.acs.org/nationalmeeting.

The following social events require a ticket, which can be purchased in the Attendee Registration Office, Lobby A in the Convention Center Rivergate Ballroom. Tickets will remain on sale until the evening before the event, if available. All tickets are sold on a first-come, first-served basis.

ACS 255th NATIONAL MEETING TICKETED EVENTS

Sunday, March 18

CHED Chemistry Educators Luncheon	\$45.00	12:00 PM – 1:00 PM	Marriott Convention Center	Blaine Kern C/D
CTA Awards Luncheon	\$45.00	1:00 PM – 3:00 PM	Hilton Riverside	Compass Room
Woman Chemists of Color Networking Event	No Charge	3:00 PM – 4:30 PM	Hilton Riverside	River Room
IAC Networking Globally: Education	No Charge	4:00 PM – 5:30 PM	Hilton Riverside	Windsor Room
IAC International Welcome Reception	No Charge	5:30 PM – 7:30 PM	Hilton Riverside	St. Charles Ballroom

Monday, March 19

YCC 5K Fun Run/Guided Tour (regular)	\$30.00	6:45 AM - 9:00 AM	New Orleans Morial Convention Center	
YCC 5K Fun Run/Guided Tour (student)	\$15.00	6:45 AM - 9:00 AM	New Orleans Morial Convention Center	
WCC WICE Breakfast (regular)	\$40.00	7:30 AM – 9:00 AM	Hilton Riverside	St. James Ballroom
WCC WICE Breakfast (student)	\$25.00	7:30 AM – 9:00 AM	Hilton Riverside	St. James Ballroom
CMA Luncheon (regular)	\$50.00	11:30 AM – 1:30 PM	Hilton Riverside	St. James Ballroom
CMA Luncheon (student)	\$25.00	11:30 AM – 1:30 PM	Hilton Riverside	St. James Ballroom
ACS/YCC Cocktail Party	No Charge	4:30PM - 6:30PM	Mardi Gras World	1380 Port of New Orleans Place
CACS Society Dinner Banquet	\$40.00	7:00 PM – 9:30 PM	Hoshun Restaurant	1601 St. Charles Avenue
CARB Division Awards Dinner	\$60.00	7:00 PM – 10:00 PM	Hilton Hotel, St. Charles Ballroom	333 St. Charles Avenue

Tuesday, March 20

Senior Chemist Breakfast	\$20.00	7:30 AM – 9:30 AM	Hilton Riverside	Jefferson Ballroom
Univ. Of Minnesota Alumni & Friends Breakfast	\$5.00	7:30 AM – 9:30 AM	Hilton Garden Inn	Magnolia Room
No Means No: How to Stop Harassment	\$10.00	8:00 AM – 10:00 AM	Hilton Riverside	Grand Salon B/Section C
AFGD C4, Communicating Chemistry: Creole Cooking	\$10.00	10:00 AM – 1:00 PM	Dickie Brennan's Steakhouse	716 Iberville St
CINF Division Luncheon	\$30.00	12:00 PM – 1:30 PM	Hilton Garden Inn	Camillia/Gardenia Room
WCC Luncheon (regular)	\$50.00	12:00 PM – 1:30 PM	Hilton Riverside	St. James Ballroom
WCC Luncheon (student)	\$25.00	12:00 PM – 1:30 PM	Hilton Riverside	St. James Ballroom
COLL Division Luncheon	\$45.00	12:15 PM – 1:45 PM	Hilton Garden Inn	Magnolia Room
ANYL Division Reception (regular)	\$25.00	5:00 PM – 7:00 PM	Marriott Convention Center	New Levee
ANYL Division Reception (student)	\$5.00	5:00 PM – 7:00 PM	Marriott Convention Center	New Levee
CELL Division Awards Banquet	\$75.00	6:00 PM – 10:00 PM	Pat O'Briens	600 Decatur St, 3rd Floor
ENVR Division Reception	\$20.00	6:00 PM – 8:00 PM	B.B. King's Blues Club	1104 Decatur St
ENFL Division Dinner	\$65.00	6:30 PM – 9:30 PM	Annunciation Restaurant	1016 Annunciation St
ACS National Awards Dinner	\$130.00	7:30 PM – 10:00 PM	New Orleans Marriott Canal Street	Grand Ballroom

ACS 2018 NATIONAL AWARD WINNERS

The ACS National Awards recognize individual and team accomplishments in diverse fields of chemical sciences. Award recipients traditionally receive their national award in person during the ACS awards dinner and general meeting and deliver an award address on the scientific work that is being recognized to an appropriate division.

This year's event will be held on the evening of **Tuesday, March 20, at the New Orleans Marriott Hotel**. Dinner begins at 7:30 PM, and the general meeting begins at 8:30 PM.

Geraldine L. Richmond will deliver the Priestley Medal Address at the general meeting. See Ticketed Events on page 56 for ticket information.

Several awards, such as the Arthur C. Cope Scholar Awards and the Arthur C. Cope Award, will be presented at the Arthur C. Cope Symposium in conjunction with the 256th ACS National Meeting in Boston, MA in August.

ACS Award for Achievement in Research for the Teaching & Learning of Chemistry, sponsored by the ACS Exams Institute, **George M. Bodner**, Purdue University. Address to be presented before the Division of Chemical Education. March 19; New Orleans Marriott Convention Center; Blaine Kern C; 4:20 PM.

ACS Award for Affordable Green Chemistry, sponsored by Dow Chemical and endowed by Rohm and Haas, **Frank Gupton and David Tyler McQuade**, Virginia Commonwealth University. Address to be presented before the Division of Organic Chemistry. March 19; Ernest N. Morial Convention Center; La Nouvelle Orleans Ballroom C; 4:30 PM.

ACS Award for Computers in Chemical & Pharmaceutical Research, sponsored by the ACS Division of Computers in Chemistry, **Jürgen Bajorath**, University of Bonn, Germany, and University of Washington, Seattle. Address to be presented before the Division of Computers in Chemistry. March 20; New Orleans Marriott Convention Center; Blaine Kern D; 4:45 PM.

ACS Award for Creative Advances in Environmental Science & Technology, sponsored by the ACS Division of

Environmental Chemistry and the ACS Publications journals Environmental Science and Technology and Environmental Science and Technology Letters, **Barbara J. Turpin**, University of North Carolina, Chapel Hill. Address to be presented before the Division of Environmental Chemistry. March 20; Ernest N. Morial Convention Center; Room 342; 3:50 PM.

ACS Award for Creative Invention, sponsored by ACS Corporation Associates, **Robert S. Kania**, Pfizer. Address to be presented before the Division of Medicinal Chemistry at the ACS fall national meeting in Boston, MA.

ACS Award for Creative Work in Fluorine Chemistry, sponsored by the ACS Division of Fluorine Chemistry, **Erhard Kemnitz**, Humboldt University of Berlin. Address to be presented before the Division of Fluorine Chemistry. March 19; Embassy Suites New Orleans; Fountainbleu Sec 1/2; 3:50 PM.

ACS Award for Creative Work in Synthetic Organic Chemistry, sponsored by MilliporeSigma, **Brian M. Stoltz**, California Institute of Technology. Address to be presented before the Division of Organic Chemistry. March 21; Ernest N. Morial Convention Center; La Nouvelle Orleans Ballroom C; 10:50 AM.

ACS Award for Distinguished Service in the Advancement of Inorganic Chemistry, sponsored by Strem Chemicals, **Thomas B. Rauchfuss**, University of Illinois, Urbana-Champaign. Address to be presented before the Division of Inorganic Chemistry. March 19; Ernest N. Morial Convention Center; Great Hall A; 8:15 AM.

ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences, sponsored by the Camille & Henry Dreyfus Foundation, **Jani C. Ingram**, Northern Arizona University. Address to be presented before the Division of Analytical Chemistry. March 20; Ernest N. Morial Convention Center; Room 228; 8:40 AM.

ACS Award for Encouraging Women into Careers in the Chemical Sciences, sponsored by the Camille & Henry Dreyfus Foundation, **Rebecca T. Ruck**, Merck & Co.. Address to be presented before the ACS Women Chemists Committee. March 20; Hilton New Orleans Riverside; Grand Salon C Sec 13; 11:15 AM.

ACS Award for Research at an Undergraduate Institution, sponsored by Research Corporation for Science Advancement, **Joseph J. Pesek**, San Jose State University. Address to be presented before the Division of Analytical Chemistry. March 21; Ernest N. Morial Convention Center; Room 228; 3:55 PM.

ACS Award for Team Innovation, sponsored by ACS Corporation Associates, **Vladimir G. Beylin**, **Brian P. Chekal**, **Nga M. Do** and **Brian P. Jones**, Pfizer; **David W. Fry**, Pfizer (Retired); **Nathan D. Ide**, AbbVie; **Peter L. Toogood**, Lycera Corp. and **Hairong Zhou**, Genentech. Address to be presented before the Division of Medicinal Chemistry. March 20; Ernest N. Morial Convention Center; La Nouvelle Orleans Ballrooms A/B; 2:15 PM.

ACS Award in Analytical Chemistry, sponsored by the Battelle Memorial Institute, **Michael Lawrence Gross**, Washington University in St Louis. Address to be presented before the Division of Analytical Chemistry. March 21; Ernest N. Morial Convention Center; Room 228; 11:10 AM.

ACS Award in Applied Polymer Science, sponsored by Eastman Chemical, **Paula T. Hammond**, Massachusetts Institute of Technology. Address to be presented before the Division of Division of Polymeric Materials: Science & Engineering and the Division of Polymer Chemistry. March 18; New Orleans Marriott Canal Street; La Galerie 6; 4:45 PM.

ACS Award in Chromatography, sponsored by MilliporeSigma, **Janusz Boleslaw Pawliszyn**, University of Waterloo, Canada. Address to be presented before the Division of Analytical Chemistry. March 20; Ernest N. Morial Convention Center; Room 228; 4:30 PM.

ACS Award in Colloid Chemistry, sponsored by Colgate-Palmolive, **Håkan Wennerström**, Lund University, Sweden. Address to be presented before the Division of Colloid & Surface Chemistry. March 20; Ernest N. Morial Convention Center; Room 242; 2:10 PM.

ACS Award in Industrial Chemistry, sponsored by the ACS Division of Industrial & Engineering Chemistry, **George P. Lahm**, DuPont. Address to be presented before the Division of Agrochemicals and the Division of Industrial & Engineering Chemistry at the ACS fall national meeting in Boston, MA.

ACS Award in Inorganic Chemistry, sponsored by Aldrich Chemical, **James M. Mayer**, Yale University. Address to be presented before the Division of Inorganic Chemistry. March 19; Ernest N. Morial Convention Center; Great Hall A; 9:20 AM.

ACS Award in Organometallic Chemistry, sponsored by the Dow Chemical Foundation, **Clifford P. Kubiak**, University of California, San Diego. Address to be presented before the Division of Inorganic Chemistry. March 19; Ernest N. Morial Convention Center; Great Hall A; 10:05 AM.

ACS Award in Polymer Chemistry, sponsored by ExxonMobil Chemical, **C. Grant Willson**, University of Texas, Austin. Address to be presented before the Division of Polymeric Materials: Science & Engineering and the Division of Polymer Chemistry. March 19; New Orleans Marriott Canal Street; La Galerie 6; 4:30 PM.

ACS Award in Pure Chemistry, sponsored by the Alpha Chi Sigma Fraternity and the Alpha Chi Sigma Educational Foundation, **Mircea Dincă**, Massachusetts Institute of Technology. Address to be presented before the Division of Inorganic Chemistry. March 19; Ernest N. Morial Convention Center; Great Hall A; 11:05 AM.

ACS Award in Separations Science & Technology, sponsored by Waters Corp., **Massimo Morbidelli**, Swiss Federal Institute of Technology (ETH), Zurich. Address to be presented before the Division of Industrial & Engineering Chemistry. March 18; Loews New Orleans Hotel; Louisiana II; 11:05 AM.

ACS Award in Surface Chemistry, sponsored by Procter & Gamble, **Stacey F. Bent**, Stanford University. Address to be presented before the Division of Colloid & Surface Chemistry. March 20; Ernest N. Morial Convention Center; Room 242; 3:10 PM.

ACS Award in the Chemistry of Materials, sponsored by DuPont, **Elsa Reichmanis**, Georgia Institute of Technology. Address to be presented before the Division of Polymeric Materials: Science & Engineering. March 21; New Orleans Marriott Canal Street; La Galerie 6; 4:15 PM.

ACS Award in Theoretical Chemistry, sponsored by the ACS Division of Physical Chemistry, **Emily Ann Carter**, Princeton University. Address to be presented before the Division of Physical Chemistry. March 20; Ernest N. Morial Convention Center; Rooms 219/220; 2:05 PM.

Award for Volunteer Service to the American Chemical Society, sponsored by ACS, **Carol A. Duane**, D&D Consultants of Mentor. Address to be presented before the ACS ChemLuminary Awards Ceremony at the fall national meeting in Boston, MA.

Alfred Bader Award in Bioinorganic or Bioorganic Chemistry, sponsored by the Alfred R. Bader Fund, **Alison Butler**, University of California, Santa Barbara. Address to be presented before the Division of Inorganic Division. March 19; Ernest N. Morial Convention Center; Great Hall A; 10:35 AM.

Earle B. Barnes Award for Leadership in Chemical Research Management, sponsored by the Dow Chemical Foundation, **Margaret M. Faul**, Amgen. Address to be presented before the Division of Organic Chemistry. March 18; Ernest N. Morial Convention Center; La Nouvelle Orleans Ballroom C; 11:25 AM.

Ronald Breslow Award for Achievement in Biomimetic Chemistry, sponsored by the Ronald Breslow Award Endowment, **David R. Liu**, Broad Institute, Harvard University and HHMI. Address to be presented before the Division of Biological Chemistry. March 20; Ernest N. Morial Convention Center; Room 243; 4:05 PM.

Herbert C. Brown Award for Creative Research in Synthetic Methods, sponsored by the Purdue Borane Research Fund and the Herbert C. Brown Award Endowment, **Gregory C. Fu**, California Institute of Technology. Address to be presented before the Division of Organic Chemistry. March 18; Ernest N. Morial Convention Center; La Nouvelle Orleans Ballroom C; 4:10 PM.

Alfred Burger Award in Medicinal Chemistry sponsored by Gilead Sciences, **Dennis C. Liotta**, Emory University. Address to be presented before the Division of Medicinal Chemistry. March 20; Ernest N. Morial Convention Center; La Nouvelle Orleans Ballrooms A/B; 4:35 PM.

James Bryant Conant Award in High School Chemistry Teaching, sponsored by the Journal of Chemical Education and ChemEd X, **Brian John Kennedy**, Thomas Jefferson High School for Science & Technology, Virginia. Address to be presented before the Division of Chemical Education. March 18; New Orleans Marriott Convention Center; Blaine Kern C/D; 1:45 PM.

Arthur C. Cope Award, sponsored by the Arthur C. Cope Fund, **Steven V. Ley**, University of Cambridge, England. Address to be presented before the Division of Organic Chemistry at the ACS fall national meeting in Boston, MA.

Arthur C. Cope Scholar Awards, sponsored by the Arthur C. Cope Fund, **Emily P. Balskus**, Harvard University; **Naoto Chatani**, Osaka University, Japan; William F. DeGrado, University of California, San Francisco; **Frank Glorius**, University of Münster, Germany; **Robert Knowles**, Princeton University; **Dawei Ma**, Shanghai Institute of Organic Chemistry, Chinese Academy of Science; **Heather D. Maynard**, University of California, Los Angeles; **James Morken**, Boston College; **G. K. Surya Prakash**, University of Southern California; and **Keith Woerpel**, New York University. Address to be presented before the Division of Organic Chemistry at the ACS fall national meeting in Boston, MA.

Elias J. Corey Award for Outstanding Original Contribution in Organic Synthesis by a Young Investigator, sponsored by the Pfizer Endowment Fund, **Seth B. Herzon**, Yale University. Address to be presented before the Division of Organic Chemistry. March 20; Ernest N. Morial Convention Center; La Nouvelle Orleans Ballroom C; 3:35 PM.

F. Albert Cotton Award in Synthetic Inorganic Chemistry, sponsored by the F. Albert Cotton Endowment Fund, **A. S. Borovik**, University of California, Irvine. Address to be presented before the Division of Inorganic Chemistry. March 19; Ernest N. Morial Convention Center; Great Hall A; 11:35 AM.

Peter Debye Award in Physical Chemistry, sponsored by DuPont, **Paras Nath Prasad**, State University of New York at Buffalo. Address to be presented before the Division of Physical Chemistry. March 20; Ernest N. Morial Convention Center; Rooms 219/220; 1:30 PM.

Frank H. Field & Joe L. Franklin Award for Outstanding Achievement in Mass Spectrometry, sponsored by Waters Corp., **Carol Vivien Robinson**, University of Oxford, England. Address to be presented before the Division of Biological Chemistry at the ACS fall national meeting in Boston, MA.

Francis P. Garvan–John M. Olin Medal, sponsored by the Francis P. Garvan–John M. Olin Medal Endowment, **Valerie J. Kuck**, Bell Laboratories, Lucent Technologies (Retired). Address to be presented before the ACS Women Chemist Committee at the ACS fall national meeting in Boston, MA.

James T. Grady–James H. Stack Award for Interpreting Chemistry for the Public, sponsored by ACS, **Bassam Z. Shkhashiri**, University of Wisconsin, Madison. Address to be presented before the ACS Office of External Affairs and Communications at the ACS fall national meeting in Boston, MA.

Harry Gray Award for Creative Work in Inorganic Chemistry by a Young Investigator, sponsored by the Gray Award Endowment, **Dwight S. Seferos**, University of Toronto, Canada. Address to be presented before the Division of Inorganic Chemistry. March 19; Ernest N. Morial Convention Center; Great Hall A; 8:50 AM.

Ernest Guenther Award in the Chemistry of Natural Products, sponsored by Givaudan, **David R. Williams**, Indiana University, Bloomington. Address to be presented before the Division of Organic Chemistry. March 21; Ernest N. Morial Convention Center; La Nouvelle Orleans Ballroom C; 3:55 PM.

Kathryn C. Hach Award for Entrepreneurial Success, sponsored by the Kathryn C. Hach Award Fund, **Javier García Martínez**, Rive Technology and University of Alicante, Spain. Address to be presented before the Division of Energy & Fuels. March 21; Ernest N. Morial Convention Center; Room 238; 11:35 AM.

Joel Henry Hildebrand Award in the Theoretical & Experimental Chemistry of Liquids, sponsored by ExxonMobil Research & Engineering, **Lawrence R. Pratt**, Tulane University. Address to be presented before the Division of Physical Chemistry. March 20; Ernest N. Morial Convention Center; Rooms 219/220; 2:40 PM.

Ralph F. Hirschmann Award in Peptide Chemistry sponsored by Merck Research Laboratories, **Lila M. Gierasch**, University of Massachusetts Amherst. Address to be presented before the Division of Biological Chemistry. March 19; Ernest N. Morial Convention Center; Room 243; 11:30 AM.

Frederic Stanley Kipping Award in Silicon Chemistry sponsored by Dow Corning, **Tamejiro Hiyama**, Chuo University, Japan. Address to be presented before the 49th Silicon Symposium, May 30-31, Edmonton, Canada.

Irving Langmuir Award in Chemical Physics sponsored by the ACS and the ACS Division of Physical Chemistry, **George W. Flynn**, Columbia University. Address to be presented before the Division of Physical Chemistry. March 20; Ernest N. Morial Convention Center; Rooms 219/220; 4:50 PM.

Josef Michl ACS Award in Photochemistry sponsored by the Josef Michl Award Endowment, **Jack Saltiel**, Florida State University. Address to be presented before the Division of Organic Chemistry. March 20; Ernest N. Morial Convention Center; La Nouvelle Orleans Ballroom C; 11:00 AM.

E. V. Murphree Award in Industrial & Engineering Chemistry, sponsored by ExxonMobil Research & Engineering, **Linda J. Broadbelt**, Northwestern University. Address to be presented before the Division of Industrial & Engineering Chemistry. March 18; Loews New Orleans Hotel; Louisiana I; 1:35 PM.

Nobel Laureate Signature Award for Graduate Education in Chemistry, sponsored by Avantor Performance Materials, **Aleksandr V. Zhukhovitskiy (student) and Jeremiah A. Johnson (preceptor)**, Massachusetts Institute of Technology. Address to be presented before the Division of Polymer Chemistry. March 20; New Orleans Marriott Canal Street; Studio 7; 11:00 AM.

James Flack Norris Award in Physical Organic Chemistry, sponsored by the ACS Northeastern Section, **Cynthia J. Burrows**, University of Utah. Address to be presented before the Division of Organic Chemistry. March 19; Ernest N. Morial Convention Center; R02; 4:00 PM.

George A. Olah Award in Hydrocarbon or Petroleum Chemistry, sponsored by the George A. Olah Award Endowment, **Oliver C. Mullins**, Schlumberger-Doll Research. Address to be presented before the Division of Energy & Fuels. March 21; Ernest N. Morial Convention Center; Room 232; 1:30 PM.

George C. Pimentel Award in Chemical Education, sponsored by Cengage Learning and the ACS Division of Chemical Education, **Pratibha Varma-Nelson**, Indiana University-Purdue University Indianapolis. Address to be presented before the Division of Chemical Education. March 20; New Orleans Marriott Convention Center; Blaine Kern A; 4:10 PM.

Priestley Medal, sponsored by ACS, **Geraldine L. Richmond**, University of Oregon. Address to be presented at the ACS National Awards Banquet Ceremony & General Meeting of the Society at the spring national meeting in New Orleans, LA.

Glenn T. Seaborg Award for Nuclear Chemistry, sponsored by the ACS Division of Nuclear Chemistry & Technology, **Suresh C. Srivastava**, Brookhaven National Laboratory. Address to be presented before the Division of Nuclear Chemistry & Technology. March 21; Embassy Suites New Orleans; Fountainbleu Sec 4; 11:15 AM.

Gabor A. Somorjai Award for Creative Research in Catalysis, sponsored by the Gabor A. and Judith K. Somorjai Endowment Fund, **David W. C. MacMillan**, Princeton University. Address to be presented before the Division of Organic Chemistry. March 19; Ernest N. Morial Convention Center; La Nouvelle Orleans Ballroom C; 11:05 AM.

George & Christine Sosnovsky Award for Cancer Research, sponsored by the George & Christine Sosnovsky Endowment Fund, **Paul J. Hergenrother**, University of Illinois, Urbana-Champaign. Address to be presented before the Division of Medicinal Chemistry. March 20; Ernest N. Morial Convention Center; La Nouvelle Orleans Ballroom A/B; 1:30 PM.

E. Bright Wilson Award in Spectroscopy, sponsored by the E. Bright Wilson Endowment, **Richard J. Saykally**, University of California, Berkeley. Address to be presented before the Division of Physical Chemistry. March 20; Ernest N. Morial Convention Center; Rooms 219/220; 4:15 PM.

Ahmed Zewail Award in Ultrafast Science & Technology, sponsored by the Ahmed Zewail Endowment Fund established by Newport Corp., **Xiaoyang Zhu**, Columbia University. Address to be presented before the Division of Physical Chemistry. March 20; Ernest N. Morial Convention Center; Rooms 219/220; 3:40 PM.

National Fresenius Award, sponsored by Phi Lambda Upsilon, the National Chemistry Honor Society, **Thomas J. Maimone**, University of California, Berkeley. Address to be presented before the Division of Organic Chemistry. March 21; Ernest N. Morial Convention Center; R02; 11:10 AM.



STUDENT PROGRAM

March 18-19, 2018 • New Orleans, LA • Ernest N. Morial Convention Center

SUNDAY, MARCH 18, 2018

- 8:00 AM - 5:00 PM** Hospitality Center
Hall D1/D2
- 8:30 - 11:30 AM** Undergraduate Research Papers
**New Orleans Marriott Convention Center, Magnolia*
- 8:30 - 9:15 AM** Making the Most of Your First National Meeting
Hall D1/D2
- 9:30 - 11:00 AM** Symposium: Where Can My Chemistry Degree Take Me?
Cosponsored by the ACS Division of Professional Relations
Room 356
- 10:30 - 11:30 AM** Graduate School: The Ins and Outs of Getting In
Cosponsored by the ACS Division of Professional Relations and Younger Chemists Committee
Room 255-257
- 11:00 AM - 12:30 PM** ChemDemo Exchange
Hall B1
- 12:15 - 1:30 PM** The Graduate School Experience: What to Expect
Cosponsored by the ACS Division of Professional Relations and Younger Chemists Committee
Room 255-257
- 1:00 - 5:00 PM** Graduate School Fair
Hall E2/E3
- 1:30 - 3:00 PM** Workshop: Networking 101
Cosponsored by the ACS Division of Professional Relations and Younger Chemists Committee
Room 356-357
- 2:30 - 3:30 PM** Two-Year to Four-Year College Transfer Survival Guide
Room 255-257
- 3:30 - 4:45 PM** Stories from Successful ACS Student Chapter Grants
Room 255-257
- 7:00 - 8:30 PM** ACS Student Chapter Awards Ceremony
Great Hall A
- 8:30 - 10:30 PM** Undergraduate Social
Hall B1

MONDAY, MARCH 19, 2018

- 8:00 AM - 5:00 PM** Hospitality Center
Hall D1/D2
- 8:30 - 11:30 AM** Undergraduate Research Papers
**New Orleans Marriott Convention Center, Magnolia*
- 9:00 - 10:30 AM** Workshop: Around the World in ACS International Student Chapters: A Chapter Event Planning Exchange
Room 343
- 9:00 - 10:15 AM** Workshop: Improving Scientific Communication Skills
Room 210
- 10:00 - 11:30 AM** Symposium: The Chemistry that Keeps America Safe
Cosponsored by the ACS Division of Professional Relations
Room 356-357
- 10:30 - 11:45 AM** Networking Lab
Cosponsored by the Younger Chemists Committee
Hall B1
- 12:00 - 2:00 PM** Undergraduate Research Poster Session
Hall D/E
- 2:30 - 4:00 PM** Eminent Scientist Lecture - Featuring Dr. Mary Jo Ondrechen, Northeastern University
Room 356-357
- 4:00 - 5:15 PM** Workshop: Chemists Celebrate Earth Week
Sponsored by the Committee on Community Activities
Hall E2/E3
- 5:15 - 6:15 PM** The Fred Kavli Innovations in Chemistry Lecture
Great Hall A
- 8:00 - 10:00 PM** Sci-Mix Successful Student Chapter Poster Session
Hall D/E

Find out more at <http://www.acs.org/undergradmeetinginfo>

Visit the ACS Exposition & Career Fair!

Halls B2/C, Ernest N. Morial Convention Center

Join us for the Welcome Reception & Poster Sessions

Sunday, March 18

6:00 PM – 8:30 PM

Come back on Monday and Tuesday to continue visiting over 250 companies!

- Learn more about ACS benefits, products, services and merchandise at the ACS Booth
- Attend exhibitor workshops and demonstrations
- Network at the recharge lounge
- Meet recruiters from top companies at the Career Fair

This and much more is all happening on the newly designed ACS Expo Floor!

Monday, March 19

9:00 AM – 5:00 PM

Tuesday, March 20

9:00 AM – 5:00 PM

Caffeinate and communicate during coffee breaks!

Monday, March 19

1:00 PM – 3:00 PM

Tuesday, March 20

3:00 PM – 5:00 PM



TECHNICAL PROGRAM SUMMARY

Presidential Events		P R E S				
P. Dorhout, program chair						
Hilton New Orleans Riverside	S	M	Tu	W	Th	
Water, Water Everywhere but Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water NFEW	A					
Science Cafés & Engaging the Public: Techniques for Hosting Successful Events	P					
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P				
Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present *(HIST)	P	D				
Nexus of Food, Energy & Water Opening Session *(MPPG)	P					
Community Sharing of Chemical Safety Data: Yes, No, Maybe? *(CINF)		A				
Excellence in Graduate Polymer Research *(POLY)		D	DE			
State-of-the-Art: Two Decades Advancing the 12 Principles of Green Chemistry *(CHED)		D				
Science of Sexual Harassment *(WCC)		D				
Information Legacy of Eugene Garfield: From the Chicken Coop to the World Wide Web *(CINF)		P				
The Fred Kavli Innovations in Chemistry Lecture *(MPPG)		P				
The Kavli Foundation Emerging Leader in Chemistry Lecture *(MPPG)		E				
GSSPC: Finding Our Place at the Bottom *(CHED)			D			

Multidisciplinary Program Planning Group		M P P G				
J. Schnoor, program chair						
Ernest N. Morial Convention Center	S	M	Tu	W	Th	
Nexus of Food, Energy & Water Opening Session **	P					
Nexus of Food, Energy & Water: Adapting to Future Challenges **		P				
The Fred Kavli Innovations in Chemistry Lecture **		P				
Nano in Food, Energy & Water		P				
The Kavli Foundation Emerging Leader in Chemistry Lecture **		E				
Dreyfus Prize Symposium **			D			
Wood-Based Materials for Energy & Water *(CELL)	D	A				

Multidisciplinary Program Planning Group (continued)		M P P G				
J. Schnoor, program chair						
Ernest N. Morial Convention Center	S	M	Tu	W	Th	
Wearable & Implantable Sensors *(ANYL)	D	D				
Energy, Water & Food Production *(AGFD)	D					
Challenges in Determining Arsenic Compounds in Rice *(ANYL)	D					
Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present *(HIST)	P	D				
Plant Omics *(ANYL)	P					
Analytical Chemistry in the Developing World *(ANYL)	E	D	D			
Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus *(CELL)		P	D			
Science & Ethics: The Path toward Global Security in Chemicals, Energy, Food & Water *(SCHB)			P			
Comprehensive Chemical Characterization of Hydraulic Fracturing Shales, Wastes & Recycled Waste Products *(ANYL)					A	
Novel Concepts in the Role of Chemistry in the Food, Energy & Water Nexus *(ENVR)				DE		
Monitoring Pharmaceuticals & Other Pollutants in Water *(ANYL)						A

Division of Agricultural & Food Chemistry		A G F D				
B. Guthrie, program chair						
Ernest N. Morial Convention Center	S	M	Tu	W	Th	
110th UMAMI Memorial Symposium: Past, Present, Future	A					
Energy, Water & Food Production ** NFEW	D					
International Student Symposium	D					
Water in Foods Symposium in Honor of Louise Slade & Harry Levine NFEW	P	D	D			
General & AGFD All-Star Posters	E					
Withycombe-Charalambous Graduate Student Symposium		A				
Chemistry of Spirits		D				
Chemistry of Sex		P				
Environmental Effects on Gulf Coast Seafoods NFEW			A			
Kenneth A. Spencer Award Symposium **			D			

Division of Agricultural & Food Chemistry (continued)

A G F D

B. Guthrie, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Career Trajectories for Ag & Food Chemists: Panel Discussion			P		
General Papers				D	D
Up in Smoke: Chemistry of Smoky Odors in Food & the Environment NFEW				D	
Chemistry & Applications for Cotton Frontiers in Glycoscience, Bridging the Gap between Carbohydrate & Polysaccharide Chemistries *(CELL)	D	D			A
Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present *(HIST)	P	D			
Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus *(CELL)		P	D		
Undergraduate Research Posters *(CHED)		P			
Nexus of Food, Energy & Water: Adapting to Future Challenges *(MPPG)		P			
Biobased Water Purification System Approaches *(CELL)			A		
Impacts of Mining & Hydraulic Fracturing on Crop & Livestock Production *(GEOC)			D		
Heidolph North America's Cannabis Chemistry Subdivision Scholarship Symposium *(CHAS)				D	

Division of Agrochemicals

A G R O

J. Eble, program chair

Located with Primary Sponsor	S	M	Tu	W	Th
Multiscale Biogeochemical Processes in Soil Ecosystems: Critical Reactions & Resilience to Climate Changes *(GEOC)	D				E
Kenneth A. Spencer Award Symposium *(AGFD)			D		
Impacts of Mining & Hydraulic Fracturing on Crop & Livestock Production *(GEOC)			D		

Division of Analytical Chemistry

A N Y L

L. Baker, M. Bush, program chairs

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Microfluidic Electrochemical Bioanalysis	A				

Division of Analytical Chemistry (continued)

A N Y L

L. Baker, M. Bush, program chairs

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Open Resources for Automated Structure Verification & Elucidation	A				
Ultrafast Spectroscopy Meets Chemistry, Materials & Biology	D	D	D		
Wearable & Implantable Sensors ** NFEW	D	D			
Challenges in Determining Arsenic Compounds in Rice ** NFEW	D				
Active Learning in the Undergraduate Analytical Chemistry Curriculum	P				
Plant Omics ** NFEW	P				
Analytical Chemistry in the Developing World ** NFEW	E	D	D		
Analytical Division Poster Session Biomolecular, Molecular & Elemental Spectrometry with Plasma Sources	E				
Ionic Liquids: Recent Trends & Applications		D			
Analytical Chemistry of Biofuels		P			
Sci-Mix		E			
ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences: Symposium in Honor of Jani C. Ingram **			A		
Advancements in Biorecognition Element Discovery & Development & Its Translation into Innovative Biosensor Technologies			D		
Advances in Blood-Based Diagnostics			D		
ACS Award in Chromatography: Symposium in Honor of Janusz Pawliszyn			P		
Advances in Separations				A	
Biomedical Advances in Cancer Detection & Treatment Using Advanced Analytical Techniques				A	
Comprehensive Chemical Characterization of Hydraulic Fracturing Shales, Wastes & Recycled Waste Products ** NFEW				A	
Novel Approaches to Mass Spectrometry Imaging				A	
ACS Award in Analytical Chemistry: Symposium in Honor of Michael L. Gross				A	
Advances in Spectroscopy				P	D
Ambient Ionization & Forensic Science				P	
Forced Degradations in Pharmaceutical Industry				P	
Target-Responsive Fluorescent Probes for Detection & Diagnosis				P	

Division of Analytical Chemistry (continued)

ANYL

L. Baker, M. Bush, program chairs

	S	M	Tu	W	Th
Ernest N. Morial Convention Center ACS Award for Research at an Undergraduate Institution: Symposium in Honor of Joseph J. Pesek				P	
Advances in Mass Spectrometry Monitoring Pharmaceuticals & Other Pollutants in Water ** NFEW					A
Advances in Electrochemistry Failed Brilliance in Nanocellulose Science & Technology *(CELL)	A				
Polymer Colloids: Synthesis, Analysis, Modeling & Applications *(POLY)	D	D	DE	D	
Frontiers in Glycoscience, Bridging the Gap between Carbohydrate & Polysaccharide Chemistries *(CELL)	D	D			
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
Ongoing Challenges in the Treatment of Contaminants of Emerging Concern *(ENVR)		P	D	E	
Undergraduate Research Posters *(CHED)		P			
GSSPC: Finding Our Place at the Bottom *(CHED)			D		
Inaugural Joint Symposium of the Separation Science Subdivisions *(I&EC)				D	
Advances in Bacterial (Nano)Cellulose Research *(CELL)					D

Division of Biochemical Technology

BIOT

N. Tugcu, M. Antoniewicz, program chairs

	S	M	Tu	W	Th
InterContinental New Orleans					
BIOT Awards	A	A	AE	AE	
End-to-End Biomanufacturing	A	A	D	A	D
Downstream Processing	D	D	D	D	D
Upstream Processes	D	D	D	D	D
Biomolecular & Biophysical Processes	D	D	D	P	A
Biomedical & Emerging Technologies	P	P		D	P

* Cosponsored symposium with primary organizer shown in parentheses -
located with primary organizer.

** Primary organizer of a cosponsored symposium.

NFEW: Nexus of Food, Energy & Water
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E = EVE DE = AM/PM/EVE PE = PM/EVE

Division of Biochemical Technology (continued)

BIOT

N. Tugcu, M. Antoniewicz, program chairs

	S	M	Tu	W	Th
InterContinental New Orleans					
BIOT Tank	E				
Sci-Mix		E			
BIOT Poster Session			E		
Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation— Anselme Payen Award Symposium in Honor of Junji Sugiyama *(CELL)	D	D	D		
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers *(POLY)		D	DE		
Undergraduate Research Posters *(CHED)		P			
WCC Rising Star Award Symposium *(WCC)			P		

Division of Biological Chemistry

BIOL

S. Kelley, program chair

	S	M	Tu	W	Th
Ernest N. Morial Convention Center Graduate Student & Postdoctoral Fellow Symposium	A			D	
Enzymes in Natural Product Biosynthesis Pathways	A				
Chemical Tools for Modulating & Imaging Biology	P				
RNA Structure & Function	P				
Current Topics	E		E		
Chemical Tools for Interrogating Biological Systems		A			
Ralph F. Hirschmann Award in Peptide Chemistry: Symposium in Honor of Lila M. Gierasch **		A			
Early Career Investigators in Biological Chemistry		P			
Goodman Award Symposium		P			
Sci-Mix		E			
ACS Chemical Biology Award Symposium			A		
Ronald Breslow Award for Achievement in Biomimetic Chemistry: Symposium in Honor of David R. Liu			P		
Midcareer Investigators in Biological Chemistry				A	
Protein Homeostasis				P	

**Division of Biological Chemistry
(continued)**

B I O L

S. Kelley, program chair

	S	M	Tu	W	Th
Ernest N. Morial Convention Center					
Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation—Anselme Payen Award Symposium in Honor of Junji Sugiyama *(CELL)	D	D	D		
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
Biominalization & Biocompatible Minerals *(GEOC)	D			E	
Microbially Driven Geochemical Reactions: Kinetics & Communities *(GEOC)		P	D	E	
Undergraduate Research Posters *(CHED)		P			
Chemists & Writing for Fun & Profit: Write Your Own Career *(SCHB)			A		

**Division of Business
Development & Management**

B M G T

J. Cohen, A. DeMasi, program chairs

	S	M	Tu	W	Th
Hilton New Orleans Riverside					
Chemical Angel Network (CAN): Chemists Investing in Chemistry-Based Companies **	P				
Thriving in the Workplace: Nontechnical Skills That Boost Your Value **		P			
Sci-Mix		E			
Issues in Chemical Commercialization *(CHAL)		A			

**Division of Carbohydrate
Chemistry**

C A R B

S. Sucheck, program chair

	S	M	Tu	W	Th
Loews New Orleans					
Wolfrom Award	A				
Gin New Investigator Award	P				
Isbell Award	P				
Horton Award		A			
Advances in Molecular Recognition of Double-Helical DNA & RNA **		P	A		
Sci-Mix		E			
Recent Advances in Catalytic Carbohydrate Reaction Development **			D	A	
General Posters			E		

**Division of Carbohydrate
Chemistry (continued)**

C A R B

S. Sucheck, program chair

	S	M	Tu	W	Th
Loews New Orleans					
Emerging Young Investigator Symposium				D	
Frontiers in Glycoscience, Bridging the Gap between Carbohydrate & Polysaccharide Chemistries *(CELL)	D	D			
Discovery of Small Molecules Targeting RNA *(ORGN)			P		
Discovery of Small Molecules Targeting RNA: Where Are We & Where Are We Going? *(MEDI)				A	
Plant Heteropolysaccharides: Interactions within Lignocellulosics, New Modifications & Future Applications *(CELL)				D	

**Division of Catalysis Science &
Technology**

C A T L

A. Savara, program chair

	S	M	Tu	W	Th
Hampton Inn Convention Center					
Activation of Light (C1-C 4)	A	D	A		
Hydrocarbons: Theory & Experiments **					
Challenge & Opportunity in Lignin Valorization ** NFEW	D	A			
Electrochemical Double Layer: Modeling, Characterization & Catalysis **	D	A			
Elucidation of Mechanisms & Kinetics on Surfaces **	D	D	D	A	D
Machine Learning for Catalysis Research **	D	D			
Control of Zeolite Structure, Composition & Sites for Catalysis **	D				D
Magnetically Recoverable Catalysts **	P	P			
Operando Techniques for Catalytic & Photocatalytic Fuel Conversion Studies **		D	P		
Homogeneous Catalysis for Applied Organic Synthesis **		P	D		
Sci-Mix		E			
Toward Comprehension of Scale-Up & Multiscale Modeling of Catalysts **			A	D	
Catalytic Conversion of Biomass-Derived Molecules to Chemicals & Fuels **			D	D	D

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Division of Catalysis Science & Technology (continued)

CATL

A. Savara, program chair

Hampton Inn Convention Center	S	M	Tu	W	Th
Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in Situ & Operando Methods **			D	D	
R&D in the Chemical Catalysis for Bioenergy Consortium **			P	D	
General Catalysis			E		D
New Techniques & Applications of Magnetic Resonance Methods in Heterogeneous Catalysis				D	P
Unconventional Catalysis Targeting Stable Molecules ** NFEW				P	A
Innovative Chemistry & Materials for Electrochemical Energy Storage *(ENFL)	D	D	D	D	
Synthetic Chemistry Addressing Challenges in Energy & the Environment *(INOR)	D				
Carbon Dioxide Conversion & Artificial Photosynthesis *(ENFL)	P	D	D		
Computational Catalyst Design for Energy Conversion & Storage *(COMP)			D	D	
ACS Award Lectures *(COLL)			P		

Division of Cellulose & Renewable Materials

CELL

M. Roman, program chair

Loews New Orleans	S	M	Tu	W	Th
Failed Brilliance in Nanocellulose Science & Technology **	A				
Wood-Based Materials for Energy & Water ** NFEW	D	A			
Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation—Anselme Payen Award Symposium in Honor of Junji Sugiyama **	D	D	D		
Frontiers in Glycoscience, Bridging the Gap between Carbohydrate & Polysaccharide Chemistries **	D	D			
New Horizons in Sustainable Materials Assembly & Colloidal Interactions of Cellulose Nanocrystals **	D				
General Posters	E				
2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in Honor of Rafael Luque **		A			
Lignin: From Fundamentals to New Materials & Applications **		P	D	D	D

Division of Cellulose & Renewable Materials (continued)

CELL

M. Roman, program chair

Loews New Orleans	S	M	Tu	W	Th
Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus ** NFEW		P	D		
Sci-Mix		E			
2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in Honor of Ning Yan **			A		
Biobased Water Purification System Approaches ** NFEW			A		
Functional Structures from Wood-Based Materials **			P	D	D
Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems **			P	D	D
Biobased Gels & Porous Materials **				D	D
Plant Heteropolysaccharides: Interactions within Lignocellulosics, New Modifications & Future Applications **				D	
Advances in Bacterial (Nano)Cellulose Research **					D
Bioenergy & Biobased Chemicals *(ENFL)	D				D
Energy, Water & Food Production *(AGFD)	D				
Plant Omics *(ANYL)	P				
2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in Honor of Fengqi You *(I&EC)		P			

Division of Chemical Education

CHED

C. Gauthier, A. Marsh, N. Snyder, program chairs

New Orleans Marriott Convention Center	S	M	Tu	W	Th
Research in Chemistry Education	A	A	A	A	A
Strategies Promoting Success of Two-Year College Students	A				
Using Light, Color & Spectroscopy to Increase Student Engagement in the Laboratory	A				
Undergraduate Research Papers	D	D			
Citizens First! **	D				
Chemistry Teachers Day Program ** NFEW	D				
NMR Spectroscopy in the Undergraduate Curriculum	D				
Chemistry Education Research: Graduate Student Research Forum	D				

Division of Chemical Education (continued)		CHED				
C. Gauthier, A. Marsh, N. Snyder, program chairs						
	S	M	Tu	W	Th	
New Orleans Marriott Convention Center Process-Oriented Guided Inquiry Learning (POGIL)	P					
Green Chemistry Student Chapters: Stories of Success	P					
Perspectives on Climate Change Literacy & Education: Local to International **	P					
General Posters	E					
ACS-CEI Award for Incorporating Sustainability into Chemical Education **		A				
International Perspectives of Chemistry Education Teaching & Practice		A				
Active Learning in the General Chemistry Curriculum		D	D			
ACS Award for Achievement in Research for the Teaching & Learning of Chemistry		D				
State-of-the-Art: Two Decades Advancing the 12 Principles of Green Chemistry		D				
Curricular Innovations in Undergraduate Chemical Education Impacted by NSF		D				
General Papers		P	P	P	A	
Undergraduate Research Posters **		P				
US-Cuba Collaborations in Chemical Education		P				
Successful Student Chapters		E				
STRETCH Your Students' Minds by Using Materials To Engineer Ideas about Water, Food & Energy in the Chemistry Classroom NFEW		E				
Sci-Mix		E				
Chemistry Learning & Math Learning: Which Is the Cart & Which Is the Horse?			A			
Advancing Undergraduate Research in Chemistry: Best Practices & New Innovations			D	D		
George C. Pimentel Award in Chemical Education **			D			
GSSPC: Finding Our Place at the Bottom **			D			

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Division of Chemical Education (continued)		CHED				
C. Gauthier, A. Marsh, N. Snyder, program chairs						
	S	M	Tu	W	Th	
New Orleans Marriott Convention Center Green Chemistry Theory & Practice: Food, Energy & Water Sustainability ** NFEW			D			
Statistics & Data Management in the Chemistry Curriculum			P			
Research on Learning in the Laboratory Science Communication: Engaging Science Students, Scientists & Nonscientists through Modern Communication Modes				A		
Fundamentals of Chemistry Outreach Education: From Program Design to Assessment **				D	A	
Persistence in STEM: What Can We Do To Support Students?				D	A	
Engaging Students in Physical Chemistry				D		
There's an App for That!				P		
Eye Tracking Research in Chemistry Education				P		
Chemistry Safety in the Classroom: Best Practices & Learning Experience					A	
Online & Upward: Improving Online Education To Increase Chemistry's Global Reach NFEW					A	
Using Videos in Teaching					A	
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)		D	P			
Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present *(HIST)		P	D			
Integrating Polymer Science in the Curriculum *(POLY)		A	E			
Environmental Chemistry Undergraduate Education in the Classroom, Laboratory & Beyond *(ENVR)		A		E		
Implementing ACS Safety Education Guidelines *(CHAS)		P				
Chemical Information Literacy: Innovation, Collaboration & Assessment *(CINF)				D		
Undergraduate Research in Polymer Science *(POLY)				DE		
Chemistry Students at the Nexus: REU Award Winners *(PROF)				P		
WCC Rising Star Award Symposium *(WCC)				P		

Division of Chemical Health & Safety

CHAS

D. Decker, J. Pickel, program chairs

	S	M	Tu	W	Th
Hilton New Orleans Riverside					
Ask Dr. Safety: Integrating Research & Safety **	P				
Women in Cannabis: Shaping an Emerging Industry **		A			
Implementing ACS Safety Education Guidelines **		P			
Sci-Mix		E			
Water Supply Safety ** NFEW			A		
Formulation of Cannabis Products: More than Just THC & CBD			P		
Heidolph North America's Cannabis Chemistry Subdivision Scholarship Symposium **				D	
Biobased Water Purification System Approaches *(CELL)			A		
Science & Ethics: The Path toward Global Security in Chemicals, Energy, Food & Water *(SCHB)			P		
Evolving Chemical Hazard Evaluation Strategies To Address Compliance under the New Toxic Substances Control Act (TSCA) *(ENVR)			P		
Separation Science & Technology in the Medical Cannabis & Hemp Industry *(I&EC)					A

Division of Chemical Information

CINF

E. Alvaro, R. Bienstock, program chairs

	S	M	Tu	W	Th
New Orleans Marriott Convention Center					
Drug Discovery: Cheminformatics Approaches **	A				
Enhance Discovery: Share Chemical Structures	D				
Fragrances, Food & Cheminformatics NFEW		P			
Community Sharing of Chemical Safety Data: Yes, No, Maybe? **		A			
Workflows & Cheminformatics			D		
Information Legacy of Eugene Garfield: From the Chicken Coop to the World Wide Web **			P		
Sci-Mix			E		
Chemical Information Literacy: Innovation, Collaboration & Assessment **				D	

Division of Chemical Information (continued)

CINF

E. Alvaro, R. Bienstock, program chairs

	S	M	Tu	W	Th
New Orleans Marriott Convention Center					
Cheminformatics Resources & Software Tools Supporting Environmental Chemistry ** NFEW			D		
General Papers				A	
Drug Design *(COMP)	A	D		D	A
Large-Scale Applied Molecular Modeling *(COMP)	D	D			
Marriage of Machine Learning, Knowledge Representation & Chemical Sciences *(COMP)	D	D			
Machine Learning for Catalysis Research *(CATL)	D	D			
Computational Catalyst Design for Energy Conversion & Storage *(COMP)		D	D		
Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation *(COMP)		D	D		
ACS Award for Computers in Chemical & Pharmaceutical Research: Symposium in Honor of Jürgen Bajorath *(COMP)			D		
Structure-Based Drug Design for GPCRs *(COMP)				D	

Division of Chemistry & the Law

CHAL

K. Bianco, J. Kennedy, program chairs

	S	M	Tu	W	Th
Ernest N. Morial Convention Center					
Strengthening Your Patent Rights in Light of Recent Federal Circuit Court Decisions	P				
Issues in Chemical Commercialization **		A			
Update on Patent Eligibility: Are Things Getting Better for Patent Applicants?		P			
Sci-Mix		E			
Legal Issues for Chemical Companies in the Food, Energy & Water Industries *(SCHB)	P				
Evolving Chemical Hazard Evaluation Strategies To Address Compliance under the New Toxic Substances Control Act (TSCA) *(ENVR)			P		
Heidolph North America's Cannabis Chemistry Subdivision Scholarship Symposium *(CHAS)				D	

Division of Colloid & Surface Chemistry

COLL

R. Nagarajan, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Basic Research in Colloids, Surfactants & Nanomaterials	A			D	A
Nanomaterials	D	D	A	A	
Biomembrane Synthesis, Structure, Mechanics & Dynamics	D	D	A	D	A
Colloidal Nanoparticle Synthesis & Assembly	D	D	A	D	A
Chemistry of Molecular Electronics **	D	D	A		
ACS Award in Surface Chemistry: Symposium in Honor of Stacey F. Bent **	D	D	A		
Fundamental Studies of Mechanochemical & Tribochemical Processes at Interfaces	D	D			
Biomaterials & Biointerfaces	D		A	D	A
Nanoparticle Biomolecule Corona: From Fundamentals to Applications	D				
Surface Chemistry	P	D		D	A
Fundamental Research in Colloids, Surfaces & Nanomaterials NFEW	E				
ACS Award in Colloid Chemistry: Symposium in Honor of Håkan Wennerström		D	A		
2018 Priestley Medalist: Symposium in Honor of Geraldine Richmond		D			
Sci-Mix		E			
Solubility of Colloids in Different Solvents			A	A	
Recent Advances in Particulate & Colloid Materials for Biomedical Applications			A	D	A
ACS Award Lectures **			P		
Fundamentals & Applications of Emulsions at Nonstandard Conditions				A	
Sol-Gel in Nanotechnology: Theory, Synthesis, Characterization & Applications				P	
Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski *(GEOC)	D	A		E	
Physical Chemistry of Ionic Liquids *(PHYS)	D	D	A	D	D

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Division of Colloid & Surface Chemistry (continued)

COLL

R. Nagarajan, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Elucidation of Mechanisms & Kinetics on Surfaces *(CATL)	D	D	D	A	D
Polymer Colloids: Synthesis, Analysis, Modeling & Applications *(POLY)	D	D	DE	D	
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
Assembly & Colloidal Interactions of Cellulose Nanocrystals *(CELL)	P	D			
Magnetically Recoverable Catalysts *(CATL)	P	P			
GSSPC: Finding Our Place at the Bottom *(CHED)			D		
Functional Structures from Wood-Based Materials *(CELL)			P	D	D
WCC Rising Star Award Symposium *(WCC)			P		
Adaptive Nanogels *(POLY)			PE	D	D
Biobased Gels & Porous Materials *(CELL)				D	D

Division of Computers in Chemistry

COMP

H. Woodcock, M. Feig, J. Shen, program chairs

New Orleans Marriott Convention Center	S	M	Tu	W	Th
Drug Design **	A	D		D	A
Large-Scale Applied Molecular Modeling **	D	D			
Marriage of Machine Learning, Knowledge Representation & Chemical Sciences **	D	D			
Molecular Mechanics	D			D	A
Computational Studies of Water	D				
Undergraduate Research & COMP Career Roundtable	P				
Computational Catalyst Design for Energy Conversion & Storage ** NFEW		D	D		
Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation ** NFEW		D	D		
Sci-Mix		E			
Molecular Mechanics: Computational Studies of Transmembrane Proteins			A		
ACS Award for Computers in Chemical & Pharmaceutical Research: Symposium in Honor of Jürgen Bajorath **			D		

Division of Computers in Chemistry (continued)
COMP

H. Woodcock, M. Feig, J. Shen, program chairs

New Orleans Marriott Convention Center	S	M	Tu	W	Th
Quantum Mechanics			P	D	A
Chemical Computing Group Graduate Student Travel Awards			E		
COMP Poster Session			E		
NVIDIA GPU Award			E		
OpenEye Outstanding Junior Faculty Award			E		
Wiley Computers in Chemistry Outstanding Postdoc Award			E		
Material Science				D	A
Structure-Based Drug Design for GPCRs **				D	
Drug Discovery: Cheminformatics Approaches *(CINF)	A				
Electrochemical Double Layer: Modeling, Characterization & Catalysis *(CATL)	D	A			
Adventures in Density Functional Theory *(PHYS)	D	D	A	D	D
Quantum Chemical Program Development in a Modern Computer & Programming Environment *(PHYS)	D	D	A	D	
Polymer Colloids: Synthesis, Analysis, Modeling & Applications *(POLY)	D	D	DE	D	
Machine Learning for Catalysis Research *(CATL)	D	D			
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
Carbon Dioxide Conversion & Artificial Photosynthesis *(ENFL)	P	D	D		
Undergraduate Research Posters *(CHED)		P			
Toward Comprehension of Scale-Up & Multiscale Modeling of Catalysts *(CATL)			A	D	
Cheminformatics Resources & Software Tools Supporting Environmental Chemistry *(CINF)			D		

Division of Energy & Fuels
ENFL

J. Liu, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Remediation of Wastewater from Energy Usage NFEW	A				
Innovative Chemistry & Materials for Electrochemical Energy Storage ** NFEW	D	D	D	D	
Bioenergy & Biobased Chemicals ** NFEW	D			D	

Division of Energy & Fuels (continued)
ENFL

J. Liu, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Advanced Analytical Techniques for Determination of Minor & Trace Elements in Petroleum Value Chain	D				
Materials & Processes for Solar Energy Conversion & Utilization NFEW	D				
Natural Gas Catalysis NFEW	D				
Carbon Dioxide Conversion & Artificial Photosynthesis ** NFEW	P	D	D		
Shale Gas Extraction, Conversion & Utilization NFEW	P	D			
ENFL Plenary: Reaction Mechanisms in Novel Energy & Fuel Conversion Systems		A			
Hydrogen Energy: Production, Storage & Application NFEW		D	D	D	
Issues & Challenges Related to Heavy, Light & Shale Oil Production & Processing NFEW		D	D		
Road Map & Policy of Energy & Fuels NFEW		DE	D	DE	
Sci-Mix		E			
Kathryn C. Hach Award for Entrepreneurial Success: Symposium in Honor of Javier García-Martínez			D	D	
ENFL Distinguished Researcher Award: Symposium in Honor of Joe D. Allison NFEW			D		
Chemistry: The Heart of Food, Energy & Water			E		
X-ray & Neutron Scattering in Energy Technologies				D	A
George A. Olah Award in Hydrocarbon or Petroleum Chemistry: Symposium in Honor of Oliver C. Mullins				D	
Alternative & Traditional Energy Resources & Energy Efficiency NFEW					A
Electrochemistry in Fuel Cells & Flexible Fuels NFEW					A
Activation of Light (C1-C 4)	A	D	A		
Hydrocarbons: Theory & Experiments *(CATL)					
Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski *(GEOC)	D	A		E	
Wood-Based Materials for Energy & Water *(CELL)	D	A			
Challenge & Opportunity in Lignin Valorization *(CATL)	D	A			
Electrochemical Double Layer: Modeling, Characterization & Catalysis *(CATL)	D	A			

Division of Energy & Fuels (continued)		E N F L				
J. Liu, program chair						
Ernest N. Morial Convention Center	S	M	Tu	W	Th	
Magnetically Recoverable Catalysts *(CATL)	P	P				
Operando Techniques for Catalytic & Photocatalytic Fuel Conversion Studies *(CATL)			D	P		
Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus *(CELL)			P	D		
Nexus of Food, Energy & Water: Adapting to Future Challenges *(MPPG)			P			
Toward Comprehension of Scale-Up & Multiscale Modeling of Catalysts *(CATL)				A	D	
Catalytic Conversion of Biomass-Derived Molecules to Chemicals & Fuels *(CATL)				D	D	D
R&D in the Chemical Catalysis for Bioenergy Consortium *(CATL)				P	D	
Unconventional Catalysis Targeting Stable Molecules *(CATL)					P	A

Division of Environmental Chemistry		E N V R				
S. Obare, program chair						
Ernest N. Morial Convention Center	S	M	Tu	W	Th	
Agro-Environmental & Energy Applications of Biochar/Hydrochar	D	A			E	
Physics & Chemistry of Water Treatment: Symposium in Honor of Professor Desmond F. Lawler	D	D	A		E	
Novel Membrane-Based Technology for Water Purification & Desalination	D	D			E	
Aquatic Photochemistry	D	D			E	
Antibiotics & Antimicrobial Resistance: Developing Solutions To Address the Connectivity between Air, Food, Water & Soil NFEW	D				E	
Chemistry of Drinking Water Distribution Systems & Infrastructure	D				E	
Advances in the Transformations, Implications & Metrology of Carbonaceous Nanomaterials in the Environment	D					
Environmental Chemistry Undergraduate Education in the Classroom, Laboratory & Beyond **			A		E	
Innovative Chemical & Material Approaches for Sustainable Water Purification **			D	D	AE	

Division of Environmental Chemistry (continued)		E N V R				
S. Obare, program chair						
Ernest N. Morial Convention Center	S	M	Tu	W	Th	
Shaping Activity through Structural Modification: From Small Molecules to Nanoparticles: A Symposium in Honor of Professor Bing Yan		D	D	E		
Ongoing Challenges in the Treatment of Contaminants of Emerging Concern **		P	D	E		
Redox & Interfacial Dynamics among Coupled Biogeochemical Cycles of Fe, S, Minerals & Organic Matter: Implications to Multiscale Behaviors of Contaminants, Carbon & Nutrients **		P	D	E		
Sci-Mix		E				
From Sewage to Sustainable Energy: Potential Pollution Issues from Production & Application Pathways			A	E		
Great Achievements in Environmental Science & Technology			A			
ACS Award Symposium for Creative Advances in Environmental Science & Technology **			P			
Evolving Chemical Hazard Evaluation Strategies To Address Compliance under the New Toxic Substances Control Act (TSCA) **			P			
Science & Its Perception: Climate Change, Nicotine, Pollution & Other Emerging Topics in the Crosshair **			P			
Advances & Applications in Water Sensing Technologies for Drinking Water & Agri-Tech Research					A	
Approaches To Fill Data Gaps for Chemical Sources of Risk					AE	
Advances in Understanding of Sorptive & Reactive Properties of Pyrogenic Carbonaceous Matter (PCM) in the Environment					DE	A
Accurate Mass/High-Resolution Mass Spectrometry for Environmental Monitoring & Remediation					DE	D
Current State of Environmental Contamination Research: Theory & Experiment **					DE	D

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**Division of Environmental
Chemistry (continued)**
ENVR

S. Obare, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Novel Concepts in the Role of Chemistry in the Food, Energy & Water Nexus ** NFEW				DE	
Emerging Environmental Biotechnologies for Energy-Efficient Pollutant Control, Remediation & Resource Recovery **				PE	D
Water-Use Optimization: Water Quality, Reuse & Treatment				PE	D
Contaminants in Water Sources Impacted by FEW Systems: Emerging Challenges & Opportunities NFEW				PE	
Green Chemistry & the Environment **				E	A
General Posters				E	
Nutrient Management & Water/Wastewater Treatment through Biomass Production in Aquatic & Terrestrial Ecosystems					A
Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski *(GEOC)	D	A		E	
Wood-Based Materials for Energy & Water *(CELL)	D	A			
Challenge & Opportunity in Lignin Valorization *(CATL)	D	A			
Elucidation of Mechanisms & Kinetics on Surfaces *(CATL)	D	D	D	A	D
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
Biominalization & Biocompatible Minerals *(GEOC)	D			E	
Multiscale Biogeochemical Processes in Soil Ecosystems: Critical Reactions & Resilience to Climate Changes *(GEOC)	D			E	
2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in Honor of Rafael Luque *(CELL)		A			
ACS-CEI Award for Incorporating Sustainability into Chemical Education *(CHED)		A			
Mineral-Water Interface Geochemistry & Modeling at the Laboratory & Field Scales: Symposium in Honor of James A. Davis *(GEOC)		D	A	E	
Contaminated Site Remediation through Microbial, Geological & Chemical Processes *(GEOC)		D		E	
Lignin: From Fundamentals to New Materials & Applications *(CELL)		P	D	D	D

**Division of Environmental
Chemistry (continued)**
ENVR

S. Obare, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Microbially Driven Geochemical Reactions: Kinetics & Communities *(GEOC)		P	D	E	
Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus *(CELL)		P	D		
Undergraduate Research Posters *(CHED)		P			
Nexus of Food, Energy & Water: Adapting to Future Challenges *(MPPG)		P			
2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in Honor of Ning Yan *(CELL)			A		
Biobased Water Purification System Approaches *(CELL)			A		
Water Supply Safety *(CHAS)			A		
Catalytic Conversion of Biomass-Derived Molecules to Chemicals & Fuels *(CATL)			D	D	D
Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in Situ & Operando Methods *(CATL)			D	D	
Cheminformatics Resources & Software Tools Supporting Environmental Chemistry *(CINF)			D		
GSSPC: Finding Our Place at the Bottom *(CHED)			D		
Impacts of Mining & Hydraulic Fracturing on Crop & Livestock Production *(GEOC)			D		
Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems *(CELL)			P	D	D
R&D in the Chemical Catalysis for Bioenergy Consortium *(CATL)			P	D	
Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments *(GEOC)			P	DE	D
Manganese Oxides: Their Formation, Structure, Reactivity & Applications *(GEOC)				DE	D
Unconventional Catalysis Targeting Stable Molecules *(CATL)				P	A
Forensic Geochemistry *(GEOC)				PE	
Theoretical & Experimental Studies of Supercritical Fluids in the Subsurface *(GEOC)				E	D

Division of Fluorine Chemistry

FLUO

N. Vasdev, program chair

Embassy Suites	S	M	Tu	W	Th
ACS Award for Creative Work in Fluorine Chemistry: Symposium in Honor of Erhard Kemnitz	D	D	D		
Sci-Mix		E			
Radiopharmaceutical Chemistry **			E	D	D

Division of Geochemistry

GEOC

W. Burgos, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski ** NFEW	D	A		E	
Biom mineralization & Biocompatible Minerals **	D			E	
Multiscale Biogeochemical Processes in Soil Ecosystems: Critical Reactions & Resilience to Climate Changes ** NFEW	D			E	
Mineral-Water Interface Geochemistry & Modeling at the Laboratory & Field Scales: Symposium in Honor of James A. Davis ** NFEW		D	A	E	
Contaminated Site Remediation through Microbial, Geological & Chemical Processes **		D		E	
Microbially Driven Geochemical Reactions: Kinetics & Communities **		P	D	E	
Impacts of Mining & Hydraulic Fracturing on Crop & Livestock Production ** NFEW			D		
Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments ** NFEW			P	DE	D
Manganese Oxides: Their Formation, Structure, Reactivity & Applications **				DE	D
Forensic Geochemistry **				PE	
Theoretical & Experimental Studies of Supercritical Fluids in the Subsurface **				E	D
General Geochemistry NFEW				E	

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Division of Geochemistry (continued)

GEOC

W. Burgos, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Energy, Water & Food Production *(AGFD)	D				
Carbon Dioxide Conversion & Artificial Photosynthesis *(ENFL)	P	D	D		
Redox & Interfacial Dynamics among Coupled Biogeochemical Cycles of Fe, S, Minerals & Organic Matter: Implications to Multiscale Behaviors of Contaminants, Carbon & Nutrients *(ENVR)		P	D	E	
Undergraduate Research Posters *(CHED)		P			

Division of the History of Chemistry

HIST

N. Tsarevsky, program chair

Hilton New Orleans Riverside	S	M	Tu	W	Th
Tutorial & General Papers	A			A	
Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present ** NFEW	P	D			
Sci-Mix		E			
HIST Award Symposium Honoring Jeffrey I. Seeman			D		
Information Legacy of Eugene Garfield: From the Chicken Coop to the World Wide Web *(CINF)		P			
Tales of Chemistry & Cocktails *(YCC)		P			

Division of Industrial & Engineering Chemistry

I & EC

C. Abney, program chair

Loews New Orleans	S	M	Tu	W	Th
ACS Award in Separations Science & Technology: Symposium in Honor of Massimo Morbidelli	A				
E. V. Murphree Award in Industrial & Engineering Chemistry: Symposium in Honor of Linda J. Broadbelt **	D	A			
I&EC Fellow: Symposium in Honor of Yong Wang	D				
I&EC International Fellow: Symposium in Honor of Shahidah Mohd Shariff	P				
I&EC Early Career Fellow: Symposium in Honor of Beata Kilos		D	D		

Division of Industrial & Engineering Chemistry (continued)
I & E C

C. Abney, program chair

Loews New Orleans	S	M	Tu	W	Th
2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in Honor of Fengqi You **		P			
Sci-Mix		E			
I&EC Fellow: Symposium in Honor of Dave Mackowiak: ACTP			A		
Water Purification for a Sustainable Future NFEW			P		
General Posters			E		
General Papers				A	
Inaugural Joint Symposium of the Separation Science Subdivisions **				D	
ACS Pharma Roundtable: Innovative Green Processing Technology & Chemistry				D	
Celebrating over Four Decades of Research in Nanomaterials & Commercialization: Symposium in Honor of Kenneth Klabunde **				P	D
Separation Science & Technology in the Medical Cannabis & Hemp Industry **					A
Polymer Colloids: Synthesis, Analysis, Modeling & Applications *(POLY)	D	D	DE	D	
2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in Honor of Rafael Luque *(CELL)		A			
Industrial Innovations in Polymer Science *(POLY)		D			
2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in Honor of Ning Yan *(CELL)			A		

Division of Inorganic Chemistry
I N O R

S. Koch, N. Radu, program chairs

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Bioinorganic Chemistry	A		AE	A	P
Coordination Chemistry	A	P	DE	P	D
Metal-Organic Frameworks: What Are Next?	D	P	DE	A	
Chemistry of Materials	D		DE	D	D
Synthetic Chemistry Addressing Challenges in Energy & the Environment **	D				

Division of Inorganic Chemistry (continued)
I N O R

S. Koch, N. Radu, program chairs

Ernest N. Morial Convention Center	S	M	Tu	W	Th
ACS Award in Pure Chemistry: Symposium in Honor of Mircea Dincă	DE	P	A		
Nitrogen Unfixation: Mechanisms & Models of Nitrification/Denitrification Reactions	DE	P			
Undergraduate Research at the Frontiers of Inorganic Chemistry	DE	P			
ACS Award in Organometallic Chemistry: Symposium in Honor of Clifford P. Kubiak	DE	P			
ACS Award in Inorganic Chemistry: Symposium in Honor of James Moers Mayer	DE	P			
Alfred Bader Award in Bioinorganic or Bioorganic Chemistry: Symposium in Honor of Alison Butler **	DE	P			
Organometallic Chemistry	P	P	PE	D	D
Environmental & Energy-Related Inorganic Chemistry	PE				A
Inorganic Catalysts	E	P			A
F. Albert Cotton Award in Synthetic Inorganic Chemistry: Symposium in Honor of Andrew S. Borovik	E		D	D	
Harry Gray Award for Creative Work in Inorganic Chemistry by a Young Investigator: Symposium in Honor of Dwight S. Seferos	E		D		
ACS Award for Distinguished Service in the Advancement of Inorganic Chemistry: Symposium in Honor of Thomas B. Rauchfuss NFEW	E		D		
Inorganic Spectroscopy	E		P		
Main Group Chemistry	E			P	A
Electrochemistry	E			P	
ACS Awards in Inorganic Chemistry: Plenary Session		A			
Lanthanide & Actinide Chemistry		P	E	P	A
Sci-Mix		E			
Solid-State Inorganic Chemistry			AE		A
Molecular Confinement Effects in Inorganic & Organic Containers			DE	A	
PCET Photocatalysis with Inorganic Molecules & Materials **			DE	D	
Inorganic Chemistry of Lead Halide Perovskites: Insights from Fundamentals			PE	D	
Nanoscience			E		D
Activation of Light (C1-C 4)	A	D	A		
Hydrocarbons: Theory & Experiments *(CATL)					

**Division of Inorganic Chemistry
(continued)**
I N O R

S. Koch, N. Radu, program chairs

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski *(GEOC)	D	A		E	
Challenge & Opportunity in Lignin Valorization *(CATL)	D	A			
Innovative Chemistry & Materials for Electrochemical Energy Storage *(ENFL)	D	D	D	D	
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
Control of Zeolite Structure, Composition & Sites for Catalysis *(CATL)	D				D
Actinide Complexes & Nanoclusters *(NUCL)	P	D	A		
Magnetically Recoverable Catalysts *(CATL)	P	P			
Homogeneous Catalysis for Applied Organic Synthesis *(CATL)		P	D		
Undergraduate Research Posters *(CHED)		P			
Catalytic Conversion of Biomass-Derived Molecules to Chemicals & Fuels *(CATL)			D	D	D
Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in Situ & Operando Methods *(CATL)			D	D	
GSSPC: Finding Our Place at the Bottom *(CHED)			D		
R&D in the Chemical Catalysis for Bioenergy Consortium *(CATL)			P	D	
Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments *(GEOC)			P	DE	D
WCC Rising Star Award Symposium *(WCC)			P		
Radiopharmaceutical Chemistry *(FLUO)			E	D	D
Unconventional Catalysis Targeting Stable Molecules *(CATL)				P	A
Celebrating over Four Decades of Research in Nanomaterials & Commercialization: Symposium in Honor of Kenneth Klabunde *(I&EC)				P	D
Theoretical & Experimental Studies of Supercritical Fluids in the Subsurface *(GEOC)				E	D

Division of Medicinal Chemistry
M E D I

A. Stamford, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Leveraging Atropisomers in Medicinal Chemistry	A				
General Orals	D		A	P	
Medicinal Chemists' Toolbox Series: Dipole & Charge in Drug Design	P				
General Posters	E			E	
Emerging Therapeutics: Gasotransmitters		A			
Impact of Small-Molecule Breakthrough Therapies on Human Health		A			
Recent Advances in the Discovery of Deubiquitinase Inhibitors		A			
2018 MEDI Young Investigators Symposium		P			
Advancing Clinical Candidates from Phenotypic Screening		P			
Identifying Selective PI 3K Inhibitors		P			
Sci-Mix		E			
Eyeing Effective Treatment for Retinal Diseases with Small Molecules			A		
Remarkable Women of Medicinal Chemistry **			A		
Boron in Medicinal Chemistry & Chemical Biology			P		
MEDI Awards Symposium			P		
Discovery of Small Molecules Targeting RNA: Where Are We & Where Are We Going? **				A	
First Time Disclosure of Clinical Candidates				D	
Large-Scale Applied Molecular Modeling *(COMP)	D	D			
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation *(COMP)		D	D		
International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers *(POLY)		D	DE		

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**Division of Medicinal Chemistry
(continued)**
M E D I

A. Stamford, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Advances in Molecular Recognition of Double-Helical DNA & RNA *(CARB)		P	A		
Undergraduate Research Posters *(CHED)		P			
ACS Award for Computers in Chemical & Pharmaceutical Research: Symposium in Honor of Jürgen Bajorath *(COMP)			D		
Discovery of Small Molecules Targeting RNA *(ORGN)			P		
Elias J. Corey Award for Outstanding Original Contribution in Organic Synthesis by a Young Investigator: Symposium in Honor of Seth B. Herzon *(ORGN)			P		
Radiopharmaceutical Chemistry *(FLUO)			E	D	D
Structure-Based Drug Design for GPCRs *(COMP)				D	

Division of Nuclear Chemistry & Technology
NUCL

A. Hixon, program chair

Embassy Suites	S	M	Tu	W	Th
Isotope Harvesting at Accelerator Facilities	A				
Actinide Complexes & Nanoclusters **	P	D	A		
Young Investigators in Nuclear & Radiochemistry		D			
Glenn T. Seaborg Award for Nuclear Chemistry: Symposium in Honor of Suresh C. Srivastava			P	A	
General Topics in Nuclear Chemistry & Technology				PE	
Computational Methods for Lanthanides & Actinides: Theory & Applications				E	D
Radiopharmaceutical Chemistry *(FLUO)			E	D	D

Division of Organic Chemistry
ORGN

R. Broene, S. Silverman, program chairs

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Earle B. Barnes Award for Leadership in Chemical Research Management: Symposium in Honor of Margaret M. Faul **	A				

**Division of Organic Chemistry
(continued)**
ORGN

R. Broene, S. Silverman, program chairs

Ernest N. Morial Convention Center	S	M	Tu	W	Th
New Reactions & Methodology	D	A	A	D	
Biologically Related Molecules & Processes	D	A	E		
Frontiers in Synthetic Organic Photochemistry	D				
Asymmetric Reactions & Syntheses	DE	A			
Metal-Mediated Reactions & Syntheses	DE				
Herbert C. Brown Award for Creative Research in Synthetic Methods: Symposium in Honor of Gregory C. Fu	P				
Photoredox Chemistry	E		D		
C-H Activation	E			D	
Successful Products & Models of Undergraduate-Based Research: Good Science, Better Scientists		A			
Materials, Devices & Switches		D	E		
Twenty Years of Organo- & Photoredox Catalysis		D			
Molecular Recognition & Self-Assembly		P	DE		
ACS Award for Affordable Green Chemistry: Symposium in Honor of B. Frank Gupton & D. Tyler McQuade		P			
At the Frontier of Stereoselective Alkene Halofunctionalization		P			
James Flack Norris Award in Physical Organic Chemistry: Symposium in Honor of Cynthia J. Burrows **		P			
Sci-Mix		E			
Complex Synthetic Chemistry with Simple Starting Materials			A		
Josef Michl ACS Award in Photochemistry: Symposium in Honor of Jack Saltiel			A		
Heterocycles & Aromatics			D	AE	
Discovery of Small Molecules Targeting RNA **			P		
Elias J. Corey Award for Outstanding Original Contribution in Organic Synthesis by a Young Investigator: Symposium in Honor of Seth B. Herzon **			P		
Physical Organic Chemistry: Calculations, Mechanisms, Photochemistry & High-Energy Species			PE		
Flow Chemistry & Continuous Processes			E	P	
Chemistry of Fullerenes, Carbon Nanotubes & Graphene			E		
Nanomaterials			E		

**Division of Organic Chemistry
(continued)**
ORGN

R. Broene, S. Silverman, program chairs

Ernest N. Morial Convention Center	S	M	Tu	W	Th
ACS Award for Creative Work in Synthetic Organic Chemistry: Symposium in Honor of Brian M. Stoltz				A	
National Fresenius Award: Symposium in Honor of Thomas J. Maimone				A	
Total Synthesis of Complex Molecules				DE	
Ernest Guenther Award in the Chemistry of Natural Products: Symposium in Honor of David R. Williams				P	
Peptides, Proteins & Amino Acids				PE	
New Reactions & Methodology				E	
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
General Posters *(MEDI)	E			E	
Advances in Molecular Recognition of Double-Helical DNA & RNA *(CARB)		P	A		
Homogeneous Catalysis for Applied Organic Synthesis *(CATL)		P	D		
ACS Award for Encouraging Women in the Chemical Sciences *(WCC)			A		
Recent Advances in Catalytic Carbohydrate Reaction Development *(CARB)			D	A	
Discovery of Small Molecules Targeting RNA: Where Are We & Where Are We Going? *(MEDI)				A	

Division of Physical Chemistry
PHYS

M. Duncan, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Chirality from Molecules to Materials NFEW	D	D	A	D	A
Adventures in Density Functional Theory ** NFEW	D	D	A	D	D
Physical Chemistry of Ionic Liquids ** NFEW	D	D	A	D	D
Energy & Charge Transfer at Nanoscale Interfaces NFEW	D	D	A	D	
Quantum Chemical Program Development in a Modern Computer & Programming Environment ** NFEW	D	D	A	D	
Cold Molecules for Chemistry NFEW	D	D	A		
Quantum Chemistry, Dynamics & Reaction Modeling for Molecules & Materials in Astrophysical Environments NFEW	P	D	A	D	A

**Division of Physical Chemistry
(continued)**
PHYS

M. Duncan, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Sci-Mix		E			
PHYS Awards Symposium			P		
Understanding the Complexity of the Nano/Bio Interface with Experiments & Computations NFEW				D	D
PHYS Poster Session				E	
Activation of Light (C1-C 4) Hydrocarbons: Theory & Experiments *(CATL)	A	D	A		
Challenge & Opportunity in Lignin Valorization *(CATL)	D	A			
Electrochemical Double Layer: Modeling, Characterization & Catalysis *(CATL)	D	A			
Chemistry of Molecular Electronics *(COLL)	D	D	A		
Elucidation of Mechanisms & Kinetics on Surfaces *(CATL)	D	D	D	A	D
Marriage of Machine Learning, Knowledge Representation & Chemical Sciences *(COMP)	D	D			
Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials *(POLY)	D	P	E		
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation *(COMP)		D	D		
Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in Situ & Operando Methods *(CATL)			D	D	
GSSPC: Finding Our Place at the Bottom *(CHED)			D		
Dreyfus Prize Symposium *(MPPG)			D		
Polymer Networks: Soft Gels to Stiff Networks *(POLY)			DE	A	D
PCET Photocatalysis with Inorganic Molecules & Materials *(INOR)			DE	D	
Young Chemists & Water *(YCC)			P		
Unconventional Catalysis Targeting Stable Molecules *(CATL)				P	A

Division of Polymer Chemistry

P O L Y

T. Epps, B. Helms, C. Lipscomb, program chairs

New Orleans Marriott Canal Street	S	M	Tu	W	Th
Structure & Dynamics of Materials via NMR Spectroscopy	D	D	DE	D	D
Polymer Colloids: Synthesis, Analysis, Modeling & Applications **	D	D	DE	D	
Photochemistry & Polymers	D	D	E	D	D
Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials **	D	P	E		
General Topics: New Synthesis & Characterization of Polymers	D		DE	A	P
Polymer Applications & Characterization in Medical Device & Pharmaceutical Industries **	D		E		
International Symposium on Biorelated Polymers: Tutorial **	D				
Integrating Polymer Science in the Curriculum **		A	E		
Excellence in Graduate Polymer Research **		D	DE		
International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers **		D	DE		
Industrial Innovations in Polymer Science **		D			
Sci-Mix		E			
Nobel Laureate Signature Award for Graduate Education in Chemistry: Symposium in Honor of Aleksandr Zhukhovitskiy & Jeremiah A. Johnson			A		
Polymer Networks: Soft Gels to Stiff Networks **			DE	A	D
Undergraduate Research in Polymer Science **			DE		
Adaptive Nanogels **			PE	D	D
International Symposium on Biorelated Polymers: Renewable Materials ** NFEW			E	D	D
Polymer Optoelectronics			E	D	D
Paul J. Flory Polymer Education Award: Symposium in Honor of Timothy P. Lodge				P	
POLY/PMSE Plenary & Awards Event **				E	
Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation—Anselme Payen Award Symposium in Honor of Junji Sugiyama *(CELL)	D	D	D		
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
ACS Award in Applied Polymer Science: Symposium in Honor of Paula T. Hammond *(PMSE)	D				

Division of Polymer Chemistry (continued)

P O L Y

T. Epps, B. Helms, C. Lipscomb, program chairs

New Orleans Marriott Canal Street	S	M	Tu	W	Th
Cyclic & Topologically Complex Polymers *(PMSE)	P	D	D	D	A
ACS Award in Polymer Chemistry: Symposium in Honor of C. Grant Willson *(PMSE)		D			
Lignin: From Fundamentals to New Materials & Applications *(CELL)		P	D	D	D
Undergraduate Research Posters *(CHED)		P			
Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems *(CELL)			P	D	D
Joint PMSE-POLY Poster Session *(PMSE)			E		

Division of Polymeric Materials Science & Engineering

P M S E

M. Becker, X. Jia, A. Norman, B. Olsen, C. Snyder,
program chairs

New Orleans Marriott Canal Street	S	M	Tu	W	Th
General Papers: New Concepts in Polymeric Materials	A			D	A
Clay-Polymer Composites: Nanoclays & Other Natural Nanoparticles	D	D	A		
PMSE-North American Membrane Society (NAMS) Joint Symposium on Surface Science of Membranes for Advanced Separations **	D	D	A		
Polymers with Complex Architecture: From Synthesis to Self-Assembly	D	D	D	A	
Supramolecular Cross-Link Dynamics & Polymer Materials Mechanics	D				
Synergy between Computation & Experiment in Accelerated Materials Discovery	D				
ACS Award in Applied Polymer Science: Symposium in Honor of Paula T. Hammond **	D				

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**Division of Polymeric Materials
Science & Engineering
(continued)**
P M S E

 M. Becker, X. Jia, A. Norman, B. Olsen, C. Snyder,
program chairs

New Orleans Marriott Canal Street	S	M	Tu	W	Th
Cyclic & Topologically Complex Polymers **	P	D	D	D	A
Third International Symposium on Polybenzoxazines: Toward Diamond Jubilee of Benzoxazine Chemistry		D	D	D	
Advances in Macromolecular Science & Engineering: Symposium in Honor of David Schiraldi		D			
ACS Award in Polymer Chemistry: Symposium in Honor of C. Grant Willson **		D			
Sci-Mix		E			
Symposium for Pan-American Science			D	A	
ACS Award in the Chemistry of Materials: Symposium in Honor of Elsa Reichmanis **			D	D	
Additive Manufacturing of Structures & Functional Devices: Materials, Methods, Models & Testing			P	D	A
Cooperative Research Award: Symposium in Honor of D. Bruce Chase & John F. Rabolt			P		
Joint PMSE-POLY Poster Session **			E		
Innovative Chemistry & Materials for Electrochemical Energy Storage *(ENFL)	D	D	D	D	
Polymer Colloids: Synthesis, Analysis, Modeling & Applications *(POLY)	D	D	DE	D	
Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials *(POLY)	D	P	E		
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
Polymer Applications & Characterization in Medical Device & Pharmaceutical Industries *(POLY)	D		E		
International Symposium on Biorelated Polymers: Tutorial *(POLY)	D				
Integrating Polymer Science in the Curriculum *(POLY)		A	E		
International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers *(POLY)		D	DE		
Undergraduate Research Posters *(CHED)		P			
GSSPC: Finding Our Place at the Bottom *(CHED)			D		

**Division of Polymeric Materials
Science & Engineering
(continued)**
P M S E

 M. Becker, X. Jia, A. Norman, B. Olsen, C. Snyder,
program chairs

New Orleans Marriott Canal Street	S	M	Tu	W	Th
Polymer Networks: Soft Gels to Stiff Networks *(POLY)			DE	A	D
Undergraduate Research in Polymer Science *(POLY)			DE		
International Symposium on Biorelated Polymers: Renewable Materials *(POLY)			E	D	D
Biobased Gels & Porous Materials *(CELL)				D	D
POLY-PMSE Plenary & Awards Event *(POLY)				E	

**Division of Professional
Relations**
P R O F

R. Libby, program chair

Hilton New Orleans Riverside	S	M	Tu	W	Th
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium **	D	P			
The Bond between Science & Disability: Forging New Capabilities for Inclusion		A			
Sci-Mix		E			
Ethics in Industry Collaborations That Work **			A		
Chemistry Students at the Nexus: REU Award Winners **			P		
Legal Issues for Chemical Companies in the Food, Energy & Water Industries *(SCHB)	P				
Starting a Successful Research Program at a PUI *(YCC)	P				
Chemical Angel Network (CAN): Chemists Investing in Chemistry-Based Companies *(BMGT)	P				
Entrepreneurs' Poster Session *(SCHB)	E				
How To Foster Diversity in the Chemical Sciences *(CMA)		A			
Public Policy in Food, Energy & Water Issues *(SCHB)		A			
Excellence in Graduate Polymer Research *(POLY)		D	DE		
Science of Sexual Harassment *(WCC)		D			
Thriving in the Workplace: Nontechnical Skills That Boost Your Value *(BMGT)		P			
Senior Chemists' Career Stories *(SCHB)		P			

Division of Professional Relations (continued)

PROF

R. Libby, program chair

Hilton New Orleans Riverside	S	M	Tu	W	Th
Remarkable Women of Medicinal Chemistry *(MEDI)			A		
Chemists & Writing for Fun & Profit: Write Your Own Career *(SCHB)			A		
ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences: Symposium in Honor of Jani C. Ingram *(ANYI)			A		
ACS Award for Encouraging Women into Careers in the Chemical Sciences *(WCC)			A		
Science & Ethics: The Path toward Global Security in Chemicals, Energy, Food & Water *(SCHB)			P		
WCC Rising Star Award Symposium *(WCC)			P		

Division of Small Chemical Businesses

SCHB

J. Sabol, program chair

Hilton New Orleans Riverside	S	M	Tu	W	Th
Legal Issues for Chemical Companies in the Food, Energy & Water Industries ** NFEW	P				
Entrepreneurs' Poster Session **	E				
Public Policy in Food, Energy & Water Issues ** NFEW		A			
Senior Chemists' Career Stories **		P			
Sci-Mix		E			
Chemists & Writing for Fun & Profit: Write Your Own Career **			A		
Science & Ethics: The Path toward Global Security in Chemicals, Energy, Food & Water ** NFEW			P		
Chemical Angel Network (CAN): Chemists Investing in Chemistry-Based Companies *(BMGT)	P				
Women in Cannabis: Shaping an Emerging Industry *(CHAS)		A			
Thriving in the Workplace: Nontechnical Skills That Boost Your Value *(BMGT)		P			
Ethics in Industry Collaborations That Work *(PROF)			A		
Heidolph North America's Cannabis Chemistry Subdivision Scholarship Symposium *(CHAS)				D	

Committee on Chemical Safety

CCS

R. Stuart, program chair

Located with Primary Sponsor	S	M	Tu	W	Th
Ask Dr. Safety: Integrating Research & Safety *(CHAS)	P				
Implementing ACS Safety Education Guidelines *(CHAS)		P			
Water Supply Safety *(CHAS)			A		

Committee on Chemists with Disabilities

CWD

L. Hoffman, program chair

Located with Primary Sponsor	S	M	Tu	W	Th
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			

Committee on Community Activities

CCA

M. McGinnis, program chair

Located with Primary Sponsor	S	M	Tu	W	Th
Fundamentals of Chemistry Outreach Education: From Program Design to Assessment *(CHED)				D	A

Committee on Divisional Activities

DAC

R. Bennett, program chair

Located with Primary Sponsor	S	M	Tu	W	Th
PMSE-North American Membrane Society (NAMS) Joint Symposium on Surface Science of Membranes for Advanced Separations *(PMSE)	D	D	A		
Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present *(HIST)	P	D			

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Committee on Environmental Improvement

C E I

C. Middlecamp, program chair

Located with Primary Sponsor	S	M	Tu	W	Th
Citizens First! *(CHED)	D				
Perspectives on Climate Change Literacy & Education: Local to International *(CHED)	P				
ACS-CEI Award for Incorporating Sustainability into Chemical Education *(CHED)		A			
Innovative Chemical & Material Approaches for Sustainable Water Purification *(ENVR)		D	D	AE	
Ongoing Challenges in the Treatment of Contaminants of Emerging Concern *(ENVR)		P	D	E	
Undergraduate Research Posters *(CHED)		P			
Green Chemistry Theory & Practice: Food, Energy & Water Sustainability *(CHED)			D		
Science & Its Perception: Climate Change, Nicotine, Pollution & Other Emerging Topics in the Crosshair *(ENVR)			P		
Current State of Environmental Contamination Research: Theory & Experiment *(ENVR)				DE	D
Emerging Environmental Biotechnologies for Energy-Efficient Pollutant Control, Remediation & Resource Recovery *(ENVR)				PE	D
Green Chemistry & the Environment *(ENVR)				E	A

Committee on Local Section Activities

L S A C

J. Ritchie, program chair

Located with Primary Sponsor	S	M	Tu	W	Th
Fundamentals of Chemistry Outreach Education: From Program Design to Assessment *(CHED)				D	A

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Committee on Minority Affairs

C M A

J. Sarquis, program chair

Hilton New Orleans Riverside	S	M	Tu	W	Th
How To Foster Diversity in the Chemical Sciences **		A			
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			

Committee on Science

COMSCI

M. Fisher, program chair

Located with Primary Sponsor	S	M	Tu	W	Th
Science & Ethics: The Path toward Global Security in Chemicals, Energy, Food & Water *(SCHB)			P		

Senior Chemists Committee

S C C

T. Beattie, program chair

Located with Primary Sponsor	S	M	Tu	W	Th
Senior Chemists' Career Stories *(SCHB)		P			

Society Committee on Education

SOCED

N. Bastian, program chair

Ernest N. Morial Convention Center	S	M	Tu	W	Th
Eminent Scientist Lecture with Dr. Mary Jo Ondrechen		P			
Chemistry Teachers Day Program *(CHED)	D				
Excellence in Graduate Polymer Research *(POLY)		D	DE		
Undergraduate Research Posters *(CHED)		P			
Polymer Networks: Soft Gels to Stiff Networks *(POLY)			DE	A	D
Fundamentals of Chemistry Outreach Education: From Program Design to Assessment *(CHED)				D	A

Committee on Technician Affairs

C T A

C. Libby, program chair

Located with Primary Sponsor	S	M	Tu	W	Th
Water Supply Safety *(CHAS)			A		

Women Chemists Committee

W C C

R. Cole, program chair

Hilton New Orleans Riverside	S	M	Tu	W	Th
Science of Sexual Harassment **		D			
ACS Award for Encouraging Women into Careers in the Chemical Sciences **			A		
WCC Rising Star Award Symposium **			P		
General Papers: New Concepts in Polymeric Materials *(PMSE)	A			D	A
Earle B. Barnes Award for Leadership in Chemical Research Management: Symposium in Honor of Margaret M. Faul *(ORGN)	A				
E. V. Murphree Award in Industrial & Engineering Chemistry: Symposium in Honor of Linda J. Broadbelt *(I&EC)	D	A			
ACS Award in Surface Chemistry: Symposium in Honor of Stacey F. Bent *(COLL)	D	D	A		
Upstream Processes *(BIOT)	D	D	D	D	D
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
Synthetic Chemistry Addressing Challenges in Energy & the Environment *(INOR)	D				
ACS Award in Applied Polymer Science: Symposium in Honor of Paula T. Hammond *(PMSE)	D				
Alfred Bader Award in Bioinorganic or Bioorganic Chemistry: Symposium in Honor of Alison Butler *(INOR)	DE	P			
Ralph F. Hirschmann Award in Peptide Chemistry: Symposium in Honor of Lila M. Gierasch *(BIOL)		A			
Women in Cannabis: Shaping an Emerging Industry *(CHAS)		A			
How To Foster Diversity in the Chemical Sciences *(CMA)		A			
Thriving in the Workplace: Nontechnical Skills That Boost Your Value *(BMGT)		P			
James Flack Norris Award in Physical Organic Chemistry: Symposium in Honor of Cynthia J. Burrows *(ORGN)		P			

Women Chemists Committee (continued)

W C C

R. Cole, program chair

Hilton New Orleans Riverside	S	M	Tu	W	Th
Remarkable Women of Medicinal Chemistry *(MEDI)			A		
ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences: Symposium in Honor of Jani C. Ingram *(ANYL)			A		
ACS Award in the Chemistry of Materials: Symposium in Honor of Elsa Reichmanis *(PMSE)			D	D	
George C. Pimentel Award in Chemical Education *(CHED)			D		
ACS Award Symposium for Creative Advances in Environmental Science & Technology *(ENVR)			P		

Younger Chemists Committee

Y C C

D. Williams, M. Brann, K. Heroux, program chairs

Hilton New Orleans Riverside	S	M	Tu	W	Th
Starting a Successful Research Program at a PUI **	P				
Molecules That Changed the World		A			
Tales of Chemistry & Cocktails ** NFEW		P			
Young Chemists & Water ** NFEW			P		
LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium *(PROF)	D	P			
Excellence in Graduate Polymer Research *(POLY)		D	DE		
Science of Sexual Harassment *(WCC)		D			
Thriving in the Workplace: Nontechnical Skills That Boost Your Value *(BMGT)		P			
Fundamentals of Chemistry Outreach Education: From Program Design to Assessment *(CHED)				D	A

PRES

PRESIDENTIAL EVENTS

P. Dorhout, Program Chair

SUNDAY MORNING

Section A

Hilton New Orleans Riverside
Grand Salon B Sec 9/12

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

P.K. Dorhout, Organizer, Presiding

8:30 Introductory Remarks.

8:40 PRES 1. Global water resources: Meeting the demands of an increasing population. **E. Tratras Contis**

9:10 PRES 2. Reaching millions with clean water. **G. Allgood**

9:40 PRES 3. Meeting future water needs: Addressing the challenges of water quality and availability. **D.D. Reible**

10:10 PRES 4. Materials for water contaminant removal: Understanding chemistry to meet the challenges of cost, performance efficacy and lifetime. M. Abolhassani, **L.F. Greenlee**, S. Foster, C.S. Griggs, A.M. Herring, I. Ike, M. Duke

10:40 Concluding Remarks.

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

SUNDAY AFTERNOON

Section A

Hilton New Orleans Riverside
Grand Salon B Sec 9/12

Science Cafes & Engaging the Public: Techniques for Hosting Successful Events

Cosponsored by CATL, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, I&EC, INOR, MPPG, SCHB and YCC
P.J. Bonk, J.L. Maclachlan, Organizers, Presiding

1:30 Introductory Remarks.s

1:40 PRES 5. 7 years and counting: How the Cape Cod Science Cafe has evolved into a sustainable outreach mechanism for NESACS and Southeastern Massachusetts. **J.L. Maclachlan**, J.N. Driscoll

2:10 PRES 6. A decade of science cafes (and their higher-proof cousin). **S.P. Hickey**, **S.C. Dimaggio**

2:40 PRES 7. Pushing the envelope: Discussing charged topics at science cafes. **P.J. Bonk**

3:10 PRES 8. From science cafes at the Discovery Center, to a state-

wide Tennessee STEAM Festival. **P.J. MacDougall**, **T.A. MacDougall**

3:40 PRES 9. "Brewing Chemistry" in Detroit: Maintaining a long running Science Café. **M.N. Murray**

4:10 Panel Discussion.
5:10 Concluding Remarks.

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC[†], MPPG[†] and PRES[†]

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Nexus of Food, Energy, & Water Opening Session

Sponsored by MPPG, Cosponsored by PRES

MONDAY MORNING

Community Sharing of Chemical Safety Data: Yes, No, Maybe?

Sponsored by CINF, Cosponsored by CHAS, CA and PRES[†]

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC[†], MPPG[†] and PRES[†]

Science of Sexual Harassment The Psychology & Sociology of Sexual Harassment

Sponsored by WCC, Cosponsored by PRES, PROF and YCC[†]

Excellence in Graduate Polymer Research

Polymerization Techniques

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

State-of-the-Art: Two Decades Advancing the 12 Principles of Green Chemistry

Sponsored by CHED, Cosponsored by PRES

MONDAY AFTERNOON

Science of Sexual Harassment

Working to Stop Harassment in Departments & at Meetings

Sponsored by WCC, Cosponsored by PRES, PROF and YCC[†]

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC[†], MPPG[†] and PRES[†]

Information Legacy of Eugene Garfield: From the Chicken Coop to the World Wide Web

Sponsored by CINF, Cosponsored by HIST and PRES

The Fred Kavli Innovations in Chemistry Lecture

Sponsored by MPPG, Cosponsored by PRES[†]

State-of-the-Art: Two Decades Advancing the 12 Principles of Green Chemistry

Sponsored by CHED, Cosponsored by PRES

Excellence in Graduate Polymer Research

Synthesis & New Materials

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

MONDAY EVENING

The Kavli Foundation Emerging Leader in Chemistry Lecture

Sponsored by MPPG, Cosponsored by PRES

TUESDAY MORNING

GSSPC: Finding Our Place at the Bottom

Symposium in honor of Richard Feynman

Sponsored by CHED, Cosponsored by ANYL[†], COLL[†], ENVR[†], INOR, PMSE[†] and PRES[†]

Excellence in Graduate Polymer Research

Bio-Related Polymers

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

TUESDAY AFTERNOON

GSSPC: Finding Our Place at the Bottom

Symposium in honor of Richard Feynman

Sponsored by CHED, Cosponsored by ANYL[†], COLL[†], INOR, PHYS[†], PMSE[†] and PRES[†]

Excellence in Graduate Polymer Research

New Products & Characterization

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

TUESDAY EVENING

Excellence in Graduate Polymer Research

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

MPPG

Multidisciplinary Program Planning Group

J. Schnoor, Program Chair

SUNDAY MORNING

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC,

INOR, MPPG, SCHB and YCC

Challenges in Determining Arsenic Compounds in Rice

Sponsored by ANYL, Cosponsored by MPPG[†]

Energy, Water & Food Production

Sponsored by AGFD, Cosponsored by CELL, GEOC and MPPG

Wearable & Implantable Sensors

Sponsored by ANYL, Cosponsored by MPPG[†]

Wood-Based Materials for Energy & Water

Nanocellulose-Based Technologies

Sponsored by CELL, Cosponsored by ENFL, ENVR and MPPG

SUNDAY AFTERNOON

Section A

Ernest N. Morial Convention Center
Great Hall A

Nexus of Food, Energy, & Water Opening Session

Cosponsored by PRES
J.L. Schnoor, Organizer, Presiding
A.C. Collins, Presiding

3:00 Introductory Remarks.

3:05 MPPG 1. Transitioning world energy for all purposes to stable electricity powered by 100% wind, water, and sunlight. **M. Jacobson**

3:35 Q&A.

3:40 MPPG 2. Advanced materials and processes for energy and water. **Y.H. Hu**

4:10 Q&A.

4:15 MPPG 3. Nanoparticle technology enabling smart agriculture solutions: Nexus of food and environment. **P. Biswas**, R. Raliya, S. Dhawan

4:45 Q&A.

4:50 MPPG 4. Unconventional hydrocarbon development and water resources. **D.A. Dzombak**

5:20 Q&A.

5:25 MPPG 5. Integrating systems of water reuse and desalination: More water, less energy. **A. Childress**

5:55 Q&A.

6:00 Concluding Remarks.

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC[†], MPPG[†] and PRES[†]

Challenges in Determining Arsenic Compounds in Rice

Sponsored by ANYL, Cosponsored by MPPG[†]

Science Cafes & Engaging the Public: Techniques for Hosting Successful Events

Sponsored by PRES, Cosponsored by CATL, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, I&EC, INOR, MPPG, SCHB and YCC

Energy, Water & Food Production

Sponsored by AGFD, Cosponsored by CELL, GEOC and MPPG

Plant Omics

Sponsored by ANYL, Cosponsored by

[†]Cooperative Cosponsorship

CELL and MPPG[†]

Wearable & Implantable Sensors

Sponsored by ANYL, Cosponsored by MPPG[†]

Wood-Based Materials for Energy & Water

Wood-Fiber & Wood-Scaffold Based Technologies

Sponsored by CELL, Cosponsored by ENFL, ENVR and MPPG

MONDAY MORNING

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC[†], MPPG[†] and PRES[†]

Analytical Chemistry in the Developing World

Environmental Applications

Sponsored by ANYL, Cosponsored by MPPG[†]

Wearable & Implantable Sensors

Sponsored by ANYL, Cosponsored by MPPG[†]

Wood-Based Materials for Energy & Water

Wood-Based & Related Materials

Sponsored by CELL, Cosponsored by ENFL, ENVR and MPPG

MONDAY AFTERNOON

Section A

Ernest N. Morial Convention Center
Great Hall A

The Fred Kavli Innovations in Chemistry Lecture

Cosponsored by PRES

P.K. Dorhout, *Organizer, Presiding*
A.C. Collins, *Presiding*

5:15 Introductory Remarks.

5:20 MPPG 6. Giving new life to materials for energy, the environment and medicine. **A.M. Belcher**

6:10 Concluding Remarks.

Section B

Ernest N. Morial Convention Center
Room 206

Nexus of Food, Energy, & Water: Adapting to Future Challenges

Cosponsored by AGFD[†], ENFL[†] and ENVR[†]

D.D. Dionysiou, L. Houston, J.L. Liu, B. Park, *Organizers*
S.O. Obare, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 MPPG 7. Feeding 9 billion: A USDA perspective. **G.E. Lester**

1:30 MPPG 8. Convergence of science and technology to address nexus of food, energy, & water. **H. Chen**

1:55 MPPG 9. Sustainable planning of food-energy-water nexus through decision making tools. **X. Wang**, N. Bieber, J. Ker, N. Shah

2:20 MPPG 10. The role of food, energy, water systems (FEWS) in domestic resilience and security. **L. Alessa**, A. Kliskey, J.C. Foltz, J. Stahlman, J. Nelson

2:45 MPPG 11. Regulation of water pollution from coal ash ponds. **P.R. Robinson**

3:10 Intermission.

3:20 MPPG 12. Toward a molecular scale understanding of nutrient (re)cycling. **Y. Tang**, R. Huang, C. Fang, B. Wan

3:40 MPPG 13. Tackling challenges in catalyst design: Interdisciplinary lessons on iron-based nanomaterials for efficient water treatment and electrochemical energy conversion. **L.F. Greenlee**

4:00 MPPG 14. Role of membrane technology towards sustainability & life sciences. **M. Paul**, A. Roy, I.A. Tomlinson, S. Rosenberg, S. Jons, M. Peery, R.C. Cieslinski

4:20 MPPG 15. Phosphorus sequestration from nonpoint particulate runoff via extraction using fungal carboxylic acids: Factorial effects on recovery efficiency and extraction kinetics. **A. Mondala**, S. Shields, K. Gaviglio, Y. Arai

4:40 MPPG 16. Phosphate recognition in solution and at aqueous interfaces. **A.H. Flood**, W. Zhao, J.F. Neal, H.C. Allen

5:00 Concluding Remarks.

Section C

Ernest N. Morial Convention Center
Room 215

Nano in Food, Energy, & Water

P. Alivisatos, H. Atwater, J.M. Buriak, L.E. Fernandez, C. Toro, P.S. Weiss, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 MPPG 17. Optimization of organic solar cell processing parameters: Combining machine learning and experimental design. **J.M. Buriak**, B. Cao, B. Olsen, E.J. Luber

1:35 MPPG 18. Novel 2D materials for addressing water and energy challenges. **Y. Gogotsi**

2:05 MPPG 19. Nanoscale design and cryogenic electron microscopy for of energy storage. **Y. Cui**

2:35 MPPG 20. Nanocrystal inks and nanowire networks for paper solar cells, improved batteries and water purification membranes. **B.A. Korgel**

3:05 MPPG 21. Tuning coupling with plasmonic metal oxide nanocrystals. **D.J. Milliron**

3:35 MPPG 22. Nanophotonics for the terawatt solar age: New concepts for generation of electricity and fuels from sunlight. **H. Atwater**

Analytical Chemistry of Biofuels

Sponsored by ANYL, Cosponsored by MPPG[†]

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC[†], MPPG[†] and PRES[†]

Analytical Chemistry in the Developing World

Food & Nutrition

Sponsored by ANYL, Cosponsored by

MPPG[†]

Wearable & Implantable Sensors

Sponsored by ANYL, Cosponsored by MPPG[†]

Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus

Value Added from Agricultural Crops

Sponsored by CELL, Cosponsored by AGFD, ENFL, ENVR and MPPG

MONDAY EVENING

Section A

Ernest N. Morial Convention Center
Great Hall A

The Kavli Foundation Emerging Leader in Chemistry Lecture

Cosponsored by PRES

P.K. Dorhout, *Organizer, Presiding*

4:00 Introductory Remarks.

4:05 MPPG 23. Transforming nanocellulose into sustainable products through surface engineering. **E.D. Cranston**

4:55 Q&A.

TUESDAY MORNING

Section A

Ernest N. Morial Convention Center
Room 206

Dreyfus Prize Symposium

Theory & Computation

Cosponsored by COMP[†], PHYS[†] and PRES

M.J. Cardillo, *Organizer*
L.E. Brus, R. N. Zare, *Presiding*

9:00 Introductory Remarks. J. Schnoor

9:10 Introductory Remarks.

9:15 MPPG 24. Insights from Ab initio potential energy surfaces and molecular dynamics for sustainable energy technologies. **E.A. Carter**

9:50 MPPG 25. Dynamics and mechanisms of pericyclic reactions. **K. N. Houk**

10:25 Intermission.

10:40 MPPG 26. Field-theoretic simulations: From advanced materials to quantum liquids. **G.H. Fredrickson**

11:15 MPPG 27. Metals, molecules, mixing, and mastery. **M.A. Ratner**

Analytical Chemistry in the Developing World

Applications in Medicine

Sponsored by ANYL, Cosponsored by MPPG[†]

Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus

Food, Water & Energy from Sustainable Crops

Sponsored by CELL, Cosponsored by AGFD, ENFL, ENVR and MPPG

TUESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center
Room 206

Dreyfus Prize Symposium

Theory & Computation

Cosponsored by COMP[†], PHYS[†] and PRES

M.J. Cardillo, *Organizer*
D.G. Nocera, M.V. Tirrell, *Presiding*

2:00 MPPG 28. How to burn water with sunlight? Insights from computational chemistry. **W. Domcke**

2:35 MPPG 29. Proton-coupled electron transfer in catalysis and energy conversion. **S. Hammes-Schiffer**

3:10 Intermission.

3:25 MPPG 30. Variational sampling and renormalization theory. **R. Car**

4:00 MPPG 31. Fluctuations, entropy and rare events. **M. Parrinello**

Science & Ethics: The Path Toward Global Security in Chemicals, Energy, Food & Water

Sponsored by SCHB, Cosponsored by CHAS, COMSCI, MPPG and PROF

Analytical Chemistry in the Developing World

Technology Development

Sponsored by ANYL, Cosponsored by MPPG[†]

Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus

Biomaterials Processing

Sponsored by CELL, Cosponsored by AGFD, ENFL, ENVR and MPPG

WEDNESDAY MORNING

Novel Concepts in the Role of Chemistry in the Food, Energy & Water Nexus

Sponsored by ENVR, Cosponsored by MPPG

Comprehensive Chemical Characterization of Hydraulic Fracturing Shales, Wastes & Recycled Waste Products

Sponsored by ANYL, Cosponsored by MPPG[†]

WEDNESDAY AFTERNOON

Novel Concepts in the Role of Chemistry in the Food, Energy & Water Nexus

Sponsored by ENVR, Cosponsored by MPPG

THURSDAY MORNING

Monitoring Pharmaceuticals & Other Pollutants in Water

Sponsored by ANYL, Cosponsored by MPPG[†]

[†]Cooperative Cosponsorship

AGFD

Division of Agricultural & Food Chemistry

B. Guthrie, Program Chair

OTHER SYMPOSIA OF INTEREST:

Advancements in Bio-Recognition Element Discover & Development & Its Translation into Innovative Biosensor Technologies (see ANYL, Tue)

Enzymes in Natural Product Biosynthesis Pathways (see BIOL, Sun)

Fragrances, Food & Cheminformatics (see CINF, Sun)

Water Purification for a Sustainable Future (see I&EC, Tue)

Molecular Mechanics: Computational Studies of Transmembrane Proteins (see COMP, Tue)

Advances & Applications in Water Sensing Technologies for Drinking Water & Agri-Tech Research (see ENVR, Wed)

SOCIAL EVENTS:

Reception/Poster Session, 5:30 PM: Sun

AGFD Chair Reception, 6:00 PM: Tue

BUSINESS MEETINGS:

AGFD Special Topics Meeting, 12:00 PM: Sun

AGFD Future Programs Meeting, 12:00 PM: Mon

AGFD Executive Committee Meeting, 5:00 PM: Mon

SUNDAY MORNING

Section A

Ernest N. Morial Convention Center Room 218

110th UMAMI Memorial Symposium: Past, Present, Future

Financially supported by Ajinomoto Co., Inc
I. Edirisinghe, H. Uneyama, Organizers, Presiding

8:00 Introductory Remarks.

8:05 AGFD 1. History of umami research on scientific literature. **S. Fukuoaka**

8:35 AGFD 2. Key research in umami science. **G. Beauchamp**

9:05 AGFD 3. Beyond taste: Does umami contribute to healthier life? **H. Uneyama**

9:35 AGFD 4. Umami in the United States: A history of Americans came to fear MSG but love umami. **S. Lohman**

10:05 AGFD 5. Creation of global umami network through science communication. **K. Ninomiya**

10:35 Concluding Remarks.

Section B

Ernest N. Morial Convention Center Room 217

Energy, Water & Food Production
Cosponsored by CELL, GEOC and MPPG
M. Appell, X. Fan, J.W. Finley, B. Park, J.N. Seiber, Organizers, Presiding

8:00 Introductory Remarks.

8:05 AGFD 6. Climate change and the food, energy water nexus. **J.W. Finley**

8:30 AGFD 7. Formation of atmospheric aerosols in the presence of sulfide and amine compounds: implications for farm waste. **M.J. Nee**, J. Berlanga, P. van Rooy, D. Cocker, K. Purvis-Roberts, P.J. Silva, R. Mahmood

8:55 AGFD 8. Managing challenges of the climate-food-energy-water nexus. **S. Ahuja**

9:20 AGFD 9. Sorption characteristics of glyphosate in Australian soils. **G. Styles**, M. Rose, L. Van Zwielen, B. Follink, A. Patti

9:45 AGFD 10. Nanoparticle N-P-K fertilizers synthesized by aerosol routes for sustainable and precision agriculture. **R. Raliya**, P. Biswas

10:10 AGFD 11. Zein nanoparticles as viable delivery systems for agrochemicals. K. Ristorph, A. Prasad, E. Bodoki, C.E. Astete, A. Bodoki, **C. Sabliov**

10:35 Intermission.

10:55 AGFD 12. The role of soil properties on the transformation, fate and efficacy of nano-enabled agrochemicals in the soil system. **S. Rodrigues**, S. Lopes, T. Trindade, A. Duarte, R. Duarte, X. Gao, G.V. Lowry

11:20 AGFD 13. Withdrawn

Section C

Ernest N. Morial Convention Center Room 216

International Student Symposium Analytical Strategies

F. Pellati, P. Schmidberger, Organizers
R. Tardugno, Organizer, Presiding
A. Schulz, Presiding

8:30 Introductory Remarks.

8:35 AGFD 14. Development of an indirect competitive enzyme-linked immunosorbent assay for Matrine and analogues in agricultural samples. **J. Hao**, E. Sheng

9:05 AGFD 15. Novel benzophenone isolated from *Psidium guajava* L. leaves and its antineoplastic effects on human cancer cells. **X. Zhu**, W. Ouyang, C. Pan, Z. Gao, Y. Han, M. Song, K. Feng, Y. Cao, H. Xiao

9:35 AGFD 16. Effectiveness of commercial and homemade washing agents in removing pesticide residues on and in apples. **T. Yang**, L. He

10:05 Intermission.

10:15 AGFD 17. The chemistry of beer haze. **B. Baechler**, A. Dunkel, T. Hofmann

10:45 AGFD 18. Metabolomic profiling of saliva and pellicle samples collected from healthy and caries patients. **A. Schulz**, R. Lang, J. Behr, S. Hertel, C. Hannig, M. Hannig, T. Hofmann

11:15 Concluding Remarks.

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Sponsored by CELL, Cosponsored by AGFD, ANYL and CARB

SUNDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 218

Water in Foods Symposium in honor of Louise Slade & Harry Levine

Food Polymer Science

J.W. Finley, Y. Roos, Organizers, Presiding

1:00 Introductory Remarks.

1:30 AGFD 19. 37-year retrospective on Slade/Levine's 'Food Polymer Science' approach to the practice of industrial R&D, leading to U.S. patent estates based on fundamental starch science and technology. **L. Slade**, **H. Levine**

2:30 AGFD 20. Crystallization, crispness, caking and creep: The glass of water overturned. **T.P. Labuza**

3:00 Intermission.

3:10 AGFD 21. Approaches for structure-properties-performance translation of relaxation times data around glass transition. **Y. Roos**

3:40 AGFD 22. Physical state of sugar in baked goods: Revisiting an early "Food Polymer Science" application. **J. Ubbink**, N. Salgado Lopez, K.M. Matsune, S. Amin

4:10 AGFD 23. Water induced structural hysteresis in food systems. **S. Mizrahi**

4:40 AGFD 24. Complementary tools to interpret the role of water as related to structure and functionality of cereal food products. G. Rolandelli, S. Rodriguez, M. Cueto, A. Farroni, **P. Buera**

Section B

Ernest N. Morial Convention Center Room 217

Energy, Water & Food Production
Cosponsored by CELL, GEOC and MPPG
M. Appell, X. Fan, J.W. Finley, B. Park, J.N. Seiber, Organizers, Presiding

1:00 Introductory Remarks.

1:05 AGFD 25. Creatine a scavenger of methylglyoxal (MGO), a potent neurotoxin: Physiological role of creatine in energy metabolism. **B. Dayal**, M.A. Lea, P. Chitkul, H. Sorkin

1:30 AGFD 26. Nexus of beer, water and energy: California lager microbrewery as a case study of embedded water and energy in the brewing process. **S. Peterson**, C. Simmons, N. Spang

1:55 Intermission.

2:15 AGFD 27. Combating citrus greening with plastic. **V.A. Piunova**, N.F.

Fine Nathel, J.L. Hedrick

2:40 AGFD 28. Effects of metal oxide nanoparticles on the growth of kale. J. Vassell, A. Racelis, **Y. Mao**

3:05 AGFD 29. Paper-based nanosensors for selective detection of infected crops. **O.A. Sadik**

3:30 AGFD 30. Indigo's potential to address long-term food security in an era of global change. **J. McIntyre**

3:55 AGFD 31. Assessing agricultural intensification strategies with a sustainable agriculture matrix. **X. Zhang**

4:20 AGFD 32. Inexpensive superhydrophobic sand mulches for dryland agriculture. **A. Gallo, Jr.**, J. Reihmer, M. Mousa, M. Morton, S. Al-Mashharawi, M. McCabe, M. Tester, H. Mishra

4:45 AGFD 33. Withdrawn

5:10 Panel Discussion.

Section C

Ernest N. Morial Convention Center Room 216

International Student Symposium

Bioactives & Cell Studies

F. Pellati, P. Schmidberger, Organizers
R. Tardugno, Organizer, Presiding
A. Schulz, Presiding

1:00 Introductory Remarks.

1:05 AGFD 34. Permethrin and ivermectin modulate lipid metabolism in steatosis-induced HepG2 hepatocytes. **S. Yang**, W. Qi, S. Choi, J.M. Clark, Y. Park

1:35 AGFD 35. Investigation of the bioavailability, antioxidant and anti-inflammatory activities of carnosic acid lecithin based nano delivery system by in vitro cell models. **H. Zheng**, Q. Huang

2:05 AGFD 36. Hydrophilic modification of zein protein and its application in amorphous solid dispersions to enhance dissolution of Dihydromyricetin. **H. Zhang**, **Q. Huang**

2:35 Intermission.

2:45 AGFD 37. Anti-inflammation and anti-cancer effect of polyphenols from blueberry (*Vaccinium corymbosum* L.). **C. Pan**, Z. Gao, Y. Han, H. Xiao

3:15 AGFD 38. Pickering emulsions stabilized by milled cellulose particles. **X. Lu**

3:45 Concluding Remarks.

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC[†], PRES[†] and MPPG[†]

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Sponsored by CELL, Cosponsored by AGFD, ANYL and CARB

SUNDAY EVENING

Section A

Ernest N. Morial Convention Center Hall E

[†]Cooperative Cosponsorship

General & AGFD All-Star Posters

B.D. Guthrie, Organizer

5:30–7:30

AGFD 39. Multiplex and label-free screening of foodborne pathogens using surface plasmon resonance imaging. J. Chen, **B. Park**

AGFD 40. Computational studies on the excited state properties of citrinin and application in fluorescence analysis. **M. Appell**, Y. Tu, W. Bosma

AGFD 41. Traveling the world with food science. **J.V. Leland**

AGFD 42. Ion mobility mass spectrometry of *Garcinia buchananii* extracts and analysis of other *Garcinia* species. T. Hofmann, T.D. Stark, **J. Ranner**

AGFD 43. Development of a rapid high-throughput mass spectrometry-based method for the quantification of monosaccharides in food. **T. Vo**, A.G. Galermo, M. Amicucci, C.B. Lebrilla

AGFD 44. Characterization of gelation kinetics of gelatin using fluorescence spectroscopy. **A. Ciarfella**, R. Chib, M.G. Corradini, S. Ilg, C. Escusa, R.D. Ludescher

AGFD 45. Development of paper-polymer hybrid chip for multiplexed detection of foodborne pathogens. **L. Zhang**, J. Choi, X. Lu

AGFD 46. Study of volatile compounds with antifungal activity from bacteria of marine origin. **L.C. Coconubo**, F. Ramos, L. Castellanos, N. Moreno, D.C. Sinuco Leon

AGFD 47. Preparation and characterization of seed film coating adhesive for anti-dust. **D. Ku**, J. Lee, J. Lee, J. Kim, J. Shim, T. Kim

AGFD 48. Concentration and removal of phosphate from corn thin stillage using bio-based flocculants and ferric chloride. **G.J. Piazza**, D.B. Johnston, R.A. Garcia

AGFD 49. Bio-based methacrylic acid via catalytic decarboxylation of itaconic and citric acids. **B.R. Moser**, R.E. Murray, J.C. Lansing

AGFD 50. Structure and compositional features of feruloylated arabinoxylan oligosaccharides isolated from rice bran fiber. **K. Takahashi**, B.J. Savary, S. Lee, N.C. Carpita

AGFD 51. Structure, composition, and oligosaccharide profiles for hemicellulosic polysaccharides isolated from rice bran fiber. **D. Kandanoal**, A. Vallalpa-Arroyo, K. Takahashi, B.J. Savary, N.C. Carpita

AGFD 52. Determination of lactose in low lactose products. **J. Rohrer**, M. Aggrawal

AGFD 53. Rethinking resveratrol from red wine: The first characterization of piceatannol-ortho-quinone, a structural analogue of carcinogenic estradiol-3,4-quinone. **M.K. Parunyan**, J. Jensen, E. Philippos, G.G. Melikyan

AGFD 54. Effects of feeding entrapped fish oil in chemically treated protein matrix on physicochemical properties of caprine

milk fat. **J.H. Lee**, B.B. Lemma, **C.R. Alfred**

AGFD 55. Quality assessment of moisture exposed almonds using chemical markers. **K. Luo**, A.E. Mitchell

AGFD 56. Extraction and quantitation of furfuryl alcohol in fluid milk and dairy powders. **M. Benoist**, B. Wherry, M. Drake

AGFD 57. Animal and human studies investigating the beneficial effects of cranberry juice on heart disease. **J.A. Vinson**

AGFD 58. Withdrawn

AGFD 59. Fatty acid and sugar composition of African walnut (*Plukenetia conophora* Mull.Arg) root bark. **O.O. Onawumi**, **P.B. Ayoola**

AGFD 60. Hydrophilic interaction chromatographic (HILIC) determination of ascorbic acid in citrus fruits and pharmaceutical formulations. R. Zuo, S. Zhou, **Y. Zuo**, Y. Deng

AGFD 61. Phenylalanine ammonia lyase activity and antioxidant properties of *Cissus sicyoides* berries. **K.S. Duffus**, A. Goldson-Barnaby

AGFD 62. Extraction and quantification of lycopene content for high performance liquid chromatography analysis using alternative solvents. **J. Noseworthy**

AGFD 63. Comparative analysis of silymarin using different extraction techniques. **D. Hlangothi**, K. Anthony, M.A. Saleh

AGFD 64. Chemical profile of *chrysanthemum morifolium* and its nutraceutical properties. **L. Yanfang**, B. Gao, L. Yu, U. Choe, H. Huang, T. Wang, L.L. Yu

AGFD 65. Determination of polyphenolic antioxidants in natural and processed foods by copper nanoparticles. **Y. Ahmadibeni**

AGFD 66. Determination of fluoride in tea using combustion ion chromatography. **H. Yang**

AGFD 67. Withdrawn

AGFD 68. Anthocyanin concentrations, antioxidant properties, and phenolic contents among commercially available acai berry supplements. **T. Beadle**, E.D. Niemeyer

AGFD 69. Influence of fatty acids on the formation of zein-based colloidal particles. **J. Zhu**, Q. Huang

AGFD 70. Yeast viability determination by smartphone camera. **A. Nilles**, D.J. Lecaptain

AGFD 71. Modification of sensory-chemical quality of lingonberry (*Vaccinium vitis-idaea*) products using polymers. **N. Kelanne**, O. Laaksonen, B. Yang, W. Yang

AGFD 72. Identification and quantification of flavor compounds in birch syrup using SPME-GC-MS. **S. Lloyd**, A. van den Berg, C.C. Grimm

AGFD 73. Honey typing by comparison of flavor compounds in floral nectars and honeys. **K. Petz**, T. Calamita, L.E. Schweitzer

AGFD 74. Effect of hot/cold cycling and air exposure on beer IBU values. J. Welbaum, **N.O. Flynn**

AGFD 75. Composition profile: A comparative study of hop varieties grown in the Midwest and Pacific Northwest of the United States. **X. Xie**, L. Gao, C. Xu

AGFD 76. Investigation of catfish marinate treatments on the degradation of off-flavor components, geosmin and 2-methylisoborneol. **J.M. Bland**, C.H. Li, K.L. Bett-Garber, C.C. Grimm, P. Bechtel

AGFD 77. Optimizing the analysis for off-flavors in fish tissue. **C.C. Grimm**, J.M. Bland, C. Li, P. Bechtel

AGFD 78. Thermal desorption with GC-MS to detect volatiles in craft beer. **A. LyVere**, D.J. Lecaptain

AGFD 79. Static headspace GC-FID/MS method for the determination and quantitation of residual solvents in natural food ingredients. **F. Al-Taher**, B.V. Nemzer

AGFD 80. Production of mushroom-glucan-gold nanorod hybrids for photothermal therapy of cancer. X. Li, **P.C. Cheung**

AGFD 81. Quantitative analysis of arsenic and cadmium in dog food. **K. Pollok**, R. Nava, B. Corporon, A.M. Bray

AGFD 82. Functional analyses on antioxidant, antitumor and hepatoprotective effects of extracts and compounds from *Cirsium japonicum* DC. **Q. Ma**

AGFD 83. Washing tomato fruit with organic acids to reduce populations of *Salmonella* and preserve fruit quality. **X. Fan**, J. Gurtler, K. Sokorai

AGFD 84. Aged catechol solutions model the chemical and biochemical properties of the aqueous cigarette tar radical. C. Lopez, A.R. Skochko, S.K. Mendez, E.A. Aleman, **K. Stone**

AGFD 85. Identification and functional analysis of the aspergillid acid gene cluster in *Aspergillus flavus*. **M. Lebar**, J. Cary, R. Majumdar, C. Carter-Wientjes, B. Mack, Q. Wei, V. Uka, S. De Saeger, J. Diana Di Manungu

AGFD 86. Development of rapid dispersive pipette extraction method for analysis of aflatoxins and major metabolite using high performance liquid chromatography (HPLC). **H. Guan**, Q. Cai

AGFD 87. Plant cuticular waxes as renewable encapsulating matrices for phosphate fertilizers: Morphological insights into phosphate release behavior. E.M. García Carrillo, **N.B. Navarro-Guajardo**, **C. Espinoza-González**, J. Romero-García, A.S. Ledezma-Pérez, C.A. Pérez Torres, N. Pariona

AGFD 88. Sequence alignments and structural comparisons of insecticides targeting acetyl cholinesterase and their relationship to ecotoxicity/toxicity. Z. Kai, **F.H. Wu**

AGFD 89. Fate and transport of dicyandiamide (DCD) and its nitrification inhibition in agricultural soils. **S. Li**, R. Li, G. Chen

AGFD 90. Chemistry of plant root signaling compounds with importance for the plant-associated microbiome and disease resistance. **K. Hooshmand**, E.N. Kudjordjie, R. Sapkota, M. Nicolaisen, I.S. Fomsgaard

AGFD 91. Importance of animal production to produce energy. **T. Akinmusire**

AGFD 92. Water and energy in agriculture. **T. Akinmusire**

AGFD 93. Adduct formation from chlorinated benzonitrile pesticides and DNA in plants. **M. Byron**, D.W. Boerth

AGFD 94. Molecular and immunological characterization of recombinant termite (*Coptotermes formosanus*) arginine kinase. **C.P. Mattison**, A. Tungtrongchitr

AGFD 95. Screening and health risk of organic micro-pollutants in rural groundwater of China. **X. Li**, T. Tian, X. Shang, Q. Xie, J. Chen, K. Kadokami

AGFD 96. New insights into kinetics and dynamics of initial stages of bacterial adhesion onto surfaces mimicking food crops. **J. Oh**, Y. Yegin, L. Cisneros-Zevallos, M. Akbulut

AGFD 97. Determination of inorganic anions in wastewater using capillary ion chromatography. **H. Yang**

AGFD 98. Chemical space of in-use and banned pesticides. **K. Martinez Mayorga**, D. Chavez-Gomez, F. Cortes-Guzman

AGFD 99. Analysis of volatile organic compounds from *M. phaseolina* fungi infected sweet potatoes. **C.U. Gamlath Mohottige**, J. She, T. Mlsna, R. Baird, R. Bigham

MONDAY MORNING

Section A
Ernest N. Morial Convention Center
Room 216

Water in Foods Symposium in honor of Louise Slade & Harry Levine

Water Plasticization

J.W. Finley, Y. Roos, Organizers

Y. Roos, Organizer, Presiding
T.P. Labuza, Presiding

8:00 AGFD 100. Impact of sucrose and water contents on macroscopic structure and stability of cereal based products: Thermodynamic versus dynamic. S. Masavang, C. Loupiac, P. Bodart, G. Roudaut, **D. Champion**

8:30 AGFD 101. Sucrose crystallization and the state diagram: A review. **R.W. Hartel**, K. Payne

9:00 AGFD 102. Fundamentals and consequences of food ingredient architecture and water-solid interactions. **L.J. Mauer**

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9:30 AGFD 103. Plasticization and antiplasticization in amorphous carbohydrates: A structural interpretation. **J. Ubbink**

10:00 Intermission.

10:20 AGFD 104. Physical stability of solid food products: Development and applications of material science within Nestlé since 30 years. **V. Meunier**

10:50 AGFD 105. Water mobility approach to food product development. **Y. Kou**

11:20 AGFD 106. A decade of work: Developing applications for dynamic moisture sorption curves. **B. Carter**

Section B

Ernest N. Morial Convention Center Room 217

Withycombe-Charalambous Graduate Student Symposium

K.D. Deibler, *Organizer, Presiding*

9:00 Introductory Remarks.

9:05 AGFD 107. Engineered bacteriophage-based electrochemical detection of *Escherichia coli* in food samples. **D. Wang**, J. Chen, T. Hinkley, S.R. Nugen

9:30 AGFD 108. Real-time and *in situ* monitoring and characterization of pesticide residues on and in fresh produce using surface-enhanced Raman spectroscopy. **T. Yang**, L. He

9:55 AGFD 109. Identification of *Bifidobacterium pseudocatenulatum* D2 as a probiotic with anti-inflammatory and anti-cancer potential. **M. Gu**, C. Pan, Z. Gao, H. Xiao

10:20 Intermission.

10:35 AGFD 110. Conjugated linoleic acid regulates body composition and locomotor activity in sex-dependent manners in *Drosophila melanogaster*. **P.B. Chen**, J. Kim, J.M. Clark, Y. Park

11:00 AGFD 111. Development of innovative techniques for food authentication: The last barrier to prevent food fraud. **Y. Hu**, X. Lu

11:25 AGFD 112. Peptidomic profiling of human milk by mass spectrometry revealed pH-specific milk proteolysis. **J. Gan**, J. German

11:50 Concluding Remarks.

Section C

Ernest N. Morial Convention Center Room 218

Chemistry of Spirits

K.R. Cadwallader, M. Granvogl, M.C. Qian, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 AGFD 113. Flavor chemistry of spirits: An overview. **M.C. Qian**

9:00 AGFD 114. Factors influencing the key aroma compounds of rum. L. Frantiza, L. Nicolotti, **M. Granvogl**, P.H. Schieberle

9:25 AGFD 115. Gin still configuration and its impact on botanical oil distillate profiles in final product. **P.S. Hughes**

9:50 AGFD 116. Sensory and volatile analysis of American whiskeys with different mashbills: Can we discriminate rye and bourbon whiskeys? **J. Lahne**, T. Collins, H. Abdi, H. Heymann

10:15 Intermission.

10:30 AGFD 117. Influence of ethanol on flavor perception in distilled spirits. **K.R. Cadwallader**, C. Ickes

10:55 AGFD 118. Characterization of flavor and odor compounds in blueberry beer by GC-MS: Effects of blueberry and hop addition on chemical composition. **K.M. Papson**, **M.C. Crowe**

11:20 AGFD 119. Shaken not stirred, y'all: A comparison of Texas vodkas, part two. **G.R. Shelton**, M. Montoya, S.B. Bach, D.S. Mason

11:45 Concluding Remarks.

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC⁺, PRES⁺ and MPPG⁺

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Sponsored by CELL, Cosponsored by AGFD, ANYL and CARB

MONDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 216

Water in Foods Symposium in honor of Louise Slade & Harry Levine

Water Structure

J.W. Finley, Y. Roos, *Organizers*
L.J. Maurer, V. Meunier, *Presiding*

1:00 AGFD 120. Sugar stereochemistry effects on water structure and on protein stability: The templating concept. **Y. Livney**, R. Edelman, I. Kusner, R. Kisiliak, S. Srebnik

1:30 AGFD 121. Multiple solvent-slaved dynamic processes in human serum albumin monitored by phosphorescence spectroscopy. A. Draganski, J.M. Friedman, **R.D. Ludescher**

2:00 AGFD 122. Analysis of the frozen state of Sephadex G25 gel by using X-ray CT and XRD. **N. Murase**, Y. Uetake, K. Irie, Y. Ueno, T. Hirauchi, T. Kawahara, M. Hirai

2:30 AGFD 123. Local and mesoscopic-scale water structure and inhomogeneity: Implications for freezing and stability of amorphous pharmaceuticals. **E. Shalaev**, A. Soper, A. Zeidler, S. Ohtake, C.J. Roberts, M.J. Pikal, K. Wu, B. Zakharov, E. Boldyreva

3:00 Intermission.

3:20 AGFD 124. Interactions between biopolymers, solutes and water as controlling factors of the structuring pathway in food matrices: Material science based guidelines for the design of bakery products with improved nutritional profile. **S. Renzetti**

3:50 AGFD 125. Role of large deformation mechanics and osmotic capillarity in water holding and

drying of biological tissue. **R. van der Sman**

4:20 AGFD 126. 2D ¹H T₂-T₂ NMR investigation of standard and gluten free bread during staling. **E. Vittadini**, E. Curti, P. Littardi, E. Carini

Section B

Ernest N. Morial Convention Center Room 217

Chemistry of Sex

T.E. Acree, J.W. Finley, S.J. Toth, M.H. Tunick, *Organizers*
K.D. Deibler, A.E. Mitchell, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 AGFD 127. Mind of sexual chemistry: How foods, fragrances, situations, and people drive the expectation of erotic encounters. A. Gere, D. Radványi, P. Papajorgji, **H. Moskowitz**

1:30 AGFD 128. Fragrance and attraction. **A.P. Narula**

1:55 AGFD 129. Chemistry of chocolate and pleasure. **M.H. Tunick**, J.A. Nasser

2:20 AGFD 130. Wine and sex: Potential effects of odorants on sexuality. **T.E. Acree**, A. Barwich

2:45 AGFD 131. Environmental toxicants: "The elephant in the room" risk factor for male sexual dysfunction. **L.M. Alzweri**, A.L. Burnett, W.J. Hellstrom, S.C. Sikka

3:10 Intermission.

3:25 AGFD 132. Bitterness of active pharmaceutical Ingredients (API): From Advil® (ibuprofen) to Viagra® (sildenafil). **K.D. Deibler**

3:50 AGFD 133. Sex toys, edible underwear, and personal lubricants: Applying food safety principles to sex paraphernalia design. **R. Worobo**

4:15 AGFD 134. Wavelength dispersive x-ray fluorescence (WDXRF) for elemental analysis of sexual performance supplements, edible garments, gummies and lubricants. **A.E. Mitchell**, T. Nguyen, G. Williams

Section C

Ernest N. Morial Convention Center Room 218

Chemistry of Spirits

K.R. Cadwallader, M. Granvogl, M.C. Qian, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 AGFD 135. Characterization of the key aroma compounds in *Meilanchun* sesame flavor style Baijiu by aroma extract dilution analysis, quantitative measurements, aroma recombination, and omission/addition experiments. **M. Huang**, Q. Li, S. Luo, B. Sun, F. Zheng, J. Sun, X. Sun, H. Li

1:30 AGFD 136. Key flavor compounds in ultra-aged tequila. **A. Aguirre-Flores**, Y.L. Qian, P. Vazquez, M.C. Qian

1:55 AGFD 137. Characterization of key aroma compounds in Gujingong Chinese Baijiu by gas chromatography-olfactometry, quantitative measurements,

and sensory evaluation. **J. Sun**, D. Zhao, D. Shi

2:20 Intermission.

2:35 AGFD 138. Determination of volatile compounds in Chinese *Baijiu-Laobaigan* by comprehensive two-dimensional gas chromatography/high resolution-time of flight mass spectrometry. **Y. Ma**, J. Sun, F. Zheng, H. Li, Y. Zhang, F. Zhang, B. Sun, F. Chen

3:00 AGFD 139. The soul of "Qingke" liquor from Tibet. **Y.L. Qian**, S. Chen, M.C. Qian

3:25 Concluding Remarks.

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC⁺, PRES⁺ and MPPG⁺

Nexus of Food, Energy, & Water: Adapting to Future Challenges

Sponsored by MPPG, Cosponsored by AGFD⁺, ENFL⁺ and ENVR⁺

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Sponsored by CELL, Cosponsored by AGFD, ANYL and CARB

Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus

Value Added from Agricultural Crops

Sponsored by CELL, Cosponsored by AGFD, ENFL, ENVR and MPPG

Undergraduate Research Posters

Agricultural and Food Chemistry

Sponsored by CHED, Cosponsored by AGFD and SOCED

TUESDAY MORNING

Section A

Ernest N. Morial Convention Center Room 216

Water in Foods Symposium in honor of Louise Slade & Harry Levine

Water & Stability

J.W. Finley, Y. Roos, *Organizers*
B. Carter, S. Mizrahi, *Presiding*

8:00 AGFD 140. Water of crystallization in pharmaceutical products. **J. Rantanen**

8:30 AGFD 141. Predicting the crystallisation of sugar in dried raisins and honey. **B. Bhandari**, D. Dahal, T. Truong, P. Urrutia, S. Almonacid

9:00 AGFD 142. Role of water in food powders: process/product interactions. **S. Desobry**, P. Schuck

9:30 AGFD 143. Effect of polyols on the stability of dairy proteins in high protein systems. **P. Zhou**

10:00 Intermission.

10:20 AGFD 144. Chemical stability in low and intermediate moisture systems: The role of water activity and glass transition. **L.N. Bell**

10:50 AGFD 145. Water in starch,

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laponite and in its nanocomposite films. G. Ayala Valencia, M. Djabourov, F. Carn, **P. do Amaral Sobral**

11:20 AGFD 146. Applications of probabilistic engineering in food moisture management to meet product quality, safety and shelf-life requirements. **J. Torres**, V. Rodriguez Martinez, G. Velazquez, J. Welti-Chanes

Section B
Ernest N. Morial Convention Center Room 217

Kenneth A. Spencer Award Symposium

Cosponsored by AGRO
E. Hellmuth, *Organizer*
W.H. Yokoyama, *Organizer, Presiding*

8:30 AGFD 147. Modernizing polysaccharide analysis: An LC/MS-based platform for characterizing nature's most difficult biomolecule. **M. Amicucci**, C.B. Lebrilla

9:00 AGFD 148. Impact of milk on the metabolic phenotype of the developing neonate. **C. Slupsky**

9:30 AGFD 149. Using genomics and glycomics to investigate bioactive oligosaccharide production in dairy cows. **R.C. Robinson**, N.A. Poulsen, L.B. Larsen, D. Barile

10:00 Intermission.

10:10 AGFD 150. The Kenneth A. Spencer Award. **J.N. Seiber**

10:25 AGFD 151. Recent milk genomics research and the discovery of probiotic carbohydrate constituents. **J. German**

Section C
Ernest N. Morial Convention Center Room 218
Environmental Effects on Gulf Coast Seafoods

E.S. Maung-Douglass, *Organizer*
J.W. Finley, D. Holliday, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 AGFD 152. Quality and safety of Gulf seafood is some of the finest in the world. **D.L. Holliday**, J.W. Finley, M.A. Tarr

8:30 AGFD 153. Modeling 3D fish movement in the Gulf of Mexico hypoxic zone. **E. LaBone**, D. Justic, K. Rose, L. Wang, H. Huang

8:55 AGFD 154. Petroleum hydrocarbons in coastal environments of the northern Gulf of Mexico after Deepwater Horizon oil spill. **Z. Liu**

9:20 AGFD 155. Ag nutrient use in Illinois: Meeting N & P loss reduction goals by 2025 against all odds. **J. Payne**

9:45 AGFD 156. Distribution of dispersant-related surfactants in the Gulf of Mexico area following the Deepwater Horizon oil spill. **J. Gray**, L.K. Kanagy, C.J. Kanagy, J.W. McCoy, E.T. Furlong

10:10 Intermission.

10:30 AGFD 157. "Farming" seafood following a marine oil spill: Seafood safety and perspectives from harvesters, consumers, and public health scientists. **J. Wickliffe**, B.R. Simon-Friedt, M.J.

Wilson, J.L. Howard, E. Frahm, D. Nguyen, D. Gauthe, B. Meyer, D. Pangeni, E.B. Overton

10:55 AGFD 158. Oil spilled in marine systems: Photochemistry and impacts on aquatic organisms. **M.A. Tarr**, X. Cao, P. Zito, D.C. Podgorski, B.H. Harriman, J.M. Sultita, S. King, T.M. Soniat, M.A. Thorne

11:20 AGFD 159. Estimated effects on fish larvae of water column polycyclic aromatic hydrocarbons (PAH) during and after the Deepwater Horizon (Macondo) incident. **T.L. Wade**

11:45 AGFD 160. Health effects associated with dispersant exposure during the Deepwater Horizon oil spill response: Findings from the Gulf STUDY. **L. Engel**, C. McGowan, K. Gam, M. Curry, R. Kwok, M. Lichtveld, A. Miller, M. Stenzel, P. Stewart, D. Sandler

Impacts of Mining & Hydraulic Fracturing On Crop & Livestock Production
Sponsored by GEOC, Cosponsored by AGFD, AGRO and ENVR

Biobased Water Purification System Approaches
Sponsored by CELL, Cosponsored by AGFD, CHAS and ENVR

Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus

Food, Water & Energy from Sustainable Crops

Sponsored by CELL, Cosponsored by AGFD, ENFL, ENVR and MPPG

TUESDAY AFTERNOON

Section A
Ernest N. Morial Convention Center Room 216

Water in Foods Symposium in honor of Louise Slade & Harry Levine

The Glassy State

J.W. Finley, Y. Roos, *Organizers*
P. Buera, D. Champion, *Presiding*

1:00 AGFD 161. Powder structure and the influence of water from drying to dissolution. **A. Millqvist Fureby**

1:30 AGFD 162. Role of water in encapsulation of food ingredients. **S. Drusch**

2:00 AGFD 163. Thermal properties and molecular mobility of amorphous trehalose-limonene matrices obtained by different glass-forming approaches: Desolvation vs. solid state. **P. Pittia**, M. Faieta, M. Geppi, F. Panattoni, L. Neri

2:30 Intermission.

2:50 AGFD 164. Evaluation of water sorption and thermal properties of galacto-oligosaccharides, and application in glassy confections. **Y. Vodovotz**

3:20 AGFD 165. Enhanced thermotolerance of probiotic cells during dynamic droplet drying compared to heat treatment. **N. Fu**, X.D. Chen

3:50 Concluding Remarks.

Section B

Ernest N. Morial Convention Center Room 217

Kenneth A. Spencer Award Symposium

Cosponsored by AGRO
E. Hellmuth, *Organizer*
W.H. Yokoyama, *Organizer, Presiding*

1:00 AGFD 166. The evolution of interesterified lipids from curiosity to designer lipids for food and pharma application. **J.W. Finley**

1:30 AGFD 167. Development of an immunoassay for amanitin, a highly toxic mushroom toxin. **C. Bever**, B. Barnych, L.H. Stanker

2:00 AGFD 168. Identification of botulinum neurotoxin serotype A inhibitors using in vitro cell and oral models of intoxication. **L. Cheng**, C. Tam, L.H. Stanker

2:30 AGFD 169. Stability, bioavailability, and detection of abrin. **C. Tam**, L.H. Stanker, L. Cheng

3:00 Intermission.

3:10 AGFD 170. Fiber and polyphenolics that prevent metabolic dysfunction in diet induced animal models. **W.H. Yokoyama**, H. Kim, T. Arvik

3:40 AGFD 171. Bioactive lipid profiles as indicators of exposure. **M.L. Nording**

4:10 AGFD 172. Adsorption behavior of sunflower lecithin in an air-water interface: Role of lysolecithin. **J. Staton**, S.R. Dungan

4:40 AGFD 173. Local equilibrium flavor distributions in short-chain lecithin solutions. **A. Karman**, S.R. Dungan, N. Nitiin, S.E. Ebeler

Section C
Ernest N. Morial Convention Center Room 218

Career Trajectories for Ag & Food Chemists: Panel Discussion

B.D. Guthrie, *Organizer, Presiding*

1:00 Introductory Remarks.

1:10 AGFD 174. My career as a regulatory scientist at U.S. Food and Drug Administration. **L. Jackson**

1:20 AGFD 175. Career trajectories in agricultural and food chemistry: An academic path. **A.E. Mitchell**

1:30 AGFD 176. My career path as an industrial agriculture and food chemist. **S.J. Toth**

1:40 Panel Discussion.

Impacts of Mining & Hydraulic Fracturing On Crop & Livestock Production
Sponsored by GEOC, Cosponsored by AGFD, AGRO and ENVR

Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus Biomaterials Processing

Sponsored by CELL, Cosponsored by AGFD, ENFL, ENVR and MPPG

WEDNESDAY MORNING

Section A
Ernest N. Morial Convention Center Room 216

General Papers

Pesticides, Herbicides & other Active Natural Chemicals

B.D. Guthrie, *Organizer*
K.D. Deibler, *Presiding*

8:00 Introductory Remarks.

8:05 AGFD 177. Substantial reduction of herbicide application rates using a novel nanostructured pesticide delivery technology. **E. Manek**, R.V. Jones, F. Darvas

8:25 AGFD 178. N-halamine surface functionalization of stainless steel substrates with dual antimicrobial and regenerable character for potential use in the food industry. **B. Demir**, S.D. Worley, R. Broughton, T. Huang, M.J. Bozack

8:45 AGFD 179. Determination of ionic herbicides in beverages and fruit samples using ion chromatography coupled with high resolution accurate mass spectrometry. **T. Christison**, S. Adams, R. Fussel, J. Beck, J. Rohrer

9:05 AGFD 180. Fatty acids profiling as a biomarker of exposure to pesticides. F.H. Abdel-Rhman, D. Adisa, O. Owopetu, P.S. Henry, **S. Jamadar**, K. Anthony, T. Nguyen, B.L. Wilson, M.A. Saleh

9:25 AGFD 181. Fungicide and insecticide dissipation in soil used for sugarcane billet seed treatment. **D. Wayman**, H.J. Ledet, K.A. Torres, C.L. Webber, P.M. White

9:45 AGFD 182. Impact of postharvest ultrasound treatment on physiology and primary metabolic profile of the tomato fruit during storage. **D. Jha**, J. Arul

10:05 Intermission.

10:25 AGFD 183. Withdrawn

10:45 AGFD 184. Essential oil content of the seeds of Wonderful kola, African walnut and Guinea plum and their potentials on hyperlipidemic male Wistar rats. **E.O. Nwaichi**, J. Osoha, M. Monanu

11:05 AGFD 185. Sampling of 6-methoxybenzoxazolin-2-one (MBOA) from maize seedlings by silicone tube microextraction. **H. Pedersen**, K. Heinrichson, I.S. Fomsgaard

11:25 AGFD 186. Effects of cutting and drying leaves of culinary herbs on contents of bioactive phytochemicals in *Perilla frutescens*. **N. Kagawa**, M. Henzan, H. Iguchi, M. Hanaoka

11:45 AGFD 187. Antibacterial Activity of Ascorbic acid: pH effect, specific action or both? **L. Panda**

Section B
Ernest N. Morial Convention Center Room 217

Up in Smoke: Chemistry of Smoky Odors in Food & the Environment

A. Buettner, B.D. Guthrie, *Organizers*
J. Beauchamp, *Organizer, Presiding*

8:30 Introductory Remarks.

8:50 AGFD 188. Smoky, vanilla

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or clove-like? **A. Buettner**, M. Wagenstaller, K. Lorber

9:20 AGFD 189. Human olfactory receptors: From systematic deorphanization to the identification of olfactory receptors activated by guaiacol and related smoky compounds. **C. Pierre**, M. Philippeau, A. Veithen, S. Huisseune, Y. Quesnel

9:50 AGFD 190. Thermal decomposition of wood derived organic matter under specific industrial process conditions. **M. Backes**, **G.E. Krammer**, B. Voss

10:20 Intermission.

10:35 AGFD 191. Incense materials: How burning lifts our spirits. **A. Buettner**, J. Niebler

11:05 AGFD 192. Changes in aroma and sensory profile of food products smoked in the presence of a zeolite filter. **J.K. Parker**, X. Chua, E. Uwiduhaye, S. Lignou, H.D. Griffiths, D.A. Baines

11:35 AGFD 193. Effect of sugars on vapour partition of volatile compounds of coffee beverages. **P. Pittia**, V. Lonzarich, D. Compagnone, L. Navarini

Heidolph North America's Cannabis Chemistry Subdivision Scholarship Symposium
Sponsored by CHAS, Cosponsored by AGFD, CHAL and SCHB

WEDNESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 216

General Papers

Natural Products & Processing Chemistry

B.D. Guthrie, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 AGFD 194. Lipids of *Silybum marianum* (L.) fruits. **D. Hlangothi**, K. Anthony, M.A. Saleh

1:25 AGFD 195. pH, total acidity, and antioxidant activity of cold brew coffee. **N.Z. Rao**, M. Fuller, M. La Torre

1:45 AGFD 196. Effect of pH and caffeine concentration on the hydrolysis of starch by α -amylase. F. Medina, R.J. Straw, A.N. Shaffer-Doan, **A. Khan**

2:05 AGFD 197. Bioproducts potential of *Cladophora glomerata* Algae. **W. Gao**

2:25 AGFD 198. Different Brazilian cold-pressed oils: Chemical composition and healthy properties. N. Cicero, **R. Tardugno**, A. Albergamo, D.G. Bua, V. Di Stefano, A. Salvo, V. Mangano, A. Rotondo, G. Di Bella, G. Dugo

2:45 AGFD 199. Exposure of mint plants to light emitted diode (LED) lights and their impact on essential oil composition. **T. Nguyen**, M.A. Saleh

3:05 Intermission.

3:25 AGFD 200. Green and efficient extraction of highly crosslinked sorghum protein with preserved backbones. **W. Li**, B. Mu, H. Xu, L. Xu, Y. Yang

3:45 AGFD 201. Chemical profiling

of rare South American red nectar. **S. Chakraborty**, J. Jones, M. Phan, N.M. Glagovich, Y. Cai, T. Mione

4:05 AGFD 202. Characterizing germinated brown rice milk beverage processes using green technologies. **J. Beaulieu**, S. Boue, S. Reed, K. Daigle

4:25 AGFD 203. Composition and structural features of condensed tannins from Texas legumes exhibiting methane abatement activity during *in vitro* rumen digestion. H.D. Naumann, R. Sepela, A. Rezaire, A.E. Hagerman, L.A. Reinhardt, J.T. Robe, **W. Zeller**

4:45 AGFD 204. Pigmented tannin by polar chromatography tandem MS for identification of candidate molecular features. **A.L. Waterhouse**, J.R. Cave, C.B. Lebrilla, E.A. Parker

Section B

Ernest N. Morial Convention Center Room 217

Up in Smoke: Chemistry of Smoky Odors in Food & the Environment

J. Beauchamp, B.D. Guthrie, *Organizers*
A. Buettner, *Organizer, Presiding*

1:00 AGFD 205. Wheat beer aroma: Which molecules are evoking the typical desired clove-like and smoky aroma? **M. Granvogl**, D. Langos, P.H. Schieberle

1:25 AGFD 206. Characterization of smoke produced by the New Zealand native plant species, Manuka. **Y. Zhang**, M. Macalister, G. Eyres, J. Jones, P. Silcock

1:50 AGFD 207. Uptake of smoke derived volatile phenols by grapevines and their impact on wine composition and sensory properties. **R. Ristic**, L. van der Hulst, K. Wilkinson

2:15 AGFD 208. Fumé, flint and fire: Smoky flavors in wine. **M. Herderich**

2:40 Intermission.

2:55 AGFD 209. Rapid determination of "smoky" odorant thresholds in red wine using sniff olfactometry (SO). **T.E. Acree**, D. Perry, M. Gros, A. Viguera, A.K. Mansfield

3:20 AGFD 210. Withdrawn

3:45 AGFD 211. Rapid quantitation of phenolic compounds in Islay whiskies by direct injection mass spectrometry. **J. Beauchamp**

4:10 AGFD 212. Thin-Film SPME: A novel approach to the analysis of polar flavor molecules in beverages. **K. Thaxton**, J.R. Stuff, J. Whitecavage

4:35 Concluding Remarks.

Heidolph North America's Cannabis Chemistry Subdivision Scholarship Symposium
Sponsored by CHAS, Cosponsored by AGFD, CHAL and SCHB

THURSDAY MORNING

Section A

Ernest N. Morial Convention Center Room 216

General Papers

Analysis & Methods

B.D. Guthrie, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 AGFD 213. Optimization of reducing sugar-PMP reactions by response surface methodology. **W. Wang**, F. Chen, Y. Wang

8:25 AGFD 214. Animal fat waste and cooking oil waste: A potential source for biodiesel. **M.A. Saleh**

8:45 AGFD 215. Stability of dietary nitrate, phenolic compounds and enhancement of nitric oxide precursor by different vegetable juices blending. **B. Patil**, K.A. Corleto, J. Singh, G.K. Jayaprakasha

9:05 AGFD 216. Physicochemical properties of *Blighia sapida* (ackee) oil. **J.J. Clarke**

9:25 AGFD 217. Chromatographic method validation for cannabis labs: Addressing unique industry challenges. **A. Rigdon**, J. Kowalski, C. Sweeney, J. Cochran, B. Cassidy

9:45 AGFD 218. Starch synthesis in soft white wheat and the biochemical changes induced by sprouting. **Y. He**, M. Tsai, F. Fang, K. Schroeder, A. Lin

10:05 Intermission.

10:25 AGFD 219. Coupling of wet chemistry methods and spectroscopic data for elucidating composition and structure of purified condensed tannins. **W. Zeller**, I. Mueller-Harvey, A.E. Hagerman

10:45 AGFD 220. Omics forecasting: Predictive calculations permit the rapid interpretation of high resolution mass spectral data from complex mixtures. **J.R. Cave**, A.L. Waterhouse

11:25 AGFD 221. Optimizing espresso: Chemical and physical considerations, and a step towards reproducibly tasty coffee. **C.H. Hendon**, W. Lee, J. Foster

11:45 AGFD 222. Determination of organic acids in animal feed using two ion chromatography methods. **J. Hu**, J. Rohrer

Section B

Ernest N. Morial Convention Center Room 217

Chemistry & Applications for Cotton

S. Chang, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 AGFD 223. Effect of pre-heating on the thermal decomposition kinetics of cotton. **S. Nam**, B.D. Condon

9:05 AGFD 224. Innovative technologies development for anti-flammable cotton fabrics at USDA. **S. Chang**, B.D. Condon, J. Smith

9:35 AGFD 225. Correlating metals present in soil and cotton fiber. **C.A. Fortier**

10:05 Intermission.

10:25 AGFD 226. Cytotoxicity and gene expression regulation of minor components from cottonseeds in mouse RAW macrophages. **H. Cao**, K. Sethumadhavan

10:55 AGFD 227. Examination of cotton

fiber bundle properties using an infrared focal plane array detector. **M. Santiago**, T. Von Hoven, D. Hinchliffe

THURSDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 216

General Papers

B.D. Guthrie, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 AGFD 228. ANOVA for unbalanced data: Using spreadsheets to evaluate sums of squares and comparisons of means. **T. Klasson**

1:25 AGFD 229. Withdrawn

1:45 AGFD 230. Interactions between polysaccharides and flavonoids: Potential contribution to microstructure in wine. **T. Goulette**, E.A. Decker, H. Xiao, H. Chong, M.T. Cleary

2:05 AGFD 231. Determination of flavonoids, alkaloids and saponins in *Solanum scabrum* berries using LC/UV/MS. **B. Yuan**, D. Byrnes, J. Simon, Q. Wu

2:25 AGFD 232. The quantification of the food water and energy nexus and cost analysis associated with resource consumption and reduction within a milk processing facility. **C. Adams**

2:45 Intermission.

3:05 AGFD 233. Preparation and characterization of quercetin-loaded electrospun fiber mat and its colon-specific release property. **P. Wen**, M. Zong, H. Wu

3:25 AGFD 234. Withdrawn

3:45 AGFD 235. Storage conditions affect the untargeted chemical profile and bioactivity of black raspberry nectar intended for use in clinical trials. **M.D. Teegarden**, T.J. Knobloch, C.M. Weghorst, J. Cooperstone, D.G. Peterson

4:05 AGFD 236. Inhibitory effect of aqueous extract of the potato peel waste on starch digestive enzymes. **C. Chen**, S. McGeehan, M. Thornton, A. Lin

AGRO

Division of Agrochemicals

J. Eble, *Program Chair*

SUNDAY MORNING

Multiscale Biogeochemical Processes in Soil Ecosystems: Critical Reactions & Resilience to Climate Changes
Sponsored by GEOC, Cosponsored by AGRO and ENVR

SUNDAY AFTERNOON

Multiscale Biogeochemical Processes in Soil Ecosystems: Critical Reactions & Resilience to Climate Changes
Sponsored by GEOC, Cosponsored by AGRO and ENVR

TUESDAY MORNING

[†]Cooperative Cosponsorship

Kenneth A. Spencer Award

Symposium

Sponsored by AGFD, Cosponsored by AGRO

Impacts of Mining & Hydraulic Fracturing On Crop & Livestock Production

Sponsored by GEOC, Cosponsored by AGFD, AGRO and ENVR

TUESDAY AFTERNOON

Kenneth A. Spencer Award

Symposium

Sponsored by AGFD, Cosponsored by AGRO

Impacts of Mining & Hydraulic Fracturing On Crop & Livestock Production

Sponsored by GEOC, Cosponsored by AGFD, AGRO and ENVR

WEDNESDAY EVENING

Multiscale Biogeochemical Processes in Soil Ecosystems: Critical Reactions & Resilience to Climate Changes

Sponsored by GEOC, Cosponsored by AGRO and ENVR

ANYL

Division of Analytical Chemistry

L. Baker and M. Bush, Program Chairs

OTHER SYMPOSIA OF INTEREST:

Failed Brilliance in Nanocellulose Science & Technology (see CELL, Sun)

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries (see CELL, Sun, Mon)

Advances in Bacterial (Nano) Cellulose Research (see CELL, Thu)

Inaugural Joint Symposium of the Separation Science Subdivisions (see I&EC, Wed)

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium (see PROF, Sun, Mon)

Polymer Colloids: Synthesis, Analysis, Modeling & Applications (see POLY, Sun, Mon, Tue, Wed)

SOCIAL EVENTS:

ANYL Reception, 5:00 PM: Tue

SUNDAY MORNING

Section A

Ernest N. Morial Convention Center Room 228

Challenges in Determining Arsenic Compounds in Rice

Cosponsored by MPPG[†]

P.J. Gray, J.F. Tyson, Organizers, Presiding

8:30 Introductory Remarks.

8:40 ANYL 1. Rice consumption and adverse health outcomes: What do we know? **M. Karagas**

9:20 ANYL 2. Chemical analyses in support of studies of the health implications of rice consumption. **B.P. Jackson**, M. Karagas, T. Punshon, K.L. Cottingham

9:50 Intermission.

10:10 ANYL 3. Current and future FDA arsenic speciation methods. **P.J. Gray**

10:40 ANYL 4. Determination of arsenic in baby cereal. **J. Nelson**

11:10 ANYL 5. Lessons learned in arsenic speciation: The good, the bad, and the painful. **M. Kelinske**

11:40 Concluding Remarks.

Section B

Ernest N. Morial Convention Center Room 230

Microfluidic Electrochemical Bioanalysis

M.H. Shamsi, Organizer
M. Shamsi, Presiding

8:30 Introductory Remarks.

8:35 ANYL 6. Low-cost bioassay development for resource-constrained settings. **W. Asghar**, **M. Sher**

9:05 ANYL 7. 3D-printed integrated microfluidic devices for biomolecular assays. **A. Woolley**, M. Beauchamp, E.K. Parker, A.V. Nielsen, H. Almuhamisi, H. Gong, G.P. Nordin

9:40 ANYL 8. Development of electrochemical multiplex 3-D sensors. **Z. She**, K. Topping, D. Kelly, H. Kraatz

10:05 Intermission.

10:20 ANYL 9. Electrochemical paper-based analytical devices for clinical and environmental diagnostics. **C. Henry**, B. Geiss, J. Volckens

10:55 ANYL 10. Electrochemical, aptamer-based sensing supports real-time, closed-loop control of plasma drug levels directly in the body of live animals. **N. Arroyo**

11:20 ANYL 11. Electrochemical study of hexanucleotide repeat expansion linked with neurodegenerative diseases. **M. Shamsi**

Section C

Ernest N. Morial Convention Center Room 229

Ultrafast Spectroscopy Meets Chemistry, Materials & Biology

Novel Approaches

K.W. Huang, I.V. Rubtsov, J. Zheng, Organizers, Presiding

9:00 Introductory Remarks.

9:10 ANYL 12. Ultrafast shock compression spectroscopy meets chemistry, materials and biology. **D.D. Dlott**

9:45 ANYL 13. Ultrafast single-molecule electrical detection. **X. Guo**

10:20 Discussion.

10:30 Intermission.

10:45 ANYL 14. Monitoring nonadiabatic dynamics and conical intersections by nonlinear broadband X-ray spectroscopy. **S. Mukamel**

11:20 ANYL 15. Quantum coherence in ultrafast molecular processes: *ab initio* simulations including dephasing. **E. Coccia**, S. Corni

Section D

Ernest N. Morial Convention Center Room 227

Wearable & Implantable Sensors

Cosponsored by MPPG[†]

M.A. Daniele, L. Deravi, Organizers, Presiding

8:30 Introductory Remarks.

8:35 ANYL 16. Persistent drought monitoring using a microfluidic-printed electro-mechanical sensor of stomata in plants. **V. Koman**, T. Lew, S. Kwak, M. Wong, J. Giraldo, M. Strano

8:50 ANYL 17. Microfluidic encapsulation of nanomaterials for implantable biosensors. **W. Zhang**, X. Xie, A. Abbaspourrad, D.A. Weitz, D.G. Anderson

9:05 ANYL 18. Chemically tuned thin-film and nanofluidic sensors for single-molecule and particle sensing. **J.R. Dwyer**, B.I. Karawdeniya, Y.D. Bandara, J.W. Nichols

9:35 ANYL 19. Design and manufacture of three-dimensional paper-based microfluidic devices. **C. Mace**, S. Fernandes, D. Wilson, N. DeChiara, J. Brooks

10:05 ANYL 20. Interfacing and reverse engineering of live tissue operation in hydrogel microfluidic devices for wearable sensors. **O.D. Velev**, T. Shay, M.D. Dickey

10:35 Intermission.

10:50 ANYL 21. Nanocomposite microneedles for extraction, sampling, and separation of dermal interstitial fluid. E. Marrow, A. Kiran, H. Nissan, A.T. Young, **M.A. Daniele**

11:20 ANYL 22. Microneedles to monitor health and human performance. **R. Polisky**

11:50 ANYL 23.

Section E

Ernest N. Morial Convention Center Room 226

Open Resources for Automated Structure Verification & Elucidation

E. Schymanski, A.J. Williams, Organizers, Presiding

8:30 ANYL 24. Overview of open resources to support automated structure verification and elucidation. **A.J. Williams**, E. Schymanski

8:55 ANYL 25. Using open resources for structure dereplication. **D. Argypoulos**, S. Golotvin, R. Pol, J. DiMartino, A. Moser

9:20 ANYL 26. Fast search chemical structure in 90 million publicly available known compounds by NMR and MS. T. Churanova, **K. Blinov**

9:45 ANYL 27. Improved structure elucidation and verification results with optimized NMR data acquisition methods and strategies. **C. Anklin**, N. Kruse

10:10 Intermission.

10:35 ANYL 28. Using the US EPA's CompTox Chemistry Dashboard for structure identification and non-targeted analyses. **A.J. Williams**, A. McEachran, S. Newton, K. Isaacs, K. Phillips, N. Baker, C. Grulke, J. Sobus

11:00 ANYL 29. Curating "suspect lists" for international non-target screening efforts. **E. Schymanski**, R. Aalizadeh, N.S. Thomaidis, J. Hollender, J. Slobodnik, A.J. Williams

11:25 ANYL 30. Open source software platform for mass spectrometry based non-target screening in the environment. **R. Helmus**, V. Albergamo, O. Brock, J. Parsons, P. de Voigt

11:50 ANYL 31. mzCLOUD: A spectral tree library for the Identification of "unknown unknowns". **R. Mistrik**

12:15 ANYL 32. Automated structure annotation and curation for MassBank: Potential and pitfalls. **E. Schymanski**, M. Stravs, T. Schulze, A.J. Williams

12:40 Discussion.

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MED[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Sponsored by CELL, Cosponsored by AGFD, ANYL and CARB

Failed Brilliance in Nanocellulose Science & Technology

Sponsored by CELL, Cosponsored by ANYL

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

SUNDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 228

Challenges in Determining Arsenic Compounds in Rice

Cosponsored by MPPG[†]

P.J. Gray, J.F. Tyson, Organizers, Presiding

1:30 Introductory Remarks.

1:40 ANYL 33. Performance comparison between extraction methods to support arsenic speciation analyses in rice and rice products. **R. Gerads**

2:10 ANYL 34. Determination of inorganic arsenic in rice by hydride generation, Peltier-effect cryogenic trapping and atomic fluorescence spectrometry. **G. Chen**, B. Lai, M. Xuefei, T. Chen, M. Chen

2:40 Intermission.

3:00 ANYL 35. Methods based on field test kits. **J.F. Tyson**, N. Fragola, C. Zhang

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3:30 ANYL 36. A scalable field test method to speciate arsenic in rice for less than \$2 per sample. **P.J. Gray**

4:00 Panel Discussion.

5:20 Concluding Remarks.

Section B

Ernest N. Morial Convention Center Room 230

Plant Omics

Cosponsored by CELL and MPPG[†]
L.M. Hicks, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ANYL 37. Temporal-omics, incorporating time into high-throughput plant-omics. **C. Doherty**, J. Desai, D. Grinevich

2:00 ANYL 38. Regulation of chromatin structure by a clade of plant-specific, circadian clock associated kinases. M. Wilson, S. Tzeng, X. Jiang, L. Ji, J. Choi, J. Butler, R. Schmitz, B.S. Evans, **D.A. Nusinow**

2:25 ANYL 39. Dissecting kinase signaling pathways in plant stress response. C. Hsu, P. Wang, J. Zhu, **W.A. Tao**

2:50 ANYL 40. Integrative network-centric approaches identify signaling networks associated with plant resistance to pathogens. **S.C. Popescu**, G. Popescu, E.K. Brauer, D. Singh

3:15 Intermission.

3:25 ANYL 41. Complexities of N-terminal protein maturation and stability in chloroplasts. **K. van Wijk**

3:50 ANYL 42. Heterotrimeric G-proteins as regulators of cellular redox status in plants. **S. Pandey**, E. McConnell, A. Vijayakumar, S. Roy Choudhury, L.M. Hicks

4:15 ANYL 43. Hyphenated metabolomics of stomatal guard cell responses to CO₂ in the changing climate. **S. Chen**

4:40 ANYL 44. Characterization of metabolic variability in red wines using a highly selective non-targeted acquisition approach. **L.G. Mullin**, R.S. Plumb

5:05 Concluding Remarks.

Section C

Ernest N. Morial Convention Center Room 229

Ultrafast Spectroscopy Meets Chemistry, Materials & Biology

Reaction Dynamics

K.W. Huang, I.V. Rubtsov, J. Zheng, *Organizers, Presiding*

1:30 ANYL 45. Controlling polyatomic dissociation dynamics using the radical cation launch state. **R.J. Levis**

2:05 ANYL 46. Toward a theory of infrared perturbed electron transfer reactions. **D.N. Beratan**

2:40 ANYL 47. Dynamics and mechanism of UVR8 photoreceptor. **D. Zhong**

3:15 Intermission.

3:25 ANYL 48. Ultrafast primary process of photo-responsive proteins revealed by femtosecond Raman spectroscopy. **T.**

Tahara

4:00 ANYL 49. Exploring dissociation dynamics in families of methylphosphonates and nitrotoluenes with femtosecond pump-probe measurements. **K. Tibbetts**

4:35 ANYL 50. Comparison of photoinduced ultrafast dynamics of semiconducting rare-earth and transition-metal chalcogenides. **D. Yang**, X. He, N. Punpongjareorn

Section D

Ernest N. Morial Convention Center Room 227

Wearable & Implantable Sensors

Cosponsored by MPPG[†]
M.A. Daniele, L. Deravi, *Organizers, Presiding*

1:30 ANYL 51. Flexible electronics and oral biosensing. **D. Schwartz**, R. Street, B. Krusor, P. Mei, A. Pierre, A. Karajic, M. Stambaugh, J. Wang, P. Mercier

2:00 ANYL 52. Liquid metals for wearable sensors. **M.D. Dickey**, T. Shay, O.D. Velev

2:30 ANYL 53. Wearable sensors utilizing nanofiber technology. H. Gao, D. Asheghali, Y. Kim, S. Sharma, **S. Minko**

3:00 ANYL 54. Light-scattering nanostructures enhance visible color in bio-derived textiles. **L. Deravi**

3:30 Intermission.

3:45 ANYL 55. Body powered wearable sensors for personal health and personal environmental monitoring. **V. Misra**

4:15 ANYL 56. Wearable sweat sensors. **A. Javey**

4:45 Concluding Remarks.

Section E

Ernest N. Morial Convention Center Room 226

Active Learning in the Undergraduate Analytical Chemistry Curriculum

A.G. Cavinato, P. Doolittle, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ANYL 57. Studio classroom as a student-centered active learning environment in undergraduate chemistry courses. **C. Akbay**, D.E. Autrey, E. Oshita

1:55 ANYL 58. Active learning approach in teaching statistics for analytical chemistry laboratory. **N.N. Mateeva**, I. Ivanov

2:15 ANYL 59. What's the buzz!? Undergraduate investigations of caffeine and other chemicals using analytical techniques. **J.R. Kraly**

2:35 ANYL 60. Real-world ready environmental monitoring in the Yellow Water River watershed by instrumental analysis students. **P.D. Voegel**

2:55 Intermission.

3:10 ANYL 61. A research-based experience for the undergraduate analytical chemistry laboratory. **C.D. Walsh**

3:30 ANYL 62. Determining the concentration and speciation of iron in beer samples using a cloud point extraction technique for sample preparation coupled with absorbance and emission spectroscopy. **P. Doolittle**, L. Khalafi, J.C. Wright

3:50 ANYL 63. Nanoparticles for sensor development: An active learning experiment for the analytical chemistry laboratory. **A.G. Cavinato**

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Sponsored by CELL, Cosponsored by AGFD, ANYL and CARB

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

SUNDAY EVENING

Section A

Ernest N. Morial Convention Center Hall E

Analytical Chemistry in the Developing World

C.J. Brady, A. Cooper, M. Lieberman, *Organizers*

7:00–9:00

ANYL 64. Fighting low quality pharmaceuticals through the development and optimization of an affordable paper-medium antibiotic assay. **A. Cooper**, M. Lieberman

ANYL 65. Determining milkfat content on a paper-based analytical device. **V. Henry de Frahan**, J.L. Luther, M. Lieberman

ANYL 66. Keep the lead away: Understanding the problem of lead in St. Joseph County, Indiana. **M. Dowd**, M. Lieberman

ANYL 67. Algal biodiesel conversion and characterization for use as decentralized electrical energy. **M. Tetric**, A. Mechtenberg, S. Wietstock, M. Musaazi, J. Makanda

ANYL 68. Synthesis of novel oxazoline compounds for use as insecticides and the evaluation for mosquitoicidal and larvicidal activity. **A.M. Nemeth**, B. Melancon, M.A. McDowell

ANYL 69. In-membrane exploitation of antigen/antibody interaction for selective purification and quantification of therapeutic monoclonal antibodies. **C. Stanton**, J. Berwanger, M. Bruening

ANYL 70. Development of a microfluidic tunable attribute precision screening (TAPS) antimicrobial system

for characterization of bacterial stress. **C.J. Brady**, D. Chen, A. Dimkovikj, J. Shuttleworth, J. ShROUT, A. Timperman

ANYL 71. Development of a phosphate biosensor using the optical density and pressure of growing yeast. **K. Dwyer**

ANYL 72. Development of a portable biosensor for detection of hormones in technology limited settings. **R. Miller**, A.A. Weaver, M. Lieberman, H.V. Goodson

ANYL 73. Paper test card for detection of adulterated milk (MilkPAD). **J.L. Luther**, V. Henry de Frahan, M. Lieberman

ANYL 74. Validation by LC-MS of paper analytical devices of azithromycin and amoxicillin/clavulanate. **K. Favazzo**, T.L. Barstis, C.J. Dunlap, **S. Lawler**

ANYL 75. Validation by LC-MS of paper analytical devices of suspect nepali omeprazole. **K. Dvorak**, **E. Innis**, K. Favazzo, S. Lawler, T.L. Barstis, C.J. Dunlap

ANYL 76. Using ICP-OES to quantify arsenic levels of leachate samples collected in Nepal. **C. Weston**, R. Shakya, **G. McNamee**, T.L. Barstis, B. Giri

ANYL 77. HPLC verification of paper analytical devices to screen for low-quality albendazole. **H. DiLallo**, T.L. Barstis

ANYL 78. Quantitation of heavy metal concentrations in Nepali leachate samples via ICP-OES analysis. **C. Breakfield**, **A. Shadid**, T.L. Barstis, B. Giri, R. Shakya

ANYL 79. Measuring mercury contamination in Nepali leachate samples. **E. Najacht**, R. Shakya, B. Giri, T.L. Barstis

ANYL 80. Determination of lead(II) levels in raw chicken samples using UV-vis spectrophotometry. **S. Wilson**

ANYL 81. Improving isoelectric focusing on microfluidic devices. **A.A. Anye**, C.T. Culbertson, S.H. Bossmann, K. Sellens

ANYL 82. Screening of biologically important small molecules and transition metal ions by label assisted laser desorption/ionization mass spectrometry. **A. Mandal**

ANYL 83. Removal of Cu²⁺ and Pb²⁺ from aqueous solution using K₂Mn₂O₅ nanomaterial. **B.V. Gonzales**, S.S. Huerta, S. Balboa, J.A. Perez, E. Guevara, J.M. Cantu, C. Valdes, J. Parsons

ANYL 84. Protein-phospholipids conjugates for the design of urea reactive membranes for applications in water purification. **L.N. Santiago-Martoral**, E. Nicolau

ANYL 85. Development of solvent responsive cellulose-block copolymer membranes for the adsorption of emerging organic contaminants. **J. Herrera**, D. Ramos, T. Turley, M. Betancourt, E. Nicolau

ANYL 86. Withdrawn

ANYL 87. Comparing gas chromatography mass spectrometry and infrared spectroscopy methods to identify different polymers. **A. Rubino**

ANYL 88. Microdialysis sampling of

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quorum sensing during biofilm formation. **A.A. Diaz**, R. Liyanage, J.O. Lay, J.A. Stenken

ANYL 89. Insights into structures of compounds in biochar from fast pyrolysis. **Y. Jiang**, D. Ding, A. Talpade, H. Luo, M.M. Abu-Omar, H.I. Kenttamaa

Section A

Ernest N. Morial Convention Center Hall E

Analytical Division Poster Session

L.A. Baker, *Organizer*

7:00–9:00

ANYL 90. Systematic study of volatile organic compounds released from plastic films using TD-GC/MS and ESI/MS analytical techniques. **L. Huang**, C. Shogbon

ANYL 91. Evaluation of acid vs. base hydrolysis in UPLC-MS/MS analysis of urinary aromatic diamines. **A. Patel**, B. Bowman, D. Bhandari, B. Blount, V. De Jesús

ANYL 92. Artemia as an indicator for stress in saltwater lakes. **M. Morgan**

ANYL 93. Pharmacokinetics of the stereoisomers of VX in guinea pigs following intravenous exposure. **J.M. McGuire**, L.K. Wright, R.L. Kristovich, M.W. Busch

ANYL 94. Withdrawn

ANYL 95. Identification of new classes of thrombin-binding aptamers by microbeads-assisted capillary electrophoresis (MACE) SELEX. **K. Wakui**, T. Yoshitomi, M. Tsuchida, S. Saito, M. Shibukawa, H. Furusho, K. Yoshimoto

ANYL 96. Identification of novel antimicrobial peptides from *Bacillus subtilis* and *Allium sativum* using PepSAVI-MS. **M. Cooke**, N. Parsley, C.L. Kirkpatrick, L. Hicks

ANYL 97. Voltammetric and preliminary computational study of 3-aryl-quinoxaline-2-carbonitrile 1,4-di-N-oxide derivatives with anti-tumor properties. E.M. Miller, Q. Xia, M.E. Cella, A. Nenninger, M.N. Mruzik, K.A. Brillos-Monia, Y. Hu, R. Sheng, **C. Ragain**, P.W. Crawford

ANYL 98. Microwave spectroscopy of ultracold molecular plasma. **F. Banic Viana Martins**, J.S. Keller, E.R. Grant

ANYL 99. Rapid enrichment and mechanical stimulation of mesenchymal stem cells using dielectrophoresis devices. **J. Yoshioka**, Y. Ohsugi, T. Yoshitomi, T. Yasukawa, N. Sasaki, K. Yoshimoto

ANYL 100. Investigation of isolated particles of lithium ion battery materials using scanning micropipette contact method. **M. Dayeh**

ANYL 101. Withdrawn

ANYL 102. MALDI imaging and laser ablation sampling for analysis of fungicides in produce. **I. Pereira da Silva**, B. Banstola, K. Wang, B.G. Vaz, F. Donnarumma, K.K. Murray

ANYL 103. LC-MS/MS detects

[†]Cooperative Cosponsorship

urobilinoids from feces in fly guts. **C. Skaggs**, N.E. Manicke, C. Owings, C. Picard

ANYL 104. Plasmonic cross-reactive sensors for biomarker signature profiling. **J.L. Chavez**, J.N. Yoho, B. Geier, C. Grigsby, J.A. Hagen, N. Kelley-Loughnane

ANYL 105. "Signal-on" electrochemical DNA sensors fabricated on electrostatically assisted surface assembly of gold nanostars. **L.A. Mayorga**, K.N. Hipp, Y. Wu, R.Y. Lai

ANYL 106. Monitoring on styrene oligomer derived from debris polystyrene surround Japan and its diffusion to open ocean. K. Amemiya, M. Okada, K. Sumi, M. Ochiai, **K. Koizumi**, H. Sato, K. Takatama, K. Yamada, **K. Saïdo**, T. Hiaki

ANYL 107. Detection of aromatic amines in human urine: An automated Hamilton STAR/GC/MS/MS method. **S. Mazumder**, R.A. Ahamed, E. McGahee, L. Wang, T.H. Seyler

ANYL 108. The discovery of a racemic compound of pioglitazone hydrochloride that is more stable than the commercial conglomerate. **C. Zhang**

ANYL 109. Comprehensive evaluation of a sub-2 micron chiral stationary phase: Characterization, applications and ultrafast analyses. **M.J. Wilcox**, O. Ismail, F. Gasparrini, G. Mazzocanti, C. Villani, S. Anderson, A. Cavazzini, M. Catani

ANYL 110. Patchable self-operated ion channel-based mechanoreceptor sensor for health monitoring. **K. Chun**, Y. Son, C. Han

ANYL 111. Fluorescence properties of acriflavine-based GUMBOS and nanoGUMBOS. **B. Manuel**, K.M. Lopez, R.L. Perez, I.M. Warner

ANYL 112. Development of an infrared laser ablation microsampling system. **C. Dong**, F. Donnarumma, K. Wang, C. Szot, K.K. Murray

ANYL 113. Improving relative recovery of cytokines using cibacron blue. **T. Snider**, J.A. Stenken

ANYL 114. Selective sensing of anions with a dinuclear metal complex in water. **A. Hossain**, M. Rhaman, A. Alamgir, D.R. Powell

ANYL 115. Fluorescent sensing and imaging of nicotinamide adenine dinucleotide phosphate in cancer cells. **S. Bae**, S. Shin

ANYL 116. Surface assisted laser desorption/ionization mass spectrometry (SALDI-MS) signal enhancement as a function of nanoparticle size/surface area. **J.R. Yount**, **M. Lapak**, S. Ward, J. Schweig, J. Taylor, C. Woolfolk, A. Olaitan, K.S. Molek

ANYL 117. Quick and sensitive UPLC-ESI-MS/MS method for simultaneous quantification of sofosbuvir and its metabolite, GS-331007, in human plasma. **M. Semreen**, H. Alniss, M. Mousa, H. Aboul-Enein

ANYL 118. Development and validation of a stability-indicating UPLC method for naloxone intranasal formulations. **H. Hsu**,

M. Al-Ghabeish, C. Abraham, V. Pavuluri, S. Narahariseti, M. Ashraf, Y. Yang

ANYL 119. Arsenic in infant rice cereals. **J. Ysseldyke**

ANYL 120. Fabrication and evaluation of metal-organic framework/polymer thin film gas sensors. **J. Shankwitz**, G. Szulczewski, A. Hauser

ANYL 121. Chemical features influencing the fingerprinting of polycarboxylates. **F. Lozada**, M. Bonizzoni

ANYL 122. Preparation of immobilized chiral stationary phases based on helical poly(phenylacetylene) derivatives and their applications in enantioseparation by HPLC. **Y. Zhou**, C. Zhang, Q. Geng, L. Liu, H. Dong, T. Satoh, Y. Okamoto

ANYL 123. Development of hollow fiber liquid phase micro-extraction and ultra high performance liquid chromatography-electrospray ionization-mass spectrometry method for trace analysis of 3-methyl-1,2,3-butanetricarboxylic acid in atmospheric aerosols. **H. Abdul-Azeem**, S. Essén, K.E. Stenström, E. Swietlicki, M. Sandahl

ANYL 124. Levoglucosan as a tracer for early detection of smoldering fire. D. Madsen, **H. Abdul-Azeem**, M. Sandahl, B. Husted

ANYL 125. Quantification of trace elements in oil and gas produced waters via ICP-OES versus ICP-MS: Can high tolerance for salinity overcome lower sensitivity? A.M. Jubb, J. McKinley, M. Engle, **C. Danforth**, D. Mueller

ANYL 126. Detection of designer drugs from plasma via paper spray mass spectrometry. **G. Ren**, N.E. Manicke

ANYL 127. Identifying impurities in TBAF. **A. Andreen**, I.A. Brettell-Adams, P.A. Rupar

ANYL 128. Determination of mono-, di-, and trisulfonated quinophthalones in the color additive D&C Yellow No. 10 (Quinoline Yellow) using high-performance liquid chromatography. A. Weisz, **I.C. James**

ANYL 129. Investigation of the sequential flow analysis and the use of chemical reductants for the determination of nitrate in sea water and salt water aquaria. **P.J. Iles**, R. Kochambilli, D. Robison, S. Biehn, C. Woolston, L. Hannibal, L.D. Giddings, R.V. Valcarce, N.R. Bastian, M. Alvarez, R. Holcomb

ANYL 130. Development of an in-field seawater back extraction and HPLC-fluorescence detection of thiocyanate to combat illegal cyanide fishing. **H. Eberlin**, K. Letson, S.K. O'Shea

ANYL 131. Reverse micelles with different functional group pK_s and their application for the detection of acidic peptides. **B. Zhao**, S. Thayumanavan, R.W. Vachet

ANYL 132. Guided inquiry lab research project. **S. Jain**

ANYL 133. Electrochemically synthesized molecularly imprinted polyaniline nanostructure: A recognition matrix for biotinylated targets. **S. Mandal**, S. Suriyanarayanan, I.A. Nicholls, K. Ramanujam

ANYL 134. Development of a paper analytical device for the detection of illicit drugs. **T. Cleary**, M. Lieberman

ANYL 135. Effect of temperature and energy per atom (E/n) in Ar gas cluster ion beam (GCLB, Ar⁺) on depth profile of organic thin film. **S. Hung**, J. Shyue

ANYL 136. Glyphosate concentrations in river and stream water as a function of rain runoff. **J. Snider**, R.C. Dudek

ANYL 137. Possible functions of transition metal complexes in the catalytic hydrolysis of phosphate esters. **U. Okeke**, R. Butcher, Y. Gultneh

ANYL 138. Photoinduced electron transfer processes of vinylbenzoxirone substituted pyrene: Generation of long-lived charged states. **A. Bhattacharyya**, P. Malakar, P. Edamana

ANYL 139. Filtered Available Phosphate by FIA: Conditions for lower detection limits. **P.J. Iles**, R. Kochambilli, j. Onyeagba, L.D. Giddings, R.V. Valcarce, N.R. Bastian, M. Alvarez, R. Holcomb

ANYL 140. Analysis of fluoride by FIA in dental products. **P.J. Iles**, R. Kochambilli, S. Moore, I. Lester, M. Roberts, L.D. Giddings, R.V. Valcarce, N.R. Bastian, M. Alvarez, R. Holcomb

ANYL 141. Infrared laser ablation of tissue for localized genomics analysis. **K. Wang**, C. Dong, F. Donnarumma, S.W. Herke, K.K. Murray

ANYL 142. Size-dependent oxidation behavior of gold nanoparticles coated with alkanethiol self-assembled monolayers (SAMs). **B.P. Mainali**, F.P. Zamborini

ANYL 143. Adapting a field-deployable mass spectrometer for continuous measurements of helium. **K. Chan**, R. Stanley

ANYL 144. Tip-enhanced laser ablation capture for single cell genomics. **F. Cao**, F. Donnarumma, K.K. Murray

ANYL 145. Determination of biological aminothiols by high performance liquid chromatography coupled with post-column reaction and indirect fluorescence detection. **L. Mikalunaite**, D.B. Green

ANYL 146. Nanoliter deposition for single cell analysis by MALDI mass spectrometry. **R. Lawal**, F. Cao, F. Donnarumma, **J. Decombe**, R. Duran, K.K. Murray

ANYL 147. Monitoring of lithium enolate formation and quantitation of E vs. Z stereoisomers of a tetrasubstituted vinyl tosylate using inline ReactIR. **F. St-Jean**

ANYL 148. Surface-assisted laser desorption/ionization of small organic molecules using non-functionalized transition metal oxide nanoparticles. **S. Ward**, **J. Schwiag**, M. Lapak, B.A. Zanca, L.F. Barnes, A. McCoy, J.R. Yount, A. Olaitan, K.S. Molek

ANYL 149. Rapid SPE in field HPLC detection of complexed thiocyanate by aqueous soluble metalloporphyrins from saline waters. **K. Letson**, S.K. O'Shea, H. Eberlin

ANYL 150. Top down analysis of on the

fly hydrogen deuterium exchange of native protein ions. **N. Sanguantrakun**, C. Chanthamontri, M.L. Gross

ANYL 151. Withdrawn

ANYL 152. Preparation of flexible and transparent conductive electrodes using recyclable plastics. **W.C. Sanders**, P.J. Iles, R.V. Valcarce, J. Calara, G. Johnson, A.C. Lines, C. Page, D. Young, M. Vanweerd, G. Hauschild, J. Tigner, W. Hansen, K. Bussard

ANYL 153. Competitive energy transfer and electron transfer in non covalent fullerene dyad. **S. Dutta**, D. Priyadersini, A. Patnaik

ANYL 154. Compact pulsed xenon fluorescence analyzer for simultaneous detection of nanomolar concentrations of nitrite, nitrate, and ammonium in seawater. **R. Masserini**, S.A. Hendrix, K.A. Fanning

ANYL 155. Withdrawn

ANYL 156. Research on the volatile compounds in Gujinggong Baijiu. **H.H. Li**

ANYL 157. Underlying mechanism of freezing-induced aggregation of gold nanoparticles. **K. Hoyt**, A. Marino, J. Heo

ANYL 158. Towards the creation of turn-on fluorescent Schiff base probes for hydrogen sulfide detection. **M. Conte**, A.A. Abd-Elaal, A. Kirtland, Y.I. Lee

ANYL 159. Multi-responsive hydrogel sensors for transition metal ions via Hofmeister series principles. **C. Price**, J. Carroll, T. Lasseter Clare

ANYL 160. Determining the half-life of thiocyanate in *amphiprion ocellaris* plasma upon potassium cyanide exposure. **H. Nolte**, J. Brown, N.E. Breen, A. Rhyne

ANYL 161. Investigation of the reusability of affinity surfaces for cell capture and analysis. **R.D. Reif**, E. Hurwitz

ANYL 162. Microfluidic platforms for analyzing the effect of biomimetic templates on calcium phosphate mineralization. **J. Miech**, A.E. Gerdon

ANYL 163. Cobalt protoporphyrin IX nanoparticles provide signal amplification in anodic stripping voltammetry for protein biomarker detection. **R.G. Tzepos**, A.E. Gerdon

ANYL 164. Unmanned aircraft as a tool for localized sampling of carbonaceous air particulate matter. **T.C. Berg**, A. Kubatova, B. Nespore, D. Delene, A. Kubat, J. Moe

ANYL 165. Comparing Pt and carbon as an electrocatalyst support material for dicyanoferritoporphyrin in H₂S detection. **J.A. Bennett**, H. Pharithkoune, Y. Qian, S. Simpson, D. Miller, E. Zurek

ANYL 166. Analysis of inks using capillary electrophoresis and direct analysis mass spectrometry techniques. C.L. Copper, **T. Erbach**, **M. McDonough**, N. Drury, M. Moine

ANYL 167. Algae-biotemplated water-splitting nanocatalysts for efficient oxygen evolution reaction. **D. Nde**, W. Zhao

ANYL 168. Analysis of nicotine in clay

samples by solvent extraction and gas chromatography mass spectrometry. **J. Ustiek**, C. Chuang, D.S. Muesse, J. Russ

ANYL 169. Electrochemical immunosensor for simultaneous determination of IL-6 and IL-22 in serum using nanostructured electrode array coupled to PEG-multilabeled magnetic particle and a microfluidic device. **B.S. Munge**, S. Nedder, M. Boisclair, V. Trudel

ANYL 170. Determination of the half life of thiocyanate in the plasma of Haemulon chrysargyreum (smallmouth grunt fish) exposed to potassium cyanide. **J. Brown**, H. Nolte, N.E. Breen, A. Rhyne

ANYL 171. Determination and speciation of arsenic in single rice grains using HG-AFS. **J. Sibbick**, C.L. Martin, J.F. Tyson

ANYL 172. Raman, TGA and DSC studies of non-ideal lipid mixtures. **N. Phambu**, B.M. Almarwani, A. Sunda-Meya

ANYL 173. Mechanisms of σ 66RNAP: Scc4 mediated transcriptional regulation in *Chlamydia trachomatis*. **T. Ukwathage**, L. Shen, M. Macnaughtan

ANYL 174. Sensor fusion for biological imaging. **J. Askim**, S. Semancik

ANYL 175. Electrochemical determination of surface area-to-volume ratio for metal nanoparticle size analysis. **J. Sharma**, D. Pattadar, B. Mainali, F.P. Zamborini

ANYL 176. Development of a paper analytical device for the detection of radon levels. **J. Zinna**, M. Lieberman

ANYL 177. Analyzing out-of-plane emission from gap mode SERS substrates. **A. Cutri**, P. Joshi, T.P. Anthony, A.J. Wilson, K.A. Willets

ANYL 178. Assessing legacy pollution by shell surface XRF analysis of sedentary shellfish. **S. Green**, S.K. O'Shea

ANYL 179. Antioxidant analysis of honey. **B. Esterlen**, **B.J. Bellott**

ANYL 180. Comparison of caffeine concentration in brewed teas. **Q. Krueel**, **B.J. Bellott**

ANYL 181. Functionalization of gold nanoparticles with aminoxy thiol ligands. **T.R. Sibakoti**, F.P. Zamborini, M.H. Nantz

ANYL 182. Application of BURBOP universal rotation pulses to ¹⁹F 2D NMR experiments. **A.A. Marchione**, E. Diaz

ANYL 183. Electron transfer dissociation and collision-induced dissociation mass spectrometry of trivalent metal adducted oligosaccharides. **R. Duke**, C.J. Cassidy

ANYL 184. Direct method for determining the concentrations of trace metals in aqueous samples using microwave plasma-atomic emission spectroscopy. **M.M. Gruber**, A.H. Coffman

ANYL 185. The rapid determination of controlled and non-controlled standards using direct analysis in real time (DART) coupled with the Thermo Q-Exactive. **M.a. Febo**

ANYL 186. An environment-sensitive fluorescent polyamino acid for fingerprint-based protein profiling. **S. Tomita**, S. Ishihara, R. Kurita

ANYL 187. Measuring levoglucosan in plasma using ICECLES method. **A. Kittelson**, J. Dzisam, B.A. Logue

ANYL 188. Isolation and identification of antimicrobial peptides from *Solanum lycopersicum*. **W. Evans**, T. Bartges, C.L. Kirkpatrick, L. Hicks

ANYL 189. Ligand controlled morphology evolution of gold nanostars. **J. Dyer**, X. Meng, C. Jiang

ANYL 190. Detection of adrafinil using electrochemical methods. **S.K. Conlin**, D.A. Fry

ANYL 191. Triggerable rapid contents release and fusion of redox sensitive quinone lipid-based liposomes. **H. Nguyen**, R.L. McCarley, J.E. Winter

ANYL 192. Reusable metal ion-imprinted polymer sponges for selective removal of heavy metals. **A.K. Seaux**, G. Canlas, R. Barbosa

ANYL 193. Incorporating green chemistry principles into analytical chemistry curriculum: Development of green HPLC methods for determination of renal function biomarkers in human fluids. **Y. Zuo**, S. Zhou, R. Zuo, X. Lu, Y. Deng

ANYL 194. A nanobionic light emitting plant. S. Kwak, J. Giraldo, M. Wong, **V. Koman**, T. Lew, R. Sinclair, W.A. Tisdale, M. Landry, M. Strano

ANYL 195. Ionic strength mediated phase transitions of adsorbed DNA on single-walled carbon nanotubes. D. Salem, X. Gong, A. Liu, **V. Koman**, J. Dong, M. Strano

ANYL 196. Determination of nicotine level in soil using HPLC/UV. **C. Dallimore**, **Y. Zhang**, **Q. Zhang**

ANYL 197. Single-molecule fluorescence competitive hybridization assay to detect unlabeled DNA at individual probe sites on surfaces. **W. Li**, E.M. Peterson, J.M. Harris

ANYL 198. Spectrophotometric determination of aluminum in human sweat using Alizarin Yellow R. **J. Walker**, K.T. Jackson

ANYL 199. Development of immunoassays for detecting oxyfluorfen residue in agricultural products. **E. Sheng**, **J. Hao**

ANYL 200. Evaluation of the effect of common cooking practices of rice on its metal content. **W.M. Alrawi**

ANYL 201. Purification of used vegetable oil using groundnut shell. **S.O. Ohenhenlen**, **A.A. Aliyu**, **O.O. Onawumi**

ANYL 202. Comparative studies of metal complexes of 5,10,15,20-tetrakis(2-(trifluoromethoxyphenyl))porphyrin and its isomers. **A. Adeyemo**

ANYL 203. Synthesis and characterization of new photosensitizers: Potential anti-HIV/cancer drugs. **A. Adeyemo**

ANYL 204. Confocal-Raman microscopy determination of temperature-dependent partitioning of PAHs in C₁₈-modified silica particles and interdigitated hybrid-bilayer particles. **X. Wen**, D. Bryce, J.P. Kitt, J.M. Harris

ANYL 205. Absorption of chromium via amino modified biochar. **K. Flores**, D. Gonzalez, J. Parsons

ANYL 206. Effects on alternating the concentration of the bases and temperature in Suzuki cross coupling reactions. **J.A. Perez**, D. Gonzalez, J. Parsons

ANYL 207. Fluoride removal with magnesium/aluminum modified biochar. **E.M. Powell**

ANYL 208. Characterization of the cigarette tar radical using ATR-IR and electro spray ionization mass spectrometry. A.R. Skochko, S. Russell, **K. Stone**

ANYL 209. Extraction of hydrophilic cosmetic components using hydrogels and surface enhanced Raman spectroscopy (SERS) detection. **R. Olson**, D. O'Donnell

ANYL 210. Sensitive chiral analysis of chiral isotopologues via microwave three-wave mixing. **L. Satterthwaite**, S. Eibenberger, C. Perez, R.L. Broadrup, D. Patterson

ANYL 211. Removal of chromium(III) and chromium(VI) from aqueous solution using K₂Mn₂O₇ under light conditions. **J. Valle**, J.M. Cantu, C. Valdes, D. Gonzalez, J. Parsons

ANYL 212. Determination of lead (Pb), barium (Ba), and antimony (Sb) in gunshot residue by thin film hydride generation microwave plasma atomic emission spectroscopy (MP-AES). **K. Lambert**, A.M. Scarton

ANYL 213. Comparative phytochemical analysis of *Citrus aurantium* and *Citrus mimosperma* using HPLC and LC-MS. **J. Swanier**, R.L. Jarret, J.T. Lyles, C.L. Quave

ANYL 214. Source attribution of dokha, a Middle Eastern tobacco product. **E. Hondrogiannis**, L. Frank, C. Wheeler, A. Belunis, R. Alibozek

ANYL 215. Toxic Moscow mules? Dangerous lipsticks? Analyzing the metal content in everyday items. **J.M. Wiester**

ANYL 216. Separation of biosimilars using a 2 μ m silica based size exclusion chromatography column. **A. Chakrabarti**

ANYL 217. Correlating fatty acid composition of omega-3 fatty acids to antioxidant protection using a combination of gas chromatography-flame ionization detection and square wave voltammetry. **M.J. Phaner**

ANYL 218. New approaches to 3D chemical mapping and electronic state analysis at low microns resolution. **W. Yun**, S. Lewis, B. Stripe, S. Seshadri, S. Lau

ANYL 219. Withdrawn

ANYL 220. Discrimination of carboxylate anions in neutral water using chemical fingerprinting methods. **Y. Xu**, M. Bonizzoni

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ANYL 221. Rapid detection of *Escherichia coli* by double cross-PRIMING amplification. X. Wang, S. Niu, C. Shi, **C. Ma**

ANYL 222. Rapid and efficient detection of mycoplasma pneumonia RNA by reverse-transcription loop-mediated isothermal amplification (RT-LAMP). **C. Ma**, C. Yan, C. Shi

ANYL 223. Applications of multidimensional time model for PDF applied to Brownian motion on fractals to solution of different questions of equilibrium, depolarization, filtering, memory friction, and different time scales and energy barriers in 1D Kramers' model for kinetics of chemical reactions and its 2D, 3D, and multi-D modifications and further application to surface acoustic wave pressure sensors. **M. Fundator**

ANYL 224. Investigation of the interactions between IRP and ferritin IRE. M. Miller, K. King, R. Clark, M. Kimble, E. Mendenhall, **B. Wang**

ANYL 225. A potentiometric solid contact micro-sensor to monitor intake of zinc ions in plants. **K.Y. Chumbimuni Torres**, S.M. Armas

ANYL 226. Electrochemical studies of Si(111) surfaces functionalized with hybrid nanomaterials. **F. Konopka**, M.J. Rose

ANYL 227. Open characterization of e-cigarette refill fluids and quantitative determination of selected analytes of concern. **N. Mladjenovic**

ANYL 228. Selective and sensitive detection of pathogens with pathogen-imprinted polymers. **M. Dulay**

ANYL 229. Polymer-spray mass spectrometry for rapid analysis of drugs in biofluids. **M. Dulay**

MONDAY MORNING

Section A
Ernest N. Morial Convention Center Room 228

Biomolecular, Molecular & Elemental Spectrometry with Plasma Sources

Financially supported by Meinhard; Thermo Fisher Scientific
J.T. Shelley, *Organizer*
G.M. Hieftje, *Organizer, Presiding*
J. Shelley, *Presiding*

8:30 ANYL 230. Novel plasma-based tools for real-time mass-spectral analysis of atomic, molecular, and polymeric species. **J.T. Shelley**, A.J. Schwartz, C.L. Walton, S.P. Badal, G.M. MacLean, M.J. Burnley, J. Wu, J.R. Hellinger, G.M. Hieftje

9:00 ANYL 231. Elemental and molecular mass spectrometry development for biological and environmental science. **D.W. Koppenaal**, R.M. Boiteau, L. Pasa-Tolic, E. Hoegg, R.K. Marcus

9:30 ANYL 232. Method development for metal detection at cellular levels by ICP-MS. **N. Jakuboski**

10:00 ANYL 233. Optical isotopic analysis with laser-induced plasma. **G. Chan**, X. Mao, V. Zorba, R. Russo

10:30 Intermission.

11:00 ANYL 234. Liquid sampling-atmospheric pressure glow discharge (LS-APGD) microplasma: A combined atomic and molecular (CAM) ionization source. **R.K. Marcus**, D.W. Koppenaal, E. Hoegg, T. Williams

11:30 ANYL 235. Perspectives for analytical chemistry: From single nanoparticle detection with ICP-MS to nanotoxicology studies in aquatic ecosystems. **C. Engelhard**, D. Mozhayeva, I. Strenge, B. Spelz, H. Schonherr, B. Steinhoff, K. Witte, S. Hartmann, K. Kuhnert, J. Kunze, C. Schlechtriem, R. Zeumer, J. Wanzenböck, D. Lamatsch, R. Vogt, S. Loureiro, V. Galhano, M. Monteiro, I. Lopes

12:00 ANYL 236. Is there no better analytical plasma source than the ICP? **G.M. Hieftje**

Section B
Ernest N. Morial Convention Center Room 230

Analytical Chemistry in the Developing World

Environmental Applications

Cosponsored by MPPG[†]
C.J. Brady, T. Cleary, M. Lieberman, *Organizers*
A. Cooper, *Organizer, Presiding*
M. Dowd, *Presiding*

8:30 Introductory Remarks.

8:35 ANYL 237. Learning from water catastrophes of the world. **S. Ahuja**

9:05 ANYL 238. Portable low-cost instrumentation for metallic colloid scattering chemical sensors of water contaminants. G. Vasquez, Y. Hernandez, **Y. Coello**

9:25 ANYL 239. Electrochemical detection of *E. coli* enzyme activity for improved point-of-use bacterial water testing in resource-limited environments. **M.S. Bono**, E. Hanhauser, S. Beasley, C. Vaishnav, A. Hart, R. Karnik

9:45 ANYL 240. Detoxification of waste water of Pb²⁺ and Cd²⁺ using agricultural waste of boiled groundnut(*arachis hypogaea*) shells. **T.A. Abii**

10:05 Intermission.

10:10 ANYL 241. Analytical chemistry in developing urban environments: Lessons from New Orleans. **H.W. Mielke**

10:40 ANYL 242. Long-range physical transport and in-situ chemical transformation of atmospheric aerosols: Case studies in western Africa, the Caribbean and eastern Asia. **S. Gao**

11:10 Panel Discussion.

Section C
Ernest N. Morial Convention Center Room 229

Ultrafast Spectroscopy Meets Chemistry, Materials & Biology

Multidimensional Spectroscopy

K.W. Huang, I.V. Rubtsov, J. Zheng, *Organizers, Presiding*

8:30 ANYL 243. Triplet dynamics during singlet fission in functionalized pentacenes examined with ultrafast vibrational spectroscopy. **J.B. Asbury**

9:05 ANYL 244. Ultrafast 2D IR spectroscopy of lipid membranes: Experiments and simulations. M. Valentine, **C.R. Baiz**

9:40 ANYL 245. Investigating 2D materials and van der Waals heterostructures with ultrafast infrared microspectroscopy. **H. Chen**, X. Wen, W. Zhuang, G. Zhang, J. Zheng

10:15 Discussion.

10:25 Intermission.

10:40 ANYL 246. Ultrafast dynamics of photosynthetic energy transfer regulated by intrinsic redox reactivity of amino acid side chains in binding pocket. M.A. Allodi, J.P. Otto, S.H. Sohail, R. Saer, R.E. Wood, B.S. Rolczynski, S.C. Massey, P. Ting, R.E. Blankenship, **G.S. Engel**

11:15 ANYL 247. Mechanism of action of biological cosolvents revealed by ultrafast vibrational dynamics. **F. Gai**

11:50 ANYL 248. 2D IR spectroscopic studies of 5-cyano-tryptophan. **F. Chalyavi**, P.H. Gilmartin, M.W. Fennie, M.J. Tucker

Section D
Ernest N. Morial Convention Center Room 227

Wearable & Implantable Sensors
Cosponsored by MPPG[†]
M.A. Daniele, L. Deravi, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 ANYL 249. Flexible multi-analysis electronics: Perception of human self. **F. Li**

8:55 ANYL 250. Studies toward developing a wearable breath sensor for detecting hypoglycemia using VOCs. **M. Agarwal**, A. Daneshkhan, A. Siegel, S. Vij, I. Momoh

9:15 ANYL 251. Harnessing the biochemical energy of glucose. **G. Slaughter**

9:35 ANYL 252. Ultrathin, flexible, and injectable biosensors. **A. Koh**

9:55 ANYL 253. Electrochemical, aptamer-based sensing enables closed-loop control of plasma drug levels directly in live animals. **N. Arroyo**

10:15 Intermission.

10:30 ANYL 254. Going where few wearables dare to go: Injectable, tissue-integrating biosensors for long-term, continuous monitoring of body chemistries. **N.A. Wisniewski**

11:00 ANYL 255. Polymer code for strategic design of tissue-like materials. **S. Sheiko**

11:30 ANYL 256. Polymeric peptide pigments with sequence-encoded properties. **A. Lampel**, S. McPhee, H. Park, G. Scott, S. Humagain, D. Hekstra, B. Yoo, P. Frederix, T. Li, R. Abzalimov, S. Greenbaum, T. Tittle, T. Hu, C. Bettinger, R. Uljijn

Section E
Ernest N. Morial Convention Center Room 226

Ionic Liquids: Recent Trends & Applications

W.L. Hinze, C.D. Tran, I.M. Warner,

Organizers, Presiding

8:30 Introductory Remarks.

8:40 ANYL 257. Ionic liquids in separations and mass spectrometry. **D.W. Armstrong**

9:10 ANYL 258. Ionic liquids and bio resources: Several opportunities are still possible. **C. Chiappe**, L. Guazzelli, C.S. Pomelli

9:40 ANYL 259. Ionic liquids for controlled synthesis of functional materials for applications in analytical chemistry. **S. Dai**

10:10 Intermission.

10:25 ANYL 260. Ionic liquids and GUMBOS: Tunable materials for biomedical applications. **I.M. Warner**

10:55 ANYL 261. Advanced biodegradable/biorenewable sorbents for uranium extraction from seawater. **R.D. Rogers**, G. Gurau

11:25 ANYL 262. Total green synthesis of silver nanoparticle composites. **C.D. Tran**

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries
Sponsored by CELL, Cosponsored by AGFD, ANYL and CARB

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

MONDAY AFTERNOON

Section A
Ernest N. Morial Convention Center Room 228

Analytical Chemistry of Biofuels
Cosponsored by MPPG[†]
Financially supported by Falcon Analytical; Infometrix Inc; The College of the Holy Cross
A.M. Hupp, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ANYL 263. Elucidating structural characteristics of renewable products from a two-step ex situ hydrolysis vapor upgrading process by one- and two-dimensional NMR spectroscopy. **J. Lai**, L. Zhang, K. Gong

2:05 ANYL 264. HPAE-PAD method for determination of sugars in algal biomass. **S. Patil**, M. Tran-Gyamfi, R.W. Davis, J. Rohrer

2:35 ANYL 265. Triacylglycerol-based fuels: An evaluation. **G. Knothe**

3:05 Intermission.

3:20 ANYL 266. Mobile compact ¹H NMR spectroscopy for on-line monitoring of the biodiesel production reaction. D. Galvan, L. Magalhães de Aguiar, D. Borsato, J.J. Rohwedder, **M.H. Killner**

3:50 ANYL 267. Chromatography and chemometric analysis of biodiesel fuel blends. **K.M. Pierce**

4:20 ANYL 268. Determination of biodiesel concentration and feedstock using ultrafast GC, PCA, and PLS. **A.M. Hupp**, J. Perron, N. Roques, J. Crandall, S. Ramos, B. Rohrbach

[†]Cooperative Cosponsorship

4:50 ANYL 269. Fatty acid profile of alternative feedstocks for biodiesel production and implications for fuel properties. **B.R. Moser**

Section B

Ernest N. Morial Convention Center
Room 230

Analytical Chemistry in the Developing World

Food & Nutrition

Cosponsored by MPPG[†]
C.J. Brady, T. Cleary, A. Cooper, M. Lieberman, *Organizers*
V. Henry deFrahán, *Presiding*

1:30 Introductory Remarks.

1:35 ANYL 270. Combating food fraud in the developing world with analytical chemistry. **J. Almirall**

2:05 ANYL 271. Development of a test-kit method for the determination of arsenic in rice in Bangladesh. **J.F. Tyson**, N. Fragola, I. Rafiyu

2:35 ANYL 272. Colorimetric sensor arrays for biomedical applications. **K.S. Suslick**, Z. Li

3:05 Intermission.

3:10 ANYL 273. Deciphering signaling pathways controlling metabolism in *Chlamydomonas reinhardtii*. **L.M. Hicks**

3:40 ANYL 274. Progress in the monitoring of chemical residues in food. **S.J. Lehotay**

4:10 Panel Discussion.

Section C

Ernest N. Morial Convention Center
Room 229

Ultrafast Spectroscopy Meets Chemistry, Materials & Biology

Imaging

K.W. Huang, I.V. Rubtsov, J. Zheng, *Organizers, Presiding*

1:30 ANYL 275. Quantitative ultrafast imaging from quantum dots to tissues. **M. Gruebele**

2:05 ANYL 276. Real-time 3D single-particle tracking spectroscopy: Development and applications. **H. Yang**

2:40 ANYL 277. Novel ultrafast laser ablation sampling technologies in optical emission elemental and isotopic imaging. **V. Zorba**

3:15 Intermission.

3:30 ANYL 278. Second-order spectral lineshapes from charged interfaces. **F. Geiger**

4:05 ANYL 279. Understanding the origins of ultralong radiative states in metal halide perovskite crystals. E. Alarousu, A. El-Zohry, K. Lee, B. Tureli, I. Dursun, J. Yin, A. Zhumekenov, S. Mitra, I.S. Roqan, C. Yang, A. Malko, O. Mohammed, **O.M. Bakr**

4:40 ANYL 280. Interaction of spin and orbital angular momentum of light with bulk GaAs. **P. Navotnaya**, B. Rolczynski, G.S. Engel

Section D

Ernest N. Morial Convention Center
Room 227

Wearable & Implantable Sensors

Cosponsored by MPPG[†]
L. Deravi, *Organizer*
M.A. Daniele, *Organizer, Presiding*
M. Yokus, *Presiding*

1:30 ANYL 281. Microfabrication of epidermal multiplexed sensors for glucose, lactate and pH. **M. Yokus**, V. Pozdin, M. Wilkins, M.A. Daniele

1:45 ANYL 282. Implantable hydraulic sensor to monitor tibial plate bending in fracture healing process with standard radiography. **A. Rajamanthiraj**, H. Pelham, P.W. Millhouse, M. Arifuzzaman, N. Carrington, C. Behrend, J.D. DesJardins, J.N. Anker

2:00 ANYL 283. Ultra-sensitive, highly-selective, real-time chemical sensors based on hydrogel interferometer. **M. Sun**, X. Yang, J. Song, X. He

2:15 ANYL 284. Phthalocyanine GUMBOS for discrimination of VOCs using a quartz crystal microbalance based multisensor array. **S. Vaughan**, N. Speller, P. Chhotaray, N. Siraj, K.S. McCarter, R.L. Perez, I.M. Warner

2:30 Intermission.

2:45 ANYL 285. Using dye-doped polymer and phosphor based coatings to image surface specific changes in pH on implanted medical devices through tissue. **U. Uzair**, J.N. Anker

3:00 ANYL 286. Wearable potentiometric sensors for heavy metals detection. **M. Rostampour Kakroudi**, S.M. Armas, K.Y. Chumbimuni Torres

3:30 ANYL 287. ZnO nanostructure-based linker-free biosensors for alcohol and lactate sensing in sweat. **F. Alam**, A.H. Jalal, Y. Umasankar, N. Pala

3:45 ANYL 288. Multivariate analysis method for precise measurement of volatile compounds by wearable sensors. **A.H. Jalal**, Y. Umasankar, S. Kedia, R. Matos, S. Bhansali

4:00 ANYL 289. Purine precursor detection for pre-symptomatic diagnosis of wounds. **S. RoyChoudhury**, **Y. Umasankar**, S. Bhansali

4:15 Concluding Remarks.

Section E

Ernest N. Morial Convention Center
Room 226

Ionic Liquids: Recent Trends & Applications

W.L. Hinze, C.D. Tran, I.M. Warner, *Organizers, Presiding*

1:30 ANYL 290. Fabrication of renewable biocomposite materials using ionic liquid based methods. **P.C. Trulove**, D.P. Durkin, A. Burn, P. Fahey, S. Park, R. Chung, L. Haverhals, H. De Long

2:00 ANYL 291. Advances in the synthesis of high-performance fuel cell membranes using innovative radiation grafting techniques on fluorinated hydrocarbon polymeric substrates: from styrene to ionic liquids. **D. Poster**, K. Mecaadon, Z. Tsinas, J. Robertson, M. Postek, M. Al-Sheikhly

2:30 ANYL 292. Beyond petroleum-based plastics: Characterizations of functional fiber welded biocomposite

materials. **L.M. Haverhals**, D.P. Durkin, H. Mitiku, J. Choi, X. Tang, A. Amstutz, H.C. De Long, P.C. Trulove

3:00 Intermission.

3:15 ANYL 293. Potential impact of ionic liquids in the field of additive manufacturing. **W.M. Reichert**, G.M. Poole, T.R. Ellett

3:45 ANYL 294. Chiral ionic liquids derived from L- valine as chiral solvents and selectors for enantiomeric recognition. **D. Bwambok**

4:05 ANYL 295. Enhancing photo-physical properties of propidium iodide by substitution of organic anions. **T.P. De Silva**, B. Yang, I.M. Warner

4:25 ANYL 296. Specific conductivity and viscosity of imidazolium-based ionic liquid: Effect of co-solvents. **M. Thakurathi**, V. Thalangamaarachchige, E.L. Quitevis

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Sponsored by CELL, Cosponsored by AGFD, ANYL and CARB

Ongoing Challenges in the Treatment of Contaminants of Emerging Concern

Sponsored by ENVR, Cosponsored by ANYL and CEI

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

Undergraduate Research Posters

Analytical Chemistry

Sponsored by CHED, Cosponsored by ANYL and SOCED

MONDAY EVENING

Section A

Ernest N. Morial Convention Center
Halls D/E

Sci-Mix

L.A. Baker, *Organizer*

8:00–10:00

64, 66-67, 69, 71-73, 77, 80-81, 83, 85, 92, 106, 108, 116, 119, 123, 126, 129, 130, 132, 134, 143, 148-149, 150, 157, 159, 162, 166, 169, 171, 175-176, 178, 183-185, 191, 193, 197, 210, 215-216, 227, 229. See previous listings.

TUESDAY MORNING

Section A

Ernest N. Morial Convention Center
Room 228

ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences: Symposium in honor of Jani C. Ingram

Cosponsored by PROF and WCC
R.D. Foust, *Organizer, Presiding*

8:30 Introductory Remarks.

8:40 ANYL 297. Award Address
(ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences Sponsored by The Camille and Henry Dreyfus Foundation, Inc.). Engaging Native American students in environmental health studies on contaminated lands. **J.C. Ingram**

9:20 ANYL 298. Native environmental health research (NEHR) network: Developing collaborative service-oriented analytical research for Native American students. **D. Stevens**

9:50 Intermission.

10:05 ANYL 299. Professor Jani Ingram at the Northern Arizona University Chemistry Department has been focused on substantially increasing the representation of Native American students in science research through current issues of uranium contamination on the Navajo Reservation. **L. Edgewater**

10:35 ANYL 300. Creating opportunities for disadvantaged undergraduates students in nuclear chemistry: Forensic studies of uranium sources in the environment. **M.E. Ketterer**

11:05 ANYL 301. Environmental arsenic studies as a way to introduce undergraduates to research. **R.D. Foust**

Section B

Ernest N. Morial Convention Center
Room 230

Analytical Chemistry in the Developing World

Applications in Medicine

Cosponsored by MPPG[†]
T. Cleary, M. Lieberman, *Organizers*
C.J. Brady, A. Cooper, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 ANYL 302. Addressing the 3A's (availability, accountability, adherence) of supply chain systems in western Kenya. **M. Maina**, R. Karwa, D.N. Tran, B. Njuguna, I. Manji, P. Wasike, E. Tonui, G. Gigen, M. Lieberman, S. Pastakia

9:05 ANYL 303. Development of a paper analytical device to access quality of chemotherapy drugs. **M.D. Smith**

9:25 ANYL 304. Paper-based microfluidics for emerging disease detection. **C. Henry**, B. Geiss, K. Boehle, R.B. Channon, C. Carrell

9:55 Intermission.

10:00 ANYL 305. Antibiotic resistance gene detection through sequence-specific extraction using DNA-modified porous polymer monoliths. **A. Woolley**, R.L. Hanson, B.R. Peine, R. Knob

10:30 ANYL 306. Withdrawn

10:50 Panel Discussion.

Section C

Ernest N. Morial Convention Center
Room 229

Ultrafast Spectroscopy Meets Chemistry, Materials & Biology

Interfaces

[†]Cooperative Cosponsorship

K.W. Huang, I.V. Rubtsov, J. Zheng, *Organizers, Presiding*

8:30 ANYL 307. Ultrafast processes in nano, molecular, & hybrid semiconductors. **X. Zhu**

9:05 ANYL 308. Probing vibrational-electronic coupling at interfaces via doubly-resonant sum frequency spectroscopy. S. Sengupta, D.W. Elsenbeck, M. Raab, **L.A. Velarde**

9:40 ANYL 309. Tracking ultrafast charge carrier dynamics at the interface of perovskite nanocrystals using time-resolved laser spectroscopy. **O. Mohammed**

10:15 Discussion.
10:20 Intermission.

10:35 ANYL 310. Monolayer dynamics at the air/water interface: From ultrafast to ultraslow dynamics. **M.D. Fayer**

11:10 ANYL 311. In situ vibration sum frequency generation spectroscopic probe of molecular structures and dynamics at electrochemical interfaces. **T. Lian**

11:45 ANYL 312. Probing the mechanism of charge transfer in organic crystals using femtosecond stimulated Raman spectroscopy. **A.A. Cassabaum**, W. Silva, R.R. Frontiera

Section D
Ernest N. Morial Convention Center
Room 227

Advances in Blood-Based Diagnostics

R.A. Dluhy, M.D. Porter, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 ANYL 313. Zwitterion-functionalized PEI/PVA nanofibers embedded in a microfluidic chip for efficient capture and intact release of circulating tumor cells. **Y. Xiao**, M. Wang, L. Lin, L. Du, M. Shen, X. Shi

9:10 ANYL 314. Raman hyperspectroscopy for disease diagnostics and forensic phenotype profiling. **I.K. Lednev**

9:45 ANYL 315. SERS detection of cancer biomarkers. J. Li, H. Cheng, **C. Zhong**

10:20 Intermission.

10:40 ANYL 316. Extracellular vesicles (EVs) as blood-based markers: Microfluidics for their enrichment and analysis. **S.A. Soper**

11:15 ANYL 317. Nanoscale infrared spectroscopy and imaging of aging red blood cells. **C.A. Marcott**, S. Ruggieri

11:50 ANYL 318. Detection of the tuberculosis antigenic marker lipoarabinomannan in infected patient sera by gold nanoparticle labeling and surface-enhanced Raman scattering. **M.D. Porter**

Section E
Ernest N. Morial Convention Center
Room 226

Advancements in Bio-Recognition Element Discovery & Development & Its Translation into Innovative Biosensor Technologies

S. Kim, B. Lee, T. Ulep, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 ANYL 319. Development of phage-based nanobots for the recognition, separation, and detection of bacterial pathogens. T. Hinkley, E.M. Pulkkinen, E. Farquharson, M.M. Duong, J. Talbert, **S.R. Nugen**

9:00 ANYL 320. Biosensing applications incorporating synthetic DNA molecules with catalytic and binding properties. **Y. Li**

9:25 ANYL 321. Screening of pairs of aptamers to nanobiosensors and lateral flow assays. **M. Gu**

9:50 ANYL 322. Identification of biorecognition elements specific to biomarkers through a combination modeling, *in vitro* and, high throughput microarray methods. **R. Krabacher**, Y. Chushak, P. Mirau, S. Larson, J.L. Chavez, N. Kelley-Loughnane

10:05 Intermission.

10:15 ANYL 323. Real-time Biosensors for continuous measurements of specific biomolecules in live animals. **H.T. Soh**

10:40 ANYL 324. BioDot, Inc. provides non-contact low volume dispensing solutions valuable in the biosensor industry. **C. Fronczek**

11:05 ANYL 325. Plasmonic "Ojogel" kit for detecting corneal integrity post glaucoma surgery. **S.K. Misra**, K. Dighe, Z. Shang, L. Labriola, D. Pan

11:20 ANYL 326. Early diagnosis of periodontal diseases using an aptamer-based biosensor with enhanced sensitivity. **B. Lee**, Y. Ka, J. Park, S. Ji, M. Gu

11:35 ANYL 327. Defect engineered TiO₂ nanotube photonic crystals for fabrication of near-infrared photoelectrochemical sensor. **W. Wu**

11:50 Concluding Remarks.

GSPPC: Finding Our Place at the Bottom

Symposium in honor of Richard Feynman

Sponsored by CHED, Cosponsored by ANYL[†], COLL[‡], ENVR[†], INOR, PMSE[†] and PRES[†]

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

TUESDAY AFTERNOON

Section A
Ernest N. Morial Convention Center
Room 228

ACS Award in Chromatography: Symposium in honor of Janusz Pawliszyn

P. Ross, *Organizer, Presiding*
1:30 Introductory Remarks.

1:35 ANYL 328. Biocompatible solid phase micro extraction, shaping the future for biological sampling isolation. **C. Aurand**, E. Barrey, D.S. Bell

2:15 ANYL 329. How can SPME help

in decision making process in clinical practice? **B.G. Bojko**

2:55 ANYL 330. Know the true efficiency of your HPLC column despite the detector ruining it. **P.K. Dasgupta**

3:35 Intermission.

3:50 ANYL 331. Magnetic ionic liquids as extraction and preservation solvents for nucleic acid sample preparation. **J.L. Anderson**, K.D. Clark, O. Nacham, M. Varona

4:30 ANYL 332. Award Address
(ACS Award in Chromatography Sponsored by MilliporeSigma). Think big but design small: A path for green analytical chemistry for next generations. **J.B. Pawliszyn**

Section B
Ernest N. Morial Convention Center
Room 230

Analytical Chemistry in the Developing World

Technology Development

Cosponsored by MPPG[†]
C.J. Brady, T. Cleary, A. Cooper, M. Lieberman, *Organizers*
C. Stanton, M. Tetric, *Presiding*

1:30 Introductory Remarks.

1:35 ANYL 333. Out of the lab and into the world. **M. Lieberman**

2:05 ANYL 334. Excel and high performance electronics: A powerful alternative to commercial instrumentation. **S. Abbott**

2:25 ANYL 335. Building a compact and simple surface-enhanced Raman spectroscopy platform that enables rapid on-site detection of coffee metabolites beyond nanomole level. **B.C. Galarreta**, A. Saldaña Ramos, Y. Hernández García, L. Ayala Correa, L. Lagos

2:45 ANYL 336. A portable and reusable colorimetric sensor for carcinogenic aromatic amines via interface regulation of graphene-enzyme hybrids. **Z. Qu**, M. Zhang, G. Shi

3:05 Intermission.

3:10 ANYL 337. Withdrawn

3:35 ANYL 338. Improving electrophoretic separations using A parafilm-paper-based analytical platform. **J. Mettakoonpitak**, C. Henry

3:55 ANYL 339. Organic solar power integrated greenhouses: Challenges and opportunities. **B. O'Connor**, H.W. Ade, W. You

4:25 Concluding Remarks.

Section C
Ernest N. Morial Convention Center
Room 229

Ultrafast Spectroscopy Meets Chemistry, Materials & Biology

Plasmonics: Materials, including 2D materials

K.W. Huang, I.V. Rubtsov, J. Zheng, *Organizers, Presiding*

1:30 ANYL 340. Plasmonic enhancement of selective virus inactivation through femtosecond laser irradiation. M. Nazari, S. Erramilli, **B.M. Reinhard**

2:05 ANYL 341. 2DIR spectroscopy of molecules under plasmonic fields: Towards understanding the 2D Fano line shapes and signal enhancement mechanisms. **L. Chuntanov**

2:40 ANYL 342. 2D IR vibrational energy transfer between azido- and cyano- reporters in different molecular scaffolds. **M.J. Tucker**

3:15 Intermission.

3:25 ANYL 343. Ultrafast tabletop XUV absorption spectroscopy of transition metal complexes and organohalide perovskites. **J. Vura-Weis**

4:00 ANYL 344. Probing photoexcited charge dynamics of single oxygen vacancies on TiO₂(110) at atomic scale. **Y. Jiang**

4:35 ANYL 345. Engineering of the surface and interface of monolayer MoS₂. **G. Zhang**

5:10 ANYL 346. Dual-frequency surface-enhanced two-dimensional vibrational spectroscopy of thin layers at an interface. **R.T. Mackin**, B. Cohn, L. Chuntanov, I.V. Rubtsov

Section D
Ernest N. Morial Convention Center
Room 227

Advances in Blood-Based Diagnostics

R.A. Dluhy, M.D. Porter, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ANYL 347. Withdrawn

2:10 ANYL 348. Online SERS characterization of serum. E. Peters, C. Wang, J. Li, **Z.D. Schultz**

2:45 ANYL 349. SERS based predictive assay for the treatment of prostate cancer. **M.T. McDermott**, S. Rajput

3:20 Intermission.

3:40 ANYL 350. Investigating antibody adsorption dynamics onto gold nanoparticles to form stable conjugates for analysis of biological fluids. **J.D. Driskell**, G. Ruiz, K. Tripathi

4:15 ANYL 351. Direct biochemical characterization of stored red blood cells using Raman spectroscopy. R. Gautham, J. Oh, R. Patel, **R.A. Dluhy**

Section E
Ernest N. Morial Convention Center
Room 226

Advancements in Bio-Recognition Element Discovery & Development & Its Translation into Innovative Biosensor Technologies

S. Kim, B. Lee, T. Ulep, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ANYL 352. Quantum plasmonics and its applications in life sciences and medicine. **L. Lee**

2:00 ANYL 353. Wearable biosensors for human performance monitoring: Challenges and considerations for device development. **A. Nicolini**

[†]Cooperative Cosponsorship

2:25 ANYL 354. Biomolecular engineering of redox enzymes: Alteration of the electron acceptor preference; from oxygen to direct electron transfer. **K. Sode**

2:50 ANYL 355. Ratiometric fluorescence nanoprobe for hydroxyl radical detection. **M. Cong, N. Siraj, N. Bhattarai, P.E. Kolic, K.S. McCarter, P. Chhotaray, I.M. Warner**

3:05 ANYL 356. Enhancing the sensitivity using a nanostructured surface of the electrode functionalized with nature-derived material and aptamer pair. **S. Kim, M. Gu**

3:20 ANYL 357. GelRed/[G₃T₃]/Tb³⁺ hybrid: A novel label-free ratiometric fluorescent probe for H₂O₂ and oxidase-based visual biosensing. **J. Chen**

3:35 Intermission.

3:45 ANYL 358. A semi-synthetic organism that stores and retrieves increased genetic information. **F.E. Romesberg**

4:10 ANYL 359. Amplification-free detection of nucleic acids and proteins by electrokinetic concentrator. **W. Ouyang, J. Han**

4:25 ANYL 360. Peptide-mediated nanopore detection of uranyl ions in aqueous media: Environmental application. **G. M Roozbahani, X. Guan, X. Chen, Y. Zhang**

4:40 ANYL 361. Real-time quantification of droplet isothermal nucleic acid amplification through measurements of interfacial effects. **T. Ulep, A. Day, J. Yoon**

4:55 ANYL 362. Nanopore based DNA mismatch detection by single-strand-specific nuclease. **X. Chen, G. M. Roozbahani, Y. Zhang, X. Guan**

5:10 ANYL 363. One-step assay for detection of HIV virus with sample-in-answer-out capability. **S. Liu, S. Kuang, C. Shi, C. Ma**

5:25 Concluding Remarks.

GSSPC: Finding Our Place at the Bottom

Symposium in honor of Richard Feynman

Sponsored by CHED, Cosponsored by ANYL[†], COLL[†], INOR, PHYS[†], PMSE[†] and PRES[†]

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

TUESDAY EVENING

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COMP and PMSE

WEDNESDAY MORNING

Section A
Ernest N. Morial Convention Center Room 228

ACS Award in Analytical Chemistry: Symposium in honor of Michael L. Gross

L. Jones, Organizer, Presiding

8:30 ANYL 364. Targeted quantitative proteomic approaches for interrogating the human kinome. **Y. Wang**

9:10 ANYL 365. Native-ESI and ion mobility-mass spectrometry: Expanding MS-based structural biology through understanding of chemical fundamentals. **D.H. Russell**

9:50 ANYL 366. Extension of hydroxyl radical-based footprinting coupled with mass spectrometry for in cell and in vivo protein analysis. **L. Jones**

10:30 ANYL 367. Mass spectrometric studies on photosynthetic pigment-protein complexes. **R.E. Blankenship**

11:10 ANYL 368. Award Address (ACS Award in Analytical Chemistry Sponsored by the Battelle Memorial Institute). Mass spectrometry-based structural proteomics solves problems in biochemistry and bio-therapeutics. **M.L. Gross**

Section B
Ernest N. Morial Convention Center Room 230

Biomedical Advances in Cancer Detection & Treatment Using Advanced Analytical Techniques

C. Burton, Y. Ma, Organizers
C. Burton, Presiding

8:30 Introductory Remarks.

8:35 ANYL 369. Assessing volatile organic compound biomarkers of prostate cancer found in urine headspace by gas chromatography/mass spectrometry. **M. Agarwal, A. Siegel, A. Daneshkhal**

8:55 ANYL 370. GC-MS analysis of volatile organic compounds in urine of mice with breast cancer, with treated breast cancer, and without breast cancer. **S. Naumann, S. Liu, M. Teli, A. Siegel, H. Yokota, M. Agarwal**

9:15 ANYL 371. Withdrawn

9:35 ANYL 372. Noninvasive characterization of epithelial cancers using a composite panel of urinary pteridines and modified nucleosides. **C. Burton**

9:55 Intermission.

10:10 ANYL 373. Manipulation of functional parameters of plasmon-based sensor for effective microRNA assay in patient plasma. **T. Habarakada Liyanage, R. Sardar, H.z. Kaimakliotis**

10:30 ANYL 374. Novel mitochondria-targeted fluorescent probes (MitoProbes) for detection of mitochondrial reactive oxygen species (miROS) generation. **S. Hou**

10:50 ANYL 375. Selective chemotherapeutic applications of rhodamine-based NanoGUMBOS. **N. Bhattarai, I.M. Warner, M. Chen**

11:10 ANYL 376. Design of novel heptamethine dye-based NanoGUMBOS as potential cancer therapeutics. **M. Chen, N. Bhattarai, M. Cong, R.L. Perez, I.M. Warner**

11:30 Concluding Remarks.

Section C
Ernest N. Morial Convention Center Room 229

Novel Approaches to Mass

Spectrometry Imaging

K.K. Murray, Organizer, Presiding

8:30 Introductory Remarks.

8:35 ANYL 377. Robotic surface analysis mass spectrometry (RoSA-MS) of three-dimensional objects. **F.M. Fernandez, A. Li, M. Paine, S. Zambrycki, R. Bennett, M. Bouza**

9:00 ANYL 378. Combining the single-probe mass spectrometry imaging with advanced data analysis. **X. Tian, G. Zhang, Y. Shao, Z. Yang**

9:25 ANYL 379. Laserspray ionization mass spectrometry: Fundamentals, instrumentation, and imaging applications. **S. Trimpin**

9:50 ANYL 380. Chemical imaging mass spectrometry: A universal, quantitative, rapid tool for discovery of biomarkers, IED classification and brain mapping. **R.J. Levis**

10:15 Intermission.

10:35 ANYL 381. Metal-assisted LDI for high resolution imaging MS of neutral lipids from thin tissue sections. **P. Chaurand**

11:00 ANYL 382. Laser Microdissection directly coupled with mass spectrometry for chemical imaging and spatially resolved qualitative and quantitative analysis. **G.J. Van Berkel, J.F. Cahill, V. Kertesz**

11:25 ANYL 383. MALDI MSI directed-infrared laser microsampling for tissue proteomics. **K. Wang, F. Donnarumma, C. Szot, M.E. Pettit, T. Solouki, K.K. Murray**

Section D
Ernest N. Morial Convention Center Room 227

Comprehensive Chemical Characterization of Hydraulic Fracturing Shales, Wastes & Recycled Waste Products
Cosponsored by MPPG[‡]

J. Kucklick, Organizer
S. Christopher, Organizer, Presiding
D. Mueller, Presiding

8:30 Introductory Remarks.

8:35 ANYL 384. Continuing research to identify and address environmental and human health risks associated with the alternative management of oil and gas wastewater. **C. Danforth, D. Mueller, N. Saunders**

9:05 ANYL 385. Toxicity identification evaluation of produced waters of different production ages. **B.W. Brooks, G. Saari, K. Kroll, N.D. Denslow**

9:35 ANYL 386. Forward osmosis as an effective treatment technology for high salinity produced water from unconventional oil and gas development. **T. Liden, D.D. Carlton, Y. Ide, T. Otoy, N. Kubota, K. Schug**

10:05 ANYL 387. Accessing information for chemicals in hydraulic fracturing fluids using the US EPA CompTox Chemistry Dashboard. **A.J. Williams, A. McEachran, J. Sobus, C. Grulke, A. Richard**

10:35 Intermission.

10:50 ANYL 388. Non-target mass spectrometry profiling of organic

compounds in hydraulic fracturing flowback water. **C. Sun, Y. Zhang, J.W. Martin, D. Alessi**

11:20 ANYL 389. Discovery of proprietary amino ethoxylates in hydraulic fracturing wastewater using LC/Q-TOF/MS with solid phase extraction. **K. Sitterley, K. Linden, I. Ferrer, E.M. Thurman**

11:50 ANYL 390. Development and chemical characterization of a hydraulic fracturing wastewater reference material. **S. Christopher, D. Bearden, C. Davis, K. Huncik**

12:20 Concluding Remarks.

Section E
Ernest N. Morial Convention Center Room 226

Advances in Separations

K. Phinney, Organizer, Presiding

8:30 Introductory Remarks.

8:35 ANYL 391. Quantitative measurement of furfural, 5-hydroxymethylfurfural, N-methyl-2-pyrrolidone, benzene, and hydrogen cyanide metabolites in urine using UPLC-MS/MS. **D. Bhandari, D. McCarthy, C. Movassaghi, V. De Jesus, B. Blount**

9:00 ANYL 392. Laser ablation sampling of formalin fixed paraffin embedded tissue. **K. Wang, F. Donnarumma, C. Szot, M.E. Pettit, T. Solouki, K.K. Murray**

9:25 ANYL 393. Withdrawn

9:50 Intermission.

10:10 ANYL 394. Improvements to a UPLC-MS/MS method for simultaneous determination and quantification of 28 urinary biomarkers of volatile organic compound exposure. **C. Movassaghi, D. Bhandari, D. McCarthy, D. Milan, V. De Jesus, B. Blount**

10:35 ANYL 395. Nanofluidic interfaces for time resolved imaging of cellular metabolites. **D. Ediriweera, L.J. Millet, P. Shankles, S. Retterer, M.J. Doktycz**

11:00 ANYL 396. Nanofluidic system for desalination and solvent removal from water sources. **K. Rangharajan, P. Mohanasundaram, A. Conlisk, S. Prakash**

Inaugural Joint Symposium of the Separation Science Subdivisions
Sponsored by I&EC, Cosponsored by ANYL

Inaugural Joint Symposium of the Separation Science Subdivisions
Sponsored by I&EC, Cosponsored by ANYL

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

WEDNESDAY AFTERNOON

Section A
Ernest N. Morial Convention Center Room 228

ACS Award for Research at an Undergraduate Institution: Symposium in honor of Joseph J. Pesek

[‡]Cooperative Cosponsorship

T.J. Wenzel, *Organizer, Presiding*

1:30 Introductory Remarks.

1:40 ANYL 397. Beyond traditional liquid chromatography – mass spectrometry: Using the tools we now have and should use. **K. Schug**

2:20 ANYL 398. Polymer brushes as bonded phases for LCMS of protein drugs. **M.J. Wirth**, T. Chen, R. Jacobson

3:00 Intermission.

3:15 ANYL 399. Capillary electrophoresis as a tool for bottom-up proteomics. Z. Zhang, L. Sun, O. Krokhin, **N.J. Dovichi**

3:55 ANYL 400. Award Address (ACS Award for Research at an Undergraduate Institution Sponsored by the Research Corporation for Science Advancement). The history of silica hydroxide stationary phases for high performance liquid chromatography from conception to commercialization. **J.J. Pesek**

Section B

Ernest N. Morial Convention Center Room 230

Advances in Spectroscopy

J.M. Harris, *Organizer*
S.R. Emory, *Presiding*

1:30 ANYL 401. “Scattered” thoughts on understanding the interfaces of nanoparticle dispersions. **A. Carpenter**, G.L. Richmond

1:55 ANYL 402. Second harmonic and sum frequency generation from aqueous interfaces is modulated by interference. C. Luetgebaucks, G. Gonella, **S. Roke**

2:20 ANYL 403. Monitoring photosynthetic metabolism in a microalgal cell by Raman spectroscopy with stable isotope labeling. **Y. Yonamine**, Y. Suzuki, T. Ito, Y. Miura, Y. Ozeki, K. Goda, Y. Hoshino

2:45 ANYL 404. Study of tryptophan analogues as mechanistic probes of indoleamine 2, 3-dioxygenase reactivity. **A.C. Terentis**, T.C. Foo, J. Meacham, S.R. Thomas

3:10 Intermission.

3:30 ANYL 405. Single-molecule tracking studies of charge-dependent translational and orientational dye motions within surfactant- and solvent-filled silica mesopores. **R. Kumarasinghe**, T. Ito, D.A. Higgins

3:55 ANYL 406. DNA hybridization kinetics through analysis of single-molecule binding-time intervals. **E.M. Peterson**, W. Li, M.W. Manhart, J.M. Harris

4:20 ANYL 407. Probing the local dielectric properties of plasmid DNA in solution and adsorbed on chemically graded surfaces. **Z. Li**, R. Kumarasinghe, M.M. Collinson, D.A. Higgins

Section C

Ernest N. Morial Convention Center Room 229 Ambient Ionization & Forensic Science

A. Hall, *Organizer*
B. Musselman, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ANYL 408. Development of DART-MS libraries and a reverse library search program for on-site or laboratory screening of seized drugs. **B. Musselman**, F. Li, J. Tice, S. Shrader

2:00 ANYL 409. Direct analysis in real time: A new technique for the forensic paint examiner. **C. Bridge**, M. Maric, R.B. Cody

2:30 ANYL 410. Forensic applications of direct analysis in real time (DART) coupled to mass spectrometry. **J. Almirall**

3:00 Intermission.

3:20 ANYL 411. Detection of falsified medicines via triboelectric nanogenerator (TENG) mass spectrometry. **F.M. Fernandez**, M. Bernier, A. Li, L. Winalski, Y. Zi, Z.L. Wang

3:50 ANYL 412. Characterizing a portable MS system featuring interchangeable, ambient ionization sources for routine forensic evidence screening. **C.C. Mulligan**, W. Fatigante, S. Mukta, A. Stelmack, Z.E. Lawton, K. Evans-Nguyen

4:20 ANYL 413. Degradation of sexual lubricant from vaginal bacterial exposure. **D. Green**, M.J. Beazley, C. Bridge

4:40 Concluding Remarks.

Section D

Ernest N. Morial Convention Center Room 227

Forced Degradations in Pharmaceutical Industry

H. Yarabe, *Organizer, Presiding*

1:30 ANYL 414. Forced degradation case studies in pharmaceutical product development and communication strategies to global health authorities. **T. Graul**

2:00 ANYL 415. Evaluation of relative response factors using small scale fraction collection in forced degradation studies. **P. Hong**, P.R. McConville

2:30 Intermission.

2:45 ANYL 416. Force degradation: Breaking up is never an easy thing. **L. Chimilio**

3:15 ANYL 417. Forced degradation studies for well characterized biologics products. **N. Subbarap**

3:45 ANYL 418. Drug degradation mechanisms: Are they important? **S.W. Baertschi**

Section E

Ernest N. Morial Convention Center Room 226

Target-Responsive Fluorescent Probes for Detection & Diagnosis

R.L. McCarley, *Organizer, Presiding*
H. Ai, *Presiding*

1:30 Introductory Remarks.

1:35 ANYL 419. Activity-based sensing as general design principle for fluorescent probe development. **C.J. Chang**

2:00 ANYL 420. Fluorescent and bioluminescent biosensors for biological signaling. **H. Ai**

2:25 ANYL 421. A far-red emitting

fluorescent probe for cytosolic Ca²⁺ ion based on phospho-fluorescein scaffold. **H. Ogasawara**, M. Taki, Y. Sato, S. Yamaguchi

2:50 ANYL 422. Switchable molecular fluorescent probes for detection and imaging of enzymes linked to disease. **R.L. McCarley**

3:15 Intermission.

3:30 ANYL 423. Visualizing intercellular tensile forces by DNA-based membrane molecular probes. **B. Zhao**, M. You

3:55 ANYL 424. Live cell surface conjugation methods for imaging and sensing. J. Majumder, **G. Chopra**

4:20 ANYL 425. Rapid detection of anthrax biomarker based on recovered fluorescence of carbon dots-Cu(II) system. **S.F. Li**

4:45 ANYL 426. Graphene oxide protease sensor for early detection of HIV. **Y. Zhang**, X. Chen, G. M. Roobahani, X. Guan

Inaugural Joint Symposium of the Separation Science Subdivisions
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Inaugural Joint Symposium of the Separation Science Subdivisions
Sponsored by I&EC, Cosponsored by ANYL

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

THURSDAY MORNING

Section A

Ernest N. Morial Convention Center Room 228

Monitoring Pharmaceuticals & Other Pollutants in Water
Cosponsored by MPPG[†]
S. Ahuja, *Organizer, Presiding*

8:30 Introductory Remarks.

8:40 ANYL 427. Monitoring pharmaceuticals and personal care products in water. **S. Ahuja**

9:10 ANYL 428. Pharmaceuticals in the environment and water quality: The role of analytical chemistry. **H. Yao**

9:40 ANYL 429. Novel sample prep platform for monitoring pharmaceuticals and personal care products in water. **C.A. Pohl**

10:10 Intermission.

10:30 ANYL 430. Rapid and sensitive method for the determination of 1,4-dioxane analysis in a wide range of aqueous matrices. **D. Knappe**, M. Sun, C. Lopez

11:00 ANYL 431. Pesticide monitoring using passive sampling for in ground water from Sais, Morocco. **I. Berni**, A. Menouni, I. El Ghazi, R. Duca, L. Godderis, S. El JAFAARI

Section B

Ernest N. Morial Convention Center Room 230

Advances in Spectroscopy

J.M. Harris, *Organizer*
D. Zhang, *Presiding*

8:30 ANYL 432. Using inductively coupled plasma atomic spectroscopy and solid-state NMR spectroscopy to increase characterization speed of polymorphic drugs. **G. Behnke**, R. Quinones, R. Luliucci

8:55 ANYL 433. NMR solution phase structural determination of antibiotics and comparisons of their predicted docking energies. F. Mahmoudi, **W. Carroll**

9:20 ANYL 434. Measuring the electromagnetic properties of pigments during exposure to ultraviolet radiation. **S. Partridge**, D. Slocombe, J. Bauer, A. Porch

9:45 ANYL 435. Polarized resonance synchronous spectroscopy for nanomaterial characterizations. **D. Zhang**

10:10 ANYL 436. Quantification of the effect of molecular aggregation on fluorophore photon extinction, absorption, scattering, Stokes-shifted fluorescence, and on-resonance fluorescence. **B.C. Nugaduwa Vithanage**, D. Zhang

10:35 ANYL 437. Simplification of the data analysis in polarized resonance synchronous spectroscopy by experimental quantification of instrument response function. **J. Xu**, J. Hu, D. Zhang

11:00 ANYL 438. In-situ UV-vis and PRS2 monitoring gold nanoparticle structure and optical activity variations induced cyanide dissolution. **N.S. Abeynayake**, D. Zhang

Section C

Ernest N. Morial Convention Center Room 229

Advances in Mass Spectrometry

M.F. Bush, *Organizer, Presiding*

8:30 ANYL 439. Effects of drift gas selection on the ion mobility of biomolecular ions, large and small. **M.F. Bush**

8:55 ANYL 440. MultiCRAFTI: Overcoming the kinetic energy limitation to measure the cross section of high-mass ions. **B. Pope**, D. Joaquin, J. Hickey, D.V. Dearden

9:20 ANYL 441. Nanoparticle co-matrix for multiply charged ions in MALDI imaging. **B. Banstola**, K.K. Murray, M. Hossen

9:45 ANYL 442. Fast isotope ratio mass spectrometry (FIRMS): A tandem mass spectrometry technique for the rapid and semi-comprehensive evaluation of isotope ratios. **F. Ochieng**, B.A. Logue, P. Hinker

10:10 Intermission.

10:30 ANYL 443. Characterization of metabolic syndrome related lipids acquired using a novel scanning quadrupole DIA acquisition method. **R.S. Plumb**

10:55 ANYL 444. LC-MS detection of pyrrolizidine alkaloids and their N-oxides in herbarium specimens dating back to 1840. **J. Tasca**, C. Smith, E.A. Burzynski, B. Sundberg, A.F. Lagalante, T. Livshultz,

[†]Cooperative Cosponsorship

K.P. Minbiole

11:20 ANYL 445. Testing for rye-phytochemicals in prostate tissue, plasma, and urine from prostate cancer patients. **S.K. Krogh Steffensen**, I.S. Fomsgaard

11:45 ANYL 446. Live single cell mass spectrometry: Towards quantitative analysis. N. Pan, S. Standke, N.R. Kothapalli, A. Burgett, **Z. Yang**

Advances in Bacterial (Nano) Cellulose Research

Bacterial (Nano)Cellulose Formation, Structure & Medical Applications

Sponsored by CELL, Cosponsored by ANYL

THURSDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 228

Advances in Electrochemistry

L.A. Baker, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ANYL 447. Optimization of a 24/7 electrochemical sensor for continuous, on-site analysis of arsenic in water. **K.L. Kaht**, M.M. Crain, T.J. Roussel, R.S. Keynton, R.P. Baldwin

1:55 ANYL 448. Electrochemical, aptamer-based (E-AB) sensors interfaced with three-dimensional (3D) tissue culture to study the role of adenosine triphosphate (ATP) in astrocyte cells. **M. Santos Cancel**

2:15 ANYL 449. Electrochemical sensing with a suspended single nanowire in a microfluidic channel. **R.C. Chiechi**, P. Oomen, Y. Zhang, E. Verpoorte, K. Mathwig

2:35 ANYL 450. Point-of-care determining acetaminophen with multi hydrogen bonds manipulated single-molecule recognition. **Z. Huang**, Y. Zhang, T.E. Wiese, G. Wang, K.E. Riley, Z. Wang

2:55 ANYL 451. Electrochemical monitoring of individual *E. coli* and *B. subtilis* bacteria using electrochemical collisions. **S.N. Thorgaard**, A.T. Ronspees

3:15 Intermission.

3:35 ANYL 452. In situ electrodeposition of RGO for detection of trace metals. **H. Shamkhalichenar**, J. Choi

3:55 ANYL 453. Development of an all-solid-state Fe(II) ion-selective electrode. **T. Ozer**, T. Borch

4:15 ANYL 454. Novel catalyst assessment for CO₂ reduction efficiency. **E. Goel**

4:35 ANYL 455. Development of boron doped diamond paste electrodes for microfluidic paper-based analytical devices. **S. Nantaphol**, R.B. Channon, T. Kondo, W. Siangproh, O. Chailapakul, C. Henry

4:55 ANYL 456. Solid electrolyte interphase and nitrogen doping effect on potassium storage mechanism in graphite.

H. Wang, J. Liu, P. Liang, Z. Shen

Section B

Ernest N. Morial Convention Center Room 230

Advances in Spectroscopy

J.M. Harris, *Organizer*
E.M. Peterson, *Presiding*

1:30 ANYL 457. Scattering-type scanning near-field optical microscopy (s-SNOM) and nanoscale spectroscopy (nano-FTIR) on polymers, biomaterials and 2D materials. **P. Schäfer**, T. Gokus

1:55 ANYL 458. Withdrawn

2:20 ANYL 459. FTIR microspectroscopy imaging as a tool to study chemical composition in intact wild type and mutant *C. elegans* strains. **A. Bouyanff**, S.P. Liyanage, J. Hewitt, S. Vanapalli, N. Moustaid-Moussa, E. Hequet, N. Abidi

2:45 ANYL 460. Computational and spectroscopic studies of pH (Low) insertion peptides in lipid membranes. **J. Flanagan**, C.R. Baiz

3:10 Intermission.

3:30 ANYL 461. pH-dependent surface-enhanced Raman scattering response of silver-loaded microgel particles. T. Curtis, A. King, C. Swanson, **S.R. Emory**, D.A. Rider

3:55 ANYL 462. A silver coated gold nanorod decorated fibrous SERS substrate for arsenic detection. **S. Xu**, B. Chase, D.L. Sparks, J.F. Rabolt

4:20 ANYL 463. Improved chemical identifications by Raman spectroscopy through sequential multimodal powder-, solution-, drop-drying, and surface-enhance- Raman spectral acquisitions. **P.C. Khanal**, J. Xu, J. Hu, D. Zhang

4:45 ANYL 464. Withdrawn

Advances in Bacterial (Nano) Cellulose Research

Pharmaceutical, Medical & Technical Applications

Sponsored by CELL, Cosponsored by ANYL

BIOT

Division of Biochemical Technology

M. Antoniewicz and N. Tugcu, *Program Chairs*

OTHER SYMPOSIA OF INTEREST:

Biobased Water Purification System Approaches (see CELL, Tue)

WCC Rising Star Award Symposium (see WCC, Tue)

SOCIAL EVENTS:

Membership Desk, 8:00 AM: Sun, Mon, Tue, Wed, Thu

Reception, 6:30 PM: Sun

Program Chair's Lunch, 12:30 PM: Wed

Company Lunch Seminars, 12:30 PM: Sun, Mon, Tue, Wed, Thu

Networking/Mentoring Session, 6:00 PM: Mon

BUSINESS MEETINGS:

BIOT Executive Committee Meeting, 7:00 PM: Mon

Future Programming Meeting, 12:30 PM: Tue

SUNDAY MORNING

Section A

InterContinental New Orleans La Salle A

Downstream Processing

Automated, High throughput & In Silico Technologies for DSP Development

L.W. Pampel, N. Sanaei, D.W. Wood, *Organizers*
J. Griesbach, J. Hubbuch, S. Parimal, *Presiding*

8:30 BIOT 1. In silico design of integrated downstream processes for non-mAb biologics produced in complex expression systems. **N. Vecchiarello**, C. Goodwine, S.M. Cramer

8:50 BIOT 2. Streamlining early DSP development through evolving integrated mechanistic models. **A.T. Hanke**, R. Khalaf, L.W. Pampel

9:10 BIOT 3. Using a Bayesian framework to account for scale-down model offsets during process characterization. **M. Stork**, A. Cheng, B. Evans, P. Slade, E. Yu

9:30 BIOT 4. Mechanistic modeling analysis of chromatography scale-down models. **S. Benner**, J. Welsh, M. Rauscher, J. Pollard

9:50 Intermission.

10:10 BIOT 5. In-silico model formulation, calibration and application for commercial CEX chromatography. **C. Kunert**, F. Schlegel, K. Westerberg, O. Kaltenbrunner, P. Rolandi, X. Zhu

10:30 BIOT 6. A scale-down methodology using mini-columns to predict chromatography performance in development and production scale columns. **S.T. Evans**, M. Nagarajan, T. Lew, C. Lupis, G. Ferreira, G. Miro-Quesada, D. Robbins

10:50 BIOT 7. Model-based quality by design: Challenges, pitfalls and best practices. **T. Huuk**, M. Casals-Peralvarez, T. Hahn, T.C. Beck, J. Hubbuch

11:10 BIOT 8. Artificial intelligence in protein chromatography: Root cause investigation of process deviations. **G. Wang**, T. Briskot, T. Hahn, P. Baumann, J. Hubbuch

Section A

InterContinental New Orleans La Salle A

BIOT Awards

David Perlman Memorial Lectureship

M.R. Antoniewicz, N. Tugcu, *Organizers*
T.M. Przybycien, *Organizer, Presiding*

11:30 Introductory Remarks.

11:40 BIOT 9. Designing biology for health and the environment. **P. Silver**

Section B

InterContinental New Orleans La Salle B/C

End-to-End Biomanufacturing

Process Analysis & Control of Product Quality Attributes

S.W. Harcum, V. Natarajan, N. Rathore, S.A. Tobler, *Organizers*
G. Hiller, C. Jiang, P. Tessier, *Presiding*

8:30 BIOT 10. Process analytical technology for flow synthesis of antisense oligonucleotides: Real-time starting material assurance and ASO sequence confirmation. **X. Su**, J. Yang, A. Ng, E. Schmitt, J. Stolee

8:50 BIOT 11. Paving the road towards real-time release testing. **G. Malmquist**

9:10 BIOT 12. Integrating metabolomics and process analytical technology (PAT) for rapid monitoring of protein glycosylation in a CHO bioprocess. **E. Kamaloo**, E. Hodgman, A. Lewis, J. West, D. Mohammed, B. Drew, N. Aranibar, B.M. Warrack, M.D. Reily, E. Garr

9:30 BIOT 13. Late-phase process improvement: Methods to increase titer while maintaining product quality. **M. Bennett**, M. Zusiak

9:50 Intermission.

10:10 BIOT 14. Differential expression and activity of metabolic enzymes in cell culture fluid correlates with increased disulfide reduction of mAb products. **A.J. Cura**, S. Chollangi, K. McWade, J. Yee, M. Peck, T. Hageman, Y. Huang, X. Xu, S. Ghose

10:30 BIOT 15. Steering N-glycosylation of recombinant proteins using systems engineering. **M.G. McCann**, T.S. Le, C. Stach, X. Chen, N. Somia, L. Zhao, M. Smanski, W. Hu

10:50 BIOT 16. An E2E approach for controlling aggregation through a monoclonal antibody (mAb) process. **S. Saluja**, G. Evangelist, C. Xu, R. Raju, C. Kwiatowski

11:10 BIOT 17. Monitoring and control of capture steps by spectroscopy combined with PLS modeling. **L. Rolinger**, M. Rudt, N. Brestrich, J. Hubbuch

Section C

InterContinental New Orleans Pelican I/II

Biomolecular & Biophysical Processes

Protein Structure & Function

E. Sahin, P.M. Tessier, *Organizers*
X. Ge, R. Shah, *Presiding*

8:30 BIOT 18. Rapid mapping of glycoprotein structure-activity relationships by shotgun scanning glycomatogenesis. **X. Zheng**, M.P. Delisa

[†]Cooperative Cosponsorship

8:50 BIOT 19. High-throughput single molecule FRET for protein structure-dynamics-function screening and molecular evolution. **K. Hamadani**

9:10 BIOT 20. A novel widespread toxin-antitoxin module. F. Piscotta, **A. Link**

9:30 BIOT 21. Cholesterol dependent ligand binding and downstream signaling of the adenosine A_{2b} receptor. **C. McGraw**, A.S. Robinson

9:50 Intermission.

10:10 BIOT 22. Comparing apples and oranges: Identifying initiator peptides of non-amyloid prions. **C. Jakobson**, J. Byers, T. Lozano, Z. Harvey, R. Futia, S. Sahai, M. Swift, D.F. Jarosz

10:30 BIOT 23. Deciphering structural and chemical determinants of pathological tau conformation using yeast surface display. S. Wang, **Y. Cho**

10:50 BIOT 24. Interactions of arginine. HCl and NaCl with protein surfaces: Effect on self-association, aggregation, and viscosity of mAb formulations. **C. Sudrik**, T. Cloutier, P. Pham, H. Samra, B.L. Trout

11:10 BIOT 25. Vibrational Stark effect spectroscopy as a tool for enhancing understanding of electrostatics in complex protein systems. **E.T. Novelli**, L.J. Webb

Section D

InterContinental New Orleans
Frenchman Ballroom

Upstream Processes

Systems Biology & Omics Applications

R.R. Kshirsagar, B. Pflieger, A. Russo, *Organizers*
C. Chen, C. Metallo, *Presiding*

8:30 BIOT 26. Investigating the global landscape of chromatin accessibility to improve production Chinese hamster ovary (CHO) cell line stability. **Z. Lee**, W. Hu

8:50 BIOT 27. Advancing mammalian metabolic engineering through kinetic model optimization. **C.M. O'Brien**, A. Allman, P. Daoutidis, W. Hu

9:10 BIOT 28. Leveraging -omics techniques to enhance productivity of biologics in microbes. **J.R. Brady**, C.A. Whitaker, M. Tan, N. Colant, N. Dalvie, R. Love, J.C. Love

9:30 BIOT 29. Mapping the energy profile of cell culture through advanced lipidomics and metabolomics. **A.S. Ali**, A. Gilbert, L. Zang, R. Raju

9:50 Intermission.

10:10 BIOT 30. Interrogation of critical metabolic pathways important for compartment-specific redox homeostasis in cancer cells. **M. Badur**, D. Zhao, J. Luebeck, J. Magana, A. Birmingham, R. Sasik, T. Ideker, C. Metallo, P. Mali

10:30 BIOT 31. From genotype to fluxome to a comprehensive kinetic model of *Escherichia coli*. **M.R. Antoniewicz**

10:50 BIOT 32. Genomic scale metabolic network reconstruction of *Nostoc* sp. PCC 7120 for the analysis of cyanophycin production. **D. Norena-Caro**, M.G. Benton

11:10 BIOT 33. Quantitative multi-dimensional single-cell analysis of autophagy during myogenesis. **H. Brown**, E.A. Arriaga

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama
Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRE[†], WCC and YCC

SUNDAY AFTERNOON

Section A

InterContinental New Orleans
La Salle A

Downstream Processing

Emerging Technologies for Downstream Processing of Bionanoparticles

L.W. Pampel, N. Sanaie, D.W. Wood, *Organizers*
M. Bakhshayeshi, S. Kumar, T. Linden, *Presiding*

2:00 BIOT 34. Use of polyamines for enhanced retention of plasmid DNA isoforms during ultrafiltration. Y. Li, **I. Manzano**, A.L. Zydney

2:20 BIOT 35. Scalable nanofiber based lentiviral vector purification. J. Ruscic, C. Perry, Y. Takeuchi, T. Mukhopadhyay, **D.G. Bracewell**

2:40 BIOT 36. mRNA vaccines and therapeutics: On the progress from promise to reality. **H. Pujar**

3:20 Intermission.

3:40 BIOT 37. Virus purification in aqueous two-phase system at varying tie line lengths. **C. Heldt**, P. Joshi, M. Weiss

4:00 BIOT 38. Development of a scalable chromatography process to separate empty and full adeno-associated vector (AAV) particles. **R. Dickerson**, M. Bakhshayeshi

4:20 BIOT 39. *In silico* prediction of physicochemical liabilities in Adeno-associated virus capsids. **K. Manibog**, S. Kumar

4:40 BIOT 40. Single-use purification of cell culture-derived virus particles by steric exclusion chromatography. P. Marichal-Gallardo, K. Lothert, T. Grein, U. Reichl, P.M. Czermak, **M.W. Wolff**

Section B

InterContinental New Orleans
La Salle B/C

Upstream Processes

Mammalian Cell Culture & Engineering: Media and Metabolism

R.R. Kshirsagar, B. Pflieger, A. Russo, *Organizers*
Y. Cho, N. Jacob, S. Ozturk, A.B. Tolstrup, *Presiding*

2:00 BIOT 41. Withdrawn

2:20 BIOT 42. Media optimization towards a high-liter platform process. **B.Y. Wong**, R. Shawley, M. Gawlitze, L. Zhang

2:40 BIOT 43. Elucidating amino acid metabolism in CHO cells. **M.R. Antoniewicz**, J. Gonzalez, B. McConnell, H. Naik, V. Dhara, M.J. Betenbaugh

3:20 Intermission.

3:40 BIOT 44. What cells want vs. what cells need: Simplification of chemically defined media for optimal performance. **M. Krajcovic**, Y. Ilin, S. Hutchins, A. Borschchenko, W.S. Ahn, L. Tescione, D. Inlow, C. Lu

4:00 BIOT 45. Media formulation optimization based on multi-scale modeling of heterogeneity in mammalian cell culture process. **S. Galbraith**, H. Liu, S. Yoon

4:20 BIOT 46. Understanding glycosylation variability in CHO cell cultures. **P. Ahyou**, A. Nguyen Dang, K. Mains, M. Mun

4:40 BIOT 47. Understanding the effect of preparation methods on bioavailability of components in a cell culture feed. **M. Berge**, E. Hackner, J. Lee, J. Reier, M. Liang

Section C

InterContinental New Orleans
Pelican I/II

Biomolecular & Biophysical Processes

Protein Interactions & Interfaces

E. Sahin, P.M. Tessier, *Organizers*
D.G. Bracewell, H.D. Sikes, W. Weiss, *Presiding*

2:00 BIOT 48. Dynamic and chemically heterogeneous polymer brushes stabilize protein conformation. D.F. Marruecos, H.H. Kim, D.K. Schwartz, **J. Kaar**

2:20 BIOT 49. Mechanistic origin of the combined effect of surfaces and mechanical agitation on protein aggregation. **P. Arosio**

2:40 BIOT 50. Neutron scattering to characterise protein interactions with solid-liquid interfaces in bioprocessing. **M. Papachristodoulou**, D.G. Bracewell, C.J. Roberts, L. Clifton, P. Butler, J. Douch

3:00 BIOT 51. Adsorption of non-ionic surfactants and proteins on hydrophobic surfaces studied by neutron reflectometry. **Z. Zhang**, S.V. Orski, A.M. Woys, I. Zarraga, N.J. Wagner, Y. Liu

3:20 Intermission.

3:40 BIOT 52. Withdrawn

4:00 BIOT 53. Computational approaches to understand a living/inorganic interface: Engineering bacterial fimbrial tip protein FimH to bind gold surfaces. **M.C. Small**, J. Terrell, D.N. Stratis-Cullum, M. Hurler

4:20 BIOT 54. Short wave radio frequency resonators for transducing protein and cell surface interactions in closed systems. S. Charkhabi, A. Beierle, **N. Reuel**

4:40 BIOT 55. Determining the relationship between T cell activity and affinity of cytomegalovirus-specific TCRs. **C. Stevens**, C. Williams, Z. Frye, J. Jiang, J. Maynard

Section D

InterContinental New Orleans
Frenchman Ballroom

Biomedical & Emerging Technologies

New Tools & Approaches for Cancer Applications

A.M. Kloxin, A. Noyes, J.P. Pieracci, *Organizers*
J.N. Albert, A. Boesch, J. Spangler, *Presiding*

2:00 BIOT 56. Simultaneous determination of drug efficacy in single cells using a multiplexed droplet trapping array. **K. R Baigiran**, R. Elkhanoufi, M. Vaithyanathan, J.A. Dorman, A.T. Melvin

2:20 BIOT 57. Small molecule based drug capture materials. **S. Krishnamoorthy**, R.H. Grubbs

2:40 BIOT 58. Electro-responsive poly-graphene medi-patch arm-bands for controlled delivery of STAT-3 inhibitors in anti-stem cell melanoma therapy. **S.K. Misra**, M.S. Khan, P. Mukherjee, D. Pan

3:00 BIOT 59. Precisely targeted photodynamic antitumor therapy by platelet membrane coated nanoparticle. **L. Xu**, F. Gao, F. Fan, L. Yang

3:20 Intermission.

3:40 BIOT 60. Eradicating primary tumor and cancer stem cells with prosthetic antigen receptor modified T-cells. **C.R. Wagner**, J.R. Petersburg

4:00 BIOT 61. Visualization of a cancer-associated enzyme using near-infrared (NIR) off-on and on-on fluorescent probes in vitro and in vivo. **Z. Shen**, R.L. McCarley

4:20 BIOT 62. Programmed accumulation of prodrug-converting enzymes in cancer cells. **T.D. Warren**, M. Ostermeier

4:40 BIOT 63. Tunable, post-translational method for controlling prodrug converting enzymes in cancer cells. **A. Gaynor**, W. Chen

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama
Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium
Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†],

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ORGN, PHYS[†], PMSE[†], POLY[†], PRE[†], WCC and YCC

SUNDAY EVENING

Section A
InterContinental New Orleans
La Salle A

BIOT Tank

G. Bolton, M. Lynch, *Organizers*
V. Roy, *Organizer, Presiding*

5:00 Introductory Remarks.

5:15 BIOT 64. Complete snakebite therapy. **C.F. Komives**

5:30 BIOT 65. *Escherichia coli* as production vehicle for high value chemicals, glucaric acid and glucuronic acid. **D. Prather**

5:45 BIOT 66. Next generation biopharmaceutical process development: Stop experimenting. GoSilico. **T. Huuk**, T.C. Beck, T. Hahn, J. Hubbuck

6:00 BIOT 67. Zepton: On demand antiviral antibody production. **A. Boesch**, G. Bolton, J. Fox, M. Diamond

6:15 Discussion.

MONDAY MORNING

Section A
InterContinental New Orleans
La Salle A

Downstream Processing

Advances in Chromatographic Separations

L.W. Pampel, N. Sanaie, D.W. Wood, *Organizers*
S.M. Cramer, J. Neville, D. Robbins, *Presiding*

8:30 BIOT 68. Exploring the multimodal anion exchange space: Fundamental investigations and applications. **J. Robinson**, H. Chen, X. He, Y. Xu, M.A. Snyder, S.M. Cramer

8:50 BIOT 69. Evaluation of chromatofocusing and related ion exchange methods as alternatives to protein A chromatography in purification of antibodies. **Y. Liu**, S. Deldari, H. Guo, C.N. Rao, R. Bates, R. Swanson, Z. Li, S. Ghose, D. Frey

9:10 BIOT 70. A new cation exchange resin designed for the removal of monoclonal antibody aggregates using flow-through frontal chromatography. **M. Stone**, K.A. Cotoni, J. Stoner, P. Menstell

9:30 BIOT 71. Releasing chromatography from the past: Integrating a new lattice supported bed and resin design to achieve hyperproductiveTM affinity capture. **M. Siwak**, J. Van Alstine

9:50 Intermission.

10:10 BIOT 72. Control of an engineered self-cleaving affinity tag for purification of recombinant proteins by modulating extein residues. **Y. Fan**

10:30 BIOT 73. Robust viral clearance using novel anion exchange technology. **A.M. Voloshin**, N. Stepanova, A. Castro Forero

10:50 BIOT 74. Retooling downstream processing to address or enable an ever-expanding diversity of therapeutic modalities. **C. Haynes**, D.J. Roush, M.A. Snyder

Section A
InterContinental New Orleans
La Salle A

BIOT Awards

Van Lanen Award and Marvin Johnson Award Lecture

M.R. Antoniewicz, N. Tugcu, *Organizers*
T.M. Przybycien, *Organizer, Presiding*

11:30 Introductory Remarks.

11:40 BIOT 75. Synthetic biology: Putting synthesis into biology. **H. Zhao**

Section B
InterContinental New Orleans
La Salle B/C

End-to-End Biomanufacturing

Big Data & Knowledge Management

S.W. Harcum, V. Natarajan, N. Rathore, *Organizers*
S.A. Tobler, *Organizer, Presiding*
M. Boggara, *Presiding*

8:30 BIOT 76. Application of big data to inform prior knowledge and facilitate process validation risk assessment.

S. Wong, K. Kaleas, A. White, K. Lazzareschi, J. Persson

8:50 BIOT 77. Leveraging prior knowledge to streamline risk assessment tools and process validation study design. **A. White**

9:10 BIOT 78. Model evolution: Enabling process knowledge continuum and control. **J. Ren**, S. Romero-Torres, C. Shi, R. Guenard

9:30 BIOT 79. Unlocking the potential of big data in a biopharmaceutical manufacturing network. **G. Naugle**, P. Stey

9:50 Intermission.

10:10 BIOT 80. Mining process data to improve environmental impact of biomanufacturing. **K. Budzinski**, M. Blewis, P. Dahlin, J. Esparza, J. Gavin, S.V. Ho, C. Hutchens, D. Kahn, S.G. Koening, R. Kottmeier, J. Millard, M. Snyder, B. Stanard, L. Sun

10:30 BIOT 81. Application of process data analytics to improve commercial scale mAb manufacturing process. **L. Xu**

10:50 BIOT 82. Application of novel multivariate data analysis (MVDA) techniques to understand and troubleshoot variability in cell culture manufacturing. **L. Cella**, J.S. Bowers, P. Avalle, L. Obando, A. Abdelsalam, K. Thirupapliyur, D. Bonnano, J. Easson, S. Gough, R. Leighty, V. Janakiraman, A. Russo, A.G. Tulloch, G. Maheshwari

11:10 BIOT 83. Understanding upstream variability and new data techniques. **V. Saucedo**

Section C
InterContinental New Orleans
Pelican I/II

Biomolecular & Biophysical Processes

Protein Engineering & Design

E. Sahin, P.M. Tessier, *Organizers*
Y. Cho, M. Geddie, *Presiding*

8:30 BIOT 84. MLProScape: Machine learning guided approach for engineering enzymes faster. **S.T. Gupta**, E. Glasgow, B.G. Fox, P. Ramanathan, J. Reed

8:50 BIOT 85. Surface display-enabled selection of bioorthogonally stabilized alpha helices using non-natural amino acid incorporation. **T.A. Navaratna**, L. Atangcho, A. Min, G.M. Thurber

9:10 BIOT 86. Three ways to design selective peptide inhibitors of anti-apoptotic Bfl-1. **A.E. Keating**

9:50 Intermission.

10:10 BIOT 87. Direct measurement of deubiquitinating enzyme activity in intact cells using a protease-resistant, cell permeable peptide-based reporter. **N. Safabakhsh**, J. Pettigrew, T. Gauthier, A.T. Melvin

10:30 BIOT 88. Proteolytic silencing of diverse mammalian protein targets using a functionally remodeled bacterial E3 ubiquitin ligase. **M.R. Baltz**, E.A. Stephens, M.P. Delisa

10:50 BIOT 89. Implications of protein sequence variants derived from systematic starvation. **E. Wong**, C. Huang, Z. Zhang

11:10 BIOT 90. Design of protein glycosylation sites by high-throughput expression and characterization of polypeptide glycosyltransferases. **W. Kightlinger**, L. Lin, M. Rosztoczy, M.P. Delisa, M. Mrksich, M.C. Jewett

Section D
InterContinental New Orleans
Frenchman Ballroom

Upstream Processes

Microbial Communities & Microbiomes

R.R. Kshirsagar, B. Pflieger, A. Russo, *Organizers*
C.H. Collins, C. McChalicher, O. Venturilli, *Presiding*

8:30 BIOT 91. Microbiome-virome interactions in bovine rumen: Elucidating metabolic transactions through metabolic modeling. M. Islam, W. Schroeder, S. Fernando, **R. Saha**

8:50 BIOT 92. Evaluation of a cyanobacterial consortium for efficient polysaccharide production. **K. Poorey**, R.W. Davis, O. Killian, C. Talbot, D. Smernoff, R. Mancenelli, E. Sundstrom

9:10 BIOT 93. Engineering modular microbial communities for cellulose utilization and bioproduct synthesis. **K.Z. Kalbarczyk**, M. Koffas, C.H. Collins

9:30 BIOT 94. Sustainable production of industrially relevant biomonomers: A photosynthetic microbial consortia approach. **D.N. Carruthers**, E. Marsh, X. Lin

9:50 Intermission.

10:10 BIOT 95. Polysaccharide chemical

structure controls on fermentation by gut microbiota, metabolic outputs, and interspecies interactions. Y. Tuncil, M. Chen, T. Yao, **S. Lindemann**

10:30 BIOT 96. ¹³C metabolic flux analysis in microbial communities: An integrated multi-scale modeling approach. **M.R. Antoniewicz**

10:50 BIOT 97. Electro-active communities for hydrogen production from biomass streams. **A. Lewis**, A. Borole

11:10 BIOT 98. Metabolic modeling of microbial communities. **S. Chan**, C. Maranas

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama

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MONDAY AFTERNOON

Section A
InterContinental New Orleans
La Salle A

Downstream Processing

Advances in Chromatographic Separations

L.W. Pampel, N. Sanaie, D.W. Wood, *Organizers*
S.M. Cramer, J. Neville, D. Robbins, *Presiding*

2:00 BIOT 99. Investigation into the thermodynamics of mAb: Ligand interactions in MM chromatography. **R.B. Gudhka**, D.J. Roush, S.M. Cramer

2:20 BIOT 100. Mechanistic modeling of multi-modal chromatography: Separation of antibody variants using mixed-mode weak cation exchange resins. F. Wittkopp, F. Seelinger, R. Skudas, M. Schulte, **C. Dr. Frech**

2:40 BIOT 101. Case of the disappearing protein peak: Gradient elution behavior in HIC with U-shaped retention factor curves. **A. Creasy**, J. Lomino, G. Barker, G. Carta

3:00 BIOT 102. Modified batch isotherm determination method for mechanistic model calibration. **T. Hahn**, T.C. Beck, T. Huuk, J. Hubbuck

3:20 Intermission.

3:40 BIOT 103. In-depth evaluation of next generation protein A stationary phases. **T.M. Pabst**, J. Thai, A.K. Hunter

4:00 BIOT 104. PEGylating protein A chromatography media increases selectivity and robustness. J.B. Weinberg, **T.M. Przybycien**

4:20 BIOT 105. Increasing productivity of downstream processes; the advantage of antibody based selectivity in the purification of biologics. **P. Hermans**

4:40 BIOT 106. Eshmun[®] P anti-A and

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anti-B: Affinity resins for removal of anti-A and anti-B isoagglutinins. **S. Rahane**, M. Turiano, M. Stone, L. Gottlieb

Section B InterContinental New Orleans La Salle B/C

Upstream Processes

Mammalian Cell Culture & Engineering: Application of Innovative Technologies

R.R. Kshirsagar, B. Pflieger, A. Russo, *Organizers*
Y. Cho, N. Jacob, S. Ozturk, A.B. Tolstrup, *Presiding*

2:00 BIOT 107. Technical capability of Raman spectroscopy for in-line quantification of antibody product quality. **G. Magill**, B. Chiang, B. Horvath

2:20 BIOT 108. Utilization of computational fluid dynamics (CFD) to guide scale up of cell culture bioreactors. **G. Chaudhary**, T. Wucherpfennig, J. Schaefer, E. Hasenfus, J. Wutz, H. Lin, D. Bock, M. Yu

2:40 BIOT 109. Limitations of subcloning as a tool to characterize homogeneity of a cell population. **N. Tejeda**, H. Barkhordarian, T. Tharmalingam, P. Yam, F. Lu, S. Yaghmour, T.P. Munro, C. Goudar, J. Stevens

3:00 BIOT 110. Assessment of the genomic instability of CHO cells for cell line development. **S. O'Brien**, A. Bandyopadhyay, C.M. O'Brien, W. Hu

3:20 Intermission.

3:40 BIOT 111. Development of high-producing CHO cell lines through target-designed strategy. **D. Chen**

4:00 BIOT 112. Unravelling molecular mechanisms that govern the shift to a lactate consumption metabolic state in CHO cell fed-batch cultures. **M. Jacobs**, P. Geoffroy, T. Kalomeris, C. Harrington, B. Mulukutla

4:20 BIOT 113. Cell characterization using a novel online cell quantitation microscopic technology in comparison with conventional offline methodologies. **J. Sun**, V. Doddi, V. Chang, D. Ogawa, T. Luman, H. Lin

4:40 BIOT 114. RNA-seq data reveals metabolic regulation in Chinese hamster ovary cell culture. **S. Yoon**, S. Sha

Section C InterContinental New Orleans Pelican I/II

Biomolecular & Biophysical Processes

Protein Engineering & Design

E. Sahin, P.M. Tessier, *Organizers*
Y. Cho, M. Geddie, *Presiding*

2:00 BIOT 115. Engineering modular sensing-actuating membrane fusion machinery from influenza hemagglutinin. M. Valverde, J. Price, M.R. Baltz, J. Lee, **E.T. Boder**

2:20 BIOT 116. Yeast as a platform to study adenosine receptor signaling. **A.R. Jain**, A.S. Robinson, C. McGraw

2:40 BIOT 117. Engineering mucoadhesive silk. **G. Petrou**, R. Jansson, M. Höggqvist, M. Hedhammar, T. Cruzier

3:00 BIOT 118. Directed evolution of tissue inhibitor of metalloproteinase-1 (TIMP-1) as a selective inhibitor of matrix metalloproteinase-3 (MMP-3). **M. Raeeszadeh Sarmazdeh**, D. Radisky, E. Radisky

3:20 Intermission.

3:40 BIOT 119. Engineering binding affinity and specificity: Application to antibodies targeting phospho- and acetyl-tau. **D. Li**, L. Wang, X. Yao, Y. Cho

4:00 BIOT 120. Optimizing a monoclonal antibody for manufacturability, stability, and cost. **J. Floyd**, C. Siska, A. Gillespie, M. McClure, Y. Brodsky, J. Shaver, R. Clark, R. Ketchem, B. Kerwin

4:20 BIOT 121. Improved library design and selection methods for identifying antibodies with high specificity and solubility. **A. Desai**, L. Rabia, M. Julian, K. Tiller, S.D. Ludwig, Y. Zhang, P. Tessier

4:40 BIOT 122. Engineering novel glycophenotypes in bacteria for the production of authentically glycosylated therapeutic proteins. **X. Zheng**, M.P. DeLisa

Section D InterContinental New Orleans Frenchman Ballroom

Biomedical & Emerging Technologies

Stem Cells & Regenerative Medicine

A.M. Kloxin, A. Noyes, J.P. Pieracci, *Organizers*
Y. Kim, M. Kuczewski, *Presiding*

2:00 BIOT 123. Withdrawn

2:20 BIOT 124. Chemically defined microcarriers for the expansion of mesenchymal stem cells. **J. Krutty**, A. Dias, W.L. Murphy, P. Gopalan

2:40 BIOT 125. Cell therapies and their impact on the future of medicine. **K. Niss**

3:20 Intermission.

3:40 BIOT 126. Histone-targeted gene transfer to stimulate chondrogenic MSC differentiation and bone repair. **M.O. Sullivan**, E. Munsell

4:00 BIOT 127. Enzymatically generated hyaluronic acid hydrogel for cytokine therapy of osteoarthritis. **S. Pérez Rafael**, F. Perrone, E. Ramon, T. Tzanov

4:20 BIOT 128. Decoy TRAIL receptor CD264: A predictor of in vitro regenerative potential for mesenchymal stem cells. **S. Madsen**, K. Russell, A. Tucker, J. Glowacki, B. Bunnell, K. O'Connor

4:40 BIOT 129. Labeling neural stem cells using trackable ultrasmall iron oxide nanoparticle for cell transplantation therapy. **J. Park**, Y. Kim, Y. Bao, J. Sherwood

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Undergraduate Research Posters

Biotechnology

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MONDAY EVENING

Section A

**Ernest N. Morial Convention Center
Halls D/E**

Sci-Mix

M.A. Blenner, N. Reuel, *Organizers*

8:00–10:00

196, 202-203, 238, 253, 256-257, 263, 265, 269-270, 280, 290, 302, 307, 324, 340, 366, 373-374, 387, 389, 391, 393, 409, 421, 423, 425, 432, 441. See subsequent listings.

TUESDAY MORNING

Section A

**InterContinental New Orleans
La Salle A**

Downstream Processing

Advances in Chromatographic Separations

L.W. Pampel, N. Sanaie, D.W. Wood, *Organizers*
S.M. Cramer, J. Neville, D. Robbins, *Presiding*

8:30 BIOT 130. Chromatography modeling in purification development: Assessing accuracy of predictions to select phase-appropriate modeling strategies. **F. Stueckler**, K. Doninger, J. Yang, C. Williams, T. Briskot

8:50 BIOT 131. Withdrawn

9:10 BIOT 132. Development of an overload chromatography step for high liter processes. **X. Lin**, A. Seay, C. Williams

9:30 BIOT 133. Two column mAb purification platform: Evaluation of AEX step for aggregate clearance. **A. Shirke**, D. Kanani, M. Jin

9:50 Intermission.

10:10 BIOT 134. Downstream process control of aggregates using light scattering and real time molecular weight. **A. Gospodarek**, B. Patel, M. Larkin, S. Kendrick, M. Brower, D.D. Richardson, N. Tugcu

10:30 BIOT 135. In-line Fourier-transform infrared spectroscopy as a versatile process analytical technology

for preparative protein chromatography. **A. Sanden**, S. Grosshans, M. Rudt, N. Brestrich, J. Morgenstern, S. Heissler, J. Hubbuck

10:50 BIOT 136. Two-peak elution behavior of therapeutic IgG4 on cation exchange chromatography. **Z. Chen**, M. Wang, X. Xu, S. Ghose

11:10 BIOT 137. Impact of process parameters on a double-peak elution profile of a mAb during CEX chromatography. **L. Konher**, V. Manickam, M. Sharma, B. To, M. Zhu

Section A InterContinental New Orleans La Salle A

BIOT Awards

W.H. Peterson Awards & BIOT Young Investigator Award

M.R. Antoniewicz, N. Tugcu, *Organizers*
T.M. Przybycien, *Organizer, Presiding*

11:30 Introductory Remarks.

11:40 BIOT 138. Metabolic engineering strategies for producing oleochemicals in bacteria. **B. Pflieger**

Section B

**InterContinental New Orleans
La Salle B/C**

End-to-End Biomanufacturing

Challenges in Tech Transfer

S.W. Harcum, V. Natarajan, N. Rathore, S.A. Tobler, *Organizers*
J. Erickson, P. Lewus, *Presiding*

8:30 BIOT 139. MAT & EMBER: CFD modeling framework for optimizing mixing and aeration-agitation strategies in mixing tanks and bioreactors. **A. Munir**, J. Fisher, G.T. Frank, T. Kellogg, P. Rolandi

8:50 BIOT 140. Introduction of a flexible 2000L single-use bioreactor platform: Technology transfer and process-fit challenges in downstream processing. P.R. Smith, J.E. Crawford, D.N. Paolella, **A.R. Ubiera**

9:10 BIOT 141. Maintaining product quality across multiple site-to-site transfers for a commercial mAb: Some successes and lessons learned. **S.A. Tobler**, A.G. Tulloch

9:30 BIOT 142. Tech transfer: The challenges and opportunities represented by a rapidly evolving product pipeline and global manufacturing network. **P. Gammell**

9:50 Intermission.

10:10 BIOT 143. Challenges overcome and robustness improvements in technology transfer of formulation and filling of a vaccine pre-filled syringe. **R.P. Kaspro**

10:30 BIOT 144. Application of small-scale modeling to de-risk filling processes of drug product formulations. **D.M. Saldana**, S. Hanslip, P. Chaffin, M. Palmer, A. Gidh, I. Rusanov, R. Forcino, M. Dimps, K. Desai, I. Kemp

10:50 BIOT 145. Driving change in biomanufacturing through innovation in processes, technologies and operations.

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E. Clark**Section C****InterContinental New Orleans
Pelican I/II****Biomolecular & Biophysical
Processes****Protein Conjugates & Materials**

E. Sahin, P.M. Tessier, *Organizers*
B. Demirdirek, G.M. Thurber, *Presiding*

8:30 BIOT 146. Polymer conjugation to enhance cellulase activity and preserve thermal and functional stability. **T.A. Wright**, M. Lucius, B. Schmitz, K. Burridge, K. Makaroff, J. Stewart, H. Fischesser, J. Shepherd, J. Berberich, D. Konkolewicz, R.C. Page

8:50 BIOT 147. Care packages: Developing a cell-free glycoprotein synthesis platform for portable, on-demand antibacterial vaccine production. **J.C. Stark**, T. Jaroentomechai, M. Li, R.S. Dubner, K.J. Hsu, T.C. Stevenson, M.P. Delisa, M.C. Jewett

9:10 BIOT 148. Targeting glyco-immune checkpoints for cancer immune therapy. **C.R. Bertozzi**

9:50 Intermission.

10:10 BIOT 149. Enzymatic construction of EpCAM targeting delivery systems for protein farnesyltransferase. **Y. Zhang**, F. Xu, J. Schaefer, A. Plückthun, M.D. Distefano

10:30 BIOT 150. Engineering a blue light inducible SpyCatcher system (BLISS) for *in vitro* photo-patterning of proteins and optically controlled protein rescue. **E. Hartzell**, J. Terr, W. Chen

10:50 BIOT 151. Enhancing the chemical versatility of yeast display to discover potent, specific enzyme inhibitors. J.T. Stieglitz, H.P. Kehoe, L. Quinto, G. Berumen, J.B. Lissos, **J.A. Van Deventer**

11:10 BIOT 152. Engineered binding proteins as replacements for antibodies in immunoassays. **H.D. Sikes**, E.A. Miller, K. Sung

Section D**InterContinental New Orleans
Frenchman Ballroom****Upstream Processes****Microbial Metabolic Engineering**

R.R. Kshirsagar, B. Pfeleger, A. Russo, *Organizers*
Z. Rui, R. Sillers, K. Solomon, A. Van Maris, *Presiding*

8:30 BIOT 153. Optimization of heterologous mevalonate production in *E. coli* with a combinatorial promoter library and novel biosensor. **J. Englaender**, A.W. Murfee, K. Solomon

8:50 BIOT 154. Exploring non-natural pathways and native efflux systems for improved aromatic chemical production in *Escherichia coli*. **M. Machas**, G. Kurgan, X. Wang, D. Nielsen

9:10 BIOT 155. Building a bridge between cell-free experimentation and cellular metabolic engineering. **A. Karim**,

Q. Dudley, A. Juminaga, S. Crowe, J. Heggstad, W. Grubbe, Y. Yuan, R. Jensen, S. Simpson, M. Koepke, M.C. Jewett

9:30 BIOT 156. Use of an *Escherichia coli* pyruvate-overproducing platform strain to produce L-valine. **P.A.**

Adamczyk, S. Pan, X. Zhang, J. Reed

9:50 Intermission.

10:10 BIOT 157. Tailoring chain-length specificity for oleochemical production in bacteria. **N.J. Hernandez Lozada**, B. Pfeleger

10:30 BIOT 158. Understanding lipogeneity in oleaginous yeast: source of reducing equivalents for proliferating cell and non-proliferating cell. **P. Xu**

10:50 BIOT 159. Transcriptional-sensor based increase in peroxisomal fatty acyl-CoA flux improves fatty alcohol production in *Yarrowia lipolytica*. M. Shabbir-Hussain, **M. Spagnuolo**, M.A. Blenner

11:10 BIOT 160. Engineering gut fungal membrane-embedded transporters for metabolic engineering in *Saccharomyces cerevisiae*. **I. Podolsky**, S. Seppälä, M.A. O'Malley

**Cellulose & Other Structural
Biopolymers: Structure, Formation
& Degradation: Anselme Payen
Award Symposium in Honor of
Junji Sugiyama**

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Biorelated Polymers: Innovations
in Biomedical Polymers**

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TUESDAY AFTERNOON**Section A****InterContinental New Orleans
La Salle A****Downstream Processing****Advances in Non-Chromatographic
Separations: Harvest Technologies**

L.W. Pampel, N. Sanaie, *Organizers*
D.W. Wood, *Organizer, Presiding*
R. Sheth, A.L. Zydny, *Presiding*

2:00 BIOT 161. Guanidine-containing polymers as flocculating agents and filtration aids: Harvest solution alternatives to the centrifuge? **J.K. Rasmussen**, A. Vail, T.D. Bonilla, D.H. Brandwein

2:20 BIOT 162. Clarisolve® mPAA polymer: A stimulus-responsive flocculation polymer for cell culture clarification. **M.J. Susienka**, K.A. Cotoni, J.P. Amara, C. Gillespie

2:40 BIOT 163. Inline flocculation for harvest clarification. **A. Gupta**, J. Castano, E.M. Goodrich

3:00 BIOT 164. Considerations for process development and implementation of fully synthetic depth filters. **D. Ornek**, J. Souther, T. Parker

3:20 Intermission.

3:40 BIOT 165. Aligning acoustic wave separation with concentrated fed batch processing. **M. Collins**

4:00 BIOT 166. Evaluation of gravity settling for disposable harvest. **D. Lok**, E. Chan, E. Mahajan, R. St John

4:20 BIOT 167. Perfusion membrane selection to enable continuous capture chromatography. **R. Piper**

4:40 BIOT 168. Ceramic membrane filtration for biopharms: Potential application for the mammalian harvest process. **A. Ryan**, N. Thite, C. Jung

Section B**InterContinental New Orleans
La Salle B/C****Upstream Processes****Mammalian Cell Culture &
Engineering: Novel Modalities and
Platforms**

R.R. Kshirsagar, B. Pfeleger, A. Russo, *Organizers*
Y. Cho, N. Jacob, S. Ozturk, A.B. Tolstrup, *Presiding*

2:00 BIOT 169. Overcoming cell line limitation and improving medium in a perfusion process for manufacture of a labile and difficult-to-express enzyme. **J. Lee**, B. Williams, P. Amaya, C. Klaver

2:20 BIOT 170. Maintaining product quality from early to late stage upstream process development. **L. Yung**

2:40 BIOT 171. Improving global access to biotherapeutics. **D. Pettit**

3:20 Intermission.

3:40 BIOT 172. Production and purification of oncolytic measles viruses. T. Grein, H. Dieken, D. Loewe, D. Salzig, T. Weidner, **P.M. Czermak**

4:00 BIOT 173. Impact of high extracellular lactate on induced pluripotent stem cell metabolism. **D. Odenwelder**, S.W. Harcum

4:20 BIOT 174. Investing in process development for MSC production in stirred tank bioreactors. **T. Hood**, J. Ring, T. Lawson, M. Pease, K. Levine, A. Schnitzler, J. Murrell

4:40 BIOT 175. Engineering uniform-shear rate bioreactors to mimic bone marrow and lung vasculature niches for the production of platelets *ex vivo*. **A. Martinez**, R. McMahon, M. Horner, D. Doser, W.M. Miller

Section C**InterContinental New Orleans
Pelican I/II****Biomolecular & Biophysical
Processes****Protein Therapeutics**

E. Sahin, P.M. Tessier, *Organizers*
E.M. Furst, J. Hubbuch, M. Krause, J.A. Van Deventer, *Presiding*

2:00 BIOT 176. Assessing multi-scale molecular modeling and biased search algorithms for candidate selection with respect to biophysical stability. **C.J. Roberts**

2:20 BIOT 177. Physicochemical determinants of drug-like monoclonal antibodies. **L. Rabia**, S.D. Ludwig, Y.

Zhang, M. Julian, P. Tessier

2:40 BIOT 178. Developability of antibodies: Viscosity of high concentration formulations. **R.B. Shah**, E. Carvalho, A.J. Iloit, E. Guo, P. Soler, S. Hart, M. Desai

3:00 BIOT 179. Effects of chemical oxidation on the structure, stability, aggregation, and function of an IgG1 mAb. **D. Shah**

3:20 Intermission.

3:40 BIOT 180. Investigating a correlation between chemical degradation and gelation behavior observed for a monoclonal Fab. **C. Petry**, Y. Zhao, L. Yi, S. Pizarro, A. Wakankar, J. Liu

4:00 BIOT 181. Impact of freezing and thawing rates on protein aggregation for drug substance long term storage. **A. Borwankar**, N. Parsaei, C. Du, N. Singh, S. Ghose, Z. Li

4:20 BIOT 182. High-throughput platform for monitoring protein aggregation kinetics and rapid formulation development. M.F. Drenski, H.P. Rahn, **R.D. Montgomery**

4:40 BIOT 183. PLGA-bevacizumab implants for long-acting anti-VEGF efficacy in a rabbit retinal vascular leakage model. R. Chang, J. Jamison, D.A. Antonetti, **S.P. Schwendeman**

Section D**InterContinental New Orleans
Frenchman Ballroom****End-to-End Biomanufacturing****Automated Technologies & High-
Throughput Systems in Biologics
Production**

S.W. Harcum, V. Natarajan, N. Rathore, S.A. Tobler, *Organizers*
M. Ottens, J. Pollard, *Presiding*

2:00 BIOT 184. Development and validation of a purification platform for proteins expressed in a CHO cell-free system. **S. Deldari**, Y. Liu, H. Guo, C. Gurrakanda, D. Burgenson, S. Borhani, G. Rao, D. Frey

2:20 BIOT 185. Development of a pharmacy-scale, integrated, automated, multi-product platform for on-demand manufacturing of high quality biologics. **L. Crowell**, A. Lu, A. Stockdale, W. Doherty, A. Bonnyman, K. Love, J.C. Love

2:40 BIOT 186. Using HTPD to link AMBR and purification to assess manufacturability of cell line clones. R. Zolyomi, **H. Tjandra**, Y. Chang, A. Hesselin

3:00 BIOT 187. Development of a novel, high-throughput platform for efficient perfusion-based cell culture process development. **T. Galliardi**

3:20 Intermission.

3:40 BIOT 188. Predicting membrane performance for the concentration and diafiltration of mAb solutions using an ultra scale-down method. **L. Fernandez-Cerezo**, J. Pollard, M. Hoare, A. Rayat, A. Chatel, G. Lye

4:00 BIOT 189. Automated single pass tangential flow filtration (SPTFF) for lab scale continuous bioprocessing. **M. Ghodbane**, N. Thite, C. Jung

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4:20 BIOT 190. Increasing process knowledge using high throughput RoboColumns. **T. Tully**, B. Huffman, M. Stork

4:40 BIOT 191. Innovations in high throughput formulation screening: Promise and reality. **C. Ren**, K. Westland, J. Yeary, M. Boggara, N. Rathore

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama
Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

WCC Rising Star Award Symposium
Sponsored by WCC, Cosponsored by BIOT, CHED, COLL, INOR and PROF

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers
Sponsored by POLY, Cosponsored by BIOT, MEDI and PMSE

TUESDAY EVENING

Section A
InterContinental New Orleans
La Salle A

BIOT Awards

3M Poster Award & Industrial Biotechnology Award Lecture

M.R. Antoniewicz, N. Tugcu, *Organizers*
T.M. Przybycien, *Organizer, Presiding*

5:00 Introductory Remarks.

5:10 BIOT 192. How the Janssen-Biogen partnership enabled delivery of a breakthrough therapy for multiple myeloma patients and rapid process optimization to meet market demand. **G. Schaefer**

Section B
Ernest N. Morial Convention Center
Hall E

BIOT Poster Session

M.A. Blenner, N. Reuel, *Organizers*

6:00-8:00

BIOT 193. Withdrawn

BIOT 194. Acceleration of native chemical ligation. **S. Jin**, R.J. Brea, N.K. Devaraj

BIOT 195. Nanoparticle mediated release of polymersomes under single pulsed femto second irradiation. **A.R. Robinson**, G.M. Disalvo, S.M. O'Malley, D.M. Bubb, J.C. Gripenburg

BIOT 196. Design and characterization of a benzylguanine-PEG surface for anchoring cellular-derived giant plasma membrane vesicles. **D. Oseid**, A.S. Robinson, J. Albert, S. Lear, A. Cui

BIOT 197. Physical properties of cartilage extracellular matrix. **F. Horkay**, E. Dimitriadis, I. Horkayne-Szakaly, P.J. Basser

BIOT 198. Temporal control of encapsulant release from polymersomes upon single pulse irradiation. **G.M. Disalvo**, A.R. Robinson, J.C. Gripenburg, D.M. Bubb, S.M. O'Malley

BIOT 199. Near infrared responsive polymeric actuator. **I. Hill**, K. Nikolaidou, J. Lu

BIOT 200. Heterochiral DNA circuitry: Interfacing L-DNA with endogenous RNAs. **J.T. Szczepanski**

BIOT 201. Rosmarinic acid particles with versatile biomedical functions. **M. Sahiner**, D.A. Blake, N. Sahiner

BIOT 202. DNA-based nano-constructs for visual detection of rifampin resistant *Mycobacterium tuberculosis*. **R. Connelly**, S. Solarez, Y. Gerasimova

BIOT 203. Creating DNA computer: Five integrated NAND gates with half-adder function. **T. Molden**, M. Grillo, D.M. Kolpashchikov

BIOT 204. Translation of a drug delivery system for glaucoma surgery patients: Challenges in bench-to-bedside design. **M. Fullerton**, B. King, R.S. Ayyala, V.T. John, D.A. Blake

BIOT 205. Expanding the application fields of liquid-handling stations by integrating microfluidics and 3D (bio-) printing. **C. Radtke**, J. Morgenstern, N. Hillebrandt, J. Hubbuch

BIOT 206. Peptoid grafting on polysulfone membrane to increase antifouling characteristics: Effect of grafting density and chain length. **N. Mahmoudi**, J. Moore, M.V. Klaus, G. Harrison, J. Hestekin, **S.L. Servoss**

BIOT 207. Translating unnatural amino acids with computationally-engineered promiscuous EF-Tu variants for broader applications in synthetic polymer synthesis. **V. Cox**, M.F. Matsuura, E.A. Gaucher

BIOT 208. Tanshinone as a dual amyloid Inhibitor against the aggregation and toxicity of both amyloid- β and hIAPP. **B. Ren**, Y. Liu, Y. Zhang, F. Yang, J. Zheng

BIOT 209. Discovering antibody binding signatures in age-related macular degeneration for diagnostic development. **J. Bozekowski**, P. Daugherty

BIOT 210. Development of phage strategies to identify affinity peptide ligands against antibody kappa Fab fragments. **A. Nascimento**, A. Mullerpatan, R. Ghosh, M. Aires-Barros, A. Azevedo, P. Karande, S.M. Cramer

BIOT 211. Monoclonal antibody-derived peptides carrying chemical modifications induce immunogenicity in a transgenic mouse model. **B. Peters**, Y. Wang, A. Iglesias, C. Schoneich

BIOT 212. Recent advances in affinity maturation with the assisted design of antibody and protein therapeutics (ADAPT) platform. **C.R. Corbeil**, T. Sulea, E.O. Purisima

BIOT 213. The effect of a formulation excipient on monoclonal antibody tryptophan oxidation. **J.Y. Yang**, A. Strahan, S. Alavattam, Y. Wang, B. Kabakoff, C. Salisbury

BIOT 214. Bispecific antibody process development and evaluation of critical parameters during Fab arm exchange. **M.J. Sobkow**, **D. Bezila**, **R. Bertrand**, A. Detzel, A. Salehi, K. Van Citters, P.J. Alfonso

BIOT 215. Utilizing minimal-volume analytical techniques to assay the structural heterogeneity of IgG1 during clone selection. **P. Angart**, C. Kohnhorst, B. Kuang, S. Velugula, C. Agarabi

BIOT 216. Rapid aggregate reduction of bi-specific antibody model by filtration. J. Adiletta, **R. Alsop**, C. Breuning, L. Pecore, A. Mak

BIOT 217. Establishing a high-throughput process development platform for an antibody conjugation process. **S. Andris**, M. Wendeler, J. Hubbuch

BIOT 218. Challenges in developing a FRET assay to measure monoclonal antibody aggregates. **Z. Oshinbolu**, R. Shah, G. Finka, M. Molloy, D.G. Bracewell

BIOT 219. Withdrawn

BIOT 220. Serum antibody epitope discovery using pattern tiling. **M. Paull**, P. Daugherty

BIOT 221. Extreme thermophiles as metabolic engineering platforms: Tailoring the process to the product. **C.T. Straub**, B.M. Zeldes, J.M. Conway, J.R. Crosby, J.K. Otten, R.M. Kelly

BIOT 222. Development of an engineered *Escherichia coli* consortium for biocconversion of multi-substrate biomass streams to commodity chemicals and fuels. **F. Liu**, M. Tran-Gyamfi, J. Jaryenneh, X. Zhuang, E. Monroe, R.W. Davis

BIOT 223. Research on remediation of the NO₃⁻/N polluted groundwater by the synergistic effect of autotrophic and heterotrophic denitrification. **M. Lan**

BIOT 224. Programmable DNA-guided artificial restriction enzymes. **B. Enghiad**, H. Zhao

BIOT 225. Spatially organizing biochemistry: Choosing a strategy to translate synthetic biology to the factory. **C. Jakobson**, M. Slinger Lee, D.T. Ercek, N. Mangan

BIOT 226. Portable educational tools for synthetic biology. **J.C. Stark**, A. Huang, T.C. Ferrante, R.S. Dubner, K.J. Hsu, P.Q. Nguyen, N. Donghia, K. Pardee, J. Collins, M.C. Jewett

BIOT 227. Withdrawn

BIOT 228. Marine-derived and cold-adapted recombinant functional tyrosinase, that is functionally available as a monophenol monooxygenase. **E. Kang**, Y. Choi

BIOT 229. Using pH-responsive lignin amphoteric surfactant to recycle cellulase by electrostatic interaction. C. Cai, Q. Xue, **H. Lou**

BIOT 230. Comparison of substrates for colorimetric assays using peroxidase-like deoxyribozyme PW17. **M. Tran**, Y. Gerasimova, R. Connelly

BIOT 231. Investigation into autocatalytic intramolecular isopeptide bond forming reaction sites. **S.P. Kasson**, K. Yoshimatsu

BIOT 232. Site-specific incorporation of the TEMPO organic catalyst into a thermostable alcohol dehydrogenase produces a selective bio/organo- hybrid

catalyst. **W. Abdallah**, L. Lancaster, D. Hickey, S.D. Minter, I.R. Wheeldon, S. Banta

BIOT 233. Increase in expression levels, cell lysis, protein refolding and purification efficiency in recombinant Streptokinase using a non Beta Lactum marker for improved patient safety profile in thrombolysis applications for STEMI patients. **D. Ghosh**

BIOT 234. Designing synthetic metabolons via dCas9-guided assembly. **E.o. Berckman**, W. Chen

BIOT 235. Comparison of transfection methods on yield of recombinant human IgG1 Fc. **E.A. Wells**, A.S. Robinson

BIOT 236. Engineering stable anaerobic consortia by understanding the genomic basis for syntrophic interactions. **J. Brown**, X. Peng, S. Gilmore, J. Henske, M.A. O'Malley

BIOT 237. mRNA volatility as a strategy in designing and implementing effective antisense. C. Endicott, Y. Cho, **R. Srivastava**

BIOT 238. Opportunities for facility-enabled science at the DOE Joint Genome Institute (JGI). **Y. Yoshikuni**

BIOT 239. Improving human A1 adenosine receptor expression in yeast towards applications in therapeutics screening and development. **A.R. Jain**, A.S. Robinson

BIOT 240. Aromatic metabolism of 50 non-model oleaginous yeasts. **A. Yaguchi**, K. Boundy-Mills, M.A. Blenner

BIOT 241. Optimizing amino acids in defined media for *Pichia pastoris* recombinant protein expression. **A. Kuo**, C.B. Matthews, K. Love, J.C. Love

BIOT 242. Evaluation of L-asparaginase production in flask, tray bioreactor and in-house designed rotary bioreactor using isolated *Aspergillus* sp. **K. Doriya**, S.K. Devarai

BIOT 243. High-throughput assessment of a novel, thiol-acrylate hydrogel for tumor spheroid synthesis in a microfluidic device. **N. Kersker**, W. Wortmann, N. Safabakhsh, A.T. Melvin, J.A. Pojman

BIOT 244. dsDNA cleavage via deoxyribozyme DNA construct. **M. O'Steen**, D.M. Kolpashchikov

BIOT 245. Optimization of probiotic *E. coli* Nissle 1917 cell-free protein expression system for rapid testing of novel components. **K. Beabout**, M. Goodson, S. Harbaugh, J.L. Chavez, N. Kelley-Loughnane

BIOT 246. Quantification of the effects of high shear stresses on single circulating tumor cells using a microfluidic device. **G. Landwehr**, A. Kristof, J. Balhoff, J. Pettigrew, S. Rahman, A.T. Melvin

BIOT 247. Best practice considerations for development and implementation of a mammalian cell culture perfusion process. P. McInnis, I. Coleman, D. Rank, E.M. Goodrich, **M.A. Cunningham**

BIOT 248. Transitioning from a daily cell bleed perfusion process to a continuous, automated bleed process using a mAb-

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expressing CHO cell line. **P. McInnis**, D. Rank, M.W. Phillips

BIOT 249. Improvements To CHO cell culture scale-down model across multiple scales. **S. McDermott**, A. Bawn, N. Abu-Abisi

BIOT 250. Investigating the link between pCO₂ and protein quality in CHO cell culture. A. Connor, **B. Reed**, A. Lewis, E. Garr

BIOT 251. Culture strategies enhancing the suspension adapted CHO-DXB11-S1 high producing cell line expression. **B. Chen**, H. Lu, D. Chen, W. Chi

BIOT 252. Characterizing CHO cell metabolism in glutamine-limited and supplemented feeds during different stages of exponential growth. **B.J. Kirsch**, S.V. Bennun, A.S. Johnson, S.M. Lawrence, M.J. Betenbaugh

BIOT 253. Integrating high throughput analytics with early-stage cell line development; a comprehensive quality attribute characterization of CHO clone candidates expressing a model IgG1 antibody. **C. Kohnhorst**, P. Angart, **B. Kuang**, S. Velugula, D.N. Powers, C. Agarabi

BIOT 254. Effective CHO lead clone selection for late phase process development in a tight timeline. **C.L. Oliveira**, J. Xu, M. Rdultowski, M. Rehmann, A. Yongki, B. Eagan, M.C. Borys, Z. Li

BIOT 255. Evaluation of growth kinetics and antibody quality in mycoplasma-contaminated CHO cell bioreactor cultures. **E. Berilla**

BIOT 256. Rapid process monitoring & control in mammalian cell culture using off-gas mass spectrometry analysis. **H. Goh**, M. Sulu, G. Lewis, G. Josland, A.K. Velayudhan

BIOT 257. Multiplex characterization of Chinese hamster ovary host cell protein interactions with monoclonal antibodies by yeast surface display. A. Castiel, C. McGovern, **K.M. Doolan**

BIOT 258. Systematic analysis of the effect of trace metal variability on therapeutic protein production in CHO cells. **K. McHugh**, S. Sarnik, A. Deresienski, K. Aron, B. Drew, M.C. Borys, Z. Li

BIOT 259. DOE optimization of titer and quality of IgG titer and quality using high-throughput micro-bioreactor system for CHO cell media and supplements. **S. Velugula**, A. Williams, C. Hsu, N. Trunfio, B. Chavez, C. Agarabi

BIOT 260. Differential responses of CHO cells adapted to limitation of inorganic phosphate, glucose or glutamine. **V. Maralingannavar**, D. Parmar, T. Pant, C. Gadgil, V. Panchagnula, M. Gadgil

BIOT 261. Improved DNA double-strand break repair may reduce production loss in Chinese hamster ovary cells. **X. Zhang**, K. Lee

BIOT 262. The interactive effect of trace elements and chelating agents on mammalian cell culture performance in chemically defined media. **Y. Ilin**, M. Krajcovic, S. Hutchins, A. Borshchenko, L.

Tescione, D. Inlow, C. Lu

BIOT 263. From 0.5 g/L to 10 g/L: A collective effort to improve upstream production for a fast-track program. **B.M. Gupta**, L. Hoshan, J. Cacciatore, Z. Du, H. Chen

BIOT 264. Evaluation of perfused high density seed bioreactor step of a legacy biologics process. **D. Harrison**, E. Hodgman, E. Garr

BIOT 265. Considerations for implementation of a virus barrier filter for cell culture media. **D. Bohonak**, S. Bates

BIOT 266. Liver toxicity comparisons of small molecule drugs in a high-throughput 3D *In vitro* culture system and in humanized liver mice. **D. Bruckner**, J.M. Connerney, J.S. Dordick

BIOT 267. Enhanced biopharm manufacturing facility utilization via the use of larger volume and higher cell density bags to initiate seed expansion. **G. Laslo**, D. Bhanushali

BIOT 268. Characterization and identification of protein components in glanded and glandless cottonseeds. **K. Sethumadhavan**, H. Cao

BIOT 269. Increasing culture productivity through alternative nutrient supplementation. **K. Mathur**

BIOT 270. High-throughput single cell screening for expression of recombinant proteins in *Escherichia coli* and *Vibrio natriegens*. J. Eichmann, **T. Weidner**, D. Gerlach, P. Czermak

BIOT 271. Impact of Pluronic® F68 on hollow fiber filter-based perfusion culture performance. **R. Jiang**, Y. Chen, F. Wang, S. Xu, H. Chen

BIOT 272. High throughput screening of deubiquitinating enzyme activity in single intact cells using a cell permeable peptide-based reporter and a microfluidics droplet trapping array. **N. Safabakhsh**, M. Vaithyanathan, S. Sombolstanti, A.T. Melvin

BIOT 273. Continuous in-line virus inactivation for next generation bioprocessing. **M. Holstein**, L. Mullin, K.A. Coloni, R. Tuccelli, J. Caulmare, L. Messier, C. Gillespie, P. Greenhalgh, M.W. Phillips

BIOT 274. *De novo* small molecule design using deep learning models trained on SMILES strings. **P. Ghatty**

BIOT 275. Implementation of process analytical technologies in commercial manufacturing to realize a biologics drug substance enhanced control strategy. **D.R. Hill**, C. Jiang

BIOT 276. Enhanced perfusion process development utilizing ambr at clone selection. **B. Holman**, K. Lee, J. Lee

BIOT 277. Solvent compatibility and extractables profile for use of Mobius® single-use assemblies in ADC processing. **D. Kinzmaier**, J. Shea, S. Bell, S. Ryan, E.M. Goodrich

BIOT 278. Implementation of single-use powder delivery systems in continuous bio-manufacturing processes: A case study. **P.S. Vengsarkar**, J. Oh, E.

Bolessa, N. Deorkar

BIOT 279. Robust platform cell culture processes utilizing the Selexis expression system for decreasing process development timelines and enhancing speed to clinic. **S. Rameez**, Y. Gowtham, S. Gopalakrishnan, K. Zhang, S.S. Mostafa, A.A. Shukla

BIOT 280. Case study: Virus risk mitigation in cell culture media lab-scale to pilot-scale – virus retentive filtration and cell growth studies. **S. Dolan**, B. Wong, R. Alsop, B. Kanoh, B. Hansmann, R.D. Kiss

BIOT 281. High seed density cell culture processes to reduce manufacturing cycle times. **Y. Gowtham**, S. Rameez, S. Gopalakrishnan, K. Zhang, S.S. Mostafa, A.A. Shukla

BIOT 282. Versatility of the continuous chromatography platform. **C. Sun**, R. Quesenberry

BIOT 283. Development of a fully automated high-throughput (HT) method to screen cleaning conditions during a resin lifetime study. **K. Larson**, A. Rodriguez, M. Aswath, A. Naresh, M. Zhu

BIOT 284. Advances in affinity purification technologies for monoclonal antibody capture. **K. Mehta**, A. Venkatesh, P. Shah, G. Bolton, R.G. Soderquist

BIOT 285. Withdrawn

BIOT 286. Withdrawn

BIOT 287. Withdrawn

BIOT 288. High-resolution separation of monoclonal antibody charge variants using a cuboid packed-bed device. **G. Chen**, A. Gerrior, R. Ghosh

BIOT 289. Development of a chromatography-based hydrophobicity assay for viral particles. **A.H. Schwartz**, A.A. Walsh, C. Romanowski, M.S. Burnham

BIOT 290. Use of high-throughput process development (HTPD) methods to develop a toxicology process: Cation and anion-exchange chromatography development case study. **A. Bill**

BIOT 291. Effect of sporicidal sanitization with oxidizing agent on protein A resins: Lifetime and purification performance. **A. Graanberg**, E. Monie, T. Bjorkman, M. Wetterhall, S. Musunuri, K. Oberg

BIOT 292. Increased lifetime of RPC resins in insulin production by clean-up using WorkBeads 40S. **A. Heijbel**

BIOT 293. Development and evaluation of a novel high capacity protein A chromatography resin with significantly increased alkaline stability. **A. Forss**, T. Bjorkman, J. Vasic, M. Ander

BIOT 294. Mixed-mode resin screening for isolation of recombinant thioredoxin from *E. coli*. **A. Ravi**, S. Guo, Z.L. Nikolov, P. Heifetz

BIOT 295. Acidic IgM purification using anion exchange and mixed mode chromatography. J. Greenwood II, **C. Voss**, **W. Rushton**, P. Khandelwal

BIOT 296. Distribution of a unique

process derived charged monoclonal antibody species across a cation exchange column. **C. O'Brien**, A. Grecco, L. Gonzalez, I. Alickolli, H. Malanson, J. Pike, S. Sui

BIOT 297. Implementation of multi-column chromatography for affinity purification. **C. Snyder**

BIOT 298. Capacity and beyond: Evaluation of a next generation protein A resin. **C. Furcht**, F. Sadikin, B. Stanley, E. Ayuruk

BIOT 299. Experimental and theoretical studies of protein adsorption onto ion exchange and mixed mode chromatographic column packings. **D. Frey**, M.M. El-Sayed, P. Rezaei

BIOT 300. Evaluation of five commercial immunoassays for quantification of leaked ligand from a new protein A resin. **E. Monie**, T. Bjorkman, A. Forss

BIOT 301. Packing CHT™ resin in a one meter pack-in-place Pall Resolute® manual column: Understanding the impact of shear on fine generation and column pressure performance. **E. Baragar**

BIOT 302. Particle size and ligand density effects on anion exchange chromatography behaviour for therapeutic protein manufacture. **G. Jasulaityte**, P. Gilbert, H.J. Johansson, D.G. Bracewell

BIOT 303. Withdrawn

BIOT 304. Novel technology for continuous manufacturing of agarose-based, monodisperse, chromatography beads. **H.J. Johansson**, P. Gilbert

BIOT 305. Enrichment of the components responsible for PS20 degradation. **J. Gu**, Y. Yigzaw

BIOT 306. Insights into the effect of pH on mAb surface properties and selectivity in multimodal chromatography systems. **J. Robinson**, S.M. Cramer

BIOT 307. Evaluating wash strategies to remove residual cell culture flocculant interactions with protein A chromatography resin. **K. Sing**, M. Peck, A. Schaddock-Hewitt, N. Singh, S. Chollangji

BIOT 308. MAb aggregate removal with CEX flow-through frontal chromatography. **K.A. Cotoni**, M. Stone

BIOT 309. Use of a continuous chromatography system for both resin screening and scale-up studies. **L. Mathiasson**, **L. Persson**, **M. Berg**, M. Hall, **H. Blom**, A. Ljunglöf, B. Westerlund, **H. Nordvang**, **C. Fenge**

BIOT 310. Design space development for mAb ProA chromatography and VI. **L. Gonzalez**

BIOT 311. Improving production efficiency through overload chromatography. **M. Wong**, J. Brown, J. Yang, D. Glover, C. Williams, Y. Yigzaw

BIOT 312. Continuous chromatography solutions and the effect of number of columns on process performance. **M. Pagkaliwangan**, X. Gjoka, R. Ganter, M. Schofield

BIOT 313. New protein L affinity resins

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for antibody fragments purification. **M. Hanamura**, S. Nakamura, J. Yasuoka, K. Yoshimura

BIOT 314. Continuous multi-column chromatography: Methodology for the selection of the most suitable protein A media. **M. Higson**, M. Holstein, C. Gillespie

BIOT 315. Purification of cell culture-derived oncolytic measles virus by membrane chromatography. K. Lothert, D. Loewe, T. Grein, P. Czermak, **M.W. Wolff**

BIOT 316. High throughput resin selection for the recovery of valuable compounds from food products. **M. Moreno Gonzalez**, V. Grish, P. Chuekitumchorn, G. Ferreira, H. Wijngaard, M. Ottens

BIOT 317. Increasing continuous purification productivity by combining small particle size chromatography resin with continuous countercurrent tangential chromatography (CCTC). **O. Shinkazh**

BIOT 318. Implementation of directly scalable single-use protein A chromatography for rapid processing from bench to industrial processing. **O. Hardick**, D.G. Bracewell, W. Lewis

BIOT 319. Withdrawn

BIOT 320. Formation of on-column aggregates during cation exchange chromatography and studies of its elimination. **R.B. Wollacott**, C. Connelly, S. Ozturk

BIOT 321. Use of activated carbon as an adsorbent in polishing step. **R. Skudas**

BIOT 322. Investigation into molecular basis of protein interactions in multimodal chromatography using nuclear magnetic resonance spectroscopy and molecular dynamics simulations. **R.B. Gudhka**, C. Bilodeau, S.A. McCallum, S.M. Cramer

BIOT 323. High-throughput screening for purification development of osteopontin-an acidic recombinant protein expressed in *E. coli*. **S. Guo**, A. Ravi, S. Mayfield, Z.L. Nikolov

BIOT 324. Investigation into the different mechanisms of interaction in multimodal anion and multimodal cation exchange systems. **S. Parasnavis**, J. Robinson, S.M. Cramer

BIOT 325. Fine-tuning your purification process: Using mechanistic modeling of chromatography to optimize the balance between yield, purity, and ease of operation. **T.J. Fattor**, S. Hunt, J. Rocher, R.J. Todd

BIOT 326. Comparative study of commercially available protein A chromatography resins and Amsphere™ A3: Qualitative analysis of residual host cell proteins by means of 2D-LC/MS. **T. Shiotani**, S. Tsuda, T. Tanaka, M. Hanamura, M. Nagaya

BIOT 327. Single-molecule and isocratic protein competition on ion-exchange adsorbents. **U. Patil**, L. Kiskey, S.P. Dhamane, M. Poongavanam, A. Mansur, S. Dominguez Medina, E. Kulla, J. Chen, L.J. Tauzin, K. Kourntzi, C.F. Landes, R.C. Willson

BIOT 328. In situ analysis of ligand

density on the surface of regenerated cellulose membranes. **V. Bansal**, E. Fasoli, J.O. Sotero Esteva, I.J. Dmochowski

BIOT 329. Optimisation of preparative polishing chromatography for a ternary antibody mixture. **V. Fischer**, R. Kucia-Tran, W. Lewis, A. Velayudhan

BIOT 330. Withdrawn

BIOT 331. Leveraging innovative technologies for cost-effective protein A chromatography operation. **Y. Brodsky**, E. Gefroh, M. McClure, R. Piper, L. Connell-Crowley

BIOT 332. Systemic approach to remove host cell proteins during monoclonal antibody protein A chromatography. **Z. Xia**, Y. Zhou, Y. Wu

BIOT 333. Linear scalability of Planova BioEX and Planova 20N filters. **A. Shah**, B. Buesing, D. Strauss, N. Hiroto, T. Miyabayashi

BIOT 334. Evaluation of virus filtration prefilters and load conditions for a highly fouling mAb. **H. Keefe**, N. Bennett, S. Sargis, A. Seay

BIOT 335. Synthesis of well-defined and easily functionalized copolymers for the preparation of lipid-disc cell membrane mimetics. **K. Burridge**, I. Sahu, A. Craig, E. Clark, S. Al-Abdul-Wahid, M. Dolan, C. Dabney-Smith, D. Konkolewicz, G. Lorigan

BIOT 336. Nanocellulose-based size exclusion filters as an efficient and convenient virus barrier filter. **L. Manukyan**, A. Mhramyan

BIOT 337. Exploration of synthetic depth filtration applied to mammalian cell harvest. **P. Kalashnikov**

BIOT 338. Comparison of DSC cryoporometry and liquid-liquid porometry for validation of pore size distributions of nanocellulose-based virus removal filter papers. **S. Gustafsson**, A. Mhramyan, L. Roemer

BIOT 339. Investigation of particle size distribution for CHO cell culture media filtration. **T. Ito**, K. Chan, Y. Tomioka, A. Cheong, Y. Mok

BIOT 340. Considerations for bulk fill filtration of high concentration drug substance. **T. Parker**, C. Nieder

BIOT 341. Clarification of a pre-treated mAb-producing harvest using new fully synthetic depth filter technology. V. Medvedev, **Y. Cherradi**, S. Le Merdy, T. Albano

BIOT 342. Introduction and removal of β -glucans in a biological purification process: A case study. **A. Pearson**, R. Luo, K.E. Goklen

BIOT 343. Demonstrating robust clearance of beta-glucans in an *E. coli* purification process. **A. Morris**, A. Nguyen Dang, A. Ladiwala, T. Peram

BIOT 344. Optimization of a multi-level flow rate loading trajectory. **A. Sellberg**, N. Andersson, A. Löfgren, **B. Nilsson**

BIOT 345. Comparison of charge variant methodologies for evaluating protein compatibility with dextrose infusion

solutions. **B. Demirdirek**, J. Valente, W. Lan, M. Bolgar

BIOT 346. Use of high-throughput screening technology to develop flow through aggregate removal platforms. **C. Kittinger**, B.D. Gasfriend, K. Newell, E. O'Connor, V. Riguero

BIOT 347. Centre-cut separation of biomolecules by stepwise-elution SMB. **C. Wayne**, A. Velayudhan

BIOT 348. Manipulating the selectivity of ceramic hydroxyapatite (CHT) for acidic protein purification. **L. Vang**, X. He

BIOT 349. Utilizing single use (SU) technology for single pass (SP) TFF operations. **E. Peterson**

BIOT 350. Design and integration of in situ liquid liquid extraction systems for bioacid production. P. Saboe, L. Manker, G. Beckham, **E. Karp**

BIOT 351. Di-block copolymer and enzyme conjugated nano layers: A packing density study to design bio-reactive membranes for water purification applications. **J. Pazol**, E. Nicolau

BIOT 352. Case study for evaluation of the 3M™ Emphaze™ AEX hybrid purifier involving low isoelectric point target proteins. **J. Pate**, B. Kester, C. Berdugo, Y. Li, V. Vinci

BIOT 353. Case study: Commercial-scale microbial control validation during centrifuge harvest operations. **K. Saldanha**

BIOT 354. Implementation of disposable technologies in support of closed processing and viral segregation for downstream clinical manufacturing. **K. Mattia**, B. Vu, P.R. Smith, A.R. Ubiera

BIOT 355. Reoxidation of reduced monoclonal antibody using modified downstream processing. **M. Moynihan**, J. Lutje, P.J. Alfonso, P. Singh

BIOT 356. Antisense oligonucleotide purification process: Successes and challenges during scale-up. **R. Gronke**, R. Joshi, H. Nguyen, Y. Fillon, K. Ruanjikaen, F. Antia

BIOT 357. Downstream process development and transfer to cGMP manufacturing of novel fusion protein at CMC biologics. **S.C. Vilardi**

BIOT 358. Use safe light during biologics manufacturing, handling and storage. **C. Du**, A. Borwankar, A.T. Lewandowski, N. Singh, S. Ghose, M.C. Borys, Z. Li

BIOT 359. Performance of simultaneous single-pass concentration and diafiltration of protein solution using Pall Cadence™ inline diafiltration module. **B. Trafton**, **C. Matthews**

BIOT 360. Accelerating advancement in gene therapy by improving downstream purification of viral vectors. **O. Terova**

BIOT 361. Effect of mRNA structure on chromatographic performance. **M. Shamashkin**, M. Scott, H. Pujar

BIOT 362. Impact of multimodal cation-exchange chromatography on impurity separation of non-platform proteins. **E. Ayturk**, K. Selvitelli, M. Westoby

BIOT 363. Virus detection using restricted-access adsorbents. **U. Patil**, S.P. Dhamane, M. Adhikari, A. Hagstrom, U. Strych, K. Kourntzi, R.C. Willson

BIOT 364. Characterization of flow mechanics in a scaled down continuous viral inactivation reactor. **M. Brown**, L. Amarikwa, S. Parker, S.S. Yildirim, S. Godfrey, R. Orozco, J.L. Coffman

BIOT 365. Straight-through processing of insulin-like peptides. **P. Tainen**, A. Löfgren, B. Nilsson

BIOT 366. Surface characterization and identification of optimum mixing conditions for protein solutions. A. Sokolnicki, **G. Raja**, S. Liao

BIOT 367. Analytical comparability strategies for biosimilars. **A. Schwendeman**

BIOT 368. Mechanistic understanding of the degassing phenomenon of drug products. **F. Schlegel**, C. Padala

BIOT 369. Adalimumab like biosimilar purification with ion exchange and mixed-mode resins. **R. Drevland**

BIOT 370. Effect of low pH transition wash on protein A eluate-mitigation strategy to improve manufacturing filterability. **J. Huerta**, W. Sun, I. Ramos

BIOT 371. Withdrawn

BIOT 372. Withdrawn

BIOT 373. Development of cost-efficient processes for adenovirus purification. **M. Bergman**, M. Bennemo, Å. Hagner-McWhirter, A. Akerblom, S. Häggblad-Sahlberg, E. Wallby, G. Ahlén, M. Lundgren

BIOT 374. High-throughput droplet tracking and automated image analysis in microfluidic device. **M. Vaitiyanathan**, K. R. Bajgirani, P. Darapaneni, J.A. Dorman, A.T. Melvin

BIOT 375. Withdrawn

BIOT 376. Development of mathematical models to identify the fouling mechanism in depth filters for cell culture clarification. D. Jang, M. Peck, N. Singh, **A. Arunkumar**, S. Ghose, Z. Li

BIOT 377. Process simulations in a clinical scale single-use TFF system examine blend time efficiency. **A. Sokolnicki**

BIOT 378. Scalability model for mixing cell culture media in single-use GMP bioprocessing equipment. **A. Hansen**

BIOT 379. Increasing efficiency in bioprocessing using available software functions in a process automation approach. M. Pitkanen, **A. Morrison**, **T. Bjorkman**, **A. Graanberg**, **K. Lenberg**, **F. Lundström**

BIOT 380. Machine learning approaches for streamlining downstream process development. **D. Lee**, B. Tran

BIOT 381. Role of simulation and scheduling tools in bioprocess development and manufacturing. **D. Petrides**, D. Carmichael, C.A. Siletti

BIOT 382. Biomaterial production

†Cooperative Cosponsorship

process intensification and analysis and optimization with process simulation tools. **D. Petrides**, D. Carmichael, C.A. Siletti

BIOT 383. Advanced process optimization—a novel, in-situ real time adaptive control system to accelerate and optimize biologics process development and manufacturing. G. Emmerson, S. Watts, S. Saxby, **G.E. Barringer**

BIOT 384. Process economics of continuous bioprocessing. **J. Hummel**, M. Pagkaliwangan, X. Gjoka, T. Davidovits, R. Stock, T. Ransohoff, R. Gantier, M. Schofield

BIOT 385. Copper catalyzed fragmentation of an IgG1 recombinant monoclonal antibody for therapeutic use: using kinetic modeling to fit process to product during technology transfer. **M. Henry**, G. Alkire, J.R. Molek, A. Szkodny, M. Monck, D.P. Nesta

BIOT 386. Use of modelization and scale-down models to support drug product development and transfer to manufacturing facilities: Challenges and benefits. **M. Belkacem**, C. De Kesel

BIOT 387. Enhancing multivariate calibration model reproducibility used for the online monitoring of upstream processes in continuous biomanufacturing. **N. Trunfo**, B. Chavez, S. Velugula, S. Yoon, C. Agarabi

BIOT 388. Development of QbD expertise among scientists in a biopharm product and process development organization. **S. Parimal**, P.R. Smith, S. Weisser, G.J. Terfloth, K.E. Goklen

BIOT 389. Near-infrared (NIR) spectroscopic analysis of water in lyophilized products for process efficiency improvements. **A. Hopkins**

BIOT 390. Best practices when developing a point of use pressure decay test. **A. Steele**

BIOT 391. At-line mass spectrometry-based process analytical technology for linking nutrient consumption and bioreactor product quality. **D.N. Powers**, N. Trunfo, E. Berilla, B. Chavez, C. Kohnhorst, S. Velugula, C. Agarabi

BIOT 392. EDTA determination in bovine serum albumin. **N. Gupta**, C. Felice, B. Ramanathan, K. Phipkins, J. Cunningham

BIOT 393. In-line cell culture analytics for high-throughput process development: An evaluation of the integrated FLEX2 bioanalyzer. **P. Liu**, M. Manahan, L. Hoshan, J. Pollard

BIOT 394. Detection and characterization of mycoplasma contamination in cell culture with application of nucleic acid testing assays. **T. Faison**, C. Kohnhorst, S. Velugula, E. Berilla, S. Lute, C. Agarabi, K.A. Brorson, J. Wang, S. Johnson

BIOT 395. Purification of PLBL2 critical reagent for ELISA development. **L. Wong**, P. McKay, J. Franklin

BIOT 396. *In silico* design and *in vivo* selection of riboswitches for cell-based detection of explosive compounds. **S. Harbaugh**, Y. Chushak, J. Martin, H. Salis, M. Goodson, J.L. Chavez, N. Kelley-Loughnane

BIOT 397. At-line investigation of capacitance for assessing biomass of mammalian cell culture. **K. Ramer**, J. Fernandes, A. Zhang, J. Currie

BIOT 398. Protein and cell-surface interactions and layer properties using MP-SPR. **A. Jarvinen**, N. Granqvist, J. Kuncova-Kallio

BIOT 399. Deoxyribozyme cascade for visual detection of Zika virus RNA. **A.J. Reed**, R. Connelly, A. Williams, H. Choe, Y. Gerasimova

BIOT 400. Using engineered zinc finger proteins to detect pathogen-specific DNA. **C. Sedlak**, M. Kim

BIOT 401. Forensic study: Differentiating and analyzing variances using microbiota to investigate home invasions. **C. Young**, D. Martin, C. Porter, V. Goss, J. Hampton-Marcell

BIOT 402. Visual split peroxidase-like deoxyribozyme probes for the detection of rifampin-resistance in *Mycobacterium tuberculosis*. **C. Verdusco**, Y. Gerasimova, R. Connelly

BIOT 403. Advances in the characterization of protein catalyzed capture (PCC) agents for robust biosensing. **C. Jones**, M. Coppock

BIOT 404. The fluorescence quenching ability of graphene oxide as a platform for pathogenic double-stranded DNA sensing utilizing engineered zinc finger protein. **D. Ha**

BIOT 405. Direct detection of double-stranded DNA of a pathogenic strain of STEC (Shiga toxin-producing *Escherichia coli*) using engineered zinc finger protein immobilized on paramagnetic beads. **J. Shim**, B. Kim, M. Kim

BIOT 406. Strategies for controlled bacterial assembly resulting in activation of a quorum-sensing circuit. **M.T. Kozlowski**, B.R. Silverman, C.P. Johnstone, D.A. Tirrell

BIOT 407. Real time detection of NASBA product by Split DNA aptameric sensor. **N. Kikuchi**, D.M. Kolpashchikov

BIOT 408. Design and fabrication of a triple-input microfluidic droplet trapping array towards multiplexed cancer diagnostics. **R. Elkhanoufi**, K. R. Bajigiran, M. Vaithyanathan, J.A. Dorman, A.T. Melvin

BIOT 409. Identifying peptide affinity ligands to demonstrate selectivity between dermal fibroblasts and endothelial cells. **R. Ghosh**, A. Mullerpatan, T. Baltazar, C. Catarino, A. Nascimento, P. Karande, S.M. Cramer

BIOT 410. Split deoxyribozyme probe for efficient interrogation of highly structured RNA targets. **S. Solarez**, Y. Gerasimova

BIOT 411. Developing a genetically-encoded insulin sensor for live imaging: Application to Alzheimer's disease. **S.S. Raza**, W. Chen

BIOT 412. SBAP-linked bioconjugation of oligonucleotides to quantum dots. B. Eichler, **T. Hollinsworth**, **A. Kroeger**

BIOT 413. Mutation detection of RNA in extracellular vesicles with a cationic

lipoplex nanoparticle biochip. **Y. Sheng**, J. Hu, L.J. Lee

BIOT 414. Highly sensitive programmable RNA detection using fluorescent RNA aptamer. **Y. Furuhashi**, M. Kobayashi, R. Maruyama, Y. Sato, K. Makino, T. Michiue, H. Yui, S. Nishizawa, K. Yoshimoto

BIOT 415. Characterization of nitric oxide flux as a function of time and temperature: A durability review. **M.M. Jeakle**

BIOT 416. Kinetic characterization and differentiation of atrazine catabolism via *Pseudomonas* sp. strain ADP biofilms and planktonic cells. **M. Delcau**, T.L. Peoples

BIOT 417. Microfluidic device to characterize the effect of orthogonal chemical gradients on 3D cancer cell migration. **J.M. Campbell**, S. Rahman, A.T. Melvin

BIOT 418. Withdrawn

BIOT 419. Microfluidic co-culture of breast cancer cells and adipose stem cells. **S. Rahman**, K. Render, J.M. Campbell, E. Martin, A.T. Melvin

BIOT 420. Examine how oscillating patterns of chemical gradients break the spatial range limitations of conventional chemotaxis. **S. Rahman**, J.M. Campbell, I. Schneider, A.T. Melvin

BIOT 421. Developing a high affinity, dynamic scaffold toolkit for control of intracellular metabolic flux. **A.A. Mitkas**, W. Chen

BIOT 422. Alcoholic liver damage prevention of *Moringa oleifera* extract. **J. Park**, C. Kim, S. Oh, S. Chang, K. Shin

BIOT 423. Probing protein-ice interactions using high resolution synchrotron X-ray diffraction. **B. Bhatnagar**, **X. Wen**, B. Zakharov, A. Fisyuk, F. Karim, K.J. Quach, I. Seretkin, A. Fitch, E. Boldyreva, E. Shalaev

BIOT 424. Isolation and characterization of the EphA2 cytoplasmic domains. **J. Shirley**, P. Gil-Rodriguez, M. Buck

BIOT 425. Confocal Raman microscopy investigation of cytochrome c-phospholipid interactions which induce permeability in mixed phospholipid vesicle membranes. **J.P. Kitt**, D. Bryce, S.D. Minteer, J.M. Harris

BIOT 426. Contribution of the C-terminus to A_{2A}R activity and stability. **K. Swonger**, A.S. Robinson

BIOT 427. Excipient choice for protection against metal-catalyzed oxidation: Impact of chelator on stability of biologic drug products. **M.E. Krause**, T. Haby, S. Patke, M. Bolgar, M. Huang, L. Breckenridge, M. Khossravi

BIOT 428. Synthesis of new β-amino acids derivatives as anti trypanocidal agent and docking & Inhibition study on *trans-sialidase* enzyme. **M. Kashif**, M. Ashfaq, G. Reveria

BIOT 429. Folding analysis of bovine pancreatic trypsin inhibitor (BPTI) with aromatic thiols and disulfides *in vitro*. **N. Zhang**, R. Marahatta, W.J. Lees

BIOT 430. Prediction and

characterization of the equilibrium ensembles of TGF-β3 using bias exchange metadynamics. **R. Singh**, G. Goel

BIOT 431. *In silico* study of dimer association of insulin during aggregation. **R.P. Mishra**, R. Singh, T. Rao, G. Goel

BIOT 432. Divalent metal ion-independent cell adhesion events mediated by E-cadherin-binding DNA aptamer that forms parallel type G-quadruplex with three long loops. **R. Maruyama**, T. Yoshitomi, F. Wayama, K. Wakui, K. Makabe, H. Furusho, K. Yoshimoto

BIOT 433. Extraction of protein thermodynamic parameters from high-throughput differential scanning fluorimetry assays. **T.A. Wright**, J. Stewart, D. Konkolewicz, R.C. Page

BIOT 434. DNA cleavage via prokaryote argonaute mediated by an uncharacterized N-terminal domain. **K.Z. Lee**, A. Liu, A. Kikla, K. Solomon

BIOT 435. Insights from molecular dynamics simulations into the structure and dynamics of ITPA mutants. **Y.A. Houndonougbo**

BIOT 436. Understanding co-solutes effects on viscosity and protein interactions in highly concentrated monoclonal antibodies through protein structure and dynamics. **J. Hung**, B. Dear, W. Zeno, C. Karouta, M. Nieto, L. Wilks, A. Sharma, J. Stachowiak, T. Trusket, K.P. Johnston

BIOT 437. Facile preparation of covalent C-to-C linked nanobody fusions by freezing. **B. Zang**, L. Jia, J. Ren, Q. Peng

BIOT 438. Fluoroalcohol-induced coacervation in membrane proteomics. **R.R. Rion**, A. Oloumi, M. Azizi, A. Koolivand, M. Khaledi

BIOT 439. Remodeling of a human microbiome model. **A.M. Bhagwat**, C.H. Collins, J.S. Dordick

BIOT 440. Phosphoproteomic and transcriptomic analysis of cell wall stress response in *Aspergillus nidulans* reveals novel cell wall integrity signaling proteins. **C. Chelius**, K. Boppidi, S. Lincoln, J. Kumar, S. Reese, S. Hossain, D. Thomas, K. Lawson, J. Ramsey, A. Ramsey, R. Srivastava, S. Harris, M. Marten

BIOT 441. Effects of buffer condition on the hydrodynamic radius of biomolecules. **F. Rong**, N. Kharedi, S. Wickramasinghe, **X. Qian**

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers
Sponsored by POLY, Cosponsored by BIOT, MED1 and PMSE

WEDNESDAY MORNING

Section A
InterContinental New Orleans
La Salle A

Downstream Processing

Advances in Non-Chromatographic Separations: Depth Filtration and UF/DF Operations

L.W. Pampel, N. Sanaie, Organizers

[†]Cooperative Cosponsorship

D.W. Wood, *Organizer, Presiding*
R. Sheth, A.L. Zydne, *Presiding*

8:30 BIOT 442. Downstream process impact of reducing impurities during harvest operations using charged hybrid filters. **B. Kluck**, C. Tran, A. Voloshin, E. Ozcam, B. Dransart, R. Krishnan

8:50 BIOT 443. Evaluation of the effects on HCP clearance and other impurities of mPAA and all-synthetic depth filters (XOSP). **H.C. Nguyen**, Y. Tao, W.R. Emery, M.K. Paik

9:10 BIOT 444. Mechanisms of DNA retention on depth filters. **O. Khanal**, N. Singh, S.J. Traylor, X. Xu, S. Ghose, A.M. Lenhoff

9:30 BIOT 445. Mechanistic modeling of the loss of protein sieving due to internal and external fouling of microfilters. **A. Apostolidis**, G. Bolton

9:50 Intermission.

10:10 BIOT 446. Effect of zinc chloride and PEG concentrations on the critical flux during tangential and normal flow microfiltration of BSA precipitates. **Z. Li**, A.L. Zydne

10:30 BIOT 447. UF/DF processes for high concentration mAb formulations: Reconciling process development and evolving trends. **A. Arunkumar**, N. Singh, S. Ghose, Z. Li

10:50 BIOT 448. Evaluation of single-use TFF technologies for high concentration operations. **V. Adams**, T. Parker

11:10 BIOT 449. Understanding the sterile filtration of nanosuspensions. **K. Zourna**, J.H. Welsh

Section A
InterContinental New Orleans
La Salle A

BIOT Awards

Biotechnology & Bioengineering
Elmer Gaden Award Lecture

M.R. Antoniewicz, N. Tugcu, *Organizers*
T.M. Przybycien, *Organizer, Presiding*

11:30 Introductory Remarks.

11:35 BIOT 450. Barrier tissue mimics for drug development. **M.L. Shuler**

Section B
InterContinental New Orleans
La Salle B/C
End-to-End Biomanufacturing
Disruptive Bioprocessing & Process Integration

S.W. Harcum, V. Natarajan, N. Rathore, S.A. Tobler, *Organizers*
A. Hewig, A.M. Lenhoff, M. Westoby, *Presiding*

8:30 BIOT 451. Withdrawn

8:50 BIOT 452. Upstream optimization and non-chromatographic downstream strategy for production and purification of antimicrobial peptide in *E. coli*. **M. Joachim**, T. Weidner, D. Gerlach, P. Czermak

9:10 BIOT 453. Innovating

biopharmaceutical manufacturing for an age of acceleration. **J.C. Love**

9:50 Intermission.

10:10 BIOT 454. Developing an end to end bio-manufacturing platform for the new paradigm of SAM (Self Amplifying mRNA vaccines). **V. Roy**, M. Bugno, D. Chinchilla-Olszar, K. Forney-Stevens, M. Xie, L. Harrington, C. Baldwin, N. Delahaye, J. Ulmer, K. Aggarwal, D. O'Hagan

10:30 BIOT 455. Techno-economic analysis of semicontinuous production of recombinant butyrylcholinesterase in transgenic rice cell suspension cultures. **J. Corbin**, K. McDonald, S. Nandi

10:50 BIOT 456. Use of a carbon footprint calculation to assess the environment impact of drug substance manufacture in GSK biopharm. **P.R. Smith**, M. Snyder, K. Kahle, K. Tomko, A. Adams, M. Schaad, D. D'Aquila

11:10 BIOT 457. Next-generation vaccine facility: Merging high productivity technologies for robust and cost-effective manufacturing. **R. Jacquemart**, J. Castillo, C. Yallop

Section C
InterContinental New Orleans
Pelican I/II

Biomedical & Emerging Technologies

New Strategies for the Delivery of Therapeutics: From Proteins & Genes to Cells

A.M. Kloxin, A. Noyes, J.P. Pieracci, *Organizers*
P. Mallikaratchy, J. Pieracci, *Presiding*

8:30 BIOT 458. Controlled EGFR ligand display on cancer suicide enzymes for targeted intracellular delivery. **R. Lieser**, M.O. Sullivan, W. Chen

8:50 BIOT 459. Enhanced cellular delivery of enzymes using the cowpea chlorotic mottle virus. **M. de Ruiter**, J.J. Cornelissen

9:10 BIOT 460. Novel microfluidic system for encapsulation of equine endothelial colony forming cells for local cell delivery. **Y. Tian**, W.J. Seeto, R. Winter, F. Caldwell, A. Wooldridge, E.A. Lipke

9:30 BIOT 461. Peptoid-based coatings as artificial extracellular matrix for increased differentiation of human embryonic stem cells into neural cells. **J. Roberts**, G. Perez, M. Borrelli, S.L. Servoss

9:50 Intermission.

10:10 BIOT 462. D-VITylation: Harnessing the biology of vitamin D to improve the pharmacokinetic properties of peptides and small proteins. **D.B. Hall**, A.S. Vakkasoglu, C.W. Hill, L.M. Hales, T.M. Soliman

10:30 BIOT 463. Bioengineered injectable thermogel for intravitreal protein controlled release to the retina. **V. Delpace**, E. Tsai, A. Ortin-Martinez, M. Pakulska, V. Wallace, M.S. Shoichet

10:50 BIOT 464. Wavelength-specific, plasmonic nanoparticle mediated rupture of polymersomes using ultrafast single-

pulse irradiation. **J.C. Griepenburg**, A.R. Robinson, G.M. Disalvo, S.M. O'Malley, D.M. Bubb

11:10 BIOT 465. Cheminformatics-driven discovery of polymeric micelle formulations of poorly soluble drugs. **E. Muratov**, V.M. Alves, D. Hwang, M. Sokolsky, E. Lebed, N. Vinod, C. Andrade, A. Kabanov, A. Tropsha

Section D
InterContinental New Orleans
Frenchman Ballroom

Upstream Processes

Synthetic Biology

Cosponsored by WCC
R.R. Kshirsagar, B. Pflieger, A. Russo, *Organizers*
T.J. Mansell, Y. Yoshikuni, *Presiding*

8:30 BIOT 466. MinGenome: Top-down synthesis of genome minimized strains for bioproduction. **L. Wang**, C. Maranas

8:50 BIOT 467. MODCELL: A prototype for modular cell engineering. **C.T. Trinh**

9:10 BIOT 468. Single-pot glycoprotein biosynthesis using a cell-free transcription-translation system enriched with glycosylation machinery. **T. Jaroentomechai**, J.C. Stark, M.C. Jewett, M.P. DeLisa

9:30 BIOT 469. Engineering synthetic consortia inspired by the rumen microbiome. **M.A. O'Malley**

9:50 Intermission.

10:10 BIOT 470. Operon refactoring and construction assistant (ORCA): An integrated workflow to refactoring biosynthetic gene clusters. **E. Oberortner**, M. Warnow, M. Hadjithomas, S. Deutsch

10:30 BIOT 471. Engineering species-like barriers to sexual reproduction for applications in public health, agriculture, and the environment. **M. Smanski**

10:50 BIOT 472. Optimization, evolution, and control of pathways and metabolism in yeasts. **H.S. Alper**

WEDNESDAY AFTERNOON

Section A
InterContinental New Orleans
La Salle A

Downstream Processing

Advances in Non-Chromatographic Separations: Precipitation & Viral Filtration

L.W. Pampel, N. Sanaie, *Organizers*
D.W. Wood, *Organizer, Presiding*
R. Sheth, A.L. Zydne, *Presiding*

2:00 BIOT 473. Development of a method for purification of monoclonal antibodies utilizing precipitation. **A. Mutchler**

2:20 BIOT 474. Water on hydrophobic surfaces – modeling of precipitation. **S. Grosshans**, G. Wang, J. Hubbuch

2:40 BIOT 475. Single-step purification of small non-mAb biologics by peptide-ELP based affinity precipitation. **A. Mullerpatan**, A. Nascimento, R. Ghosh,

E. Kane, P. Karande, S.M. Cramer

3:00 BIOT 476. One-step affinity capture and precipitation for enhanced purification of mAbs and Fc-fusion proteins using Z-ELP functionalized nanocages. **A. Swartz**, X. Xu, S.J. Traylor, Z. Li, W. Chen

3:20 Intermission.

3:40 BIOT 477. Optimization of downstream purification for Modified Vaccinia Ankara virus. L. Thomas, **A. Xenopoulos**, U. Reichl, M.W. Wolff

4:00 BIOT 478. Understanding virus removal filtration in nanocellulose-based filter paper. **A. Miharayan**

4:20 BIOT 479. Challenges of implementing virus filtration into continuous manufacturing processes. **D. Strauss**, K. Kobayashi, N. Hirotoimi

4:40 BIOT 480. The effects of buffer condition on viral clearance of model proteins. N. Khereid, F. Rong, D. Sasongko, S. Wickramasinghe, **X. Qian**

Section B
InterContinental New Orleans
La Salle B/C

Upstream Processes

Mammalian Cell Culture & Engineering: Perfusion Cultures for Scale up and Production

R.R. Kshirsagar, B. Pflieger, A. Russo, *Organizers*
Y. Cho, N. Jacob, S. Ozturk, A.B. Tolstrup, *Presiding*

2:00 BIOT 481. Continuous processing: Lessons learned from the past and strategies for success in the future. **S. Ozturk**

2:20 BIOT 482. Development of a statistical model to support perfusion bioreactor scale-up. **K. Schwarz**, J. Raley

2:40 BIOT 483. Understanding product sieving challenges in TFF perfusion cell culture and developing strategies for mitigation. **L. Sawicki**, D. Ogawa, H. Tessman, F. Streffling, S. Godfrey, J.L. Coffman, T. Luman, H. Lin, M. Yu

3:00 BIOT 484. Computational fluid dynamic modeling and design of a novel single-use airlift perfusion reactor prototype for human cells. **C. Doris**, C. Bardliving, P. Shamlou

3:20 Intermission.

3:40 BIOT 485. Optimizing the addition antifoam for process intensification: A case study using small scale models. **J. Wang**, J. Walther

4:00 BIOT 486. Process improvement of a high density fed-batch process using N-1 perfusion seed cultures. **J. Yee**, T. Erlandson, S. Ray, S. Sowa, J. Tian, Q. He, M.C. Borys, Z. Li

4:20 BIOT 487. A novel high density N-1 batch seed strategy development for CHO cell culture manufacturing. **A. Yongky**, J. Zhao, J. Xu, M. Rehmann, M.C. Borys, Z. Li

4:40 BIOT 488. Development and implementation of perfusion N-1 for mammalian cell culture to enhance process productivity. **R. Sanford**

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Section C

InterContinental New Orleans
Pelican I/IIBiomolecular & Biophysical
ProcessesPrediction & Characterization of
Biophysical Properties of Proteins

E. Sahin, P.M. Tessier, *Organizers*
M. Ottens, J. Perchiacca, A.
Schwendeman, *Presiding*

2:00 BIOT 489. Prediction of protein biophysical properties and chemical modifications by correlating in silico protein structural features. **L. Jia**, D. Toledo Warshaviak, Y. Sun

2:20 BIOT 490. Insulin folding landscape and in-silico design of peptide excipients to inhibit aggregation. **G. Goel**, R. Singh, A. Mishra, R. Bansal, A.S. Rathore

2:40 BIOT 491. Predicting pH and ionic strength effects on the colloidal stability of antibodies. **M.A. Blanco**, H.W. Hatch, M. Castellanos, C.W. Meuse, K.W. Mattison, I. Karageorgos, J.E. Curtis, V.K. Shen

3:00 BIOT 492. Experimental and bioinformatics methods for identifying monovalent and bivalent antibodies with high colloidal stability. **M.E. Alam**, S.B. Geng, C. Bender, S.D. Ludwig, L. Linden, R. Hoet, P. Tessier

3:20 Intermission.

3:40 BIOT 493. Predicting the solubility of VLPs: Qualitative structure property relationship (QSPR) modeling applied to HBcAg VLPs. **P. Vormittag**, C. Dürr, A. Wilming, T. Hiller, T. Klamp, J. Hubbuch

4:00 BIOT 494. Characterizing long-term protein phase behavior via multidimensional empirical protein phase diagrams containing image-based features. **M. Klijn**, J. Hubbuch

4:20 BIOT 495. Protein-protein interactions and viscosity of highly concentrated monoclonal antibody solutions. **B. Dear**, J. Hung, J. Bollinger, L. Wilks, A. Sharma, C. Karouta, M. Nieto, T. Truskett, K.P. Johnston

4:40 BIOT 496. Microrheology of antibody solutions. **E.M. Furst**, M. Woldeyes, C.J. Roberts

Section D

InterContinental New Orleans
Frenchman BallroomBiomedical & Emerging
TechnologiesNew Strategies for the Delivery
of Therapeutics: From Proteins &
Genes to Cells

A.M. Kloxin, A. Noyes, J.P. Pieracci, *Organizers*
P. Mallikaratchy, J. Pieracci, *Presiding*

2:00 BIOT 497. Revoke immunosuppression of tumor microenvironment using engineered molecular traps. **R. Liu**, L. Miao, J. Li, L. Huang

2:20 BIOT 498. Driving targeted, reversible cell-cell interactions with a universal membrane engineering method.

C.M. Csizmar, J.R. Petersburg, L.A. Stern, B.J. Hackel, C.R. Wagner

2:40 BIOT 499. Development of late-stage ready CMC approaches to enable recombinant AAV biomanufacturing. **K. Clark**

3:20 Intermission.

3:40 BIOT 500. Development of a scalable production process for the manufacturing of exosome-based biotherapeutics. **A. Noyes**, K. Ellis, M. Doherty, R. Bourdeau, M. Mercaldi, K. Konstantinov

4:00 BIOT 501. Hepatitis B viral-like particles as protein delivery vehicles for targeted therapy and genome editing. **E. Hartzell**, H. Kim, W. Chen

4:20 BIOT 502. Effective cancer therapy via therapeutic-loaded, cell-derived nanovesicles induced by sulfhydryl-blocking (NIBS). **D. Ingato**, J. Edson, M. Zakharian, Y.J. Kwon

4:40 BIOT 503. Incorporation of a weak poly(acid) into multilayer polymer coatings enables rapid contact-transfer of DNA to soft surfaces. **V. Appadoo**, Y. Yu, J. Ren, B. Liu, T. Hacker, D.M. Lynn

WEDNESDAY EVENING

Section A

InterContinental New Orleans
La Salle A

BIOT Awards

Biotechnology & Bioengineering Daniel I.C. Wang Award Lecture

M.R. Antoniewicz, N. Tugcu, *Organizers*
T.M. Przybycien, *Organizer, Presiding*

5:00 Introductory Remarks.

5:05 BIOT 504. Adventures in RNA synthetic biology. **C. Beisel**

THURSDAY MORNING

Section A

InterContinental New Orleans
La Salle A

Downstream Processing

Challenges in Downstream
Technology Transfer & Novel
Processing Implementation

L.W. Pampel, N. Sanaie, D.W. Wood, *Organizers*
M. Brower, B. Roman, *Presiding*

8:30 BIOT 505. Efficient technology transfers to increase agility, flexibility, and productivity. **A. Goerke**, K.A. Calhoun

8:50 BIOT 506. Effects of bed compression on protein separation on gel filtration chromatography at bench and pilot scale. **D. Kong**, S. Gerontas, R. McCluckie, M. Mewies, D. Gruber, N. Titchener-Hooker

9:10 BIOT 507. Development of in-line PAT tool for real-time concentration measurement of biologics during ultrafiltration/diafiltration. **S. Krishnan**, S. Sripada, S. Bose, D. Bhanushali

9:30 BIOT 508. A case study of tech transfer and growing pains: Shoehorning

a process to fit a facility. **A. Henry**, L. Zhang, Y. Lam, J. Walker, D. McCann, M. Westoby, E.K. Koepf

9:50 Intermission.

10:10 BIOT 509. Scale up design and optimization for an intensified downstream process utilizing multi-column operations. **J.M. Angelo**, S. Chollangi, J. Pagano, D. Baur, K. Muhlbacher, T. Mueller-Spaeth, X. Xu, M. Morbidelli, S. Ghose

10:30 BIOT 510. Multi-column continuous chromatography as a strategy for reducing cost of drug development. **M. Najera**

10:50 BIOT 511. Technical and practical solutions to the challenges of low pressures and process interruptions in optimal continuous virus filtration. **N. Jackson**, K. Jones

11:10 BIOT 512. Investigation of biomimetic resin structure using CFD modeling of nano/meso fluid behavior for chromatographic gene therapy vector purification. **K. Vehar**, C. Bardliving, P. Shamloo

Section B

InterContinental New Orleans
La Salle B/C

End-to-End Biomanufacturing

Modeling Applications for
Improved Process & Product Design

S.W. Harcum, V. Natarajan, N. Rathore, S.A. Tobler, *Organizers*
T.M. Przybycien, D.J. Roush, *Presiding*

8:30 BIOT 513. Towards automated model-based process development. **T. Hahn**, A. Papadopoulos, A. Gutzler, T. Huok, T.C. Beck, J. Hubbuch

8:50 BIOT 514. Optimization of biologics process development enabled via data mining and quantitative structure analysis. **F.K. Insaído**, G. Stella, H. Li, N. Tugcu, D.J. Roush

9:10 BIOT 515. Modeling light transmission and chemistry in production-scale ultraviolet thin-film reactors. **R. Hart**

9:30 BIOT 516. Dependence of elution peak shape on binding models and resin structure in ion-exchange chromatography of proteins. **V. Kumar**, K. Westerberg, C. Kunert, F. Schlegel, A.M. Lenhoff

9:50 Intermission.

10:10 BIOT 517. Effects of protein and ligand structure on protein-multimodal ligand interactions in antibody systems. **C. Bilodeau**, E.Y. Lau, D.J. Roush, S. Garde, S.M. Cramer

10:30 BIOT 518. Development of a mechanistic model for the peristaltic pump filling unit operation to enable drug product process design. **J. Bernacki**, D. Marsiglio, N. Rathore, H. Rose

10:50 BIOT 519. Online monitoring of quantity, purity and potency of an antibody capture process. **N. Walch**, D. Sauer, E. Felldödi, T. Scharl-Hirsch, M. Melcher, F. Leisch, A. Jungbauer, A. Dürauer

11:10 BIOT 520. Application of biophysical and modeling tools for formulation and process development of biologics. **V. Antochshuk**

Section C

InterContinental New Orleans
Pelican I/IIBiomolecular & Biophysical
ProcessesPrediction & Characterization of
Biophysical Properties of Proteins

E. Sahin, P.M. Tessier, *Organizers*
M. Ottens, J. Perchiacca, A.
Schwendeman, *Presiding*

8:30 BIOT 521. Influence of different freeze and thaw ramps on the phase behavior of lysozyme from chicken egg white. **A.K. Wöhl**, M. Desombre, L. Enghausser, J. Hubbuch

8:50 BIOT 522. Connecting protein conformation and dynamics with ligand-receptor binding using 3-color Förster resonance energy transfer tracking. **D. Marruecos**, M. Kastantin, N. Grover, S.Y. McLoughlin, D.K. Schwartz, J. Kaar

9:10 BIOT 523. Effect of polysorbate 20 and 80 on higher-order structure of a monoclonal antibody and its Fab and Fc fragments probed using 2D-NMR. S. Singh, **S. Bandi**, D. Jones, K. Mallela

9:30 BIOT 524. Establishing a pathway for robust implementation of higher order structure assessment of monoclonal antibodies therapeutics by 2D-NMR. **R.G. Brinson**, L.W. Arbogast, F. Delaglio, J.P. Marino

9:50 Intermission.

10:10 BIOT 525. Preferential interaction of osmolytes with IgG1 monoclonal antibodies. **C. Sudrik**, T. Cloutier, H.A. Sathish, B.L. Trout

10:30 BIOT 526. Single particle virus isoelectric point determination with chemical force microscopy. X. Mi, **C. Heldt**

10:50 BIOT 527. Bioengineered hydrogel models of Alzheimer's disease: Studying β -amyloid protein aggregation within 3D scaffolds. **L.W. Simpson**, J.B. Leach

11:10 BIOT 528. Integrating experimental and computational approaches to elucidate mechanisms of binding in multivalent proteins. W.J. Errington, B. Brunscics, **C.A. Sarkar**

Section D

InterContinental New Orleans
Frenchman Ballroom

Upstream Processes

Engineering Natural Products
Biosynthesis

R.R. Kshirsagar, B. Pfleger, A. Russo, *Organizers*
K. Hawkins, M. Smanski, *Presiding*

8:30 BIOT 529. Expression of snake-antivenom peptide in *Pichia pastoris*. I. Juarez Contreras, S. Tang, C. Lapyerij, K. Le, **C.F. Komives**

8:50 BIOT 530. Expression and *in vitro* reconstitution of novel lasso peptide gene clusters. **J.D. Koos**, A. Link

9:10 BIOT 531. New fungal RiPP family changes the rules for modified peptide

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biosynthesis. **M.F. Freeman**

9:30 BIOT 532. Enabling natural products discovery from anaerobic fungi via integrated 'omics' approaches. **C. Swift**, K. Louie, B. Bowen, K. Bingol, H. Heyman, T. Northen, M.A. O'Malley

9:50 Intermission.

10:10 BIOT 533. Redefining polyketide synthase modules. **A. Keatinge-Clay**, D. Vander Wood

10:30 BIOT 534. Nature as the ultimate combinatorial biosynthetic chemist: Inspiration for engineering natural products biosynthesis. **B. Shen**

10:50 BIOT 535. A synthetic biology approach to precursor-directed biosynthesis of complex polyketides and terpenes. **G.J. Williams**

11:10 BIOT 536. Engineering biosynthesis of the anticancer alkaloid noscapine in yeast. **Y. Li**

THURSDAY AFTERNOON

Section A
InterContinental New Orleans
La Salle A

Downstream Processing

Antibodies, Drug Conjugates & Novel Formats

L.W. Pampel, D.W. Wood, *Organizers*
N. Sanaie, *Organizer, Presiding*
E.T. Boder, A.M. Lenhoff, *Presiding*

2:00 BIOT 537. Assembly and purification of a novel format Fab'2 bispecific. **G. Giese**, A. Williams, J. Dvornicky, B. Tran, M. Fedesco

2:20 BIOT 538. Affinity capture options for monovalent bispecific antibodies. **M.T. Aspelund**, D. Gadre, T. Pabst, A.K. Hunter

2:40 BIOT 539. Integrated purification process development for the single-domain variable fragment of camelid antibodies. **C. Goodwine**, N. Vecchiarelo, K. Love, J.C. Love, S.M. Cramer

3:00 BIOT 540. Resolution and enrichment of antibody fragments through pH modulation on an affinity chromatography step. **J. Woo**, N. Sanaie, R. Krishnan

3:20 Intermission.

3:40 BIOT 541. Strategies for achieving clearance of challenging host cell impurities in development of purification processes for biotherapeutics. **J.H. Lee**, A. Ladiwala, W. O'Dwyer, K. Shomglin, M. Butler

4:00 BIOT 542. Downstream process optimization to prevent fragmentation caused by cathepsin L. **N.E. Levy**, L. Madhavan, J.R. Molek, K.E. Goklen

4:20 BIOT 543. Engineering TNB (5-Thio-2-NitroBenzoic acid) on antibody to enable selective reduction. **A. Prashad**

4:40 BIOT 544. Effective removal of *Bacillus cereus* exotoxin by a two-step mAb chromatography process. **A. Graanberg**, S. Grönlund, T. Björkman, M. Wetterhall, S. Musunuri, K. Chaloupka,

P. Gammell

Section B
InterContinental New Orleans
La Salle B/C

Upstream Processes

Engineering of Non-Model Systems

R.R. Kshirsagar, B. Pflieger, A. Russo, *Organizers*
A. Guss, J. McBride, C. Peebles, Z. Shao, *Presiding*

2:00 BIOT 545. Microdroplet-assisted evolution of *Yarrowia lipolytica* for the production of secreted riboflavin (vitamin B2). **J.M. Wagner**, L. Liu, S. Yuan, E. Williams, M. Venkataraman, A.R. Abate, H.S. Alper

2:20 BIOT 546. Discovery of metabolic pathways for lipid-production from lignin-derived phenolics in a non-model oleaginous yeast. **A. Yaguchi**, M. Spagnuolo, A. Robinson, E. Mihealsick, M.A. Blenner

2:40 BIOT 547. Global regulation of lignocellulolytic proteins from anaerobic fungi in response to substrate lignin content and composition. C. Hooker, M. Schacht, A. Hunnicutt, J. Overton, **K. Solomon**

3:00 BIOT 548. Elucidating core design principles to engineer nonconventional yeasts as novel microbial factories. **Z. Shao**, M. Cao, M. Gao, L. Zhao, W. Sun

3:20 Intermission.

3:40 BIOT 549. Developing the thermotolerant yeast *Kluyveromyces marxianus* as a microbial host for volatile ester biosynthesis. **A. Loebs**, C.M. Schwartz, I.R. Wheeldon

4:00 BIOT 550. Global metabolic rewiring for 2,3-butanediol production in cyanobacteria. **A. Carroll**, M. Kanno, N. Nozzi, A. Case, S. Atsumi

4:20 BIOT 551. Synthetic biology tools for the purple, non-sulfur bacterium *Rhodospseudomonas palustris* CGA009. **C. Immethun**, X. He, R. Saha

4:40 BIOT 552. Designing a continuous perfusion process for manufacturing antimicrobial peptides in *Drosophila melanogaster* S2 cells. **T. Weidner**, J. Zitzmann, D. Salzig, P. Czermak

Section C
InterContinental New Orleans
Pelican I/II

End-to-End Biomanufacturing

Disruptive Bioprocessing & Process Integration

S.W. Harcum, V. Natarajan, N. Rathore, S.A. Tobler, *Organizers*
A. Hewig, M. Westoby, *Presiding*

2:00 BIOT 553. Continuous manufacture of biopharmaceuticals: Engineering solutions to enable improved productivity and facility capacity management. **J. Pezzini**

2:20 BIOT 554. Quantitative assessment of environmental impact of biologics manufacturing using process mass intensity (PMI) analysis. S. Madabhushi, **J. Gavin**, S. Xu, C. Cutler, R. Chmielowski, W.

Rayfield, N. Tugcu, H. Chen

2:40 BIOT 555. Pall Cadence Acoustic Separator for continuous perfusion cell culture: Cell retention device and downstream filtration. **K. Galipeau**

3:00 BIOT 556. Demonstrating viral clearance for a novel approach to continuous viral filtration. **T. Vetter**, M.J. Coolbaugh, V. Warikoo, K. Brower

3:20 Intermission.

3:40 BIOT 557. Can integrated continuous processing occur at the 12kL scale? **J.L. Coffman**, H. Lin, J. Salm, G. Hiller, S. Godfrey, S. Wang, R. Fahrner, R. Kottmeier, R. Orozco, S.S. Yildirim, D. Sullivan

4:00 BIOT 558. Viral clearance validation across continuous capture chromatography. **S. Chollangi**, J.M. Angelo, X. Xu, S. Ghose, M. Morbidelli

4:20 BIOT 559. Eliminating architectural segregation of pre and post viral manufacturing suites. **P. Clark**

4:40 BIOT 560. General platform for development of integrated downstream processes. **B. Nilsson**, A. Löfgren, J.F. Gomis, N. Andersson, L. Berghard, P. Tiainen, A. Staby

Section D
InterContinental New Orleans
Frenchman Ballroom

Biomedical & Emerging Technologies

Disease & Biomedical Applications

A.M. Kloxin, A. Noyes, J.P. Pieracci, *Organizers*
A. Berrill, S.L. Servoss, H.D. Sikes, *Presiding*

2:00 BIOT 561. Differences in antibody transport at the human blood-brain barrier. **J. Ruano-Salguero**, K. Lee

2:20 BIOT 562. EXO-TIP: A novel immuno-photolytic method for the isolation of highly purified neuronal exosomes. **M. Alam**, T. Bilousova, J. Campagna, V. John

2:40 BIOT 563. Inhibition of bacterial toxin activity using receptor-based peptides. E. Krueger, E. Koufos, **A.C. Brown**

3:00 BIOT 564. New myeloperoxidase detection system based on enzyme-catalysed dye oxidative polymerization for paper-based diagnostic device. **A. Bassegoda**, G. Ferreres, S. Perez Rafael, T. Tzanov

3:20 Intermission.

3:40 BIOT 565. Fluid shear stress as a circulating tumor cell model for testing chemotherapy drug resistance in breast cancer cell lines. **U.L. Triantafyllu**, Y. Kim

4:00 BIOT 566. Investigating H₂O₂-induced cell death using a tunable, localized generator of peroxide in mammalian cell mitochondria. **K. Stein**, H. Sikes

4:20 BIOT 567. Investigating how physicochemical properties of extracellular matrix influence apparent diffusion coefficient in MRI. **H. Macdonald**, J. Bamber, M. Ryadnov, D. Collins, M. Rata, N. deSouza

4:40 BIOT 568. Modeling diseased blood-brain barrier utilizing patient-derived iPSCs and potential for rescue via amphiphilic block copolymer treatment. **H. Seo**, C. Lee, F. Bates, J. Tolar, S. Azarin

BIOL

Division of Biological Chemistry

S. Kelley, *Program Chair*

OTHER SYMPOSIA OF INTEREST:

Advances in Molecular Recognition of Double-Helical DNA & RNA (see CARB, Mon, Tue)

Discovery of Small Molecules Targeting RNA: Where Are We & Where Are We Going? (see MED1, Wed)

Discovery of Small Molecules Targeting RNA (see ORGN, Tue)

Biologically Related Molecules & Processes (see ORGN, Sun, Mon, Tue)

SUNDAY MORNING

Section A
Ernest N. Morial Convention Center
Room 243

Enzymes in Natural Product Biosynthesis Pathways

S.O. Kelley, *Organizer*
A.K. Boal, *Organizer, Presiding*

9:00 BIOL 1. Radical SAM enzymes in the biosynthesis of sugar-containing natural products. **H. Liu**

9:40 BIOL 2. X-ray crystallographic characterization of the reaction cycle in an iron(II) and 2-(oxo)-glutarate-dependent oxygenase. **A. Boal**

10:20 Intermission.

10:35 BIOL 3. Discovering unusual enzymatic chemistry in the microbial world. **E.P. Balskus**

11:15 BIOL 4. Complexity generation in the biosynthesis of fungal polyketide-nonribosomal peptide natural products. **Y. Tang**

Section B
Ernest N. Morial Convention Center
Room 244

Graduate Student & Postdoctoral Fellow Symposium

S.O. Kelley, *Organizer*
P.C. Bevilacqua, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 BIOL 5. Electric field optimization in enzymes. **V. Vaissier**, A. Bhowmick, S.C. Sharma, K. Schaettle, T.L. Head-Gordon

8:50 BIOL 6. C-terminal 'tail' of *M. tuberculosis* acyl carrier protein, AcpM, provides a second mode of substrate sequestration for (very) long fatty acyl chains. **A. Patel**, K. Finzel, D. Lee, J. McCammon

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9:05 BIOL 7. Hydration at the protein surface: Observations from high-resolution data. **J.C. Miner**, J. Berendzen, P. Fenimore

9:20 BIOL 8. Probing ion-dependent changes to calmodulin binding site conformation with FTIR and ultrafast 2DIR spectroscopy. **S.C. Edington**, A. Gonzalez, T.R. Middendorf, D.B. Halling, R.W. Aldrich, C.R. Baiz

9:35 BIOL 9. Enzyme stabilization via computationally guided protein stapling. **E. Moore**, R. Fasan

9:50 BIOL 10. Internal mechanics of PPIP5K, a versatile molecular machine. **Y. An**, H. Wang, S. Shears, D. Kireev

10:05 Intermission.

10:20 BIOL 11. Elusive labile iron: Bioanalytical techniques to measure iron speciation in human plasma. **H.M. Neu**, S.A. Alexishin, J.E. Brandis, A.M. Williams, D. Sun, N. Zheng, W. Jian, J.E. Polli, M.A. Kane, S.L. Michel

10:35 BIOL 12. Small molecule potentiation of Gram-positive selective antibiotics against Gram-negative *Acinetobacter baumannii*. **S.E. Martin**, C. Melander

10:50 BIOL 13. Elucidation of drug-drug interactions at the transcriptional level in hepatocytes. **B. Bulutoglu**, C. Rey Bedon, S. Mert, O. Usta, M. Yarmush

11:05 BIOL 14. Design of a programmable and tunable semi-synthetic "clot buster". **P. Mukherjee**, L.J. Leman, J. Griffin, M. Ghadiri

11:20 BIOL 15. Withdrawn

11:35 BIOL 16. Nonenzymatic and chemoselective synthesis of ceramides in living cells. **A.K. Rudd**, N.K. Devaraj

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama

Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Biomaterialization & Bio-Compatible Minerals

Sponsored by GEOC, Cosponsored by BIOL and ENVR

SUNDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 243

RNA Structure and Function

P.C. Bevilacqua, S.O. Kelley, *Organizers*
P. Bevilacqua, *Presiding*

1:00 BIOL 17. Catalytic strategies of small ribozymes from comparative analysis of active sites. **P.C. Bevilacqua**, D. Seith, J. Bingaman, A.J. Veenis, A. Button

1:35 BIOL 18. Secondary structure stability favors RNA thermostability under cellular conditions in a functional RNA. **K. Leamy**, N. Yennawar, P. Bevilacqua

1:55 BIOL 19. Emergence of ribonuclease activity in ribozymes through intersection of neutral networks. **J.A. Piccirilli**

2:30 BIOL 20. Probing general acid-base catalysis in Varkud satellite ribozyme with minimally perturbative nucleobase analogs. **B. Weissman**, N. Li, J.A. Piccirilli

2:50 Intermission.

3:10 BIOL 21. Kinetic isotope effect analyses of the transition states of non-enzymatic RNA 2'-O-transphosphorylation reactions catalyzed by acid, base and metal ions: Implications for biological catalysis. **M. Harris**

3:45 BIOL 22. Kinetic isotope effects on catalysis by the HDV ribozyme- precise determination of isotope ratios using electrospray ionization time-of-flight mass spectrometry. **H. Lin**, B. Weissman, S. Gardez, V. Anderson, D.M. York, J.A. Piccirilli, M. Harris

4:05 BIOL 23. Insights into the diverse array of catalytic strategies of RNA enzymes from computational enzymology. **D.M. York**

4:40 BIOL 24. Computational RNA enzymology: Unravelling the catalytic mechanism of the twister ribozyme. **C.S. Gaines**, D.M. York

Section B

Ernest N. Morial Convention Center Room 244

Chemical Tools for Modulating and Imaging Biology

M.E. Farkas, *Organizer, Presiding*

1:30 BIOL 25. Chemical tools for probing, manipulating, and imaging biological systems in space and time. **D.M. Chenoweth**

2:00 BIOL 26. Chemical modulation of circadian rhythms for the study of cancer. **M.E. Farkas**

2:30 BIOL 27. Modulating the immune response: Probing a code without a key. **A.P. Esser-Kahn**

3:00 Intermission.

3:15 BIOL 28. Sensing patterns in RNA structure and recognition via small molecules. C.S. Eubanks, B. Zhao, Q. Zhang, **A.E. Hargrove**

3:45 BIOL 29. Tools for visualizing and manipulating lipid signaling. **C. Schultz**

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama

Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

LGBTQ+ Graduate Student &

Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

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Biomaterialization & Bio-Compatible Minerals

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SUNDAY EVENING

Section A

Ernest N. Morial Convention Center Hall E

Current Topics

P.C. Bevilacqua, S.O. Kelley, *Organizers*

7:00-9:00

BIOL 30. Lipid membrane formation in artificial cells. **J. Flores**, H. Niederholtmeyer, A. Bhattacharya, N.K. Devaraj

BIOL 31. Direct detection of xanthurenate radical from enzymatic oxidation of xanthurenic acid. **B.E. Sturgeon**, C. Folluo, C. Knutson, A. Motten, R.P. Mason, J.E. Roberts

BIOL 32. The pattern of occurrence of cytosine in the genetic code. **B. Wang**

BIOL 33. Analyzing the role of G•U base pairs on the melting behavior of the *S. enterica htrA* RNA thermometer. **E.K. Choi**, R.M. Mitton-Fry

BIOL 34. Expression and characterization of dehydrogenase domain of NADPH oxidase 5. **J. Iverson**, E. Hay, C. Wei

BIOL 35. Withdrawn

BIOL 36. Optimizing methods for analyzing O-GlcNAc modifications. **M. Navarro**, A. Batt, K.N. Chuh, M. Pratt

BIOL 37. Structural and solution studies of DNA-binding by SloR, A Mn-dependent regulatory protein from *Streptococcus mutans*. S. Bender, G. Spatafora, J.Z. Chen, **A. Glasfeld**

BIOL 38. Synthetic α -helix mimetics for recognition of HIV TAR-RNA. **D. Maity**, S. Kumar, A.D. Hamilton

BIOL 39. Refractive index matching mounting media for best-in-class sample preservation and image quality. **A.W. York**, D. Cash, B. Boal, O. Golub, M. Wickman, E. Welch

BIOL 40. Synthesis and screening of a β amino acid bisintercalator library. **E. Gratton**, B.L. Iverson

BIOL 41. Addition of backbone modified amino acids to mRNA display via an editing-deficient aminoacyl-tRNA synthetase. **E.S. Iqbal**

BIOL 42. Engineering a replicative DNA polymerase for accurate bypass of damaged DNA. **T. Coulther**, M.J. Ondrechen, P.J. Beuning

BIOL 43. Site-directed mutagenesis of rSERT in preparation for future crosslinking studies. **H. Gering**, E. Costellano, M. Cascio

BIOL 44. DNA patterning methods for the study of a designed bacterial community. **M.J. Smith**, A. Furst, M.B. Francis

BIOL 45. Construction of synthetic membranes by chemoselective lipidation of peptides. **C.J. Cho**

BIOL 46. Testing the limits of NO detection with liposome encapsulated spin trap. V. Akkaraju, R. Diao, B. Schieler, K. Bidle, **D.J. Hirsh**

BIOL 47. Mechanism of triazolium salts on breast cancer cells. **J.J. Bies**, Z. Lin, K. Taylor, J. Meyers

BIOL 48. Catalysis of transthioacylation in the active centers of dihydroliipoamide acyltransacylase complexes of 2-oxo acid dehydrogenase complexes: A reassessment of mechanism. **J. Chakraborty**, N.S. Nemeria, E.T. Farinas, F. Jordan

BIOL 49. Careful what you label for: A Story of peril and intrigue in fluorophore labeling for tracking cellular uptake. **J.M. Larson**, A.P. Blum, H. Conteh

BIOL 50. DNA:RNA hetero-guanine quadruplex formation: Duplex guidance and disruption by peptide nucleic acid. **A. Berlyoung**, B.A. Armitage

BIOL 51. Modular biotinylated and photoactive NAADP analogs. **Y. Zhang**, J. Slama, T. Walsesh

BIOL 52. Characterization of a small molecule's influence on a Ras-related protein-protein interaction. **A. Montoya-Beltran**, P.D. Adams

BIOL 53. RNA-seq analysis of *Komagataeibacter xylinus* E25 A:kan and AB::kan mutants. **P. Jacek**

BIOL 54. Inhibition of amyloid fibril formation via naturally occurring phenolic compounds monitored by atomic force microscopy. **C. Pollock**, D. Dasani, T. Nghiem, R. Vitale, **D.F. Moriarty**

BIOL 55. Isolation and characterization of antibacterial molecules from various fruits and spices. **A. Smith**, S. Jones, M. Khan, **D.F. Moriarty**

BIOL 56. Coiled-coil peptides: A template for investigating connection between stability and sequences. E. Allgeyer, W. Cross, P. Fisk, **M. Blackburn**

BIOL 57. Controlled microbial biosynthesis of Cd and Zn quantum dots. **S. Lampa-Pastirk**, S. Forney, A.M. Bell

BIOL 58. Conserved aromatic residues at the dimer-dimer interface in the yeast peroxiredoxin Tsa1 facilitate decamer formation and biological function. M.A. Loberg, J.E. Hurtig, A.H. Graff, K.M. Allan, J.A. Buchan, M.K. Spencer, J.E. Kelly, J.E. Cloafelder, K.A. Morano, W. Lowther, **J.D. West**

BIOL 59. Structure-activity relationships for activation of *Arabidopsis thaliana* cytokinin receptors by analogs of N⁶-benzyladenine. **D.I. Osolodkin**, E. Savelieva, D. Karlov, V. Oslovsky, S. Lomin, S.N. Mikhailov, G. Romanov

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- BIOL 60.** Direct ESR detection of lignin monomer radicals. **S. Saey**, Z.A. Taylor, B.E. Sturgeon
- BIOL 61.** A possible mechanism of turmeric anti-cancer activity. **K.M. Counter**, J.J. Parackal, R. Sheaff
- BIOL 62.** Effects of familial mutations on the structure and assembly of a peptide derived from A β ₁₆₋₃₆. **K.J. McKnelly**, S. Yoo, A. Kreutzer, J.S. Nowick
- BIOL 63.** Toward the detection of cancers by chemotaxis of *C. elegans*. **E.J. Eggers**
- BIOL 64.** Elucidating the role of the sRNA C.0293 in the bacterial stress response. **R.E. Miner**, A. Sehgal, M. Popek, J. Pellino
- BIOL 65.** Stable binding of protein RsmG to 16S helix 18 requires RNA-protein and RNA-RNA contacts formed by the 16S 5'-domain RNA. **C.M. Hawkins**, S. Abeyirigunawardena
- BIOL 66.** Mutational analysis of A2-domain interface residues in promoting the structural stability of blood coagulation factor VIIIa: A computational binding free-energy analysis study. **D. Venkateswarlu**, S. Shearin
- BIOL 67.** Revisiting the acetaminophen free radical. **B.C. Stillwell**, I.C. Salvesson, J.K. Ricketts-Hagan, B.E. Sturgeon
- BIOL 68.** Withdrawn
- BIOL 69.** High throughput *in vivo* screening assay for novel inhibitors of extracellular heme sensing and utilization in *Pseudomonas aeruginosa*. **E. Robinson**, D. Liang, S. Mourifio, F. Xue, A. Wilks
- BIOL 70.** The preliminary study of hOLA1 N-terminal methylation catalyzed by NRMT1. **J. Burgos Rivera**, K. Jia, P. Li
- BIOL 71.** Evaluation and biophysical characterization of novel antimicrobial peptides: "A water purification approach". **V. Ortiz Gomez**, V. Rodriguez, E. Nicolau
- BIOL 72.** Human skin RNases offer dual protection against invading bacteria. **B. Wang**
- BIOL 73.** Net1A inhibitors: Looking for synergy. **M. Jones**, A. Ulu, Y. Zuo, J.A. Frost
- BIOL 74.** Phosphorylation and regulation of the splicing factor SRSF1 by a symbiotic kinase-kinase SRPK1-CLK1 complex. **B. Aubol**, J. Adams
- BIOL 75.** Self-assembly and photophysical characterization of synthetically functionalized luciferins for detecting host-guest interactions. **H.P. Rahn**, E.B. Atuk, J. Jayawickramarajah
- BIOL 76.** Evaluation of mosquito (*A. aegypti*) organic anion transporters through microinjection of sulfuryl group dyes. **B. Nicholls**, M. Rouhier
- BIOL 77.** Enzymatic synthesis of endocannabinoids. **S.L. Weber**, R.M. Hyslop, P.D. Burns
- BIOL 78.** Base composition and sequence characteristics of the 5'UTR of BACE1 mRNA. **B. Wang**, D. Lycans
- BIOL 79.** Design of new natural cysteine protease inhibitors (CPI) in complex with cruzipain from *T. cruzi*. **R. Espinosa**, A. Juarez-Saldivar, G. Rivera
- BIOL 80.** A synthetic isoprenoid lipoquinone, menaquinone-2, adopts a folded conformation in solution and at a model membrane interface. **D.C. Crans**, J.T. Koehn, E.S. Magallanes, B.J. Peters, C.N. Beuning, A.A. Haase, M.J. Zhu, C.D. Rithner, D.C. Crick
- BIOL 81.** Perturbing the BfrB:Bfd interaction of *Pseudomonas aeruginosa* by chemical and genetic intervention causes irreversible accumulation of iron in BfrB. **A. Punci Hewage**, H. Yao, K.K. Gnanasekaran, M.M. Lee, S. Phaniraj, S. Lovell, R.A. Bunce, B.R. Peterson, M.E. Rivera
- BIOL 82.** Structural changes of chloroplast signal recognition particle proteins studied by single molecule FRET during vectorial protein targeting. **D. Baucom**, R. Hendersen, R. Goforth, A. Kight, P. Sharma, F. Gao, S. Kumar, R.L. Henry, C.D. Heyes
- BIOL 83.** Assessing apoptosis inducing factor (AIF) as a candidate tumor promoter. **S. Birua**
- BIOL 84.** Designing peptide inhibitors for annihilating amyloid deposits: Treating Alzheimer's disease. **P. Prasad**, S. Chakraborty
- BIOL 85.** Cannabinoids as anti-cancer agents: What's really going on? **J.A. Folsom**, N. Pullen, C.E. Brown, R.M. Hyslop, P.D. Burns
- BIOL 86.** Arylboronic acid-catalyzed hydrolysis of salicylaldehyde imines mimics Michaelis-Menten enzyme-substrate kinetics. **C.C. Clement**, M. Philipp, S. Zakia
- BIOL 87.** Design, synthesis, molecular docking and antimicrobial activity of New 7-[4-((1,2,4-triazol-3-yl)thio)acetyl]piperazin-1-yl) derivatives of ciprofloxacin. H.H. Mohammed, **E.M. Abdelhafez**, S.H. Abbas, G.A. Abuor-Rahma, G. Hauk, J.M. Berger, S. Mitarai, M. Arai, K.N. Dalby, **T.S. Kaoud**
- BIOL 88.** Cannabidiol dimethyl ether synthesis pathways. **T. Cale**, R.M. Hyslop, C.E. Brown, S. Bydalek
- BIOL 89.** Triacylglycerols play a protective role during apoptosis. **N. Li**, G. Atilla-Gokcumen
- BIOL 90.** Development of a chemical proteomic strategy to target diacylglycerol kinases. **C.E. Franks**, S.T. Campbell, B.W. Purow, T.E. Harris, K. Hsu
- BIOL 91.** Stability of nonproteinogenic amino acids under extraterrestrial conditions. **L.A. Rowe**, J.R. Peller, C.C. Mammoser, K. Davidson, S. Dhar, A.J. Gunter, G. Burkhart, B. Brown
- BIOL 92.** Amyloid diversity in yeast is promoted by prion-specific chaperone functions. **J.K. Hines**
- BIOL 93.** NADPH-dependent reductive aminases. **M. Sharma**
- BIOL 94.** Aromatic ynamines: A new bio-orthogonal reactive group for step-efficient, sequential bioconjugation. **M. Hatit**, A.J. Watson, G.A. Burley
- BIOL 95.** Patronage of chemical safety and security among chemistry professionals. **E.O. Nwaichi**, T. Salah
- BIOL 96.** Progression towards structural determination and the understanding of protein-protein interactions of terminin complex proteins. **E.M. Miller**, C. Brazel, M. Loncaric, G. Horner, K. Kuznacic, A. Neibert, R. Kurzhals, C. Ragain
- BIOL 97.** Synthesis and characterization of biogenic selenium nanoparticles with antimicrobial properties made by *Staphylococcus aureus*, Methicillin-resistant *Staphylococcus aureus* (MRSA), *Escherichia coli* and *Pseudomonas aeruginosa*. **D. Medina Cruz**, T. Webster, A. Roy
- BIOL 98.** Short cationic peptides induce pH-sensitive non-leaky membrane fusion to enable cytoplasmic delivery of cell-impermeable compounds. L. Hui, F. Wang, L. Xu, F. Gao, Z. Zhao, **L. Yang**
- BIOL 99.** Prevention and treatment of oral gonorrhoea using antimicrobial GUMBOS. **K.M. Lopez**, M. Cole, J. Hobden, I.M. Warner
- BIOL 100.** Nanosized calcium-responsive contrast agents for functional MRI applications. **G. Gambino**, T. Savič, G. Angelovski
- BIOL 101.** "Geometric mutation" for decoupling receptor signaling crosstalk at phagosome membranes. **W. Li**, Y. Yu
- BIOL 102.** Effect of substrate presentation and Michaelis complex stability on neuraminidase 2 (NEU2) specificity. O.C. Grant, S. Makeneni, B.L. Foley, **R.J. Woods**
- BIOL 103.** Unexpected binding specificity of 2OST: Implications for heparan sulfate biosynthesis. D.F. Thieker, J. Liu, Y. Xu, C. Nora, J. Esko, H. Qiu, L. Wang, **R.J. Woods**
- BIOL 104.** Polyacrylamide nanoparticles: A conjugatable platform for use in the diagnosis and treatment of cancer. **S. Yap**, G. Stasiuk, R. Boyle
- BIOL 105.** Biochemistry of clinically relevant ITPase mutants. **N.E. Burgis**
- BIOL 106.** QM-cluster model examination of a biphenyl transition state "trapped" within an engineered Thr-tRNA synthetase. **T.J. Summers**, Q. Cheng, N.J. Deyonker
- BIOL 107.** Interactions of platinum(II) small molecules with RNA and implications of platinum on RNA depurination and cell cytotoxicity. **B. Kimutai**
- BIOL 108.** Withdrawn
- BIOL 109.** The small molecule 2-Azido-2-deoxy-glucose is a metabolic chemical reporter of O-GlcNAc modifications in mammalian cells, revealing an unexpected promiscuity of O-GlcNAc transferase. **A. Batt**, B. Zaro, K.N. Chuh, M. Navarro, M. Pratt
- BIOL 110.** Mechanistic study of a peptide diastereomer with anti-cancer activity. **J. Yu**, T.B. Shrestha, A.I. Herreira, O. Prakash, D.L. Troyer, S.H. Bossmann
- BIOL 111.** Real-time ticking of a biological clock, assembled in a test tube. **J. Heisler**, Y. Chang, A. Chavan, A. LiWang
- BIOL 112.** Mechanistic insights into oligomer and fibril formation of amyloid-beta peptide. **D. Du**
- BIOL 113.** An NMR based metabolomics approach to understanding biochar's effects on *Escherichia coli*. **R. Hill**, **A.H. Byers**, J. Hunt, E. Sanders, T. Mlsna, N. Fitzkee
- BIOL 114.** Pin 1-histone H1 interactions: Towards an understanding of substrate specific activity. **D. Jinasena**, H. Gyamfi
- BIOL 115.** Mechanistic studies of copper-activated drugs against Gram-positive bacteria. **M. Kalubowilage**, A. Delpe Acharige, M. Zhang, A.P. Malalasekera, F. Wolschendorf, S.H. Bossmann
- BIOL 116.** Flow cytometry based high-throughput screen capable of sorting biofuel producing *E. coli* cells. **J. Freeman**
- BIOL 117.** Probing the effects of oligomerization and heme pocket residues on the signal transduction within globin coupled sensors. **S. Rivera**, E.E. Weinert
- BIOL 118.** Mechanism of a class C radical SAM thiazole methyltransferase. **N. Mahanta**, Z. Zhang, G.A. Hudson, W.A. Van Der Donk, D. Mitchell
- BIOL 119.** Nano structure design for RNA interference. **Z. Shu**, N. Abe, F. Tomoike, Y. Kimura, Y. Ito, H. Abe
- BIOL 120.** Cellular effects of ligand binding to the Oxysterol-binding protein family (OSBP/ORP4). **B. Roberts**, Z. Severance, R. Bensen, N.R. Kothapalli, J.I. Nunez, H. Ma, S. Wu, A. Burgett
- BIOL 121.** Selective peptide binders for PDL1 as an immunogenic target in cancer. **G. Kamalinia**, T. Takahashi, R.W. Roberts
- BIOL 122.** Peptidomimetic inhibitors of the KDM4-subfamily of histone lysine demethylases: Transitioning from substrate to inhibitor. **J. Maw**, Y. Le Bihan, K. Tomlin, N. Mok, V. Bavetsias, J. Blogg
- BIOL 123.** Withdrawn
- BIOL 124.** Automated and high-resolution force spectroscopy for biochemical applications. **H. Jia**, S. Xu
- BIOL 125.** Force-selected molecular printing with high precision and versatility. **Y. Mao**, Q. Hu, S. Xu
- BIOL 126.** Isolation and characterization of a novel intermediate of thymidylate synthase: Possibility of a new class of chemotherapeutic drugs targeting thymidylate synthase. **A.K. Ghosh**, S. Kholodar, A. Kohen
- BIOL 127.** Functional analysis of O-GlcNAc modified β -synuclein using synthetic protein chemistry. **A. Galesic**, P. Levine, A.J. Balana, M. Pratt
- BIOL 128.** Withdrawn
- BIOL 129.** Human serum albumin is conformationally changed in the presence of epigallocatechin gallate using FRET

(Förster resonance energy transfer). **X. Sun**, A.E. Hagerman

BIOL 130. Trehalose monomycolate mimic chemical reporter: A strategy for detecting, profiling and identifying O-mycoloylated proteins in mycobacterium. **H.W. Kavunja**, B. Piligian, T. Fiolek, H. Foley, T. Nathan, B.M. Swarts

BIOL 131. 6-Thiopurine: Targeting UDP-glucose dehydrogenase and its efficacy effects. **C.J. Weeramange**, R.J. Rafferty

BIOL 132. Synthesis and application of small molecule probes for lipid labeling. **A.J. Carr**, S. Alam, T.J. Ricks, X. Zhang, M. Best

BIOL 133. Withdrawn

BIOL 134. FRET based assays to study the binding of fibroblast growth factor to its receptor. **M. Mohale**, A. Howard, M. Crew, S. Jayanthi, S.K. Thallapuram, C.D. Heyes

BIOL 135. A beacon in the night: Chemiluminescence imaging agents for whole animal imaging. **A.R. Lippert**

BIOL 136. Distinct immune responses with covalently-linked TLR agonist combinations for a Q-Fever vaccine. **T.J. Albin**, J. Tom, S. Manna, A. Gilkes, M. Supnet, H. Davies, A. Jain, R. Nakajima, A. Jasinskis, S. Ruiz, A. Nalca, A. Burkhardt, P. Felgner, A.P. Esser-Kahn

MONDAY MORNING

Section A

Ernest N. Morial Convention Center Room 243

Ralph F. Hirschmann Award in Peptide Chemistry: Symposium in honor of Lila M. Gierasch

Bridging Peptides & Proteins: From Function to Therapy

Cosponsored by WCC
Financially supported by Journal of Biological Chemistry and University of Massachusetts Amherst
L.M. Gierasch, S.O. Kelley, Organizers
J.P. Schneider, Presiding

9:00 Introductory Remarks.

9:10 BIOL 137. Conformational imprinting and amyloid disease. **S. Radford**

9:40 Intermission.

9:45 BIOL 138. Racemic hydrogels from self-assembling mirror image peptides: Predictions from Pauling and Corey. **J.P. Schneider**

10:15 Intermission.

10:20 BIOL 139. Designed FN3 Domains for extrahepatic delivery of oligonucleotides. **K. O'Neil**

10:50 Intermission.

10:55 BIOL 140. Molecular interactions between collagen and its binding partners: access to cryptic binding sites. **J. Baum**, D. Case, C. Hoop, A. Kemraj, A. Nunes, J. Zhu

11:25 Intermission.

11:30 BIOL 141. Award Address (Ralph F. Hirschmann Award in Peptide Chemistry Sponsored by the Merck Research Laboratories). When peptides mimic proteins, and when they do

not: Promiscuous selectivity in Hsp70 chaperone binding of substrates. E.M. Clerico, C.A. English, J.M. Tilitzky, W. Meng, J. Chen, W. Sherman, **L.M. Gierasch**

Section B

Ernest N. Morial Convention Center Room 244

Chemical Tools for Interrogating Biological Systems

S.O. Kelley, Organizer
C.I. Stains, Organizer, Presiding

8:30 BIOL 142. New fluorophore scaffolds for chemical biology. **C.I. Stains**

9:05 BIOL 143. Engineered protein switches for controlling dynamic cellular processes. **D.J. Maly**

9:40 BIOL 144. Protein engineering approaches for targeting and understanding protein kinases and phosphatases in live cells. **I. Ghosh**

10:15 Intermission.

10:25 BIOL 145. Spying on cellular communication with chemical probes and noninvasive imaging. **J.A. Prescher**

11:00 BIOL 146. Optical control of protein function through genetic code expansion in cells and animals. **A. Deiters**

11:35 BIOL 147. Activity-based sensing approaches to studying chemistry in living systems. **C.J. Chang**

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama

Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

MONDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 243

Goodman Award Symposium

H. Crichton, S.O. Kelley, Organizers
W.F. Degrado, Presiding

1:30 Introductory Remarks.

1:35 BIOL 148. Inverse drug discovery. **J.W. Kelly**

2:05 BIOL 149. Domain cross-talk in epigenetic regulation. **D.G. Fujimori**

2:35 BIOL 150. Small molecule immunomodulators that target toll-like receptors. **H.H. Yin**

3:05 Intermission.

3:20 BIOL 151. Molecular mechanisms for atypical functions of protein kinases. **N. Jura**

3:50 BIOL 152. Minimalist design of peptide and protein catalysts. **I.V. Korendovych**

4:20 BIOL 153. De novo protein design. **W.F. Degrado**

Section B

Ernest N. Morial Convention Center

Room 244

Early Career Investigators in Biological Chemistry

P.C. Bevilacqua, Organizer
S.O. Kelley, Organizer, Presiding

1:30 Introductory Remarks.

1:35 BIOL 154. Viral hijacking of host proteins through fuzzy interactions: Mechanism and application. Q. Shen, J. Shi, D. Zeng, B. Zhao, P. Li, W. Hwang, **J. Cho**

1:55 BIOL 155. Biosynthesis of beta-lactones. **T.A. Wenczewicz**

2:15 BIOL 156. Light in sound out: Development of acoustogenic probes for *in vivo* imaging of reactive nitrogen species. **J. Chan**, C.J. Reinhardt, E. Zhou

2:35 BIOL 157. Optical imaging tools for elucidating the roles of anions in cellular signaling. **S. Dodani**

2:55 BIOL 158. Chemoproteomic discovery of lipid kinase inhibitors for immuno-oncology. **K. Hsu**

3:15 Intermission.

3:30 BIOL 159. Cell-specific chemical libraries targeting immune suppression in the tumor microenvironment. E. Kischuk, J. Majumder, J. Fine, T. Lantz, D. Dhawan, D. Knapp, T. Ratliff, **G. Chopra**

3:50 BIOL 160. Mirror image aptamers and ribozymes: Targeting RNA through heterochiral nucleic acid interactions. **J.T. Szczepanski**

4:10 BIOL 161. Chemical probes for monitoring interactions between reactive sulfur, oxygen, and nitrogen species in the airways of human subjects. **A.R. Lippert**

4:30 BIOL 162. Novel activity-based chemical probes for human sirtuins. E. Graham, S. Rymarchyk, S. Zheng, **Y. Cen**

4:50 BIOL 163. Chemical ligation reaction for oligonucleotides based on electrophilic phosphorothioester. **Y. Kimura**, H. Maruyama, R. Oikawa, M. Hayakawa, N. Abe, G. Tsuji, A. Matsuda, S. Shuto, Y. Ito, H. Abe

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama
Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

Microbially-Driven Geochemical Reactions: Kinetics & Communities
Sponsored by GEOC, Cosponsored by BIOL and ENVR

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

Undergraduate Research Posters Biochemistry

Sponsored by CHED, Cosponsored by BIOL and SOCED

MONDAY EVENING

Section A

Ernest N. Morial Convention Center Halls D/E

Sci-Mix

S.O. Kelley, Organizer

8:00–10:00

30, 38, 44, 54, 80. See previous listings.

179, 181, 189-191, 194, 197, 199-200, 205, 209, 228-229, 241, 249. See subsequent listings.

TUESDAY MORNING

Section A

Ernest N. Morial Convention Center Room 243

ACS Chemical Biology Award Symposium

S.O. Kelley, A. Weidmann, Organizers
L.L. Kiessling, Organizer, Presiding

9:00 Introductory Remarks.

9:05 BIOL 164. Deciphering the human microbiota with chemistry. **E.P. Balskus**

9:35 BIOL 165. Chemical editing of the glycocalyx to influence cellular functions. **K. Godula**

10:05 BIOL 166. Mighty chemistry of bacterial small molecules. **B. Li**

10:35 BIOL 167. Olfactory receptor-based sensors to accelerate the engineering of chemical-producing microbes. **P. Peralta Yahya**

11:05 Introduction of Awardee.

11:10 BIOL 168. Detecting and attacking cancer surface-omes with recombinant antibodies. **J.A. Wells**

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama
Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

Chemists & Writing for Fun & Profit: Write Your Own Career
Sponsored by SCHB, Cosponsored by BIOL and PROF

Microbially-Driven Geochemical Reactions: Kinetics & Communities
Sponsored by GEOC, Cosponsored by BIOL and ENVR

TUESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 243

Ronald Breslow Award for Achievement in Biomimetic Chemistry: Symposium in honor of David R. Liu

S.O. Kelley, Organizer
D.R. Liu, Organizer, Presiding

1:30 Introductory Remarks.

1:35 BIOL 169. Chemical biology-based approach to understanding and overcoming cancer therapy resistance.

[†]Cooperative Cosponsorship

S.L. Schreiber

2:20 BIOL 170. Life 2.0: Synthetic self-replicating and evolving systems. **G.F. Joyce**

3:05 Intermission.

3:20 BIOL 171. Playing with the Molecules of Life. **P.G. Schultz**

4:05 BIOL 172. Award Address (Ronald Breslow Award for Achievement in Biomimetic Chemistry Sponsored by the Ronald Breslow Award Endowment). Base editing: Chemistry on a target nucleotide in the genome of living cells. **D. Liu**

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama
Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

Microbially-Driven Geochemical Reactions: Kinetics & Communities
Sponsored by GEOC, Cosponsored by BIOL and ENVR

TUESDAY EVENING

Section A

Ernest N. Morial Convention Center Hall E

Current Topics

P.C. Bevilacqua, S.O. Kelley, *Organizers*

7:00–9:00

BIOL 173. Protein determinants of anion binding: Application to sodium iodide symporter. **H. Zhekova**, M. Damergi, X.Q. Lu, S. Gupta, C. Hsieh, S. Noskov

BIOL 174. Withdrawn

BIOL 175. Progress towards the structural determination of the telomere associating protein Modigliani. **C. Brazel**, E.M. Miller, G. Horner, M. Loncaric, K. Kuznacic, A. Neibert, R. Kurzhals, C. Ragain

BIOL 176. Design of a dimeric aptamer against B-cell receptor. **S. Batool**, H. Zumrut, S. Bhandari, N. Van, S. George, P. Mallikaratchy

BIOL 177. Role of CDKs on glioblastoma cell growth. **M. Palha**, R.H. Lee, Z. Bacugalupe, M. Reginato

BIOL 178. pH-dependent studies of the reductive half-reaction of methylenetetrahydrofolate reductase from *Escherichia coli*. **A. Li**, J. Wang, E.E. Trimmer

BIOL 179. Studies into the mechanism of propanediol dehydratase: A glycol radical enzyme highly abundant in healthy human gut microbiomes. **B.J. Levin**, E.P. Balskus

BIOL 180. Role of cell-surface hemin receptors in the rapid uptake and photodynamic inactivation of staphylococci by Ga(III)-protoporphyrin IX. **A.V. Morales**

BIOL 181. Probing the protein-protein interactions in bacterial fatty acid biosynthesis: Applications in antibacterial agent development, and biofuel production. **K. Charov**, M.D. Burkart

BIOL 182. Targeted depalmitoylation of N-Ras for suppression of oncogenic signaling pathways. **H. Vora**

BIOL 183. Correlating bacterial diversity to nitrogen contamination of alluvial aquifers in Iowa. **K. Miner**, C.L. Just

BIOL 184. Thiophene-N-methylbenzimidazole β -hole module as a new road to specific recognition of mixed DNA sequences. **P. Guo**, A. Paul, A. Kumar, A.A. Farahat, N. Harika, S. Wang, D.W. Boykin, W. Wilson

BIOL 185. New photoaffinity labeling module. **B. Zhao**, J. Taechalerpaisarn, K. Burgess

BIOL 186. Tissue-specific loss of SMN and its effect on the immune response of *Drosophila melanogaster*. **H.N. Dinh**, G. Matera, A. Spring, D. Brown

BIOL 187. Cloning and expression of recombinant chondroitinase AC II and its comparison to the *Arthrobacter auescens* enzyme. **A. Williams**, R.J. Linhardt, M. Koffas, B. Cress, W. He, T. Toida

BIOL 188. First structure of a designed minor groove binding heterocyclic cation that specifically recognizes mixed DNA base pair sequences. **N. Harika**, M.W. Germann, A. Paul, D.W. Boykin, W. Wilson

BIOL 189. Approaching the color problem of bioluminescence: Contributions of the active site microenvironment to the emission of red and green luciferases. **N. Lui**, C. Carrasco-López, J.C. Ferreria, S. Schramm, P. Naumov, W. Rabeh

BIOL 190. Biophysical approach to convert an “undruggable” DNA target to a “druggable” receptor. **A. Paul**, P. Guo, N. Harika, A. Kumar, A.A. Farahat, S. Laughlin, G.M. Poon, D.W. Boykin, W. Wilson

BIOL 191. Triazabutadiene drug conjugates for the identification of protein-protein interactions. **A. Shepard**, J.C. Jewett

BIOL 192. Y-FAST as a fluorescent color switchable reporter in living cells. **J. Kim**, H. Lee, H. Chung, H. Lee

BIOL 193. Investigating plasmid DNA maintenance in transformed *E. coli*. **T. Oh**, B. Hicks

BIOL 194. Functional characterization of GPCRs in synthetic membranes using *in situ* lipid synthesis for protein reconstitution technology. **K. Podolsky**, R.J. Brea, N.K. Devaraj

BIOL 195. Effects of the pro-cys-pro tripeptide stretch on the structural and biochemical properties of chloroperoxidase. **E. Kwong**, X. Wang

BIOL 196. Interaction of aurein 1.2 with vesicles mimicking normal and cancer cell membranes. **C.R. Alexander**, N. Phambu

BIOL 197. Investigating the binding mechanism between FMRP and Drasha mRNA G-quadruplex. **K. McDougal**, M. Mihailescu

BIOL 198. The effect of oxidative stress on mitochondrial electron transfer flavoprotein: Pinpointing sequences

adducted by 4-hydroxy-2-nonenal. **E. Schaible**, C.M. Byron, D. Knapp, M. Breen-Lyles

BIOL 199. Mn²⁺-sensing and conformational switching mechanism in the *Escherichia coli* Mn²⁺-dependent riboswitch. **R. Cai**, I. Price, F. Ding, C. Lu, A. Ke

BIOL 200. Chemoproteomic methods for investigating mitochondrial cysteine oxidation in disease. **M. Pizzagalli**, D. Bak, E. Veerapana

BIOL 201. Regulatory mechanism of nitric oxide synthase by cav-1 and calmodulin. **N. Schimp**, C. Wei

BIOL 202. Characterization of the 3rd and 4th EF-hand motifs of NADPH oxidase 5 by calorimetry. **E. Fabry**, L. Lloyd, C. Wei

BIOL 203. Fullmetal alchemy: Using kinetic isotope effects to interrogate divalent metal ion catalysis in phosphoryl transfer enzymes. **E.W. Ollie**, J.A. Piccirilli, D.M. York, M. Harris

BIOL 204. Novel phosphinate-based near-infrared fluorophores and their biological application. **Y. Fang**, X. Zhou, C.I. Stains

BIOL 205. Advancing polymerase ribozymes towards self-replication. **K. Tjhung**, G.F. Joyce

BIOL 206. New views of head-to-middle prenyltransferases. **L. Chen**, J. Gao, S.R. Malwal, T. Kuo, M. Liu, W. Liu, Y. Yang, J. Huang, J. Zhang, F. Qu, C. Chen, Y. Zhang, R. Guo, E. Oldfield

BIOL 207. Induction of cell death mechanisms with light by a novel porphyrin derivative. **T.E. Hayes**, A. Abbott, H. Brandon, A. Savenka, A. Basnagian, J.E. Bradshaw

BIOL 208. Design and characterization of a dual-loop G-quadruplex for molecular logic gates. **C. Briney**, C.H. Battle

BIOL 209. Zinc influence on *Plasmodium falciparum* during intraerythrocytic development. **K. Payson**, E. Allman, M. Llinás

BIOL 210. Short dietary peptide IRW elicits its pharmacological effects via PGC1 β axis. **K. Bhullar**, N. Pabon, C.J. Camacho, J. Wu

BIOL 211. Chemical reactive anchoring lipids with different performance for cell surface re-engineering. **M.L. Boron**, P. Vabbilisetty, H. Nie, E. Ozhegov, X. Sun

BIOL 212. Synthesis of diphosphate ProTides for enhancement of cellular metabolism. **M. de Cabrera**, S.F. Wnuk

BIOL 213. Creating dense DNA phases with protein-crosslinked plasmids. **C. Tsai**, N.K. Devaraj, H. Niederholtmeyer

BIOL 214. Cyanocarbazole derivatives as universal bases. **A. Shaver**, L.A. Truong, S.A. Woski

BIOL 215. Analysis of dopaminergic derivatives in sulfotransferase SULT1A3. **C. Cochrane**, D. Bigler, M.L. Caferio, L.W. Peterson

BIOL 216. Investigating the conformational dynamics of GLP-1R: A class B G protein-coupled receptor. **T.M. Lewandowski-Baird**, C.P. Ramil, P. An, Q. Lin

BIOL 217. Augmenting vaccine immunogenicity through the use of natural human anti-Rha antibodies and monoclonal Fc domains. **M. Hossain**, A. Vartak, S. Sucheck, K. Wall

BIOL 218. Catalyzed reporter deposition for fluorescent labeling of cells using oxidative enzymes. **B.T. Cisneros**

BIOL 219. Metal binding affinity of *Halobacterium salinarum* cysteinyl-tRNA synthetase. **L. Cobani**, C.M. Evilia, J. Rosentreter, J. Kuhlmeier

BIOL 220. Withdrawn

BIOL 221. Dual targeted nanoparticles for mitochondrial delivery of a cisplatin prodrug for prostate cancer therapy. **B. Sumnar**, S. Dhar

BIOL 222. LAT1 membrane transporter selectivity for L and D amino acids. **C. Hall**, **B. Venteicher**, H. Chien, K. Giacomini, C. Colas, A. Schlessinger, A.A. Thomas

BIOL 223. Role of serine to threonine substitution in NrdF protein of ribonucleotide reductase enzyme. M. Jayachandran, D. Cipurko, **O. Makhlynets**

BIOL 224. Design, synthesis and biological evaluation of novel NSAIDs with improved gastrointestinal safety profile. H.S. Abd-Allah, A.M. Mohassab, M.E. Shoman, E.A. Beshir, H.A. Hassan, D. Abdelhamid, M. Abdel-Aziz, A.F. Ahmed, K.N. Dalby, **T.S. Kaoud**

BIOL 225. Chemical proteomic profiling of prenylated proteins involved in disease. **K.G. Suazo**, M.D. Distefano

BIOL 226. Microbiological aspects of energy production. **T. Komolafe**

BIOL 227. Liposomal delivery of diacylglycerol lipase-beta inhibitors to macrophages dramatically enhances selectivity and efficacy *in vivo*. **M. Shin**, H. Snyder, G. Donvito, L. Schurman, T. Fox, A. Lichtman, M. Kester, K. Hsu

BIOL 228. Targeting DNA methylation to enhance memory function. **A. Boitnott**, C.P. Gettens, X. Zhang, K. Zengeler, H. Smith, B. Malachowsky, A. Kennedy

BIOL 229. Spatiotemporal photo-regulation of translation by enzymatic covalent mRNA labeling. **D. Zhang**, E.C. Zhou, K.N. Busby, S.C. Alexander

BIOL 230. Synthesis, characterization and biological studies of cobalt(II) Schiff bases derived from o-vanillin with series of aromatic amines. **R.O. Shaibu**, G. Watkins

BIOL 231. PIP-on-a-chip assay: A microfluidics based approach to study viral protein – membrane interactions. **S.J. Sujansky**, C. Yeager, C.E. Cameron

BIOL 232. Mechanistic insights into quorum sensing regulator protein-DNA binding. **T.L. Schneider**, S. Durmus, R. Glasser

†Cooperative Cosponsorship

BIOL 233. Toward development of protein-polymer conjugates for biocatalytic cyclopropanation. **H. Wu**, S. Onbulak, A. Sood, J. Rzayev, Q. Lin

BIOL 234. Increasing solubility of the serine protease dipeptidyl peptidase-4 via protein truncation. **S.F. Spradlin**, C.M. Evilia

BIOL 235. Design of a halophilic peptide based on halophilic protein motifs. **C. Bringer**, C.M. Evilia

BIOL 236. Elucidating the regulatory phosphorylation hotspots of full-length BRAF through enzymological analyses. **N. Cope**

BIOL 237. Identification of ssDNA aptamer specific to an herbicide. **K. Abraham**, K.L. Hong

BIOL 238. Investigating the roles of *Mycobacterium smegmatis* L,D-transpeptidases in cell wall biosynthesis. R.L. Marshburn, P.K. Stateler, T. Zandi, **L. Basta**

BIOL 239. Understanding the mechanism of mutation suppression by a conserved oxidant defense protein in yeast. **M. Pleshinger**, N.R. West, M.A. Loberg, J.B. David, B.A. Bauer, J.A. Buchan, T.J. Roston, K.M. Allan, I.C. Martin, S.R. Hohan, W. Lowther, K.A. Morano, J.D. West

BIOL 240. Conformational preferences in beta-sheet peptidomimetics. **B. Linton**

BIOL 241. Sirtuin 2 inhibitors identified by phage display with an expanded genetic code. **J.M. Tharp**, C. Reed, Y. Kurra, W. Liu

BIOL 242. Prolyl oligopeptidase family protein 2 (POP2): A protease with a taste for antibodies. **L. Jam**, C.M. Evilia

BIOL 243. Effect of the antimicrobial peptide combi-2 on lipid bilayers mimicking bacterial membranes. **B.M. Almarwani**, N. Phambu

BIOL 244. Demonstration of horizontal gene transfer from genetically engineered cyanobacteria to wild-type *E. coli*. **T. Nguyen**, **C. Barnes**, J. Agola, S. Sherazi, **L.H. Greene**, **J.W. Lee**

BIOL 245. Human glutathione synthetase: Negative cooperativity and substrate binding studies. A. Stopper, L. Haynes, I. Chavarri, H. Conrad Webb, **M.E. Anderson**

BIOL 246. LC-MS/MS-based analytical method for Marfey's reagent derivatized amino acid stereoisomers and its application to biological samples. N.J. Ayon, **W.G. Gutheil**

BIOL 247. Trehalose monomycolate analogue containing a cleavable biotin affinity tag for labeling and identifying α -mycoloylated proteins in *Corynebacterineae*. **N. Banahene**, B.M. Swarts

BIOL 248. Analysis of eyes shut (EYS) function during intestinal regeneration in *Drosophila melanogaster*. **H. Cummins**, C. Penalva, J. Maldera, R. Sudhakaran, B.A. Edgar

BIOL 249. Series of cisplatin prodrugs to inhibit fatty acid oxidation in prostate cancer. **A.A. Kalathil**, S. Dhar

BIOL 250. Expanding the scope of RNA-TAG: From cell imaging to the conjugation of modified mRNA. **E.C. Zhou**, N.K. Devaraj

BIOL 251. Amyloid aggregation of the C-terminal peptide of BAX: A pro-apoptotic human protein. **D.A. Price**, K. Hutson, T.D. Hill, S.D. Moran

BIOL 252. Withdrawn

BIOL 253. Wireless handheld sensor for salivary cortisol detection. **A. Jangam**, N. Dave, P. Akhade, P. Manickam, **R.E. Fernandez**, S. Bhansali

BIOL 254. AdCasT: A single vector system for tunable control of genome-wide genetic perturbations. **C.L. Moore**, M. Shoulders

BIOL 255. Investigations into the development of new penetrating chaperones: Smuggling therapeutics across gram-negative bacteria and the blood-brain barrier. **R. Rafferty**, T. Nguyen, V. Hoang, P. Desman, A. Fatino

BIOL 256. Unveiling molecular mechanisms of kinesin-5 function using multiscale computational techniques. **A. Davtyan**, A. Kolomeisky, Q. Wang

BIOL 257. Connecting genes to molecules: Identifying novel small molecules in microbe-plant interactions. **E.M. O'Neil**

BIOL 258. Applications of multidimensional time model for PDF applied to Fokker-Planck equation and multi-scale time analysis to the rate of transcription or translation controlled by riboswitches. **M. Fundator**

BIOL 259. Ultraviolet light induced self-quenching of protein fluorescence. **M. Marlow**

BIOL 260. Withdrawn

BIOL 261. Identification of vaginal bacterial species that are mutually and differentially antagonistic with strains of *Candida albicans*. **A. Prekocevic**

BIOL 262. Using dye molecules to study xenobiotic transport in the mosquito, *A. aegypti*. R. Arens, **M. Rouhier**

BIOL 263. Toward deciphering the biochemistry of DNA thymidine hypermodification in bacteriophages. **Y. Lee**, N. Dai, C. Guan, I. Correa, P.R. Weigle

BIOL 264. Characterization of the binding partners of MitoNEET. **M. Konkle**, K. Meenagh, R. Skolik, R. Guan, M. Menze, W.J. Geldenhuys

BIOL 265. Crustin and related putative antimicrobial peptides in the lobster, *Homarus americanus*: Identification using transcriptomics with top-down and bottom-up peptidomic strategies. **D. Do**, G.H. Vu, P.S. Dickinson, A.E. Christie, E.A. Stemmler

BIOL 266. Use of synthetic peptidomimetics for a critical evaluation of A β structure and functions. **S. Kumar**, A. Henning-Knechtel, M. Magzoub, A.D. Hamilton

BIOL 267. Oxidative damage affected by packaging density in sperm protamine-DNA complexes. **L.E. Prevette**, E.

Merino, J.E. Derouchey

BIOL 268. High resolution measurement of membrane protein endocytosis. **Z. Zhang**, D.K. Heidary, C.I. Richards

BIOL 269. Molecular dynamics simulations of inhibition and disease mechanisms of metabolite fibrils. **P. Rehak**, P. Kral

BIOL 270. Dynamics of a π -stacked substrate analog in a flavoenzyme active site using 2D IR spectroscopy. **T.D. Hill**, H. Lepird, J. Zhu, D.A. Price, S.D. Moran

BIOL 271. Biosynthesis of the antimicrobial lasso peptide, lariatrin A, in *Escherichia coli*. **A. Adeniji-Adele**, M. Donohue, C. van Horn, J.W. Tomsho

BIOL 272. Allosteric activation by membranes regulates substrate specificity of lipolytic enzymes. **V. Mouchlis**, J. McCammon, E.A. Dennis

BIOL 273. Synthesis, spectroscopic investigation, biological screening, interaction with SS-DNA and DFT study of ferrocene-modified ureas. **F. Asghar**, A. Badshah, I.S. Butler

BIOL 274. Heterochiral DNA strand displacement circuits. **A. Kabza**, B. Young, J. Szczepanski

BIOL 275. Investigating the dienophile effect on the fluorogenic efficiency of cycloaddition reactions with tetrazines. **B. Pinto-Pacheco**, D. Buccella, S.A. Khan, W. Carbery, D. Turner

BIOL 276. Quantifying tetracycline resistance genes in swine waste anaerobic digester over a period of 100 days. **M. Couch**, G. Agga, J.H. Loughrin, R. Parekh, S. Antle, J. Kasumba, B. Couch, E.D. Conte

BIOL 277. Synthesis and evaluation of Nebraska Red derivatives for protein labeling studies. **L. Lesiak**, X. Zhou, C.I. Stains

BIOL 278. Noncovalent exocyclic methylene intermediate in flavin-dependent thymidylate synthase: Fact or artifact? **D. Mondal**, J. Yao, D. Quinn, A. Kohen

WEDNESDAY MORNING

Section A

Ernest N. Morial Convention Center Room 243

Mid-Career Investigators in Biological Chemistry

P.C. Bevilacqua, S.O. Kelley, *Organizers*
A. Miller, *Presiding*

8:00 Introductory Remarks.

8:05 BIOL 279. Small molecule-mediated delivery to human Langerhans cells. J. Schulze, E. Wamhoff, L. Bellmann, M. Rentzsch, R. Wawrzinek, G. Bachem, O. Seitz, P. Stoitzner, **C. Rademacher**

8:25 BIOL 280. Discovery of a covalent inhibitor of ERK docking-interactions that inhibits A375 melanoma tumor growth. **K.N. Dalby**

8:45 BIOL 281. Photoactive rhenium dipyrrophenazine carbonyl complexes as sensors for protein aggregation and photochemical footprinting. A. Aliyan, T.J.

Paul, C. Pennington, B. Jiang, G. Sharma, R. Prabhakar, **A.A. Marti**

9:05 BIOL 282. Impact of medium components on phospholipase B-like 2 protein levels in cell cultures. **Q. He**, J. Tian, Y. Qian, T. Straub, M. Rdultowski, B. Eagan, N. Vaidyanathan, C.L. Oliveira, E. Vandermark, C. Kramer, N. Qian, M.C. Borys

9:25 BIOL 283. Lipid transfer mechanism of cholesteryl ester transfer protein between HDL and LDL. **S. Senapati**

9:45 Intermission.

10:00 BIOL 284. Unleashing bacterial biosynthetic pathways to expand diketopiperazine chemical diversity. **A. Lane**, R. Viswanathan, R. Lopez, J. Carey, P. Borgman, E. James, C. Webb

10:20 BIOL 285. High-efficiency "-1" and "-2" ribosomal frameshiftings revealed by force spectroscopy. **Y. Wang**

10:40 BIOL 286. Role of cathepsin L in β -synuclein degradation. R.P. McGlinchey, S.M. Lacy, **J.C. Lee**

11:00 BIOL 287. 1 β -2-Himachalen-6-ol: A novel anticancer sesquiterpene unique to the Lebanese wild carrot. **R.I. Taleb**, C. Daher, M. El Sibai, M. Mroueh

11:20 BIOL 288. Small oxoacids of sulfur (SOS) and selenium (SOSe). **P.J. Farmer**, M. Kumar

11:40 BIOL 289. Energy-conserving bifurcating activity in electron-transfer flavoproteins. H.D. Duan, N.M. Raseek, G.J. Schut, D. Nguyen, M.W. Adams, **A. Miller**

Section B

Ernest N. Morial Convention Center Room 244

Graduate Student & Postdoctoral Fellow Symposium

P.C. Bevilacqua, S.O. Kelley, *Organizers*
C. Berman, *Presiding*

8:30 Introductory Remarks.

8:35 BIOL 290. Molecular evolution of densely-functionalized aptamers. **D. Kong**, W. Yeung

8:50 BIOL 291. Toward RNA life: Synthesis and replication of RNA by RNA. **D.P. Horning**, S. Bala, J.C. Chaput, G.F. Joyce

9:05 BIOL 292. Capping 5'-triphosphate oligonucleotides with vaccinia virus capping enzyme. **M. Wulf**, P. Humbert, J.L. Buswell, I. Schildkraut, I. Correa

9:20 BIOL 293. Using computationally-engineered promiscuous EF-Tu variants to more efficiently translate unnatural amino acids. **V. Cox**, E.A. Gaucher

9:35 BIOL 294. Enzymatic site-specific labeling of RNA for affinity isolation of RNA-protein complexes. **K.N. Busby**, N.K. Devaraj

9:50 BIOL 295. Construction of designer chromatin with unique multi-functional DNA sequence: Effect of chromatin topology in base excision repair. **D. Banerjee**, C. Deckard, J. Szczepanski

10:05 Intermission.

[†]Cooperative Cosponsorship

10:20 BIOL 296. Using protected triazabutadienes for aryl diazonium ion generation. **L. Guzman**

10:35 BIOL 297. Chemical tools for protein imaging in live bacterial cells. **S.H. Ho, D.A. Tirrell**

10:50 BIOL 298. Compatible bioorthogonal reactions for multicomponent labeling. **S. Nguyen, D. Row, D.N. Kamber, J.A. Prescher**

11:05 BIOL 299. Engineering post-translational proofreading to discriminate non-standard amino acids. **A.M. Kunjapur, D. Stork, E. Kuru, O. Vargas-Rodriguez, M. Landon, D. Söll, G.M. Church**

11:20 BIOL 300. Continuous directed evolution in human cells. **C. Bertram, L.J. Papa, S.J. Hendel, C. Moore, P. Suen, A. Weickhardt, M. Shoulders**

11:35 BIOL 301. Targeting mutations to specific genes in living systems. **L.J. Papa, C.L. Moore, M. Shoulders**

WEDNESDAY AFTERNOON

Section A
Ernest N. Morial Convention Center
Room 243

Protein Homeostasis

S.O. Kelley, *Organizer*
M. Shoulders, *Organizer, Presiding*

1:30 BIOL 302. Host proteostasis modulates RNA virus evolution. **M. Shoulders**

2:05 BIOL 303. Sil1, the ER Hsp70 co-chaperone, plays a critical role in maintaining skeletal muscle proteostasis and physiology. **L. Hendershot**

2:40 BIOL 304. The chaperome in cancer – a chemical biology approach. **G. Chiosis**

3:15 Intermission.

3:35 BIOL 305. A HaloTag-based multi-color fluorogenic sensor to visualize and quantify proteome stress in live cells. **Y. Liu, M. Fares, X. Zhang**

4:10 BIOL 306. Methods to enable regulated gene therapy. **T.J. Wandless**

Section B
Ernest N. Morial Convention Center
Room 244

Graduate Student & Postdoctoral Fellow Symposium

P.C. Bevilacqua, *Organizer*
S.O. Kelley, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 BIOL 307. Genetically targeted tetramethylrhodamine voltage reporters. **P. Deal, P. Liu, S. Al-Abdullatif, E. Miller**

1:50 BIOL 308. Expanding the bioluminescent toolbox with pi-extended luciferins. **Z. Yao, B.S. Zhang, J.H. Mills, J.A. Prescher**

2:05 BIOL 309. Targeted drug delivery in 2- and 3D cultured cells by two-photon activation of a nitrobenzofuran-caged farnesyltransferase inhibitor. **M. Hammers, M.D. Distefano**

2:20 BIOL 310. Targeting cancer stem cells with molecular imaging probes. **T. Bearrood, C. Anorma, N. Pino, S. Dibrell, J. Chan**

2:35 BIOL 311. Withdrawn

2:50 BIOL 312. Development of novel far-red to near-infrared fluorophores for chemical biology. **X. Zhou, L. Lesiak, Y. Fang, R. Lai, C. Elowsky, H. Li, C.I. Stains**

3:05 Intermission.

3:20 BIOL 313. Tunable polymeric lysosomal rupture probe to investigate mechanism of NLRP3 inflammasome activation. **S. Manna, W.J. Howitz, N.J. Oldenhuis, A. Eldredge, M. Lodeon, Z. Guan, A.P. Esser-Kahn**

3:35 BIOL 314. Post-translational thioamidation of methyl-coenzyme M reductase, a key enzyme in the global carbon cycle. **N. Mahanta, D. Nayak, A. Liu, S. Dong, S. Nair, W. Metcalf, D. Mitchell**

3:50 BIOL 315. The Trpm7 kinase domain regulates breast cancer cell migration and tumor metastasis. **T.S. Kaoud, X. Xie, R.A. Mangieri, J. Park, C.D. Tavares, N.D. Ebel, S. Van Ravenstein, M. Cano, S. Mitra, M.F. Radwan, R.A. Morrisett, C. Bartholomeusz, K.N. Dalby**

4:05 BIOL 316. Development of a bioreducible N-oxide-based probe for photoacoustic imaging of hypoxia. **H.J. Knox, J. Hedhli, T. Kim, K. Khalili, L. Dobrucki, J. Chan**

4:20 BIOL 317. Carbofluorescein voltage indicators for studying membrane potential. **G. Ortiz, P. Deal, P. Liu, S. Naing, E. Miller**

4:35 BIOL 318. Using glycosaminoglycan mimetics to influence stem cell differentiation. **M. Naticchia, L. Laubach, K. Godula**

WEDNESDAY EVENING

Biomaterialization & Bio-Compatible Minerals

Sponsored by GEOC, Cosponsored by BIOL and ENVR

Microbially-Driven Geochemical Reactions: Kinetics & Communities

Sponsored by GEOC, Cosponsored by BIOL and ENVR

BMGT

Division of Business Development & Management

J. Cohen and A. DeMasi, Program Chairs

SUNDAY MORNING

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

SUNDAY AFTERNOON

Section A
Hilton New Orleans Riverside
Grand Salon B Sec 7

Chemical Angel Network (CAN): Chemists Investing in Chemistry-Based Companies

Cosponsored by PROF and SCHB[†]
Financially supported by CIEC
J.L. Bryant, M. Vreeke, *Organizers*
S.S. White, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 BMGT 1. Updates and news from the Chemical Angel Network (CAN) and its fifth year of supporting chemists and chemistry-based company creation. **M. Vreeke, S.S. White, J.C. Giordan**

2:00 Company Presentations.

3:00 Investment Discussion.

3:30 Open Forum.

4:00 Concluding Remarks.

MONDAY MORNING

Issues in Chemical Commercialization

Sponsored by CHAL, Cosponsored by BMGT

MONDAY AFTERNOON

Section A
Hilton New Orleans Riverside
Grand Salon B Sec 7

Thriving in the Workplace: Non-Technical Skills that Boost your Value

Cosponsored by PROF[†], SCHB, WCC[†] and YCC[†]
L. Dulany, *Organizer, Presiding*

2:00 Introductory Remarks.

2:10 BMGT 2. Soft skills in hiring in the government sector and the link to diversity. **D. Strong**

2:35 BMGT 3. Thriving in the workplace: Collaboration is the key to success. **J.M. Iriarte-Gross**

3:00 BMGT 4. Emotional intelligence and the repertoire of non-technical skills. **L.S. Sremaniak**

3:25 BMGT 5. How you are who you are makes all the difference. **L. Dulany**

3:50 BMGT 6. Caring for your brand and your career. **W.F. Carroll**

4:15 Concluding Remarks.

MONDAY EVENING

Section A
Ernest N. Morial Convention Center
Halls D/E

Sci-Mix

J.L. Bryant, A.S. DeMasi, *Organizers*

8:00–10:00

BMGT 7. Procurement strategies for managing technologies. **R.F. Burgoyne**

BMGT 8. Entrepreneurship and innovation for scientists in Puerto Rico. **A.G. Colon Santiago, U.M. Cordova-Figueroa, J.I. Ramirez Domenech, E. Ferrer Torres, O.J. Morales Martinez, M. De Hoyos, M. Otaño**

CARB

Division of Carbohydrate Chemistry

S. Sucheck, Program Chair

SUNDAY MORNING

Section A
Loews New Orleans Hotel
Feliciana West

Wolfrom Award

E. Rozners, *Organizer, Presiding*

9:30 Introductory Remarks.

9:35 CARB 1. Chemical probes of glycan assembly in microbes. **L.L. Kiessling**

10:10 Discussion.

10:15 CARB 2. Human milk oligosaccharides in antimicrobial chemotherapy. **S.D. Townsend**

10:50 Discussion.

10:55 CARB 3. Building oligosaccharides and building community. **N.L. Pohl**

11:30 Discussion.

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries
Sponsored by CELL, Cosponsored by AGFD, ANYL and CARB

SUNDAY AFTERNOON

Section A
Loews New Orleans Hotel
Feliciana West

Isbell Award

E. Rozners, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CARB 4. Carbohydrate chemistry in the service of anti-infective drug discovery. **D. Crich**

2:00 Discussion.

2:05 CARB 5. Synthesis as an enabling technology for understanding bacterial glycan biosynthesis and function. **T.L. Lowary**

2:30 Discussion.

2:35 CARB 6. Approaches to 1,2-cis-2-aminosugars and heparan sulfate mimicking glycopolymers. **H.M. Nguyen**

3:00 Discussion.

Section A
Loews New Orleans Hotel
Feliciana West

Gin New Investigator Award

E. Rozners, *Organizer, Presiding*

3:25 Introductory Remarks.

3:30 CARB 7. Expedient methods for the stereocontrolled synthesis of oligosaccharides. **C. Bennett**

3:55 Discussion.

4:00 CARB 8. Allosteric C-type lectins. **J. Hanske, S. Aleksic, J. Aretz, H. Baukman, R. Wawrzinek, J. Schulze, B. Keller, C. Rademacher**

4:25 Discussion.

[†]Cooperative Cosponsorship

4:30 CARB 9. Genetically-encoded toolbox for discovery of ligands for glycan-binding proteins (GBPs). **R. Derda**

4:55 Discussion.

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Sponsored by CELL, Cosponsored by AGFD, ANYL and CARB

MONDAY MORNING

Section A

Loews New Orleans Hotel
Feliciano West

Horton Award

E. Rozners, *Organizer, Presiding*

9:30 Introductory Remarks.

9:35 CARB 10. Building drug delivery systems: *In vitro* and *in vivo* studies of drug-hydroxybutenyl cyclodextrins complexes. **C.M. Buchanan**

10:10 Discussion.

10:15 CARB 11. Cyclodextrins in the therapy of Niemann-Pick C disease. **K. Dobrenis**, C. Davidson, A. Smith, S. Walkley

10:50 Discussion.

10:55 CARB 12. Cyclodextrins from toy to tool: Excipients and therapeutic agents. **L. Szente**

11:30 Discussion.

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Sponsored by CELL, Cosponsored by AGFD, ANYL and CARB

MONDAY AFTERNOON

Section A

Loews New Orleans Hotel
Feliciano West

Advances in Molecular Recognition of Double-Helical DNA & RNA

Cosponsored by MEDI and ORGN
Financially supported by Shimadzu, Glen Research

E. Rozners, *Organizer*

D.P. Arya, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CARB 13. Sequence-based design of potent and selective small molecules targeting RNA. **M.D. Disney**, H. Haniff, M. Costales, A. Angelbello, S. Velagapudi, S. Rzuczek

2:05 CARB 14. Design and synthesis of pi-extended nucleobases for sequence selective triple-helical recognition of RNA using peptide nucleic acids. **J.A. MacKay**, A.K. Williams, H.A. Sofka, E. Rozners

2:35 CARB 15. Narrowing the gap between affinity and efficacy with RNA-targeted peptidomimetics. **B.L. Miller**, V. Anokhina, J.D. McAnany, O. Swart, T. Hilimire, J. Chamberlain, S. Dewhurst

3:05 Intermission.

3:25 CARB 16. Sequence-targeted invasion of DNA and RNA G quadruplexes by peptide nucleic acid. **B.A. Armitage**

3:55 CARB 17. Structural plasticity in disease and pharmaceutical targeting of

non-coding RNAs. **G. Varani**

4:25 Concluding Remarks.

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Sponsored by CELL, Cosponsored by AGFD, ANYL and CARB

MONDAY EVENING

Section A

Ernest N. Morial Convention Center
Halls D/E

Sci-Mix

S.J. Sucheck, *Organizer*

8:00–10:00

35, 37-38, 41-44, 46-48, 50, 54-55, 57, 62, 65, 70-71, 79. See subsequent listings.

TUESDAY MORNING

Section A

Loews New Orleans Hotel
Feliciano West

Recent Advances in Catalytic Carbohydrate Reaction Development

Cosponsored by ORGN

W. Tang, *Organizer*

H.M. Nguyen, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 CARB 18. NIH glycoscience program: Developing new facile methods for synthesis of biomedically relevant carbohydrates. **P. Marino**

8:50 CARB 19. Cell-surface glyco-engineering using sialyl transferases and modified CMP-Neu5Ac derivatives. **G. Boons**

9:20 CARB 20. Chemoselective amidoglycosylation of all four D-glycal 3-carbamate diastereomers: Synthesis of stereo-varied 2-amino sugar oxazolidinones. **C.M. Rojas**

9:50 Intermission.

10:10 CARB 21. Challenges in automating catalytic glycosylation methods. **N.L. Pohl**

10:40 CARB 22. One-pot multienzyme (OPME) chemoenzymatic synthesis of carbohydrates and sialidase inhibitors. **X. Chen**

11:10 CARB 23. Regenerative glycosylation via nucleophilic catalysis. **A. Demchenko**, Y. Singh, K.J. Stine

Section B

Loews New Orleans Hotel
Louisiana II

Advances in Molecular Recognition of Double-Helical DNA & RNA

Cosponsored by MEDI and ORGN
Financially supported by Shimadzu, Glen Research

D.P. Arya, *Organizer*

E. Rozners, *Organizer, Presiding*

9:00 Introductory Remarks.

9:05 CARB 24. Optical control of nucleic acid function in biological systems. **A. Leiters**

9:35 CARB 25. Molecular recognition of DNA: From discovery to oncology. **A. Kurmis**, P.B. Dervan

10:05 CARB 26. Modulating nucleic acid structure and function using shape-selective small molecules. **D.M. Chenoweth**

10:35 Intermission.

10:55 CARB 27. Small molecule therapeutics targeting nucleic acids. **D.P. Arya**

11:25 CARB 28. Target-specific inhibition of transcription factors by designed, synthetic DNA ligands. **W. Wilson**, A. Paul, P. Guo, T.D. Vo, N. Harika, A. Kumar, A.A. Farahat, B. Liu, G.M. Poon, M.W. Germann, B.W. David

11:55 Concluding Remarks.

TUESDAY AFTERNOON

Section A

Loews New Orleans Hotel
Feliciano West

Recent Advances in Catalytic Carbohydrate Reaction Development

Cosponsored by ORGN

H.M. Nguyen, *Organizer*

W. Tang, *Organizer, Presiding*

1:30 CARB 29. De novo approaches to oligosaccharide assembly for stereochemical structure activity relationship studies (S-SAR). **G.A. O'Doherty**

2:00 CARB 30. Silane reagents for intramolecular glycosylation. **J. Montgomery**

2:30 CARB 31. Pd-catalyzed asymmetric hydroalkoxylation of allene: A new synthetic method for carbohydrates. **Y. Rhee**, M. Kim, J. Lee, S. Kang

3:00 Intermission.

3:20 CARB 32. Production of O-glycans and O-glycopeptides/glycoproteins by chemical and enzymatic catalysis production of O-glycans and O-glycopeptides/glycoproteins by chemical and enzymatic catalysis. **P.G. Wang**

3:50 CARB 33. New catalytic methods in carbohydrate synthesis. **M.A. Walczak**

4:20 CARB 34. New catalytic methods for stereoselective glycosylation. **H.M. Nguyen**

Discovery of Small Molecules Targeting RNA

Sponsored by ORGN, Cosponsored by CARB and MEDI

TUESDAY EVENING

Section A

Ernest N. Morial Convention Center
Hall D

General Posters

S.J. Sucheck, *Organizer*

7:30–9:30

CARB 36. New metabolic chemical reporter 6-azido-6-deoxy-glucose reveals an unexpected substrate promiscuity of O-GlcNAc transferase and the potential for protein modification by O-glucose. **N. Darabedian**, M. Pratt

CARB 35. Synthesis and biological

evaluations of mono- and poly-fluorogalactopyranosides: Preparation of selective galectin inhibitors. **D. Laine**, V. Denavit, D. Giguere

CARB 37. Direct coupling of amides and urea to glycosyl halides using silver triflate. **M. De Castro**

CARB 38. Improved HPAE-PAD method for glycoprotein monosaccharide determination. **S. Patil**, J. Rohrer

CARB 39. Synthesis of the glycosylated amino acid bearing the Thomsen nouvelle antigen. **E.R. Mercer**, D. Beckwith, M. Cudic

CARB 40. Comparison of furanoside conformational preferences between calculation and better resolved NMR measurement. **J.S. Rhoad**, S. Culver

CARB 41. Withdrawn

CARB 42. Isoquinoline-1-carboxylate as a traceless leaving group for chelation-assisted glycosylations. **C. Simmons**, H. Wang, W. Tang

CARB 43. Electrostatic control of binding interactions between ETS transcription factors proteins and their cognate DNA. **T.D. Vo**, S. Wang, G.M. Poon, W. Wilson

CARB 44. Using chiral catalysts and cation- π interactions to direct site-selective acylation of carbohydrates. G. Xiao, **S. Blaszczyk**, G. Cintron-Rosado, D.A. Glazier, P. Liu, W. Tang

CARB 45. Divergent stereoselective synthesis of rare amino-sugars. **D.A. Glazier**, Z. Zhu, W. Tang

CARB 46. Development of a new class of carbohydrate-based adjuvants. **C.E. Marzabadi**, V. Basava, C. Bitsaktis, D. Nichols

CARB 47. A selective small-molecule inhibitor of O-GlcNAc transferase. **N. Pedowitz**

CARB 48. Glycosidase inhibition by multivalent presentation of heparan sulfate saccharides on bottlebrush polymers. **E. Sletten**, R. Loka, H.M. Nguyen

CARB 49. Application of indium bromide catalyst to the synthesis of disaccharides. **G.W. Lang**

CARB 50. Minimalist approach to assemble complex saccharides with unprotected donors. **G. Bati**, K. Le Mai Hoang, J. He, M. Chan-Park, X. Liu

CARB 51. Analysis of glycoprotein production in antibiotic resistant strains of *Helicobacter pylori*. **H. Blain**, D.H. Dube

CARB 52. Targeting of *Helicobacter pylori* using photodynamic therapy agents. **D. Williams**, D.H. Dube

CARB 53. Withdrawn

CARB 54. Using density variant microarrays to investigate the effect of glycan presentation on viral binding. **T. Lucas**, C.J. Fisher, K. Godula

CARB 55. Withdrawn

CARB 56. Chemical reporter for dual cell-surface labeling of mycobacteria.

[†]Cooperative Cosponsorship

D.J. Moore, H.W. Kavunja, T. Nathan, B.M. Swarts

CARB 57. Structural and functional analysis of the *N*-acetylglucosamine-6-phosphate deacetylase (NagA) from *Mycobacterium tuberculosis*. **E. Fullam**

CARB 58. Synthesis and evaluation of cell-permeable trehalose analogues for the protection of mammalian cells. **T.E. Williamson**, M.G. Paulick

CARB 59. A kinetic study of porcine liver esterase hydrolysis of cell-permeable analogues of trehalose. **G.A. Hayner**, A.M. Bannister, M.G. Paulick

CARB 60. Withdrawn

CARB 61. Synthesis and evaluation of butyrylated trehalose analogues for the protection of mammalian cells. **R.A. Riley**, M.G. Paulick

CARB 62. Synthesis of fluorescence resonance energy transfer (FRET)-based fluorogenic probes for the investigation of arabinogalactan mycolate metabolism in mycobacteria. **D. Wing**, B.M. Swarts

CARB 63. Possible aggregation effect in fluoros-tagged oligosaccharide synthesis. **A.G. Gonzalez**, I.H. Mahmud, Z. Shahin, P. Goekjian

CARB 64. Concise chemoenzymatic synthesis of trehalosamine, an aminoglycoside antibiotic and precursor to mycobacterial imaging probes. **J.M. Groenevelt**, L.M. Meints, A.I. Stohard, A. Poston, P. Woodruff, B.M. Swarts

CARB 65. Chemoenzymatic desymmetrization of a potential synthetic precursor of bioactive myo-inositol phosphates. **A.B. Simas**, B.S. de Jesus, M.F. Ribeiro, D.M. Freire, E.A. Manoel

CARB 66. Chemoenzymatic synthesis and evaluation of 5-deoxy-thio-D-trehalose as a trehalase-resistant trehalose surrogate. **N.D. Danielson**, B.M. Swarts

CARB 67. Heterobifunctionalized poly(ethylene glycol) and poly(propylene glycol) polymers for bioconjugation applications. **J. Blankenship**, K. Yoshimatsu

CARB 68. Glycan engineering for 3D embryonic stem cell bodies. **L. Laubach**, M. Naticchia

CARB 69. Exploring the chemistry and the bonding in oligosaccharides derived from sugars and sugar acids. **M. Schmid**, C.L. Liotta

CARB 70. Effect of silyl groups at C-4 in sialylation reactions. **M. Lohman**, C. De Meo

CARB 71. Effects of side chain conformation in chemical sialylations of Neu5Ac derivatives via 8,9-O-substitution. **B. Jones**, C. De Meo

CARB 72. Selective acetylation on sialic acid donors. **S. Ritter**, M. Shadrack, C. De Meo

CARB 73. A non-woven fabric wound dressing containing layer-by-layer deposited hyaluronic acid and chitosan. **A. Ahmed**, H. Fahmy, A. Ahmed Ali

CARB 74. Withdrawn

CARB 75. Investigation of accelerated hydrolysis of cellulose after chemical modification. **B. Mu**, H. Xu, Y. Yang

CARB 76. One-pot gram-scale synthesis of GlcNAcylated amino acids via indium bromide catalysis. **C.A. Deleon**, M. Pratt

CARB 77. Efficient catalytic conversion sugar-rich microalgae into glycol, lactic acid and HMF in water. **L. Kong**, Z. Tan, G. Miao, Y. Sun

CARB 78. Mechanistic studies on the catalytic transformation of glucose over acid or base catalysis. L. Shi, **S. Li**, L. Kong

CARB 79. BF₃-*N,N*-dimethylformamide catalyst for synthesis minimally protected 1,2-*cis*-glycopyranosides in solution and solid-phase stereocontrolled synthesis. **G. St-Pierre**, S. Hanessian

WEDNESDAY MORNING

Section A
Loews New Orleans Hotel
Feliciano West

Emerging Young Investigator
Symposium

K. Godula, *Organizer, Presiding*

9:00 Introductory Remarks.

9:10 CARB 80. Trying to identify and address grand challenges in carbohydrate science. **B.G. Davis**

9:40 CARB 81. Chemical tools and strategies to decipher the role of glycans in human disease. **M.A. Walczak**

10:05 CARB 82. Mono- and poly-fluorinated carbohydrates: Synthetic challenges associated to a new class of bioactive molecules. **D. Giguere**, V. Denavit, D. Lainé

10:30 Intermission.

10:45 CARB 83. Substrate recognition of reversible O-GlcNAcylation. **J. Jiang**

11:10 CARB 84. Exploiting the inhibitory function of CD22 on B-cells to prevent antibody responses. **M.S. Macauley**, B. Arlian, K.J. Bednar, S. Duan, W. Fung-Leung, M.D. Kulis, L. Hardy, C. Nycholai, K.A. Orgel, L. Pang, J.C. Paulson, T.S. Rao

11:35 CARB 85. Commandeering mycobacterial carbohydrate metabolism for applications in tuberculosis research. **B.M. Swarts**

Section B
Loews New Orleans Hotel
Pointe Coupee

Recent Advances in Catalytic
Carbohydrate Reaction
Development

Cosponsored by ORGN
W. Tang, *Organizer*
H.M. Nguyen, *Organizer, Presiding*

9:00 CARB 86. Towards catalytic site-selective alterations of glycopeptide antibiotics and other carbohydrates. **S.J. Miller**

9:30 CARB 87. Coinage metal-catalyzed stereoselective glycosidic bond formation. **L. Zhang**

10:00 CARB 88. Studies on regioselective glycosylation of

natural polyols. **P. Nagorny**, J. Tay, A.J. Arguelles, M. DeMars III, P.M. Zimmerman, D.H. Sherman

10:30 Intermission.

10:50 CARB 89. Organoboron catalysts and reagents for carbohydrate chemistry. **M.S. Taylor**

11:20 CARB 90. Chiral catalyst-directed site-selective functionalization of carbohydrates. **W. Tang**

11:50 Concluding Remarks.

Plant Heteropolysaccharides:
Interactions within Lignocellulosics,
New Modifications & Future
Applications

Structures, Interactions,
& Extraction of Plant
Heteropolysaccharides

Sponsored by CELL, Cosponsored by
CARB

Discovery of Small Molecules
Targeting RNA: Where Are We &
Where Are We Going?

Sponsored by MEDI, Cosponsored by
CARB and ORGN

WEDNESDAY AFTERNOON

Section A
Loews New Orleans Hotel
Feliciano West

Emerging Young Investigator
Symposium

K. Godula, *Organizer, Presiding*

2:00 CARB 91. Anti-pathogenic glycoconjugates. **S.D. Townsend**

2:25 CARB 92. Solving puzzles of glycoside hydrolase reaction mechanisms. **H. Mayes**

2:50 CARB 93. Mimetic sugar-nucleotides to probe a strategic bacterial dehydrogenase enzyme. **G.J. Miller**, S. Ahmadipour, L. Beswick

3:15 Intermission.

3:30 CARB 94. Synthetic glycoproteins by polymerization of glycosylated NCAs. **J. Kramer**

3:55 CARB 95. Self-assembling glycopeptide hydrogels as selectively permeable mucus-like barriers. **G. Hudalla**, A. Restuccia

4:20 Concluding Remarks.

Plant Heteropolysaccharides:
Interactions within Lignocellulosics,
New Modifications & Future
Applications

Modification & Future Applications
of Plant Heteropolysaccharides

Sponsored by CELL, Cosponsored by
CARB

CATL

Division of Catalysis Science and Technology

A. Savara, *Program Chair*

OTHER SYMPOSIA OF INTEREST:

**ACS Award in Surface Chemistry:
Symposium in honor of Stacey F.
Bent** (see COLL, Sun, Mon, Tue)

Surface Chemistry (see COLL, Sun,
Mon, Wed, Thu)

Natural Gas Catalysis (see ENFL,
Sun)

**Roadmap & Policy of Energy &
Fuels** (see ENFL, Mon, Tue, Wed)

**Metal-Organic Frameworks:
What Are Next?** (see INOR, Sun,
Mon, Tue, Wed)

SOCIAL EVENTS:

CATL Social Hour, 6:30 PM: Mon

BUSINESS MEETINGS:

**CATL Executive Board Meeting,
5:30 PM:** Mon

SUNDAY MORNING

Section A
Hampton Inn & Suites Convention
Center
Antonine

Elucidation of Mechanisms &
Kinetics on Surfaces

Mechanisms & Selectivity

Cosponsored by COLL, ENVR and PHYS
L. Baker, S. Laursen, *Organizers*
A. Savara, *Organizer, Presiding*

8:00 CATL 1. Reactions of oxygenates on well-defined Lewis acid sites in zeolite BEA. **C. Sievers**, J. So, D. Sholl

8:20 CATL 2. The mechanism and kinetics of acetone condensation to methyl isobutyl ketone. **A.T. Bell**

9:00 CATL 3. Controlling the selectivity in CO₁ reduction over Pd/Al₂O₃ catalysts through mechanistic understanding: A SSITKA/operando FTIR study. **J. Szanyi**, X. Wang, H. Shi, N. Nelson

9:40 Intermission.

10:00 CATL 4. Understanding mechanocatalytic reaction pathways: Surface chemistry at the solid-solid interface. **W.T. Tysoe**

10:40 CATL 5. Nature of active sites and surface intermediates during SCR of NO with NH₃ by supported V₂O₅-WO₃/TiO₂ catalysts. M. Zhu, J. Lai, U. Tumulari, Z. Wu, **I.E. Wachs**

11:20 CATL 6. Interrogating supported oxides in confined environments using site titration techniques. A. Ardagh, D. Bregante, D. Flaherty, **J.M. Notestein**

11:40 CATL 7. Synthesis-property-mechanism relationships for catalysts via statistically guided methods. **J. Lauterbach**

†Cooperative Cosponsorship

Section B**Hampton Inn & Suites Convention Center
Riverside I****Control of Zeolite Structure, Composition & Sites for Catalysis**
Cosponsored by INOR
S. Goel, R. Gounder, W.F. Schneider, Organizers, Presiding**8:00 CATL 8.** Unraveling active site identity in Lewis acid zeolites using MAS NMR of adsorbed probe molecules. **Y. Roman-Leshkov****8:20 CATL 9.** Cooperative effects of structure-directing agents in zeolite synthesis. **J.D. Rimer**, R. Li, M. Kumar, W. Qin, A. Chawla**9:00 CATL 10.** Impact of starting materials on the Al distribution of the CHA-type aluminosilicate zeolites. **T. Yokoi**, T. Nishitoba**9:20 CATL 11.** Ab initio quantum chemistry for understanding active sites in zeolites. **J. Sauer****10:00 Intermission.****10:15 CATL 12.** Ex-situ and in situ liquid imaging of zeolites in the scanning transmission electron microscope. **I. Arslan****10:35 CATL 13.** Computational prediction of chemically-synthesizable organic structure directing agents for zeolites. **M.W. Deem****11:15 CATL 14.** Noble metals in small-pore zeolites. **P. Serna Merino**, J. Gabay, R. Carr, C. Kliewer, G. Casty, J. Guzman, M. Moliner, A. Corma**11:35 CATL 15.** On the influence of catalyst acid strength in the methanol to hydrocarbons (MTH) and related reactions. M. Mortén, L. Mentel, A. Lazzarini, I. Pankin, C. Lamberti, S. Bordiga, V. Crocella, S. Swelle, K. Lillerud, **U. Olsbye****Section C****Hampton Inn & Suites Convention Center
Riverside III****Machine Learning for Catalysis Research**Cosponsored by CINF and COMP
J.R. Kitchin, A. Peterson, H. Xin, Organizers, Presiding**8:00 CATL 16.** From process to properties: Correlating synthesis conditions, structural disorder and the catalytic performance of metallic nanoparticles. **B. Sun**, A.S. Barnard**8:20 CATL 17.** Machine learning predictions of factors affecting the activity of heterogeneous metal catalysts. **I. Takigawa**, K. Shimizu, K. Tsuda, S. Takakusagi**8:40 CATL 18.** Model based catalyst discovery from an industrial perspective. **E. Ras****9:00 CATL 19.** Choosing the right chemical representation for machine-learning-accelerated discovery and design in transition metal catalysis. **H.J. Kulik****9:20 CATL 20.** Application of machinelearning tools for complex catalytic systems. **A. Heyden****9:50 Intermission.****10:10 CATL 21.** Combinatorial study of oxidation catalysts: Uncovering structure-activity relationships. **K. Mingle**, C. Wen, E. Sasmaz, J. Lauterbach**10:30 CATL 22.** Addressing chemical complexity with surrogate models in computational catalyst design. **Z. Ulissi****10:50 CATL 23.** Machine (&human!) learning in catalyst discovery. Z. Li, S. Wang, **H. Xin****11:10 CATL 24.** Computationally-driven design of cation-based catalysts for ethene conversions. S.L. Pellizzeri, A. Samstag, I.A. Jones, H.A. Doan, V. Bernaldes, M. Barona, L. Gagliardi, R. Snurr, **R.B. Getman****11:30 CATL 25.** Accelerating discovery of catalysts and catalytic morphology. **T. Bligaard****Section D****Hampton Inn & Suites Convention Center
Bienville****Electrochemical Double Layer: Modeling, Characterization & Catalysis**Cosponsored by COMP, ENFL and PHYS
K. Schwarz, R. Sundararaman, Organizers, Presiding**8:00 Introductory Remarks.****8:05 CATL 26.** Interfacing electrochemistry. **N. Markovic****8:45 CATL 27.** Hybrid methodology of modeling of the electrochemical dissolution of gold in the presence of specifically adsorbing ions. **A. Baskin**, C. Valero-Vidal, Z. Liu, D. Prendergast, E. Crumlin**9:05 CATL 28.** Ion dynamics at the electrode-electrolyte interface. **A. Willard****9:45 Intermission.****10:00 CATL 29.** Modeling electrochemical reactions: DFT-based models including explicit solvation, electrolyte, and electrochemical potential. **J. Goodpaster****10:20 CATL 30.** Towards efficient N₂ electroreduction to ammonia through DFT investigation on surface environment and surface termination. **Y. Li**, S. Maheshwari, G. Rostamikia, M.J. Janik**10:40 CATL 31.** First principles simulations of interfaces between photoabsorbers, water and catalysts. **G.A. Galli****11:20 CATL 32.** Coarse-grained models of electrochemically driven, open systems: The importance of constant potential boundary conditions and interfacial fluctuations. **K. Dwelle**, A. Willard**Section E****Hampton Inn & Suites Convention Center
Fulton****Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments**Cosponsored by ENFL, INOR and PHYS
C.A. Carrero, R.B. Getman, I. Hermans,

Organizers, Presiding

8:00 CATL 33. Crucial role of metastable structures of Pt clusters for light alkane activation. **P. Sautet**, G. Sun**8:40 CATL 34.** Propane dehydrogenation over supported iron catalysts. S. Tan, M.L. Sarazen, S. Nair, **C.W. Jones****9:00 CATL 35.** C-H activation chemistry at phosphide surfaces. **W.F. Schneider**, J. Ko**9:20 CATL 36.** New fundamental molecular level insights into oxidative coupling of methane (OCM) by SiO₂-supported tungstate catalysts. M. Zhu, Z. Fink, W. Taifan, M.E. Ford, F. Tielens, J. Baltrusaitis, **I.E. Wachs****9:45 Intermission.****10:00 CATL 37.** Understanding and tuning catalytic materials For methane activation using nanocrystal precursors. **M. Cargnello**, J. Willis, E. Goodman, C. Wrasman, A. Yang, F. Abild-Pedersen**10:20 CATL 38.** Realities of cluster catalysts: Critical role of fluxionality, structural diversity in the ensemble, and presence of metastable sites. **A. Alexandrova****10:40 CATL 39.** Transition metal post-modification of MOFs: Vapor-phase syntheses and catalytic screening. I. Kim, M. Ferrandon, M. Delferro, **A.B. Martinson****11:00 CATL 40.** Control of the surface reactivity towards carbon, oxygen, and hydrogen over intermetallic compounds. Y. He, Y. Song, **S. Laursen****11:20 CATL 41.** Doped nickel oxides prepared by solventless synthesis: Ethane oxidative dehydrogenation performance and characterization. H. Zhu, M. Harb, D. Anjum, M. Hedhili, S. Ould-Chikh, J.M. Basset, **D. Rosenfeld****11:40 CATL 42.** Activation of hydrocarbons in catalytic reactors. **B.J. Tatarchuk****Section F****Hampton Inn & Suites Convention Center
Cottonmill****Challenge & Opportunity in Lignin Valorization**Cosponsored by ENFL, ENVR, INOR and PHYS
G. Beckham, Organizer
M.M. Abu-Omar, F. Wang, Organizers, Presiding**8:00 CATL 43.** Reductive conversion of lignin with metal-doped catalysts. **M.B. Foston****8:20 CATL 44.** HDO of guaiacol over Ag/TiO₂ catalyst. **K. Liu**, Z. Zhang, M. Janik, S. Bai, G. Hou**8:40 CATL 45.** Catalytic valorisation of industrial 2G biomass stillage into monomeric phenolics using Ru catalyst supported on 1D multiwall carbon nanotubes (Ru-MWCNT) with enhanced molecular accessibility. B. Gómez-Monedero, M. Ruiz-Ramiro, F. Bimbela, **J. Faria****9:00 CATL 46.** Lignin first approach usinga continuous flow system. I. Kumaniaev, E. Subbotina, M.V. Galkin, **J.S. Samec****9:20 Intermission.****9:30 CATL 47.** Stabilization with aldehydes for the high yield and high selectivity production of lignin monomers during integrated biomass depolymerization. **J. Luterbacher****9:50 CATL 48.** Lignin valorisation: Towards high added value chemicals, materials and fuels. **R. Luque****10:10 CATL 49.** Strategies for catalytic biofeedstock related conversions. **T.J. Marks****10:30 CATL 50.** Complete conversion of lignocellulose with integrated catalyst recycling: sustainable pathways to valuable chemicals and fuels. **K. Barta****10:50 CATL 51.** Operando kinetic and mechanistic study of catalytic hydrogenolysis of lignin β-O-4 ether linkage with supported metals. **L. Qi**, A. Chamas, D.W. Hoyt, E.D. Walter, N. Washton, S.L. Scott**Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water**

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

Synthetic Chemistry Addressing Challenges in Energy & the Environment

Sponsored by INOR, Cosponsored by CATL and WCC

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

SUNDAY AFTERNOON**Section A****Hampton Inn & Suites Convention Center
Antonine****Elucidation of Mechanisms & Kinetics on Surfaces****Mechanisms at the Atomic Scale**Cosponsored by COLL, ENVR and PHYS
L. Baker, S. Laursen, Organizers
A. Savara, Organizer, Presiding**1:00 CATL 52.** Kinetics and mechanism of alcohol conversion over shape-controlled oxide nanocrystals. G. Foo, G. Hu, D. Jiang, **Z. Wu****1:20 CATL 53.** CO oxidation on supported Ir and Pt single atoms: Structural and kinetic study. Y. Lu, C. Kuo, X. Zhang, J. Wang, H. Xin, **A.M. Karim****2:00 CATL 54.** Theoretical investigation of the reactivity of oxo compounds on ceria. C. Zhao, **Y. Xu****2:40 Intermission.****3:00 CATL 55.** Modifying metal nanoparticle surfaces to influence hydrogen transfer and oxygen dissociation for the direct synthesis of H₂O₂. **D. Flaherty**, N.M. Wilson, P. Priyadarshini, J. Adams[†]Cooperative Cosponsorship

3:40 CATL 56. Kinetic and isotopic consequences of proton-coupled electron transfer events during carbonyl and phenolic compound hydrogenation at protic solvent-transition metal interface. **J. Shangguan**, Y. Chin

4:20 CATL 57. Two-dimensional models for surface science studies of zeolites. **J.A. Boscoboinik**

5:00 CATL 58. Catalysis on singly dispersed Rh atoms anchored on an inert support. **F. Tao**, S. Zhang, Y. Tang

5:40 CATL 59. Modeling molecular water oxidation catalysts at interfaces. **M. Ahlquist**, S. Zhan

Section B
Hampton Inn & Suites Convention Center
Riverside I

Control of Zeolite Structure, Composition & Sites for Catalysis
Cosponsored by INOR
S. Goel, R. Gounder, W.F. Schneider, *Organizers, Presiding*

1:00 CATL 60. Molecular modeling within zeolite catalysis: The methanol-to-olefin process as a case study. **V. Van Speybroeck**

1:40 CATL 61. Diversification of hierarchical two-dimensional zeolite structures for catalysis applications. **D. Liu**, S. Oh, J. Zhang

2:00 CATL 62. Experimental perspectives on controlling desired properties in zeolite materials through synthesis. **S.I. Zones**

2:40 CATL 63. Tailored hierarchical pore structures of beta zeolites through PDA-assisted base leaching. **S. Fernandez**, M. Ostraat, K. Zhang

3:00 Intermission.

3:15 CATL 64. Acid-catalyzed and radical-mediated pathways in condensation and β -scission reactions of oxygenates on aluminosilicates. S. Herrmann, **E. Iglesia**

3:55 CATL 65. New SAPO-based nanoporous materials and some potential applications. **R.L. Bedard**

4:15 CATL 66. The role of isolated Ga cations in MFI on the dehydrogenation of propane and the oligomerization of propene in Ga/H-MFI. **A.T. Bell**

4:55 CATL 67. Towards rational design of Cu/SSZ-13 selective catalytic reduction catalysts: Implications from atomic-level understanding of hydrothermal stability. **F. Gao**, J.M. Song, Y. Wang, E.D. Walter, N. Washon, D. Mei, L. Kovarik, M. Engelhard, S. Proding, Y. Wang, C.H. Peden

Section C
Hampton Inn & Suites Convention Center
Riverside III

Machine Learning for Catalysis Research
Cosponsored by CINP and COMP
J.R. Kitchin, H. Xin, *Organizers*
A. Peterson, *Organizer, Presiding*
H.J. Kulik, Z. Ulissi, *Presiding*

1:00 CATL 68. Development of efficient and accurate machine-learning potentials

for the simulation of complex catalyst materials. **N. Artrith**

1:40 CATL 69. Towards spectroscopic accuracy in molecular dynamics simulations with machine-learned CCSD(T) force fields. **S. Chmiela**, H.E. Sauceda, K. Müller, A. Tkatchenko

2:00 CATL 70. Global minimization and energy landscape of metal nanoclusters from first principles. **D. Jiang**

2:20 CATL 71. Exploring metal cluster catalysts with DFT based high dimensional neural network potentials. **P. Sautet**, G. Sun

2:40 CATL 72. Machine learning based atomistic force fields. **R. Ramprasad**

3:10 Intermission.

3:30 CATL 73. Machine-learning assisted optimization algorithms for the accelerated development of transferable coarse-grained models. **S. Deshmukh**

3:50 CATL 74. Calculating the potential energy surface and extracting information from it about the dynamics of the system: From neural network potentials to automated reaction pathway determination. **S. Goedecker**

4:20 CATL 75. Machine learnt models for materials design. **S. Sankaranarayanan**

4:50 CATL 76. A review of machine learning strategies for molecular modeling. **L.E. Achenie**

5:10 CATL 77. Prediction of DFT-derived point-charges using machine-learning. **P. Bleiziffer**, S. Riniker

Section D
Hampton Inn & Suites Convention Center
Bienville

Electrochemical Double Layer: Modeling, Characterization & Catalysis
Cosponsored by COMP, ENFL and PHYS
K. Schwarz, R. Sundararaman, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 CATL 78. Insights into electrochemical double layer structure at Co/electrolyte interfaces from in situ magnetic characterizations. **P. Allongue**, F. Maroun

1:45 CATL 79. Large-scale simulations of solid-liquid interfaces under realistic electrochemical conditions for energy conversion and storage. **I. Dabo**

2:25 CATL 80. Band alignment at solid-liquid interfaces and nanoplasmonic photocatalysis. **J. Lischner**, L. Blumenthal, P. Tangney, J. Kahk, R. Sundararaman

3:05 Intermission.

3:20 CATL 81. Continuum approaches in electrochemistry: methods, and applications of ENVIRON. **O. Andreussi**

3:40 CATL 82. First-principles interpretations of X-ray spectroscopy at electrochemical interfaces. **D. Prendergast**

4:20 CATL 83. Integrating first principles theory and X-ray reflectivity measurements to determine solid/liquid interfacial

structure. **K. Letchworth-Weaver**

4:40 CATL 84. Potential-dependent water structure and dynamics at the hematite-electrolyte interface. **M.E. McBriarty**, J. Stubbs, G.F. von Rudorff, J. Blumberger, E.J. Bylaska, P.J. Eng, K. Rosso

Section E
Hampton Inn & Suites Convention Center
Fulton

Magnetically Recoverable Catalysts
Cosponsored by COLL, ENFL and INOR
L. Bronstein, A.H. Moores, *Organizers*
O. Reiser, *Presiding*

1:00 Introductory Remarks.

1:05 CATL 85. Nanocatalysts embedded in magnetic, microporous polymer platforms: Synthesis and applications. **O. Reiser**

1:40 CATL 86. Benign-by-design preparation of catalytically active magnetically separable nanomaterials. **R. Luque**, A. Balu

2:10 CATL 87. Greener pathways to organics: Sustainable applications of magnetic nanocatalysts. **A.H. Moores**, R. Hudson, M. Masnadi, A. Li

2:40 Intermission.

2:55 CATL 88. Magnetic and carbonaceous nano-catalysts in sustainable chemical transformations. **R.S. Varma**

3:30 CATL 89. Studying corrosion and galvanic reactions of Fe-based nanoparticle catalysts using in situ X-ray absorption spectroscopy. **R.W. Scott**, Y. Yao, Y. Hu

4:00 CATL 90. Silica based magnetically retrievable nanocatalysts for various chemical transformations. **R. Gaur**

4:20 CATL 91. Double-shelled nanoreactor as support for confined catalytic reactions. **G. Arora**

Section F
Hampton Inn & Suites Convention Center
Cottonmill

Challenge & Opportunity in Lignin Valorization
Cosponsored by ENFL, ENVR, INOR and PHYS
F. Wang, *Organizer*
M.M. Abu-Omar, G. Beckham, *Organizers, Presiding*

1:00 CATL 92. Oxidation methods for lignin conversion into low molecular-weight aromatics. **S.S. Stahl**

1:20 CATL 93. Valorization of grass lignins: Swift and selective recovery of pendant aromatic groups with ozone. A.M. Danby, M. Lundin, J.R. Silverman, **B. Subramanian**

1:40 CATL 94. Adventures in lignin oxidation. **N.J. Westwood**

2:00 CATL 95. Catalytic beta-O-4 ether cleavage in lignin and lignin models by selective activation, cleavage and scavenging. C. Lancefield, R. Jastrzebski, L. Teunissen, K. Khalili, A. Martinez Pascual, B. Weckhuysen, **P. Bruijninx**

2:20 Intermission.

2:30 CATL 96. Redox catalysis strategies for biomass conversion. **C. Stephenson**

2:50 CATL 97. Catalytically oxidative cleavage of lignin C-C bond. **F. Wang**

3:10 CATL 98. A comparative study on oxidative approaches for lignin depolymerization. **Y. Song**, J.K. Mobley, J. Ralph, M. Crocker

3:30 CATL 99. Valorizing lignin by base and metal catalysis. **C. Bolm**

3:50 CATL 100. Toward the oxidative deconstruction of lignin: Oxidation of β -1 and β -5 linkages. **Z. Fang**, M.S. Meier, M. Crocker

Synthetic Chemistry Addressing Challenges in Energy & the Environment
Sponsored by INOR, Cosponsored by CATL and WCC

Science Cafes & Engaging the Public: Techniques for Hosting Successful Events
Sponsored by PRES, Cosponsored by CATL, CELL, CHAS, CHED, COLL, CPCC, CTA, ENVR, I&EC, INOR, MPPG, SCHB and YCC

Carbon Dioxide Conversion & Artificial Photosynthesis
Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Innovative Chemistry & Materials for Electrochemical Energy Storage
Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

MONDAY MORNING

Section A
Hampton Inn & Suites Convention Center
Antonine

Elucidation of Mechanisms & Kinetics on Surfaces

Theory

Cosponsored by COLL, ENVR and PHYS
S. Laursen, A. Savara, *Organizers*
L. Baker, *Organizer, Presiding*

8:00 CATL 101. A new mechanism for the oxidative coupling of methane: Experiment and theory in concert. **J. Sauer**

8:40 CATL 102. Selectivity control for alcohol amination with ammonia. **P. Sautet**, T. Wang, J. Ibanez, M. Sabbe, C. Michel, M. Pera-Titus, P. Sebastien

9:20 CATL 103. Selective catalysts for higher alcohol synthesis: A combined DFT and micro-kinetic modeling study. **J. Schumann**, P. Bothra, F. Abild-Pedersen, J.K. Norskov

9:40 Intermission.

10:00 CATL 104. Surrogate model accelerated mechanism discovery. **T. Bligaard**

10:40 CATL 105. The role of surface chemical reactivity towards atomic hydrogen in the activation and cleavage of C-H and O-H bonds for dehydrogenation and reforming over intermetallic compounds. Y. He, Y. Song, **S. Laursen**

[†]Cooperative Cosponsorship

11:20 CATL 106. Equilibrium constants and rate constants for adsorbates in microkinetic modelling: 2D gas, 2D lattice gas, and hindered translator models. **C.T. Campbell**, L. Arnadottir

11:40 CATL 107. Benchmark first-principles calculations of adsorbate free energies. **W.F. Schneider**, A. Bajpai, P. Mehta, K. Frey

Section B

Hampton Inn & Suites Convention Center

Riverside 1/II

Challenge & Opportunity in Lignin Valorization

Cosponsored by ENFL, ENVR, INOR and PHYS

M.M. Abu-Omar, *Organizer*
G. Beckham, F. Wang, *Organizers*,
Presiding

8:00 CATL 108. Biomass-derived polymers incorporating hydroxycinnamates. **A.M. Kasko**, B. Upton

8:20 CATL 109. Lignin extraction and catalytic upgrading from genetically modified poplar. **M.M. Abu-Omar**, H. Luo

8:40 CATL 110. Partial delignification of biomass for recovery of hydroxycinnamic acids as a "lignin first" strategy. **R. Brown**

9:00 CATL 111. An integrated, flexible biorefinery process based on formic acid. **N. Yan**

9:20 Intermission.

9:30 CATL 112. Seeing the wood for the trees: Taking a new look at lignin nitrosation. **R. Baker**

9:50 CATL 113. An overview of lignin disassembly with Cu-doped porous metal oxides. **J.A. Barrett**, P.C. Ford, C.M. Bernt, M.A. Chui, C. Sticklemaier

10:10 CATL 114. Catalytic transformation of lignin into aromatics under visible-light irradiation. X. Wu, S. Xie, J. Lin, Q. Zhang, W. Deng, **Y. Wang**

10:30 CATL 115. Making single monomeric building blocks from lignin and their further conversion into useful products. **J.G. De Vries**, E. Lanfranchi, P.J. Deuss, D. Janssen, K. Barta

10:50 CATL 116. Role of catalysis in a lignin-first biorefinery. **B.F. Sels**

Section C

Hampton Inn & Suites Convention Center

Riverside III

Machine Learning for Catalysis Research

Cosponsored by CINF and COMP
A. Peterson, H. Xin, *Organizers*
J.R. Kitchin, *Organizer*, *Presiding*
H.J. Kulik, A. Medford, *Presiding*

8:00 CATL 117. SchNet: A continuous-filter convolutional neural network for modeling quantum interactions. **K.T. Schütt**, P. Kindermans, H.E. Sauceda, S. Chmiela, A. Tkatchenko, K. Müller

8:20 CATL 118. Withdrawn

8:40 CATL 119. Development and analysis of "surrogate" hybrid functionals

using neural networks, uncertainty quantification, and visualization. **A.J. Medford**, X. Lei, P. Chau, F.M. Hohman

9:00 CATL 120. Identification of systematic DFT-errors and uncertainty estimation in catalyst design using machine learning. **T. Vegge**, R. Christensen, C.F. Dickens, H.A. Hansen

9:20 CATL 121. Quantum machine learning. **O. von Lilienfeld**

10:00 Intermission.

10:20 CATL 122. Machine learning enabled local energies. **B. Hammer**

10:50 CATL 123. Accelerating routine atomistic calculations. **A. Peterson**

11:20 CATL 124. Applications of machine learning for studying local solvation environments. M. Groenboom, S. De, M. Ceriotti, **J.A. Keith**

11:40 CATL 125. Combined *ab initio* and machine learning approaches for modeling catalyst-water interfaces. **A. Kolpak**

Section D

Hampton Inn & Suites Convention Center

Bienville

Operando Techniques for Catalytic & Photocatalytic Fuel Conversion Studies

Cosponsored by ENFL

M. Liu, *Organizer*
C. Wang, *Organizer*, *Presiding*

8:00 CATL 126. The dynamic structure of catalysts under ambient conditions: From characterization to stabilization of active ensembles. **D.J. Stacchiola**

8:40 CATL 127. Instrumentation of in situ/operando studies of catalysts. **F. Tao**

9:20 CATL 128. Interaction of acid gas with faceted metal oxide catalysts. **S. Luo**, Z. Wu

9:45 Intermission.

9:55 CATL 129. High spatial resolution mapping of catalytic reactions on single nanoparticles. **E. Gross**

10:35 CATL 130. *Operando* XAFS study of Au/C catalysts for acetylene hydrochlorination reaction. G. Malta, S. Freakley, S. Kondrat, L. Lu, E. Gibson, P. Wells, C. Kiely, **G. Hutchings**

11:15 CATL 131. Promoting the ethylene yield in ethane oxidative dehydrogenation reaction over Mo₂C catalyst via oxygen modification. **S. Yao**, B. Yan, J.G. Chen
11:40 CATL 132. In-situ/operando characterization of supported Ir single atoms. Y. Lu, A. Hoffman, A. Boubnov, S.R. Bare, **A.M. Karim**

Section E

Hampton Inn & Suites Convention Center

Fulton

Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments

Cosponsored by ENFL, INOR and PHYS
C.A. Carrero, R.B. Getman, I. Hermans, *Organizers*, *Presiding*

8:00 CATL 133. Methane steam reforming: Using external electric fields to

enhance the catalytic performance of Ni. F. Che, J.T. Gray, S. Ha, **J. McEwen**

8:30 CATL 134. Activation of light hydrocarbons by catalysts supported on metal-organic framework nodes. **C.J. Cramer**

8:50 CATL 135. On the dynamic nature of Mo sites for methane dehydroaromatization. **I. Vollmer**, J. Gascon, F. Kapteijn, I. Yarulina, A.I. Olivos Suarez, B. van der Linden, Y.G. Sneider

9:10 CATL 136. Critical surface parameters for the oxidative coupling of methane over Mn-Na-W/SiO₂ catalyst. N. Hayek, N. Lucas, C. Warwar Damouny, **O. Gazit**

9:30 Intermission.

9:50 CATL 137. Computational studies of the oxidation of C1 and C2 alkanes to alcohols using metal-organic frameworks. M. Barona, H.A. Doan, P. Liao, P. Miro, R.B. Getman, O.K. Farha, J.T. Hupp, **R. Snurr**

10:10 CATL 138. Niobium promotion of nickel oxide catalysts for ethane oxidative dehydrogenation to ethylene. A.E. Diaz-Alvarez, F. Rubio-Marcos, J.F. Fernandez, **M.A. Banares**

10:40 CATL 139. Effect of Mo content in methane dehydroaromatization using sulfated zirconia supported Mo₂C catalysts. **S. Kanitkar**, A. Abedin, S. Bhattar, J.J. Spivey

11:00 CATL 140. Multi-physics numerical modeling of multi-phase flow and heat transfer for smart catalyst reactor. **M. Zaidani**, M. Jouiad, M. Sanduleanu, M.B. Sassi

11:20 CATL 141. Investigating the kinetics of supported, Pincer-ligated iridium catalysts in a continuous-flow gas phase system for C₄ upgrading. **B. Sheludko**, M.T. Cunningham, A.S. Goldman, F.E. Celik

11:40 CATL 142. Development of descriptors for methane-to-methanol conversion and side-reactions on zeolite-supported tri-metal tri-oxo catalysts. **N.K. Dandu**, S.O. Odoh

Section F

Hampton Inn & Suites Convention Center

Cottonmill

Electrochemical Double Layer: Modeling, Characterization & Catalysis

Cosponsored by COMP, ENFL and PHYS
K. Schwarz, R. Sundararaman, *Organizers*, *Presiding*

8:00 Introductory Remarks.

8:05 CATL 143. Local probes at the Pt(hkl)/electrolyte interface. **J.M. Felix**

8:45 CATL 144. Beyond the point charge scheme in the description of charge polarization at electrochemical interfaces. **S. Sakong**, A. Gross

9:05 CATL 145. Electric fields, solvation, protonation, and frustration at electrochemical interfaces probed by vibrational spectroscopy. J. Patrow, S.A. Sorenson, **J. Dawlaty**

9:45 CATL 146. Recent developments in modelling the electrochemical interface.

K. Chan

10:05 Intermission.

10:20 CATL 147. Modeling chemisorption at electrochemical interfaces from first principles. **P. Sautet**

11:00 CATL 148. Carbon monoxide and water coadsorption on platinum and platinum-based mixed-metal anode catalysts for polymer electrolyte membrane fuel cells. **N. Dimakis**, M.J. Farooqi, I. Salas, L. Gonzalez, E.S. Smotkin

11:20 CATL 149. First-principles investigation of adsorbed hydrogenated N-heterocycles as hydride shuttles for catalytic CO₂ reduction on p-GaP photoelectrodes. **M. Lessio**, T.P. Senfite, E.A. Carter

11:40 CATL 150. Electrifying model catalysis: Complex model catalysts studied in ultrahigh vacuum and under electrochemical conditions. **J. Libuda**

Computational Catalyst Design for Energy Conversion & Storage

Advances in Theory, Computational Models & Approaches

Sponsored by COMP, Cosponsored by CATL and CINF

Carbon Dioxide Conversion & Artificial Photosynthesis

Theoretical Studies, Policy & Catalytic Conversion

Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

MONDAY AFTERNOON

Section A

Hampton Inn & Suites Convention Center

Antonine

Elucidation of Mechanisms & Kinetics on Surfaces

Surface Science

Cosponsored by COLL, ENVR and PHYS
L. Baker, S. Laursen, *Organizers*
A. Savara, *Organizer*, *Presiding*

1:00 CATL 151. Size, support, and alloy effects on cluster catalysis. T.J. Gorey, E.T. Baxter, A.C. Cass, **S.L. Anderson**

1:40 CATL 152. Visualizing interfacial chemical kinetics and dynamics using supersonic molecular beams and in situ scanning tunneling microscopy. **S.J. Sibener**, R. Edel, T. Grabnic, B. Wiggins, L. Avila-Bront

2:20 CATL 153. Surface electron dynamics in CuFeO₂ catalysts studied by ultrafast XUV spectroscopy. **L. Baker**

3:00 CATL 154. Electronic structure and reactivity of cluster-based nanocatalysts. **M.G. White**, M. Xue, K.R. Goodman, Y. Ma, S. Liu, P. Liu

3:40 Intermission.

4:00 CATL 155. Withdrawn

4:40 CATL 156. Model studies in energy-related catalysis and electrocatalysis. **J.**

[†]Cooperative Cosponsorship

Libuda

5:20 CATL 157. Acetol adsorption and reactivity on metal single crystals and oxide films: From UHV conditions to mTorr range. **F.C. Calaza**, O. Karlioglu, H. Bluhm, M. Sterrer, H. Freund

5:40 CATL 158. NO+CO oxidation on Pd(100) studied by ambient-pressure XPS. **O. Karlioglu**, A.R. Head, T. Gerber, J. Raso, L. Trotochaud, Y. Yu, P. Kerger, H. Bluhm

Section B

Hampton Inn & Suites Convention Center
Riverside I/II

Homogeneous Catalysis for Applied Organic Synthesis

Cosponsored by INOR and ORGN[†]
T. Colacot, B.H. Lipshutz, *Organizers*
S. Chandrasekaran, S. Trice, *Presiding*

1:00 Introductory Remarks.

1:15 CATL 159. Nobel Keynote: Fast and practical Pd catalyzed cross-coupling of organolithium reagents. **B. Feringa**

2:10 CATL 160. Discovery and development of novel chromium-based catalysts for ethylene tetramerization. **M.S. Rosen**, S. Boelter, D. Davies, J. Klosin, K. Milbrandt, D. Mort, A. Smith, D. Welsh, D. Wilson, M. Wiltzius

2:45 CATL 161. Structure activity relationship of homogeneous catalysts in organic synthesis. **T. Colacot**

3:20 Intermission.

3:40 CATL 162. Werner complexes: A new class of chiral hydrogen bond donor catalysts for enantioselective organic reactions. **J.A. Gladysz**

4:15 CATL 163. Synthetic organic chemistry in water. Faster, better, cheaper. **B.H. Lipshutz**

Section C

Hampton Inn & Suites Convention Center
Riverside III

Machine Learning for Catalysis Research

Cosponsored by CINP and COMP
J.R. Kitchin, A. Peterson, *Organizers*
H. Xin, *Organizer, Presiding*
A. Medford, Z. Ulissi, *Presiding*

1:00 CATL 164. Determining physical/chemical properties for material systems with data mining. **H. Dam**, T. Pham, H. Kino, K. Terakura, T. Miyake

1:20 CATL 165. Utilizing limited training data in materials informatics. **C. Ling**

1:40 CATL 166. Machine learning surrogate models. **J. Boes**

2:00 CATL 167. The role of transfer in reaction development. **P.M. Zimmerman**

2:30 CATL 168. Using machine-learning to create predictive material property models. **C. Wolverton**

3:10 Intermission.

3:30 CATL 169. Machine learning and statistical analysis for materials science: Stability and transferability of fingerprint descriptors and chemical insights. **U.V. Waghmare**, P. Pankajakshan, S.

Sanyal, O. deNoord, I. Bhattacharya, A. Bhattacharyya

3:50 CATL 170. Finding patterns, correlations, and descriptors in materials data using subgroup discovery and compressed sensing. **B.R. Goldsmith**, C. Bartel, M. Boley, C. Sutton, J. Vreeken, C. Musgrave, R. Ouyang, L.M. Ghiringhelli, M. Scheffler

4:20 CATL 171. Adaptive molecular property estimator using convolutional neural networks. **K. Han**, C. Coley, W.H. Green

4:40 CATL 172. Machine learning-based structure recognition for automated reactivity predictions through transition state calculations. **A. Bochevarov**, L.D. Jacobson, K. Marshall, J. Staker

5:10 CATL 173. Machine learnt meso-scale models. **S. Singh**, K. Bejagam, S. Deshmukh

5:30 CATL 174. Machine-learning frameworks in molecular simulation. **J.R. Kitchin**

Section D

Hampton Inn & Suites Convention Center
Bienville

Operando Techniques for Catalytic & Photocatalytic Fuel Conversion Studies

Cosponsored by ENFL
C. Wang, *Organizer*
M. Liu, *Organizer, Presiding*

1:00 CATL 175. Dynamical measurements of surface layers in water-splitting photocatalysts. **M. Sfeir**

1:40 CATL 176. Operando measurements of water oxidation intermediates on metal oxide semiconductor electrodes. **T. Hamann**

2:20 CATL 177. Interaction of Water with an Ultrathin ZnO Layer. **J. Lee**

3:00 Intermission.

3:10 CATL 178. In-situ methods for probing electrocatalytic reactions at metal and metal oxide nanostructures. **D.J. Fermin**, V. Celorrio

3:50 CATL 179. Synchrotron-based *In situ* characterization of nanostructured electrocatalysts for clean-energy applications. **K. Sasaki**, N. Marinković, R.R. Adzic

4:30 CATL 180. Anomalous conductivity tailored by domain boundary transport in crystalline BiVO₄ photoanodes. **W. Zhang**, D. Yan, J. Li, Q. Wu, J. Cen, L. Zhang, A. Orlov, H. Xin, J. Tao, M. Liu

4:55 CATL 181. Operando structural investigation of epitaxial iron group metal oxide thin films as OER catalysts. **P. Allongue**, F. Maroun, F. Reikowski, I. Pacheco-Bubi, T. Wiegmann, J. Stettner, O. Magnussen

Section E

Hampton Inn & Suites Convention Center
Fulton

Magnetically Recoverable Catalysts

Cosponsored by COLL, ENFL and INOR
A.H. Moores, *Organizer*
L. Bronstein, *Organizer, Presiding*

E. Rebrov, *Presiding*

1:00 CATL 182. Enhanced thermal stability of silica-coated magnetite nanoparticles for the desing of advanced catalysts. **L.M. Rossi**, L. Vono, J.R. Matos, R. Landers, S. Masunaga, R. Jardim

1:35 CATL 183. Three-in-one functional magnetic catalysts: Fast heating, mixing and separation in gas-liquid reactions. **E. Rebrov**

2:05 CATL 184. Thermal plasma synthesis and characterization of hybrid spinel nanoferrites for catalysis. **N. Braidy**, N. Dumaresq, S. Bastien, A.H. Moores

2:35 Intermission.

2:50 CATL 185. Magnetically recoverable catalysts: Magnetic support influences catalysis. **L. Bronstein**

3:20 CATL 186. Withdrawn

3:50 CATL 187. Catalytic activity of anisotropic magnetic nanoparticles activated via RF induction heating. **N. da Silva Moura**, J. Bursavich, H. Simonson, C. Boudreaux, J.A. Dorman

4:10 CATL 188. A bottle-around-a-ship method to generate hollow thin-shelled particles containing encapsulated iron species with application to the environmental decontamination of chlorinated compounds. **V.T. John**, **Y. Su**

4:30 CATL 189. Synthesis of ionic liquid supported silica-coated magnetic nanocatalyst for the straightforward one-pot synthesis of bioactive *N*-aryl oxazolidin-2-ones. **R. Gupta**, R.K. Sharma

4:50 Concluding Remarks.

Section F

Hampton Inn & Suites Convention Center
Cottonmill

Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments

Cosponsored by ENFL, INOR and PHYS
C.A. Carrero, R.B. Gelman, I. Hermans, *Organizers, Presiding*

1:00 CATL 190. Precise deposition of Pt promoter onto silica supported cobalt for Fischer-Tropsch synthesis. **F. Almalki**, J.R. Monnier, **J.R. Regalbuto**

1:40 CATL 191. Screening hydrocarbon activation pathways with computational alchemy. **K. Saravanan**, **J.A. Keith**

2:00 CATL 192. Methane activation and conversion via reforming using nonconventional catalysts and conditions. **U. Cimenler**, N. Elyased, D. Maiti, Y. Sokefun, B. Joseph, **J. Kuhn**

2:20 CATL 193. On the unusual redox cycle at the vanadia ceria interface and its relevance for ethane ODH. **A. Iglesias-Juez**, M.V. Martinez-Huerta, E. Rojas-Garcia, J. Jehng, **M.A. Banares**

2:45 Intermission.

3:00 CATL 194. Immobilization of earth abundant metals coordinated in heterobimetallic ligand scaffolds on metal organic frameworks (MOFs). **J. Vitillo**, K. Riley, S.P. Desai, Z. Garr, A. Platero-Prats, J. Zheng, M. Simons, T. Webber, K.W. Chapman, D.M. Camaioni, O. Farha, J.T.

Hupp, R. Penn, C. Lu, L. Gagliardi

3:20 CATL 195. Mechanistic approach to probe ligand-dependence of CH activation kinetics in bioinspired dicopper complexes. **S. Mallikarjun Sharada**

3:40 CATL 196. Reactivity and selectivity descriptors for oxidative dehydrogenation of small hydrocarbons and oxygenates on metal oxides. **P. Deshlahra**, E. Iglesia

4:00 CATL 197. Computational design of active and selective catalyst for methane conversion to value-added products. **S. Wang**, L. Grabow

4:20 CATL 198. Au(III) complexes catalyze direct partial oxidation of methane at low temperature in ionic liquids. **T. Huang**, Z. Xu, P. Yan, X. Liu, **Z. Zhang**

4:40 CATL 199. Conversion of methane to methanol and ethanol in a single reactor. **C. Okolie**, Y. Lyu, L. Kovarik, E. Stavitski, **C. Sievers**

Computational Catalyst Design for Energy Conversion & Storage

Development of Electro- & Photocatalysts

Sponsored by COMP, Cosponsored by CATL and CINP

Carbon Dioxide Conversion & Artificial Photosynthesis

Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

MONDAY EVENING

Section A

Ernest N. Morial Convention Center
Halls D/E

Sci-Mix

A. Savara, *Organizer*

8:00–10:00

302, 304, 310, 315, 317, 319-321, 323, 331, 334, 337, 340, 346, 350, 352-353. See subsequent listings.

TUESDAY MORNING

Section A

Hampton Inn & Suites Convention Center
Antonine

Elucidation of Mechanisms & Kinetics on Surfaces

Surface Mechanisms

Cosponsored by COLL, ENVR and PHYS
S. Laursen, A. Savara, *Organizers*
L. Baker, *Organizer, Presiding*

8:00 CATL 200. Mechanistic studies of CO and benzyl alcohol oxidation over Au: Roles of support, proton transfer, and water. **B.D. Chandler**

8:40 CATL 201. Mechanisms of low-temperature oxidation and H₂ photoproduction from water using Au-TiO₂ catalysts. **F. Zaera**

9:20 CATL 202. Kinetics and mechanism of aspartic acid decomposition on chiral

[†]Cooperative Cosponsorship

Cu{hkf}^{RAS} surfaces. **A.J. Gellman**, P. Kondratyuk, Y. Yun, A. Reinicker, S. Dutta

10:00 Intermission.

10:20 CATL 203. N-heterocyclic carbene molecules (NHCs) as chemical markers for high spatial resolution mapping of catalytic reactions on surfaces. S. Deri, **E. Gross**

10:40 CATL 204. Enhanced activity and selectivity on the surface of ordered bimetallic catalysts. **W. Huang**, R. Maligal Ganesh, Y. Pei, Z. Qi

11:20 CATL 205. Catalyst architecture for stable, atomically dispersed Pt-group metals enables mechanistic analysis of reactivity. **P. Christopher**

Section B

Hampton Inn & Suites Convention Center
Riverside I

Homogeneous Catalysis for Applied Organic Synthesis

Cosponsored by INOR and ORGN[†]
T. Colacot, B.H. Lipshutz, *Organizers*
G. Grasa, I. Ibrusaud, *Presiding*

8:50 Introductory Remarks.

8:55 CATL 206. First row transition metal catalysts for synthesis and radiolabeling of active pharmaceutical ingredients. **P.J. Chirik**

9:30 CATL 207. Alkylphosphine cyclometallation as a mode of catalyst deactivation and a source of active catalysts. **K.H. Shaughnessy**

10:05 Intermission.

10:25 CATL 208. Pincer iridium complexes for oxidations and reductions. B. Bark, J.M. Goldberg, S. Rubashkin, A.M. Wright, Z. Syed, D.M. Heinekey, **K.I. Goldberg**

11:00 CATL 209. Nobel Keynote: Selective olefin metathesis catalysis in synthesis. **R.H. Grubbs**

Section C

Hampton Inn & Suites Convention Center
Riverside III

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Cosponsored by ENFL, ENVR and INOR
J. Choi, O. Gazit, M. Kidder, *Organizers*, *Presiding*

8:00 Introductory Remarks.

8:05 CATL 210. Tuning pore hierarchy and acidity of heterogeneous catalysts for biomass conversion. **K. Wilson**

8:35 CATL 211. Investigation of nickel, cobalt, and iron oxyhydroxide anodes for the electrochemical oxidation of 5-hydroxymethylfurfural to 2,5-furandicarboxylic acid. **B.J. Taitt**, D. Nam, K. Choi

8:50 CATL 212. Determination of surface structure of ReO_x-Pd/CeO₂ for improved deoxydehydration of organic compounds. **E. Barrow**, S. Sanchez, J. Lauterbach

9:05 CATL 213. Selective hydrogenation of γ -valerolactone to pentanoic acid over Pt/zeolite using formic acid as a hydrogen source. **M. Al-Najji**, J. Van Aelst, N. Wilde, R. Glaeser, B.F. Sels

9:20 CATL 214. 1-hydroxy-hexane-2,5-diketone as an interesting new platform chemical. **J.G. De Vries**, B. Wozniak, S. Hinze, Y. Li, A. Spannenberg

9:35 Intermission.

9:50 CATL 215. Role of heterogeneous catalysis in biomass conversion. **B.F. Sels**

10:20 CATL 216. Fundamental investigation of electrocatalytic low temperature bio-oil stabilization. **A. Padmaperuma**, S. Akhade, D.C. Cantu, R. Rousseau, V. Glezakou, M. Lilga, J. Holladay

10:35 CATL 217. Renewable acrylonitrile enabled via catalytic nitrilation chemistry. **E. Karp**, T. Eaton, V. Sánchez i Nogué, V. Voronikov, L. Manker, D. Brandner, W. Michener, G. Beckham

10:50 CATL 218. Hydrogenation of biomass based furans to fine chemicals through homogeneous Ir catalysis. **Z. Xu**, Z. Zhang

11:05 CATL 219. Catalytic conversion of ethanol to butadiene: A detailed DFT investigation of the complex reaction mechanism. **V. Butera**, Y. Choe, Y. Tanabe, T. Miyazawa, T. Fujitani

11:20 CATL 220. Synthesis of glycerol carbonate from CO₂ using metal oxide catalysts. **C.J. Mota**, L. Ozório

Section D

Hampton Inn & Suites Convention Center
Bienville

Towards Comprehension of Scale-Up & Multiscale Modeling of Catalysts

Cosponsored by COMP and ENFL
A. Savara, *Organizer*
V.G. Baldivino-Medrano, J.J. Bravo-Suarez, *Organizers*, *Presiding*

8:00 CATL 221. Some considerations in the development and scale to commercial level for zeolites as catalyst components. **S.I. Zones**

8:40 CATL 222. Scale-up, evaluation and commercialization of a novel family of FCC catalysts. **J. Garcia Martínez**, N. Linares, E. De Oliveira Jardim, E. Serrano

9:05 CATL 223. Novel catalytic approach towards C4 olefins and gasoline octane in fluid catalytic cracking. **Y. Shu**, E. Yik, M. Ziebarth, B.H. Cipriano, W. Cheng

9:30 CATL 224. Key factors for industrial fluid catalytic cracking catalyst evaluations. **W.E. Alvarez**

9:55 Intermission.

10:15 CATL 225. Mass transfer limitations occurring during the scaling-up of a NiMoP/VAl₂O₃ hydrotreatment catalyst. **R.A. Prada Silvy**

10:40 CATL 226. Characterization of spent catalysts from an industrial hydrotreating unit give insight upon catalyst life evolution. **L.J. Duarte**, L.L. Garzón, **V.G. Baldivino-Medrano**

11:05 CATL 227. *In situ* catalytic fast pyrolysis (CFP) and hydrotreating to convert biomass to fuel blendstocks: Scale-up production of CFP catalyst and scale-up in situ CFP testing. **H. Wang**, F.A. Agblevor, C. Lindfors

11:30 CATL 228. Catalytic upgrading of pyrolysis oil. **M.V. Olarte**, D.C. Elliott, A.H. Zacher, S.B. Jones, A. Padmaperuma, D. Stephenson, C. Drennan

Section E

Hampton Inn & Suites Convention Center
Fulton

Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments

Cosponsored by ENFL, INOR and PHYS
C.A. Carrero, R.B. Getman, I. Hermans, *Organizers*, *Presiding*

8:00 CATL 229. Boron-based catalysts for the oxidative dehydrogenation of propane. **I. Hermans**

8:30 CATL 230. Mechanistic study of oxidative C-H and C-C bond cleavage of ethane. **S. Kattel**, J.G. Chen, P. Liu

8:50 CATL 231. Uniform Pt/Pd bimetallic nanocrystals demonstrate platinum effect on palladium methane combustion activity and stability. **E.D. Goodman**, S. Dai, A. Yang, C. Wrasman, A. Gallo, S.R. Bare, A. Hoffman, T.F. Jaramillo, G. Graham, X. Pan, M. Cargnello

9:10 CATL 232. Selective oxidation of n-butane to 1-butanol over transition metal catalysts encapsulated by metal-organic frameworks. **J. Zhu**, R.B. Getman

9:30 Intermission.

9:40 CATL 233. Aldol condensation on oxide catalysts: Mechanisms and effects of thermal treatments and metal identity. **D. Flaherty**

10:10 CATL 234. *In-situ* elucidation of the active state of Co-CeO_x catalysts in the dry reforming of methane: The important role of the reducible oxide support and interactions with cobalt. **F. Zhang**, J. Rodriguez, S.D. Senanayake, T. Kim, Z. Liu

10:30 CATL 235. Predicting low-temperature methane activation via doped metal oxides from first principles. **V. Fung**, F. Tao, D. Jiang

10:50 CATL 236. Improving conversion and hydrogen efficiency for propylene epoxidation. **Z. Lu**, C.H. Turner, Y. Lei

Section F

Hampton Inn & Suites Convention Center
Cottonmill

Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in *In-situ* & *Operando* Methods

Enabling Fundamental Advances in Catalysis & Surface Science

Cosponsored by ENVR, INOR and PHYS
W.O. Gordon, *Organizer*
M.L. McEntee, J. Pietron, *Organizers*, *Presiding*
W. Gordon, *Presiding*

8:00 CATL 237. Structure and activity of Pd on Ag(111) for hydrogen activation: Modeling catalyst materials under ambient pressure. **C.M. Friend**

8:30 CATL 238. Mechanistic studies of CO/CO₂ reactivity over inverse (oxide/metal) model catalysts. **R.M. Palomino**, S.D. Senanayake, J. Rodriguez

8:55 CATL 239. Pd doped CaCo₃Zr_{1-x}O_{3- δ} novel perovskites for automotive emissions control. **Q. Zheng**, M.A. Lail

9:15 CATL 240. Unlocking active sites for formaldehyde oxidation on manganese oxide catalyst. **K. Akkiraju**, Y. Shao-Horn, D. Weinberger, W.F. Ruettinger

9:35 CATL 241. Ultrathin two-layered anatase nanosheets as prospective catalysts and catalyst support. **A.V. Vorontsov**, G. Lyubas

9:55 Intermission.

10:10 CATL 242. *In situ* analysis of the chemistry of environmental interfaces. **V.H. Grassian**

10:40 CATL 243. *Operando* Raman-online FTIR investigation on the role of vanadium and gold doping on ceria-based catalysts for toluene elimination. **M.A. Banares**, Q. Wang, W. Chen, P. Liu, Yeung

11:10 CATL 244. Total methanol oxidation studied by MS-DRIFT *operando* and MES on bimetallic Au-Pd catalysts. **F.C. Calaza**, A. Baldó, C. Olmos, X. Chen, S. Collins

11:30 CATL 245. Catalytic ozonation of phenol via GO/MgO nanocomposites. **M. Heidarizad**, A. Quicksall

Computational Catalyst Design for Energy Conversion & Storage

Development of Homogeneous & Heterogeneous Catalysts

Sponsored by COMP, Cosponsored by CATL and CINF

Carbon Dioxide Conversion & Artificial Photosynthesis

Photocatalytic Conversion

Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

TUESDAY AFTERNOON

Section A

Hampton Inn & Suites Convention Center
Antonine

Elucidation of Mechanisms & Kinetics on Surfaces

Surface Mechanisms

Cosponsored by COLL, ENVR and PHYS
L. Baker, S. Laursen, *Organizers*
A. Savara, *Organizer*, *Presiding*

1:00 CATL 246. Spectroscopic characterization of reaction pathways over a Pd-Cu(111) single-atom alloy. C. Kruppe, J. Krooswyk, **M. Trenary**

1:40 CATL 247. Inverse oxide/metal catalysts and the study of reaction mechanisms. **J. Rodriguez**

2:00 CATL 248. Methane activation in dry reforming over metal oxide supported Ni nanoparticles: role of support reducibility on low temperature dry reforming. M. Li, J. Carey, A. Van Veen, **M. Nolan**

[†]Cooperative Cosponsorship

2:20 CATL 249. Methane activation on metal oxide catalysts: Importance of site confinement. **P. Liu**, Z. Zuo, S. Liu, J. Rodriguez

3:00 Intermission.

3:20 CATL 250. Elucidating the role of oxygen coverage in CO₂ reduction on Mo₂C. **M. Dixit**, X. Peng, M. Porosoff, H.D. Willauer, G. Mpourmpakis

3:40 CATL 251. Laser-induced oxygen activation probed by machine-learning accelerated nonadiabatic molecular dynamics. **J. Wang**, **H. Xin**

4:20 CATL 252. Using fast pressure transients to relate mechanistic studies in ultrahigh vacuum to catalytic reactors: Selective oxidation of methanol on nanoporous gold. **R.J. Madix**, C. Reece, E. Redekop

5:00 CATL 253. Elucidation of the anchoring and restructuring mechanisms of metal oxides on silica. **I. Hermans**

5:20 CATL 254. Conversion of alcohols over LaMnO₃ and La_{0.7}Sr_{0.3}MnO₃ in the presence and absence of oxygen. **Y. Zhang**, F. Polo Garzon, M. Kidder, D.R. Mullins, **A. Savara**

5:40 CATL 255. Insights into hydrodeoxygenation of phenol on FeMoP, RuMoP and NiMoP bimetallic phosphide catalysts using density functional theory (DFT) study. **V. Jain**, N. Rai

Section B Hampton Inn & Suites Convention Center Riverside I

Homogeneous Catalysis for Applied Organic Synthesis

Cosponsored by INOR and ORGN[†]
T. Colacot, B.H. Lipshutz, *Organizers, Presiding*

1:00 CATL 256. Nobel Keynote: Magical power of d-block transition metals as exemplified by Pd-catalyzed cross-coupling and Zr-catalyzed carbodulmination (ZACA reaction). **E. Negishi**

1:55 CATL 257. Computational chemistry in homogeneous transition metal catalyzed reactions: A future perspective. **V. Avasare**, **S. Pal**, P. Jain, D. Das

2:15 CATL 258. Metal catalyzed reactions: Transforming “discoveries” into “potential manufacturing processes” for agrochemical molecules. **J. Oppenheimer**

2:50 Intermission.

3:05 CATL 259. Design, development and execution of a continuous flow enabled API manufacturing route. **J.R. Martinelli**

3:40 CATL 260. Driving synthesis by oxidation. **J. Lumb**

4:15 CATL 261. Nickel-catalyzed reactions of amide derivatives. **N.K. Garg**

4:50 CATL 262. Homogeneous catalysis in applied organic synthesis: A critical evaluation. **S. Chandrasekaran**

5:10 Concluding Remarks.

Section C

[†]Cooperative Cosponsorship

Hampton Inn & Suites Convention Center Riverside III

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Cosponsored by ENFL, ENVR and INOR
J. Choi, O. Gazit, M. Kidder, *Organizers, Presiding*

1:00 CATL 263. Valorisation of side-products from furanics conversion: Towards valuable chemicals and advanced catalytic nanomaterials. **L. Filicetto**, A. Balu, **R. Luque**

1:30 CATL 264. Utilizing ring-opening tautomerization for the facile catalytic conversion of biomass-derived cyclic hemiacetals and lactones to β,β-diols. **K. Barnett**, Z. Brentzel, Z. Huang, K. Huang, S. Burt, I. Hermans, C. Maravelias, J.A. Dumesic, G.W. Huber

1:45 CATL 265. Tetabutylphosphonium bromide: A versatile ionic liquid catalyst for the biobased production of butadiene and acrylic acid. **M. Stalpaert**, F.G. Cirujano, D. De Vos

2:00 CATL 266. ZrO₂-based catalysts with enhanced hydrothermal stability for the aqueous-phase *In-situ* hydrogenation of levulinic acid. **M. Al-Naji**, M. Popova, R. Glaeser, **N. Wilde**

2:15 CATL 267. Development of catalytic anodes that enable electrochemical oxidation of 5-hydroxymethylfurfural to 2,5-furandicarboxylic acid in acidic media. **S.R. Kubota**, K. Choi

2:30 CATL 268. Transesterification of DMC and glycerol catalyzed by Li-La-based catalysts. **L. Yajin**, D. He

2:45 Intermission.

3:00 CATL 269. Titania-encapsulated nickel nanoparticle as catalyst for selective hydrodeoxygenation of guaiaacol to phenolics. **X. Zhang**, P. Yan, B. Zhao, K. Liu, **Z. Zhang**

3:30 CATL 270. Kinetics of ethanol dehydrogenation on MgO-SiO₂ mixed oxide catalysts. **H. Abdulrazzaq**, T.J. Schwartz

3:45 CATL 271. Controlling reaction selectivity and boosting reaction rate through the surface termination of perovskite catalysts. **F. Polo Garzon**, S. Yang, V. Fung, G. Foo, E. Bickel, M.F. Chisholm, M. Kidder, D. Jiang, Z. Wu

4:00 CATL 272. Withdrawn

4:15 CATL 273. Withdrawn

4:30 CATL 274. Catalytic properties of molybdenum-based bimetallic phosphides for deoxygenation reactions. **Y. Bonita**, D.J. Rensel, **J.C. Hicks**

Section D Hampton Inn & Suites Convention Center Bienville

Operando Techniques for Catalytic & Photocatalytic Fuel Conversion Studies

Cosponsored by ENFL
C. Wang, *Organizer*

M. Liu, *Organizer, Presiding*

1:00 CATL 275. Au/β-MoC catalyst for the low temperature water gas shift reaction. **D. Ma**

1:40 CATL 276. Colloid-templated porous catalysts for efficient catalysis: CO oxidation using embedded dilute PdAu alloys. **M. Luneau**, T. Shirman, A.C. Filie, A. Stevanovic, J. Timoshenko, E. Shirman, R.J. Madix, A. Frenkel, J. Aizenberg, C.M. Friend

2:20 CATL 277. Scientific data mining in nanoscale visualization of catalysis at work. **Y. Liu**, F. Meirer, B. Weckhuysen, P. Pianetta

3:00 Intermission.

3:10 CATL 278. Atomically engineered gold-copper nanocatalysts for selective CO₂ conversion. **D. Kauffman**, D. Alfonso

3:50 CATL 279. Toward “on the fly” analysis of reactive sites from their X-ray absorption spectra. **J. Timoshenko**, N. Marcella, **A. Frenkel**

4:30 CATL 280. Developing new catalytic application for selective CO₂ conversion using *in situ* study on doping-segregation mechanism. **J. Cen**, Q. Wu, B. Yan, D. Yan, Y. Zhao, M. Liu, A. Orlov

4:55 CATL 281. Insights into Cu₂O-based catalysts for electrochemical CO₂ reduction via *in-situ* ATR-IR and Raman. **Z. Liang**, J. Fu, M.B. Vukmirovic, R.R. Adzic

Section E Hampton Inn & Suites Convention Center Fulton

R&D in the Chemical Catalysis for Bioenergy Consortium

Cosponsored by ENFL, ENVR and INOR
S. Habas, D.A. Ruddy, *Organizers*
J. Schaidle, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 CATL 282. ChemCatBio: Overview of the US Department of Energy’s chemical catalysis for bioenergy consortium. **N.D. Fitzgerald**, G.J. Leong

1:25 CATL 283. Activation of isobutane over a Cu/BEA catalyst and re-incorporation into the chain growth cycle of DME homologation. **D.A. Ruddy**, C. Nash, C. Farberow, J. Hensley, J. Schaidle

1:45 CATL 284. Renewable and recycled carbon for high octane low carbon gasoline (HOLCG) production at pilot scale. **S.C. Marie-Rose**, D. Ruddy, J. Hensley

2:05 CATL 285. Accelerating the development of catalysts for biofuel production through the application of x-ray absorption spectroscopy. **T. Krause**, C. Yang, A.J. Kropf, J. Miller, D. Ruddy, J. Schaidle, S. Cheah, K.A. Unocic, S. Habas

2:25 Intermission.

2:40 CATL 286. Catalytic conversion of fermentation derived ethanol to advanced hydrocarbon fuels and valuable chemicals. **Z. Li**, A. Lepore, M. Salazar, B.H. Davison, C.K. Narula

3:00 CATL 287. Advanced characterizations to accelerate commercial

catalyst development for ethanol upgrading technology. **J. Hannon**

3:20 CATL 288. MgO-Al₂O₃ supported copper pseudo single atom catalysts for Guerbet ethanol conversion. **K.K. Ramasamy**, M. Guo, M. Gray, S. Subramaniam

3:40 CATL 289. Mixed metal oxide (MMO) catalysts for single step conversion of bio-based C₂-C₆ oxygenates to olefins processes. **J.O. Smith**

4:00 CATL 290. Single-step conversion of ethanol to butadiene over Ag-ZrO₂/SiO₂ catalysts. **V. Lebarbier Dagle**, **R. Dagle**, J. Saavedra Lopez, M. Flake, T. Lemmon

Section F Hampton Inn & Suites Convention Center Cottonmill

Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & In-situ & Operando Methods

Enabling Fundamental Advances in Catalysis & Surface Science

Cosponsored by ENVR, INOR and PHYS
W.O. Gordon, *Organizer*
M.L. McEntee, J. Pietron, *Organizers, Presiding*
W. Gordon, *Presiding*

1:00 CATL 291. Fundamental concepts in catalyst design. **C.T. Campbell**

1:30 CATL 292. Operando investigation on the structure and reactivity of adsorbed NH₃, NO_x & V=O species during SCR on shaped vanadia catalyst. **M.A. Banares**, **S.B. Rasmussen**, R. Portela, P. Bazin, H. Falsig, A. Godkisen, P. Georg Moses, M. Daturi

1:50 CATL 293. Insights into the deactivation of Cu/SAPO-34 by low- and high-temperature hydrothermal treatment. **F. Gao**, A. Wang, E.D. Walter, Y. Zheng, J. Szanyi, Y. Wang, C.H. Peden

2:10 CATL 294. Organic ligand promotion effect on CeO₂-catalyzed NH₃-SCR. **L. Chen**, V. Agrawal, S.L. Tait

2:30 CATL 295. Multi-component homogeneous and heterogeneous catalysts involving Br_x/NO_x systems for selective aerobic decontamination. **K. Sullivan**, Y.V. Geletii, M. Kim, D. Collins-Wildman, Q. Yin, C.L. Hill

2:50 Intermission.

3:05 CATL 296. Ultrahigh vacuum surface science investigations of chemical warfare agent chemistry within Zr (IV) MOFs. **C.H. Sharp**, T. Grissom, D. Troya, A. Plonka, A.J. Morris, P. Usov, W.O. Gordon, **J.R. Morris**

3:35 CATL 297. Chemical warfare agent decontamination on zirconium hydroxide under operando conditions. **P. Pehrsson**, R. Balow, D. Barlow, M.L. McEntee, W.O. Gordon, J. Lundin, G.C. Daniels, S.L. Giles, M. Hall, J.H. Wynne, G.W. Peterson

4:00 CATL 298. In situ studies of Zr-based MOFs for nerve-agents capture and decomposition. **A. Plonka**, Q. Wang, W.O. Gordon, A. Balboa, D. Troya, W. Guo, C.H. Sharp, S.D. Senanayake, J.R. Morris, C.L. Hill, A.

Frenkel

4:20 CATL 299. Impact of ambient gases on the mechanism of the $[Cs_8Nb_6O_{19}]$ -catalyzed nerve-agent decontamination. **J. Musaev**, A. Kaledin, D. Driscoll, D. Troya, D. Collins-Wildman, C.L. Hill, J.R. Morris

4:40 CATL 300. Multifaceted role of buffer anions in polyoxometalate-catalyzed organophosphorus ester hydrolysis. **D.L. Collins-Wildman**, M. Kim, K. Sullivan, J. Musaev, C.L. Hill

Computational Catalyst Design for Energy Conversion & Storage

Development of Homogeneous & Heterogeneous Catalysts

Sponsored by COMP, Cosponsored by CATL and CINP

ACS Award Lectures

Sponsored by COLL, Cosponsored by CATL[†]

Carbon Dioxide Conversion & Artificial Photosynthesis

Electro-Photo Catalytical Conversion

Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

TUESDAY EVENING

Section A

Ernest N. Morial Convention Center Hall D

General Catalysis

A. Savara, Organizer

7:00–9:00

CATL 301. Fabrication of porous MnO_x - FeO_x nanoneedles for the selective catalytic reduction of NO_x by NH_3 at low temperature. **Z. Fan**, **J. Shi**, C. Niu

CATL 302. Preparation and characterization of a Ni on carbon fixed bed catalyst and evaluation of its efficiency as a catalyst in hydrogenation of furfural. **R. Adhikari**, T.V. Kotbagi, M.G. Bakker

CATL 303. Synthesis and characterization of Cu loaded on mesoporous CeO_2 - TiO_2 . **D. Ongmali**, T. Chaisuwan, A. Luengnaruemitchai, S. Wongkasemjit

CATL 304. Pd–Pt alloy on Fe_3O_4 for tandem ammonia borane dehydrogenation/nitroarene reduction as magnetically recyclable nanoatlysts. **S. Byun**, B. Kim

CATL 305. Development of a AuPd alloy on Fe_3O_4 for one-pot cascade nitro-reduction and reductive amination, and efficient isoindolinone synthesis. **A. Cho**, B. Kim

CATL 306. Selective catalytic oxidation of ammonia in air at ambient temperature: Evidence of direct $N_2H_5^+$ route. H. Chen, **M. Arjona Alonso**, W. Han, K. Yeung

CATL 307. Controlling product selectivity for electrochemical reduction of CO_2 on

gold by pulsing potentials. **J.J. Fuentes-Rivera**, K. Kimura, T. Hanrath

CATL 308. Catalyst-controlled stereoselective O-glycosylation: Pd(O) vs Pd(II). **H. Yao**, S. Zhang, W. Leng, M. Leow, S. Xiang, J. He, H. Liao, K. Le Mai Hoang, X. Liu

CATL 309. Catalytic removal of Hg^{2+} in Hg contaminated agricultural water by ionic liquids: A density functional theory study. X. Song, P. Ning, C. Wang, **K. Li**, **M. Fan**

CATL 310. Density functional theory study on catalytic synthesis of NH_3 from N_2 and H_2O over FeO . X. Song, P. Ning, C. Wang, **K. Li**, **M. Fan**

CATL 311. Bi metal modified $Bi_2O_3I_2$ hierarchical microsphere with oxygen vacancies for the improved photocatalytic performance and mechanism insights. **X. Liu**, **D. Shuoping**, **J. Hu**

CATL 312. In-situ topotactic synthesis and photocatalytic activity of plate-like $BiOCl/2D$ networks Bi_2S_3 heterostructures. **Y. Shi**, X. Liu, D. Shuoping, J. Hu

CATL 313. Synthesis and characterization of single-crystalline $Bi_{19}Cl_{527}$ nanorods. **W. Zuozuo**, Z. Huang, J. Hu

CATL 314. Synthesis and characterization of single-crystalline $Bi_2O_3SiO_3$ nanosheets with exposed {001} facets. **D. Shuoping**, X. Liu, J. Hu

CATL 315. Decontamination of HD and its simulant on BODIPY-doped polymer films by photooxidation under visible light. **H. Wang**, G.W. Wagner, A.X. Lu, C.J. Karwacki

CATL 316. A novel method for preparing highly dispersed Ni_2P /functionalized CMK-3 catalysts for the hydrosulfurization of 4,6-DMDBT. **T. Huang**, J. Xu, F. Yu

CATL 317. Influence of Fe site location in Fe-MFI zeolite catalysts on the performance of hydroxylation of benzene to phenol with H_2O_2 . **P. Xiao**, J.N. Kondo, T. Yokoi

CATL 318. Fe-NbP as an effective catalyst for levulinic acid production from glucose: Characterization and performance. **W. Wei**, H. Yang, X. Liu, S. Wu

CATL 319. Identifying the non-stoichiometric $ZnCr_2O_4$ with excess Zn as the active high-temperature methanol synthesis catalyst. H. Song, J. Carey, **M. Nolan**, M. Muhler

CATL 320. Mild base-catalyzed dehydrosilylation of alcohols with hydrosilanes. **N.A. DeLucia**, A.K. Vannucci

CATL 321. Nickel dual photoredox catalysis for the synthesis of aryl amines. **R. Key**, A.K. Vannucci

CATL 322. Operando reaction study of toluene oxidation over ceria catalysts. Q. Wang, **M. Arjona Alonso**, M.A. Bañares, K. Yeung

CATL 323. Biosynthesized palladium nanoparticles mediated by black pepper extract as highly efficient and reusable nanocatalyst in aryl halide cyanation and Hiyama cross-coupling reactions under

ligand free conditions. V. Kandathil, S. Patil, **S. Patil**

CATL 324. Investigation of Pd/ CeO_2 catalysts for acetylene selective hydrogenation. **T. Lyu**

CATL 325. Conversion of isobutanol into olefins and aromatics: Product distribution control and reaction mechanism study. B. Zhang, **Z. Du**, W. Li

CATL 326. One pot synthesis of ordered mesoporous Ni- SiO_2 - Al_2O_3 for hydrodeoxygenation of dibenzofuran as coal tar model compound. H. Peng, **Z. Du**, W. Li

CATL 327. Whole-cell biocatalyst-mediated acylation of vitamin P-like bioflavonoids in binary organic solvents. X. Xin, **X. Li**, **G. Zhao**

CATL 328. Highly efficient biocatalysis for the acylation of flavonoids and dimethyl azelate. H. Xu, **X. Li**, **G. Zhao**

CATL 329. Synthesis and characterization of Ti-MWW zeolite with different Ti atom distributions. **X. Ji**, J.N. Kondo, T. Yokoi

CATL 330. Development of novel Pd-ceria catalyst system for selective hydrogenation of acetylen. **S. Kim**, W. Jang

CATL 331. Photoactive palladium (II) complexes for Sonogashira reactions. **K. Dissanayake**, H. He

CATL 332. Synthesis of high surface area mesoporous catalysts from carbon sources for the production of biodiesel. **M. Omer**, W. Jang

CATL 333. Alumina supported monometallic and bimetallic palladium catalysts for liquid phase semi-hydrogenation of alkynes. **S. Hussaini**, W. Jang, B. Ni, K. Mackenzie

CATL 334. Hydrocracking of kraft and biorefinery lignins using a dual acid-base catalyst. **M. Kollman**, H. Jameel, H. Chang, W. Li

CATL 335. Gemini surfactant-assisted synthesis of Mo-based precursors for preparing NiMo/ SiO_2 - Al_2O_3 hydrosulfurization catalysts. **J. Xu**, T. Huang, F. Yu

CATL 336. Copper-gold nanoparticles encapsulated within surface-tethered dendrons as supported catalysts for the click reaction. **A. Koishybay**, D.F. Shantz

CATL 337. Synthesis of SAPO-11 molecular sieve in ethylene glycol and supercritical carbon dioxide. **C. Wen**, **F. Yu**

CATL 338. Withdrawn

CATL 339. Study on acylation of puerarin catalyzed by whole cells in non-aqueous medium. T. Yuan, **X. Li**, **G. Zhao**

CATL 340. Plasma synthesis, characterization and catalytic activity of mixed oxide ferrites. **N. Dumaresq**, A.H. Moores, N. Braidy

CATL 341. Guerbet reaction of ethanol over Cu doped porous metal oxides: Effects of chloride poisoning. **J.A. Barrett**, J. Jones, C. Stickelmaier, N. Schopp, P.C. Ford

CATL 342. Ceria loading and pretreatment effects on Pd/ Al_2O_3 for selective hydrogenation of acetylene. **A. Bradicich**, W. Jang

CATL 343. Hollow structure of ZSM-5 aggregate prepared by desilication with surfactants: A superior MTP catalyst. **Y. Song**, Y. Shang, Z. Zhao, X. Zhao, T. Ma, J. Wei, Y. Gong

CATL 344. Mechanism of the acetoneitrile hydrogenation to amines over a platinum catalyst investigated by in situ infrared spectroscopy and DFT modeling. L. Vogt, P. Quaino, **F.C. Calaza**, S. Collins

CATL 345. Electrochemical reduction of carbon dioxide over bimetallic metal-copper electrocatalysts. **Y.F. Nishimura**, C. Hahn, T.F. Jaramillo

CATL 346. Alcohol assisted methane dehydroaromatization over different Mo_2C -containing zeolite catalysts. **R. Thakur**, R. Adams, C.A. Carrero

CATL 347. Improving hydrogen production from ammonia borane hydrolysis by using acid supports. R. Gil-San Millán, A. Grau-Atienza, N. Linares, **J. Garcia Martinez**

CATL 348. Immobilization of enzymes onto 2D and 3D supports and characterization using surface science techniques. **T. Hurlburt**, M.B. Francis, G.A. Somorjai

CATL 349. Surface roughness effects on catalytic performance of metal oxides over-layers on SBA-15. **T. Lozano**, M.A. Smith

CATL 350. Stereolithographic 3D printing of catalytic devices from bifunctional molecular precursors. **J. Manzano**, Z.B. Weinstein, A.D. Sadow, I.I. Slowing

CATL 351. Predicting formate selectivity from CO_2 using bimetallic alloys. **M. Inouye**, M. Groves

CATL 352. A universal strategy for visible-light-driven H_2 production integrated with biomass upgrading. **G. Han**, Y. Sun

CATL 353. A palladium based catalyst in the selective oxidation of cyclohexane by aqueous hydrogen peroxide. **C. Zhang**, Q. Zhao

CATL 354. Synthesis and catalytic activity of $NiMoS_2$ in the removal of dibenzothiophene from model fuels. **J.R. Luna**, H.M. Morales, J. Parsons

WEDNESDAY MORNING

Section A

Hampton Inn & Suites Convention Center Antonine

Elucidation of Mechanisms & Kinetics on Surfaces

Surface Kinetics

Cosponsored by COLL, ENVR and PHYS L. Baker, S. Laursen, Organizers A. Savara, Organizer, Presiding

8:00 CATL 355. Reaction kinetics analysis of Pd-catalyzed C-Cl hydrogenolysis in aromatic systems. M. Al-Gharawi, M.C. Wheeler, **T.J. Schwartz**

[†]Cooperative Cosponsorship

8:20 CATL 356. Acid site proximity effects on methanol dehydration catalysis by zeolites. J.R. Di Iorio, C.T. Nimlos, S. Nystrom, A. Hoffman, D. Hibbitts, **R. Gounder**

9:00 CATL 357. Mechanistic insight into the exceptional activity and selectivity of bimetallic Pd-Cu alloy catalysts for alcohol dehydrogenation. Y. Song, K. Goulas, D. Toste, **L. Grabow**

9:20 CATL 358. Mechanistic investigation of the deoxydehydrogenation of sugar alcohols over ReOx-Pd/CeO2 catalysts. Y. Xi, **A. Heyden**

9:40 Intermission.

10:00 CATL 359. Molecular-level insights into how the structure of liquid water influences the mechanism of sugar alcohol decomposition in aqueous phase heterogeneous catalysis. C.J. Bodenschatz, T. Xie, **R.B. Getman**

10:20 CATL 360. Catalysis for upgrading C₁ feedstocks. **A. Bhan**

11:00 CATL 361. Stabilization of transition states by solvation: Inorganic hosts, liquids, and dense adlayers. **E. Iglesias**

11:40 CATL 362. Mechanism and kinetics of selective acylation reactions with carboxylic acids over Brønsted acid sites. A. Gumdiyala, I. Alala, B. Wang, **S. Crossley**

Section B
Hampton Inn & Suites Convention Center
Riverside I

New Techniques & Applications of Magnetic Resonance Methods in Heterogeneous Catalysis

F.A. Perras, N. Washton, *Organizers*
S.L. Scott, *Organizer, Presiding*

8:00 CATL 363. Direct observation of three-dimensional atomic-level structures on the surface of catalytic nanoparticles. **L. Emsley**

8:40 CATL 364. Combining surface organometallic chemistry and advanced solid-state NMR techniques (SENS-DNP) allows yielding and understanding molecular single site catalysts. **C. Thieuleux**

9:00 CATL 365. Obtaining quantitative structural parameters in amorphous heterogeneous catalysts using advanced DNP-enabled recoupling approaches. **F.A. Perras**, T. Kobayashi, M. Pruski

9:20 CATL 366. DNP NMR of adsorption and exchange at a silicon surface. M. Guy, K.J. van Schooten, L. Zhu, **C. Ramanathan**

9:40 Intermission.

10:00 CATL 367. NMR methods applied to quadrupolar nuclei for the structural study of supported catalysts. **L. Delevoye**, N. Merle, I. Del Rosal, L. Maron, M. Taoufik, R. Gauvin

10:40 CATL 368. Probing ionic liquid electrolyte structuring in the glassy state by DNP NMR spectroscopy. P. Martin, M. Sani, R. Yunis, F. Chen, M. Deschamps, M. Forsyth, **L. O'Dell**

11:00 CATL 369. Compositions and

structures of high-N-content mesoporous carbon electrocatalysts analyzed by solid-state NMR. **B. Chmelka**, N.P. Zussblatt, N. Fechner, M. Antonietti

Section C
Hampton Inn & Suites Convention Center
Riverside III

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Cosponsored by ENFL, ENVR and INOR
J. Choi, O. Gazit, M. Kidder, *Organizers, Presiding*

8:00 CATL 370. Selective aerobic oxidation of bio-derived molecules over nanostructured catalysts. **A.F. Lee**

8:30 CATL 371. Cost-effective synthesis of 1, 3-cyclopentanediol with furfuryl alcohol derived from lignocellulose. **G. Li**, N. Li, A. Wang, T. Zhang

8:45 CATL 372. Catalytic conversion of bioderived muconic acid to produce drop-in cyclic monomers and functional alternatives. **A. Settle**, L. Berstis, N. Rorrer, H. Hu, R.M. Richards, G. Beckham, M.F. Crowley, D. Vardon

9:00 CATL 373. Directed Glycerol reforming through tailored platinum nanoparticles. **J. Callison**, S. Rogers, N.D. Subramanian, D. Gianolio, R. Catlow, P. Wells, N. Dimitratos

9:15 CATL 374. Conversion of model, waste and highly unsaturated lipids to fuel-like hydrocarbons over bimetallic decarboxylation/decarbonylation catalysts. **E. Santillan-Jimenez**, R. Loe, Y. Song, M. Isaacs, A. Lee, K. Wilson, M. Crocker

9:45 Intermission.

10:00 CATL 375. Regioselectivity and chemoselectivity in heterogeneously catalyzed cross-aldol condensations with unsymmetrical ketones. K. Ponnuru, J.C. Manayil, H. Cho, A. Osatiashtiani, W. Fan, K. Wilson, **F. Jentoft**

10:30 CATL 376. Controlled deoxygenation of citric and amino acids towards valuable chemicals. **J. Verduyck**, R. Coeck, A. Geers, M. Van Hoof, D. De Vos

10:45 CATL 377. Catalytic multistage process for the production of polyhydroxyalkanoate monomers from bioethanol. M. Ruiz-Ramiro, D. Santhanaraj, M. Komarneni, T. Pham, D.E. Resasco, **J. Faria**

11:00 CATL 378. Synthesis of high-molecular-weight polycarbonates from bio-based isosorbide catalyzed by metal-free ionic liquids. **C. Ma**, W. Cheng, F. Xu, S. Zhang

11:15 CATL 379. Catalytic hot gas filtration for tailoring vapor chemistry of fast pyrolysis bio-oils. **M. Lu**, M.Z. Hu, J. Choi

11:30 CATL 380. Development of hydrothermally stable materials for the catalytic upgrading of biomass-derived carboxylic acids in the presence of condensed water. J. Lopez-Ruiz, A. Cooper, G. Li, T. Varga, M. Engelhard, L. Kovarik, **K.O. Albrecht**

Section D

Hampton Inn & Suites Convention Center
Bienville

Towards Comprehension of Scale-Up & Multiscale Modeling of Catalysts

Cosponsored by COMP and ENFL
A. Savara, *Organizer*
V.G. Baldovino-Medrano, J.J. Bravo-Suarez, *Organizers, Presiding*

8:00 CATL 381. Control over and Impact of the silver particle size in Ag/ β -alumina epoxidation catalysts. **P. de Jongh**, J. van den Reijen, K. De Jong

8:40 CATL 382. Ethylene oxidation by promoted supported Ag/Al₂O₃ catalysts: A fundamental perspective of an industrial catalyst. **I.E. Wachs**, J. Jehng, M.E. Ford

9:05 CATL 383. Effect of catalyst crystallinity on deactivation for olefin epoxidation utilizing organic hydroperoxide as oxidant. **A.S. Katz**, M. Aigner, C. Schoettle, A. Okrut, S.I. Zones, N.G. Grosso-Giordano

9:30 CATL 384. Transitioning rationally designed catalytic materials to real "working" catalysts produced at commercial scale: Nanoparticle materials. **J. Hensley**, S. Habas, F. Baddour, C. Farberow, D. Ruddy, J. Schaidle, R.L. Brutchey, N. Malmstadt, H.J. Robota

9:55 Intermission.

10:15 CATL 385. Multiscale modeling of the electrochemical reduction of CO₂. **A.T. Bell**

10:40 CATL 386. Extrusion of β -MnO₂ catalysts for styrene combustion. **V.G. Baldovino-Medrano**, M. Savastano, B. Kartheuser, E.M. Gaigneaux

11:05 CATL 387. Industrial preparation of unsymmetrical ketones through the lens of academic exercises on the catalytic decarboxylative ketonization mechanism. **A. Ignatchenko**

11:30 CATL 388. Activation of TiO₂ by anchoring transition metal cations for partial oxidation of methane. **F. Tao**

Section E
Hampton Inn & Suites Convention Center
Fulton

R&D in the Chemical Catalysis for Bioenergy Consortium
Cosponsored by ENFL, ENVR and INOR
S. Habas, J. Schaidle, *Organizers*
D.A. Ruddy, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 CATL 389. Dual single-atom sites for hydrodeoxygenation of bio-oil molecules to hydrocarbons. **F. Tao**

8:25 CATL 390. Ex situ catalytic fast pyrolysis over Pt/TiO₂: Fixed bed hydrodeoxygenation followed by hydrotreating to produce fuel blendstocks. **M. Griffin**, C. Mukarakate, K. Lisa, K. Orton, R.J. French, K.A. Magrini, M. Jarvis, J. Olstad, H. Wang, A. Dutta, F.G. Baddour, K.M. Van Allsburg, G. Ferguson, D.A. Ruddy, G. Beckham, J. Schaidle

8:45 CATL 391. Catalytic fast pyrolysis of biomass using Mo₂C unravels promise and challenges with HDO catalysts. **C. Mukarakate**, K. Lisa, K. McKinney, M. Xu, R.J. French, C. Nash, M. Griffin, S. Habas, M.R. Nimlos, D. Ruddy, J. Schaidle

9:05 CATL 392. Durability of molybdenum carbide catalysts in reductive upgrading of fast pyrolysis bio-oil. **J. Choi**, K.A. Unocic, Z. Wu, H. Wang, A.H. Zacher, S. Habas

9:25 CATL 393. In situ S/TEM closed-cell gas reactions of catalysts: Capabilities and opportunities. **K.A. Unocic**, J. Choi, D. Ruddy, J. Schaidle, T. Krause, C. Mukarakate, M. Xu, S. Habas

9:45 Intermission.

10:00 CATL 394. Advances in nanoscale metal carbide and phosphide catalysts for biomass conversion processes. **S. Habas**, F. Baddour, D. Ruddy, J. Schaidle

10:20 CATL 395. Continuous flow synthesis of nanoparticle catalysts as a safe and sustainable nanomanufacturing method. **R.L. Brutchey**

10:40 CATL 396. Catalyst cost estimation tool development: Reducing information barriers to commercialization. K. Van Allsburg, J.D. Super, J.F. White, J. Schaidle, L. Snowden-Swan, **F. Baddour**

11:00 CATL 397. Multifunctional metal-organic framework catalysts for hydrogen activation. **M. Allendorf**, M. Foster, V. Stavila

11:20 CATL 398. Tandem and aqueous phase heterogeneous catalytic systems. **B.G. Trewyn**, M. Moyer

Section F
Hampton Inn & Suites Convention Center
Cottonmill

Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in Situ & Operando Methods

Catalysis & Surface Science Science Applied to the Destruction of Threat Agents

Cosponsored by ENVR, INOR and PHYS
W.O. Gordon, *Organizer*
M.L. McEntee, J. Pietron, *Organizers, Presiding*
W. Gordon, *Presiding*

8:00 CATL 399. Bioengineering and nanoscience solutions for chemical and biological defense. **R. Botto**

8:30 CATL 400. Oxidation-stable plasmonic copper nanoparticles in catalytic TiO₂ aerogels. **P. DeSario**, J. Pietron, T.H. Brintlinger, J.F. Parker, O.A. Baturina, R. Stroud, D.R. Rolison

8:55 CATL 401. Plasmonic Ag-TiO₂/TiO₂ nanocomposites for enhanced visible light photocatalysis of chemical threats. **D.L. Kuhn**, B.G. DeLacy, Z. Zander

9:20 CATL 402. A combined theoretical and experimental investigation on the degradation of organophosphorus chemical warfare agents on ZnO_{1-x}. **J. Landers**, N. Zougheib, F.E. Celik, A.V. Neimark

9:40 CATL 403. First-principles calculations of nerve agent adsorption on anatase surfaces. **N.Q. Le**, C. Ekuma, B.I. Dunlap, D. Gunlycke

10:00 Intermission.

10:15 CATL 404. Materials for decontamination of chemical agents:

[†]Cooperative Cosponsorship

Multimodal investigation of active sites. **A. Frenkel**, Y. Tian, A.M. Plonka, D. Troya, C.H. Sharp, J.R. Morris, J. Musaev, S.D. Senanayake, D.L. Collins-Wildman, C.L. Hill, M.B. Mitchell, W.O. Gordon

10:45 CATL 405. Protection by simultaneous toxic-agent-induced barrier formation and catalytic decontamination. **C.L. Hill**, K. Sullivan, D. Collins-Wildman, Q. Yin, E.R. Weeks, T. Liu

11:15 CATL 406. Efficient MOF-based degradation of organophosphates in non-aqueous environments. **D.F. Sava Gallis**, J. Harvey, C.J. Pearce, J. DeCoste, M.K. Kinnan, J.A. Greathouse

11:35 CATL 407. Exploring catalytic hydrolysis of organophosphorus nerve agents and their simulants by the metal-organic framework NU-1000. **M. Mendonca**, H. Chen, P. Liao, R. Snurr

Innovative Chemistry & Materials for Electrochemical Energy Storage
Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

WEDNESDAY AFTERNOON

Section A

Hampton Inn & Suites Convention Center
Antonine

Unconventional Catalysis Targeting Stable Molecules
Cosponsored by ENFL, ENVR, INOR and PHYS

C. Wang, *Organizer*
C.L. Marshall, *Organizer, Presiding*
C. Wang, *Presiding*

1:00 CATL 408. Catalytic H/D exchange with supported Ir(III) complexes as a probe reaction for metal-support interactions. D. Kaphan, R. Klet, **M. Delferro**

1:20 CATL 409. Unconventional oxide/metal catalysts for CO₂ activation and conversion. **J. Rodriguez**

2:00 CATL 410. Delineating heavy oil devolatilization catalytic chemistry of metal sulfonates. Y. Xi, C. Ayala Orozco, **M.S. Wong**

2:40 Intermission.

2:50 CATL 411. Diamonds from the sky: Facile, inexpensive transformation of the greenhouse gas carbon dioxide into carbon nanotube wool. **S.L. Licht**

3:30 CATL 412. The role of hydrides in ammonia synthesis. J. Guo, P. Wang, F. Chang, W. Gao, **P. Chen**

Section B

Hampton Inn & Suites Convention Center
Riverside I

New Techniques & Applications of Magnetic Resonance Methods in Heterogeneous Catalysis

S.L. Scott, N. Washton, *Organizers*
F.A. Perras, *Organizer, Presiding*

1:00 CATL 413. Solid-state NMR investigation of alumina and of alumina-supported organometallic catalysts. N. Merle, F. Pourpoint, K.C. Szeto, F. Zhang, S.L. Scott, M. Taoufik, L. Delevoive, **R. Gauvin**

1:40 CATL 414. Demystifying atomic environments within heteroatom substituted zeolite frameworks with solid-state nuclear magnetic resonance. **V.K. Michaelis**, M. Ha, J. Lewis, H. Luo, W. Gunther, Y. Roman-Leshkov

2:00 CATL 415. Developing an understanding of the oligomerization of light olefins over MTW zeolite based catalysts using NMR. **C.P. Nicholas**, S. Prabhakar

2:20 CATL 416. Operando EPR in heterogeneous catalysis – Step child or bright spot? **A. Brueckner**

3:00 Intermission.

3:20 CATL 417. New insights into the activity of heterogeneous catalysts by probing proximities between ¹H and quadrupolar nuclei using high-field NMR. J. Trébosc, W. Qiang, J. Xu, F. Pourpoint, J. Huang, F. Deng, J. Amoureux, **O. Lafon**

4:00 CATL 418. Internal field ⁵⁹Co NMR study of cobalt-iron nanoparticles during the activation of CoFe₂/CaO catalyst for carbon nanotube synthesis. A.S. Andreev, D.V. Krasnikov, M. Kazakova, O.B. Lapina, V.L. Kusnetsov, **J. d'Espinose de Lacaillerie**

4:20 CATL 419. Relationships between molecular structure & chemical bonding and quadrupolar & nuclear magnetic shielding tensors in catalytically active systems and model compounds. **J. Autschbach**, M. Srebro-Hooper, E. Zurek

Section C

Hampton Inn & Suites Convention Center
Riverside III

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Cosponsored by ENFL, ENVR and INOR
J. Choi, O. Gazit, M. Kidder, *Organizers, Presiding*

1:00 CATL 420. Cleavage of C-C bond: A key step in the biomass conversion to chemicals. **A. Wang**

1:30 CATL 421. Withdrawn

1:45 CATL 422. Carboxylic acid conversion over doped molybdenum carbides. **A. Lepore**, Z. Li, J. Choi

2:00 CATL 423. Effect of physicochemical properties of Ce_xZr_{1-x}O₂ solid solutions on carbonylation of glycerol with CO₂ into glycerol carbonate. **L. Jiaxiong**, D. He

2:15 CATL 424. Waste water to chemicals via bioelectrochemically derived hydrogen peroxide and tandem catalysis. E. Taw, J. Griffin, A.A. Gosavi, K.A. Gray, **J.M. Notestein**, G. Wells

2:45 Intermission.

3:00 CATL 425. Ketoneization of volatile fatty acids recovered from waste water streams. E. Fufachev, B. Weckhuysen, **P. Bruijninx**

3:30 CATL 426. Hydrodeoxygenation of stearic acid over NiMo/β-Al₂O₃ catalyst. **P. Kumar**, S.K. Maity, D. Shee

3:45 CATL 427. Indirect oxidation of glucose to glucuronic acid using Pd-decorated Au catalysts. **Y. Yin**, L. Chen, Z.

Zhang, M.S. Wong

4:00 CATL 428. Effect of noble and non-noble metals on the electrocatalytic reduction of whole pyrolysis oil. **J. Egbert**, R. Weber, J. Holladay

4:15 CATL 429. Electrocatalytic and photocatalytic conversion of biomass derived molecules coupled with hydrogen production. **Y. Sun**

4:30 CATL 430. Ring rearrangement reactions of furanic species over metals supported on reducible oxides. **S. Crossley**, L. Herrera, A. Gomez

5:00 Concluding Remarks.

Section D

Hampton Inn & Suites Convention Center
Bienville

Towards Comprehension of Scale-Up & Multiscale Modeling of Catalysts

Cosponsored by COMP and ENFL
A. Savara, *Organizer*
V.G. Baldovino-Medrano, J.J. Bravo-Suarez, *Organizers, Presiding*

1:00 CATL 431. Simple, effective nanoparticle synthesis via electrostatic adsorption using incipient wetness impregnation. S. Eskandari, G. Tate, **J.R. Regalbuto**

1:40 CATL 432. Bifunctional catalyst: From macroscopic to molecular understanding. **E. Gutierrez Acebo**, C. Bouchy, C. Chizallet, Y. Schuurman

2:05 CATL 433. Modeling of catalytic reactors for light alkane dehydrogenation. **X. Nijhuis**, A. VandePutte

2:30 CATL 434. DME to alkylate: Implications of catalyst performance on commercialization. **J. Hensley**, C. Nash, C.A. Farberow, D. Ruddy, J. Schaidle

2:55 Intermission.

3:15 CATL 435. Molecular level understanding of heterogeneous catalysts for olefin polymerization. **S.L. Scott**

3:40 CATL 436. Carbon nanotube-supported catalysts prepared by a modified photo-Fenton process for Fischer-Tropsch synthesis. H. Almkhelfe, X. Li, K.L. Hohn, **P.B. Amama**

4:05 CATL 437. Technical catalyst development for conversion of biogas to liquid fuels. X. Zhao, D. Walker, T. Roberge, P. Stachurski, M. Kastelic, S. Shah, B. Joseph, **J. Kuhn**

4:30 CATL 438. Multiscale modeling "from electrons to reactors": CO oxidation over RuO₂. J.E. Sutton, J. Lorenzi, S. Matera, **A. Savara**

4:55 CATL 439. Multi-scale modelling, synthesis and characterization of materials for chemical looping reforming. **S. Andersson**, P. Dahl, S. Radl, I. Svanum, S. Cloete, S. Shevlin, A. Zaabout, J.R. Tolchard, Z. Guo, S. Amiri

5:20 CATL 440. Development and scale-up of structured catalytic reactors for steam methane reforming. **J. De Wilde**

Section E

Hampton Inn & Suites Convention Center
Fulton

R&D in the Chemical Catalysis for Bioenergy Consortium

Cosponsored by ENFL, ENVR and INOR
D.A. Ruddy, J. Schaidle, *Organizers*
S. Habas, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 CATL 441. Deactivation of zeolite catalysts during hydrodeoxygenation of aromatic oxygenates. C. Okolie, M. Veiga Rodrigues, G. Foo, M. Yung, **C. Sievers**

1:25 CATL 442. Study of residence time distribution in a circulating fluidized bed reactor for biomass pyrolysis vapor upgrading. X. Gao, T. Li, **W. Rogers**

1:45 CATL 443. Measurement and simulation of coking of catalyst particles in vapor phase upgrading. **J. Parks**, P. Ciesielski, K. Unocic, M. Pecha, V.S. Bharadwaj, D. Robichaud, B. Kappes

2:05 CATL 444. Upgrading of direct liquefaction aqueous waste stream: Experimental and economic assessment. S. Davidson, J. Lopez-Ruiz, A. Cooper, Y. Zhu, R. Dagle, **K.O. Albrecht**

2:25 Intermission.

2:40 CATL 445. Catalytic upgrading of biochemically derived intermediates from lignocellulosic biomass to advanced biofuels and chemicals. **R. Elander**, D.K. Johnson, D. Vardon, Z. Li, C.K. Narula, B.H. Davison, A.D. Sutton, A.B. Padmaperuma, M. Lilga

3:00 CATL 446. Simultaneously producing fuels and chemicals from bioderived molecular building blocks. **A.D. Sutton**, C. Moore, R. Jenkins, T. Semelsberger, O. Staples, W. Kubic

3:20 CATL 447. Selective electrochemical reduction of CO₂ to high-value chemical precursors for integration with biological processes. **E. Cave**, K. Kuhl, S. Ma, G. Leonard, N. Flanders

3:40 CATL 448. Catalytic coupling of short chain microbial acids to biofuel precursors. **D. Vardon**, A. Settle, N. Cleveland, J. Stunkel

4:00 CATL 449. Understanding catalyst activity and durability through computational methods: The case of RuSn. **D. Robichaud**, V. Vorotnikov, S. Kim, G. Beckham, L.A. Curtiss, R. Assary

Section F

Hampton Inn & Suites Convention Center
Cottonmill

Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & In-Situ & Operando Methods

Photocatalytic Approaches

Cosponsored by ENVR, INOR and PHYS
W.O. Gordon, *Organizer*
M.L. McEntee, J. Pietron, *Organizers, Presiding*
W. Gordon, *Presiding*

1:00 CATL 450. Correlation of the chemistry of chemical warfare agents with that of simulants on advanced materials using in situ & operando methods. **W.O. Gordon**, M.L. McEntee, A. Balboa, G.W. Peterson, A. Frenkel, J. Pietron, J.R. Morris, S.D. Senanayake, M.B. Mitchell, P. Pehrsson

[†]Cooperative Cosponsorship

1:30 CATL 451. Photocatalytic oxidation of water soluble organic and pharmaceutical compounds using visible/near uv light. **R.D. Barreto**, M. Howell

1:50 CATL 452. Investigation of a facile, scalable synthesis route for bismuth oxychloride 2D nanostructures for photocatalytic water treatment. M. Robinson, S. Padilla, A. Pattammattal, L. Gómez-Velázquez, M. Bizarro Sordo, **V. Leppert**

2:10 CATL 453. Synthesis and application of a sustainable N-doped TiO₂/CdS nanohybrid composite for photocatalytic degradation of 4-chlorophenol. **A. Aragon**, W. Kierulff-Vieira, T. Lecki, M. Skompska, J. Widera

2:30 Intermission.

2:45 CATL 454. Solar-light driven photocatalytic degradation of organic pollutants using natural dye-sensitized TiO₂. **M. Ghosh**, A. Ray

3:05 CATL 455. Improvement of photoelectrochemical activity of ZnO/TiO₂ core-shell nanostructure through Ag nanoparticle integration. **Z. Wang**, X. Wang

3:25 CATL 456. Oxygen-doped nanoporous carbon nitride via water-based homogeneous supramolecular assembly for photocatalytic hydrogen evolution. **Z. Jingwen**, J. Zou, L. Pan

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

THURSDAY MORNING

Section A

Hampton Inn & Suites Convention Center
Antonine

Elucidation of Mechanisms & Kinetics on Surfaces

Cosponsored by COLL, ENVR and PHYS
L. Baker, S. Laursen, *Organizers*
A. Savara, *Organizer, Presiding*

9:00 CATL 457. Kinetic consequences of carbon and oxygen coverages during CO_x methanation and CH₄ dry reforming on Ni, Co, and Ni-Co clusters. **P.T. Lachkov**, Y. Chin

9:20 CATL 458. Investigating alkene formation pathways in methanol-to-hydrocarbon processes within zeolites. **P. Kravchenko**, M. Deluca, D. Hibbits

9:40 CATL 459. On the role of surface adsorbed oxygen in ethanol reaction pathways on Mo₂C. **C.A. Farberow**, C. Nash, J. Hall, J. Schaidle

10:00 CATL 460. Nature of the active sites for carbon dioxide reduction on metal nanoparticles: suggestions for optimizing performance. **T. Cheng**, Z. Wang, W.A. Goddard

10:20 Intermission.

10:40 CATL 461. Understanding activity loss in precious-metal combustion catalysts using well-defined nanocrystals. **E.D. Goodman**, A. Riscoe, N. Tahsini, F. Abild-Pedersen, A.C. Johnston-Peck, M. Cargnello

11:00 CATL 462. Kinetics modeling enabled parameterization and

discrimination of nanoparticle surface reactivity evaluated by chemical assays. **X. Bi**, P.K. Westerhoff

11:20 CATL 463. Early-stage catalytic behavior of ethane dehydroaromatization over zinc modified HZSM-5 catalyst via transient kinetic methods. **Y. Xiang**

Section B

Hampton Inn & Suites Convention Center
Riverside I

Unconventional Catalysis Targeting Stable Molecules

Cosponsored by ENFL, ENVR, INOR and PHYS
C. Wang, *Organizer*
C.L. Marshall, *Organizer, Presiding*
C. Wang, *Presiding*

9:00 CATL 464. Biomimetic oxidation catalyst from polymer-nanocrystal composite material. **A. Riscoe**, C. Wrasman, A. Hoffman, A. Menon, A. Boubnov, E. Goodman, S.R. Bare, M. Cargnello

9:20 CATL 465. Conversion of light alkanes to alkyl esters and chlorides using iodine oxides and chlorides: Radical versus non-radical pathways. **T.B. Gunnoe**, J.T. Groves, W.A. Goddard, N. Schwartz, N. Boaz, S.E. Kalman, G. Fortman, R. Fu, R.J. Nielsen, J.M. Goldberg

10:00 CATL 466. Electrochemical carbon dioxide conversion to alcohols. **F. Jiao**

10:40 Intermission.

10:50 CATL 467. Computational searches for energetically efficient CO₂ reduction reaction steps across chemical and materials space. M. Groenenboom, K. Saravanan, Y. Basdogan, **J.A. Keith**

11:30 CATL 468. Highly efficient functionalized porous UiO-66 based metal organic frameworks (UiO66-MOFs) as catalysts for cross coupling reactions. **P. Elumalai**, S.T. Madrahimov

Section C

Hampton Inn & Suites Convention Center
Riverside III

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Cosponsored by ENFL, ENVR and INOR
J. Choi, O. Gazit, M. Kidder, *Organizers*
A. Lepore, *Presiding*

9:00 CATL 469. Catalytic conversion of lignocellulosic feedstock to hydrocarbon fuel intermediates. **A. Padmaperuma**, M. Lilga

9:20 CATL 470. Computational study of aerobic oxidation of 4-(Hydroxymethyl)phenol (4-HMP) by Co(salen). **V. Nziko**, R.C. Johnston, A. Ivanov, T.J. Elder, A. Rudie, D. Turpin, S. Alam, J.J. Bozell, J.M. Parks

9:40 CATL 471. Withdrawn

10:00 CATL 472. Insights into glucosidic bond activation by paired metal chlorides in ionic liquid. **Y. Yang**, Z. Zhang, H. Li, P. Yan

10:20 Intermission.

10:40 CATL 473. Catalytic influence of naturally occurring salts on biomass

pyrolysis chemistry: A combined experimental and DFT study. **J.S. Arora**, K. Ansari, P.J. Dauenhauer, S. Mushrif

11:00 CATL 474. Hydrodeoxygenation reaction network of furylmethane oxygenates to jet and diesel range fuels: Probing the role of supported palladium catalyst and hafnium triflate promoter. **S. Dutta**, B. Saha, D.G. Vlachos

11:20 CATL 475. Catalytic conversion of natural cotton fibers to carbon nanotubes and nitrogen functionalization. **G. Zhao**, F. Gao, K. Li, Z. Wang, M. Jahan

Section D

Hampton Inn & Suites Convention Center
Bienville

General Catalysis

A. Savara, *Organizer*
M. Dixit, *Presiding*

8:00 CATL 476. Stereoinversion of R-configured secondary alcohols using a single enzymatic approach. **M.M. Musa**, I. Karume, M. Takahashi, S.M. Hamdan

8:20 CATL 477. Extremely fast olefin metathesis in aqueous media with 3rd generation Grubbs-type catalysts. A. Ashcraft, S. Balof, C. Jones, **H.J. Schanz**

8:40 CATL 478. Investigating the oxygen reduction reaction on inorganic/organic interfaces. **M. Anand**, S. Siahrostami, J.K. Norskov

9:00 CATL 479. Novel copper N-tosyl nitrenes from bis(pyrazolyl)methane ligands: Investigation of their reactivity towards catalysis. **J. Moegling**, A. Hoffmann, N. Orth, B. Venderbosch, R. Rampmeier, I. Ivanovic-Burmazovic, M. Tromp, S. Herres-Pawlis

9:20 CATL 480. Withdrawn

9:40 Intermission.

10:00 CATL 481. Transition metal nitrides for oxygen electrocatalysis. **H. Abroshan**, P. Bothra, A. Kulkarni, J.K. Norskov, S. Siahrostami

10:20 CATL 482. Calculations on water oxidation catalysis modify the expected mechanism from experiments. **A. Poater**, M. Solà, J. Luque-Urrutia

10:40 CATL 483. Doping carbon catalysis for oxygen reduction reaction. M. Liu, T. Fan, **Y. Liu**, Y. Min

11:00 CATL 484. Unconventional binary ZnO/ZrO₂ heterogeneous catalysts for direct dehydrogenation of isobutane to isobutene. **Y. Liu**, **M. Ke**

11:20 CATL 485. Direct 3D printing of catalytically active structures. **J. Manzano**, Z.B. Weinstein, A.D. Sadow, I.I. Slowing

11:40 CATL 486. Hydrogen-assisted synthesis of CeO₂-Al₂O₃ with enhanced oxygen vacancy density. **B. Chen**

Section E

Hampton Inn & Suites Convention Center
Fulton

Control of Zeolite Structure, Composition & Sites for Catalysis
Cosponsored by INOR
R. Gounder, W.F. Schneider, *Organizers*

S. Goel, *Organizer, Presiding*
D. Hibbits, *Presiding*

8:00 CATL 487. Materials based on halloysite nanotubes with structured mesoporous silica for sulfur reduction in fluid catalytic cracking. **A.P. Glotov**, N. Levshakov, B. Anikushin, A. Vutolkina, S. Lysenko, E. Ivanov, V. Vinokurov, Y.M. Lvov

8:20 CATL 488. Self-assembly of ZSM-5/SBA-16 with different morphologies and its hydrodesulfurization of dibenzothiophene and 4,6-dimethyldibenzothiophene. X. Wang, Z. Zhao, P. Zheng, J. Fan, **A. Duan**, C. Xu

8:40 CATL 489. Synthesis of mesoporous zeolites using nanocellulose as an inexpensive hard template. **T. Pilyugina**, S.L. Kobaslija, J. O'Brien, B.S. Hanna, S.C. Hayden, S. Fernandez

9:00 CATL 490. Control over the mesoporosity of zeolites for the improved accessibility to their acid sites. N. Linares, E. De Oliveira Jardim, E. Serrano, **J. Garcia Martinez**

9:20 Intermission.

9:40 CATL 491. Synthesis protocols for the encapsulation of active and stable Au, AuPt, and AuPd nanoparticles within the protected void environment of zeotypes. **T. Otto**, S.I. Zones, E. Iglesia

10:00 CATL 492. Synthesis and characterization of tin, tin/aluminum, and tin/boron containing MFI zeolites. **M. Shahami**, R. Ransom, D.F. Shantz

10:20 CATL 493. Consequences of zeolitic vs. amorphous supports on the catalytic activity and stability of Ti(IV) and Fe(III) centers. **N. Grosso Giordano**, A.J. Yeh, M. Aigner, C. Schroeder, A. Solovyov, A. Okrut, N. Marinković, H. Koller, S.I. Zones, A.S. Katz

10:40 CATL 494. Synthesis and growth kinetics of zeolite SSZ-39. **R. Ransom**, J. Coote, R. Moulton, F. Gao, D.F. Shantz

Section F

Hampton Inn & Suites Convention Center
Cottonmill

General Catalysis

A. Savara, *Organizer*
S. Kattel, *Presiding*

8:00 CATL 495. CO₂ hydrogenation to CH₃OH on Cu/oxide catalysts. **S. Kattel**, J.G. Chen, P. Liu

8:20 CATL 496. Design of ionic polymer catalysts for the synthesis of cyclic carbonates from CO₂ and epoxides. **F.D. Bobbink**, P. Dyson

8:40 CATL 497. Hierarchically porous monoliths for fixed bed catalysis. **M.G. Bakker**

9:00 CATL 498. Catalytic performance of different zeolite catalysts for oligomerization of 1-butene. **Z. Lei**, M. Ke

9:20 CATL 499. Feasible synthesis of hydroxyapatite-supported palladium nanoparticles with controllable size and distribution and their enhanced catalytic activity. **X. Zhang**

9:40 CATL 500. Deep hydrodesulfurization over nickel phosphide on modified alumina supports. **M.E.**

[†]Cooperative Cosponsorship

Bussell, C.E. Miles, T. Clinkingbeard, B.J. Morgan, P.J. Topalian

10:00 Intermission.

10:20 CATL 501. Homogenous Pd catalysis for enantioselective intermolecular hydrofunctionalizations of 1,3-dienes. **N.J. Adamson, S. Malcolmson**

10:40 CATL 502. Iridium versus iridium: Nanoparticle and molecular catalysts carrying the same ligand behave differently. **I. Cano, P.W. van Leeuwen**

11:00 CATL 503. Withdrawn

11:20 CATL 504. Leveraging interstitial boron atoms to tailor the acid-base properties of MgO for selective aldol-condensation of acetaldehyde. T. Pham, L. Zhang, D. Shi, M. Komarneni, M. Ruiz-Ramiro, D.E. Resasco, **J. Faria**

THURSDAY AFTERNOON

Section A

Hampton Inn & Suites Convention Center
Antonine

Elucidation of Mechanisms & Kinetics on Surfaces

Cosponsored by COLL, ENVR and PHYS
L. Baker, S. Laursen, *Organizers*
A. Savara, *Organizer, Presiding*

1:00 CATL 505. Acidity as reactivity descriptor for methanol oxidation and dehydration over polyoxometalates. **T. Wilke, M.A. Barreau**

1:20 CATL 506. Withdrawn

1:40 CATL 507. Mechanism of water splitting catalysed by Co-intercalated birnessite studied by SCAN metaGGA. **J. Ning, R. Remsing, D.R. Strongin, J. Sun**

2:00 Intermission.

2:20 CATL 508. Spectroscopic analysis of active sites for electrocatalytic water oxidation in disordered iron-cobalt oxides. **R.D. Smith, H. Dau**

2:40 CATL 509. Predictive catalyst design on alloy nanoparticle supported graphene for ORR. **T. Lozano, R. Rankin**

3:00 CATL 510. Ligand-regulated ORR activity of Au nanoparticles in alkaline medium: The importance of surface coverage of ligands. **L. Lu, S. Zou, J. Fan**

3:20 CATL 511. Vibrationally excited CO₂ desorbed from decomposition of formate on Cu(111). F. Muttaqien, H. Oshima, Y. Hamamoto, K. Inagaki, I. Hamada, **Y. Morikawa**

3:40 CATL 512. Phosphorus-doped and lattice-defective carbon as metal-like catalyst for selective hydrogenation of nitroarenes. **G. Ruijie, J. Zou, L. Pan**

Section B

Hampton Inn & Suites Convention Center
Riverside I

New Techniques & Applications of Magnetic Resonance Methods in Heterogeneous Catalysis

F.A. Perras, S.L. Scott, *Organizers*
N. Washton, *Organizer, Presiding*

1:00 CATL 513. Solid-state NMR of metals and halogens in catalysts their precursors. **R.W. Schurko, C. O'Keefe, M. Hildebrand, K. Johnston, L. O'Dell, A.J. Rossini**

1:40 CATL 514. *In-situ* NMR of the catalytic depolymerization of lignin model polymers. **M.B. Foston, S.L. Scott, D.W. Hoyt, N. Washton**

2:00 CATL 515. Operando solid-state NMR spectroscopy for biomass conversion with solid catalysts. **L. Qi, A. Chamas, D.W. Hoyt, E.D. Walter, N. Washton, S.L. Scott**

2:20 CATL 516. Real-time monitoring of catalysis to extremophiles: High pressure – high temperature MAS-NMR of mixed phase samples. **D.W. Hoyt**

2:40 Intermission.

3:00 CATL 517. Solid-state NMR spectroscopy for the comprehensive structural and dynamic characterization of covalently bound and surface-adsorbed catalysts. **J. Bluemel**

3:40 CATL 518. Magic angle spinning solid-state NMR spectroscopy of impregnated heterogeneous catalysts. R.L. Johnson, T. Pfennig, M.P. Hanrahan, M.J. Ryan, B.H. Shanks, **A.J. Rossini**

4:00 CATL 519. Parahydrogen spin labelling studies of hydrogenation catalysis over silica-encapsulated Pt-Sn intermetallic nanoparticles. E.W. Zhao, R. Maliga Ganesh, W. Huang, **C.R. Bowers**

4:20 CATL 520. Capturing CO₂ with metal organic frameworks. **J.A. Reimer**

Section C

Hampton Inn & Suites Convention Center
Riverside III

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Cosponsored by ENFL, ENVR and INOR
J. Choi, O. Gazit, M. Kidder, *Organizers*
A. Lepore, *Presiding*

1:00 CATL 521. Hydrothermally stable Ru-TiO₂ catalyst for the decarboxylative coupling of acetic acid in aqueous environments. N. Aranda-Pérez, M. Ruiz-Ramiro, J. Echave, **J. Faria**

1:20 CATL 522. Carbonyl hydrogenation over atomically dispersed precious metals on alumina. **A. Lepore, Z. Li**

1:40 CATL 523. Kinetics of lignin monomer production from poplar wood by reductive catalytic fractionation. **E. Anderson, M. Stone, M. Hulseley, G. Beckham, Y. Roman-Leshkov**

2:00 CATL 524. Lignin depolymerization over supported mono-(Ni, Ru) and bimetallic (Ni-Ru) nanoparticles. **M. Zaheer**

2:20 Intermission.

2:40 CATL 525. Group IB metal activated anatase TiO₂ for selective catalytic deoxygenation. **Z. Zhang, J. Mao, K. Liu, X. Zhang, Q. Fang, P. Yan, G. Hou, S. Bai, X. Guo**

3:00 CATL 526. Effect of space velocity and long residence time on Fischer Tropsch products and catalyst reduced with

different gases. **J. Gorimbo, A. Muleja**

Section D

Hampton Inn & Suites Convention Center
Bienville

General Catalysis

A. Savara, *Organizer*
M. Dixit, *Presiding*

1:00 CATL 527. Understanding single molecule pro-catalyst "activation" for growth of carbon nanotubes. **G. Esquenazi, A.R. Barron**

1:20 CATL 528. Palladium dendron encapsulated nanoparticles supported on MCM-41 and SBA-15. **Y. Lou, D.F. Shantz**

1:40 CATL 529. Catalytic vinylidene C(sp²)-H insertion using a dinuclear catalyst. **T. Steiman, C. Uyeda**

2:00 CATL 530. Synthesis of glycerol oligomers from etherification of glycerol in presence of zeolite-supported calcium catalysts. C. Chen, **B. Chen**

2:20 CATL 531. Knowledge driven catalyst screening using *In-situ* far infrared spectroscopy. **H. Li, P. Yan, Z. Zhang**

2:40 CATL 532. Withdrawn

3:00 Intermission.

3:20 CATL 533. Designing carbon-based materials for effective electrochemical reduction of CO₂. **S. Siahrostami, K. Jiang, C. Kirk, M. Karamad, K. Chan, H. Wang, J.K. Norskov**

3:40 CATL 534. Pt clusters supported single Fe atoms for preferential oxidation of CO in the excess of H₂ with wide operation temperature window. **Y. Lou, J. Liu**

4:00 CATL 535. Withdrawn

Section E

Hampton Inn & Suites Convention Center
Fulton

Control of Zeolite Structure, Composition & Sites for Catalysis

Cosponsored by INOR
R. Gounder, W.F. Schneider, *Organizers*
S. Goel, *Organizer, Presiding*
D. Hibbits, *Presiding*

1:00 CATL 536. Hydride transfer versus deprotonation kinetics in the isobutane-propene alkylation reaction: A computational study. **C. Liu, R.A. Van Santen, E. Hensen, E. Pidko**

1:20 CATL 537. Conversion of methanol to hydrocarbons over H-ZSM-5 zeolite-reaction pathway is related to the framework aluminum siting. **T. Liang, J. Wang, Y. Xiang**

1:40 CATL 538. Direct detection of multiple acidic proton sites in zeolite HZSM-5. **K. Chen, M. Abdolrahmani, J.L. White**

2:00 CATL 539. Oligomerization of ethylene to select oligomers on Ni²⁺-containing ETS-10. **J. Thakkar, X. Yin, X. Zhang**

2:20 Intermission.

2:40 CATL 540. Mechanistic investigation of dissociation of β-O-4

linkage in the presence of solvent on MWW-2D zeolite framework. **V. Jain, N. Rai**

3:00 CATL 541. The role of anharmonicity in the confinement effect in zeolites: Structure, spectroscopy and adsorption free energy of ethanol on H-ZSM-5 in aqueous phase. **M. Lee, Y. Wang, V. Glezakou, R. Rousseau**

3:20 CATL 542. Cis-trans isomerism and the role of dilution in organic structure direction to relevant zeolite catalysts AEI (SSZ-39) and GME (CIT-9). **M. Dusselier, J. Kang, D. Xie, M.E. Davis**

3:40 CATL 543. Reveal and tailor mesoporous ZSM-5 synthesis in a new solid crystallization route. **Y. Wang, N. Baxter, S. Wang**

Section F

Hampton Inn & Suites Convention Center
Cottonmill

General Catalysis

A. Savara, *Organizer*
S. Kattel, *Presiding*

1:00 CATL 544. Ionic liquid-assisted synthesis of nanoscale (MoS₂) x(SnO₂)_{1-x} on reduced graphene oxide for the electrocatalytic hydrogen evolution reaction. **S. Ravula, C. Zhang, J.B. Essner, J.D. Robertson, J. Lin, G.A. Baker**

1:20 CATL 545. Role of oxygen vacancies in hydrogenation reaction on non-precious metal oxides: experiment and DFT studies. **Y. Zhang, X. Zhang, J. Zou**

1:40 CATL 546. Withdrawn

2:00 CATL 547. Sodium tetrakis[3,5-bis(trifluoromethyl)phenyl]borate (NaBARF) catalyzed Friedel-Crafts addition reactions and mechanistic studies. **K. Mesa, H. Hibbard, A.K. Franz**

2:20 CATL 548. On the structural reconstruction and catalytic origins of electrocatalytic single atom catalysts. **G. Wan, H. Chen, T. Li, J. Shi**

2:40 CATL 549. Hydrodenitrogenation of quinoline over β-Al₂O₃ supported Pt catalysts. **J. Liu, W. Li, X. Gao, Z. Luo**

3:00 Intermission.

3:20 CATL 550. Withdrawn

3:40 CATL 551. On the mechanism of the titanium catalyzed redox formal [2+2+1] catalytic formation of pyrroles. **Z.W. Gilbert, I. Tonks**

4:00 CATL 552. Carbon dioxide reduction by methane through dry reforming reaction. **C. Zhang**

4:20 CATL 553. Effect of molecular size on the HDS mechanism over different MoS₂ active sites: A DFT study. **P. Zheng, Y. Li, C. Xiao, D. Hu, A. Duan, L. Zhao**

CELL

Division of Cellulose & Renewable Materials

M. Roman, Program Chair

SUNDAY MORNING

Section A

Loews New Orleans Hotel
LaFourche/Pointe Coupee

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama

Cosponsored by BIOL, BIOT and POLY
U.P. Agarwal, R.H. Atalla, H. Chanzy, A. Isogai, *Organizers*
A.D. French, S. Renneckar, *Presiding*

8:00 Introductory Remarks.

8:05 CELL 1. Structural heterogeneity and matrix polysaccharide interactions of cellulose in plant cell walls from multidimensional solid-state NMR. P. Phyto, T. Wang, **M. Hong**

8:30 CELL 2. Withdrawn

8:55 CELL 3. Revisit of microfibril structure diversity in higher plants. **Y. Nishiyama**, T. Kuribayashi, Y. Ogawa

9:20 CELL 4. Nematic structuring of transparent and multifunctional nanocellulose papers. M. Zhao, F. Ansari, M. Takeuchi, M. Shimizu, **T. Saito**, L. Berglund, A. Isogai

9:45 Intermission.

10:00 CELL 5. Accessibility of hydroxyl groups related to cellulose aggregation. **L. Salmén**

10:25 CELL 6. Manufacturing high performance cellulose fibres from solution. **S.J. Eichhorn**, C. Zhu, A. Koutsomitopoulou, K.D. Potter

10:50 CELL 7. Morphological and structural analysis of cellulose microfibrils using enzymatic treatment. **N. Hayashi**

11:15 CELL 8. Real-time visualization of lignin structure during dilute acid pretreatment of native and lignin mutants of switchgrass and poplar. **S. Pingali**, H.M. O'Neill, L. Petridis, M.B. Foston, B. Evans, A. Ragauskas, J. Smith, B.H. Davison, V. Urban

Section B

Loews New Orleans Hotel
St. Landry

New Horizons in Sustainable Materials

Financially supported by Elsevier-Carbohydrate Polymers; The Center for Renewable Carbon-University of Tennessee; Department of Sustainable Biomaterials-Virginia Tech; School of Forest Resources, University of Maine
S.M. Murphy, M. Roman, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 CELL 9. Renewable fuels and materials from plant biomass: Are we there yet? **N. Sathitsuksanoh**

8:30 CELL 10. Integrated biorefinery approach to produce biosugar from

lignocellulosic biomass. **S. Park**

8:55 CELL 11. Sustainable catalytic transformations to produce renewable soft materials. **S.C. Chmely**

9:20 CELL 12. The hybrid conversion of lignin into biodiesel. **M.B. Foston**

9:45 Intermission.

10:00 CELL 13. Anisotropic composite foams from lignocellulosic biomass: Mechanical and thermal properties. **N. Lavoine**, V. Apostolopoulou Kalkavoura, L. Bergstrom

10:25 CELL 14. Nanocellulose/polymer composite microparticles prepared by emulsion-templated synthesis. **S. Fujisawa**, E. Togawa, K. Kuroda

10:50 CELL 15. Detection of human neutrophil elastase with fluorescent peptide sensors conjugated to TEMPO oxidized nanocellulosic foams. **K.R. Fontenot**, V. Edwards

11:15 CELL 16. Bio-based intumescent flame retardant coating for nylon-cotton fabric based on synergistic combination of tannic acid and phytic acid. **Z. Xia**, S. Yu, W. Kiratitanavit, J. Kumar, R. Mosurkal, R. Nagarajan

Section C

Loews New Orleans Hotel
St. Tammany

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Cosponsored by AGFD, ANYL and CARB
H. Kamitakahara, C. Wong, *Organizers*
G. Boons, A. Dell, L.C. Hsieh-Wilson, J.C. Paulson, *Presiding*

8:00 Introductory Remarks.

8:05 CELL 17. Recent advance in chemoenzymatic glycoprotein synthesis. **L. Wang**

8:30 CELL 18. Sugars & proteins: Exploring and exploiting sugar chemical biology. **B.G. Davis**

8:55 CELL 19. Analysis of glucose mediated glycoprotein folding events in the endoplasmic reticulum. **Y. Ito**

9:20 CELL 20. O-GlcNAc glycosylation: From reductionism to systems biology. **L.C. Hsieh-Wilson**

9:45 Intermission.

10:00 CELL 21. Hyphenated IM-MS methods as high-resolution sequencing tools for carbohydrates. **S. Flitsch**

10:25 CELL 22. Hybridization of mass spectrometry and laser spectroscopy: A new technology for glycoanalytics. **I. Compagnon**

10:50 CELL 23. Withdrawn

11:15 CELL 24. Glycan spatial sequencing with regio-specific spectral documentation. **V.N. Reinhold**

Section D

Loews New Orleans Hotel
Beauregard

Failed Brilliance in Nanocellulose Science & Technology

Cosponsored by ANYL
E. Kontturi, *Organizer*
A. Bismarck, K. Lee, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 CELL 25. Withdrawn

8:30 CELL 26. Grafting density design of surface-modified nanocellulose for polymer composites. **H. Soeta**, T. Saito, L. Berglund, A. Isogai

8:55 CELL 27. Emulsibility and stability mechanism of oil in water emulsion with TEMPO-oxidized cellulose nanofibers. **Y. Goi**, T. Saito, A. Isogai

9:20 CELL 28. From polymer to surface stabilisation of cellulose in ionic liquids. G.J. Partl, J.K. Helminen, D. Rico del Cerro, V. Mäkelä, E. Kontturi, I.A. Kilpeläinen, **A. King**

9:45 Intermission.

10:00 CELL 29. Withdrawn

10:25 CELL 30. Iridescent security planchettes, silicone rubber molds and *pseudopapilionoides cellulosa*. T. Abitbol, A. Blonder, J. Budman, **D.G. Gray**, O. Shoseyov, S. Shoval

10:50 CELL 31. Included? Not included! (Nano)Cellulose inclusion compounds. A. Mautner, K. Lee, E. Kontturi, **A. Bismarck**

11:15 CELL 32. Turning "nano" dreams into "mega" nightmares: How the expectations of academic and industrial R&D players on nanocellulose could be frustrated by policies and regulations on nanotechnologies in Europe. **D. Da Silva Perez**

Section E

Loews New Orleans Hotel
Terbonne

Wood-Based Materials for Energy & Water

Nanocellulose-Based Technologies

Cosponsored by ENFL, ENVR and MPPG
L. Hu, L. Nyholm, L. Wagberg, J. Zhu, *Organizers*
S. Lee, Z. Ren, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 CELL 33. Fluorogenic sensing of water diffusion and its effects in CNC based composites. **S. Seethamraju**, J.W. Woodcock, R. Beams, S. Stranick, J.W. Gilman

8:30 CELL 34. Strategies towards tough, stiff and strong poly(lactic acid) composites. **X. Meng**, H.L. Tekinalp, S. Ozcan

8:55 CELL 35. Cellulose nanocrystals grafted with Poly(glycidyl methacrylate) for their compatibilization in nanocomposites. **M. Le Gars**, M. Ji, H. Salmi, N. Belgacem, P. Roger, J. Bras

9:20 CELL 36. Modification of cellulose nanocrystals with semiconducting polymers. A. Chang, S. Chen, **K.R. Carter**

9:45 Intermission.

10:00 CELL 37. Intelligent paper: Printed electronics on advanced cellulosic nanomaterials. **B. Kippelen**

10:25 CELL 38. Nanocellulose based energy storage devices. Z. Wang, P. Tammela, M. Strömme, **L. Nyholm**

10:50 CELL 39. Exploring the potential of cellulose nanofibrils in energy and environmental

applications. **F. Jiang**, L. Hu

11:15 CELL 40. Wood-derived cellulose nanopaper simultaneously with enhanced transparency and a self-cleaning superhydrophobic surface. **S. Chen**, Y. Song, F. Xu

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

Energy, Water & Food Production
Sponsored by AGFD, Cosponsored by CELL, GEOC and MPPG

Bioenergy & Bio-Based Chemicals
Sponsored by ENFL, Cosponsored by CELL

SUNDAY AFTERNOON

Section A

Loews New Orleans Hotel
LaFourche/Pointe Coupee

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama

Cosponsored by BIOL, BIOT and POLY
U.P. Agarwal, R.H. Atalla, H. Chanzy, A. Isogai, *Organizers*
T. Saito, L. Salmén, *Presiding*

1:05 CELL 41. Small-angle scattering methods for efficient characterization of wood nanostructure and moisture behavior. **P.A. Penttilä**, L. Raukkari, M.K. Osterberg, R. Schweins

1:30 CELL 42. In situ measurement of cellulose biosynthesis using small angle X-ray scattering. H. Tajima, P.A. Penttilä, K. Yamamoto, Y. Yaguchi, J. Sugiyama, **T. Imai**

1:55 CELL 43.

Characterization of electrospun nanofibers composed of water soluble xylans. J. Duan, M. Karaaslan, M. Cho, L. Liu, A.M. Johnson, **S. Renneckar**

2:20 CELL 44. Frequency filtered molecular dynamics trajectory compared with crystallographic temperature factor in highly crystalline chitin. **Y. Ogawa**, Y. Nishiyama, K. Mazeau

2:45 Intermission.

3:00 CELL 45. Visualization of freeze-fixed distribution of monolignol glucosides in plants. D. Aoki, Y. Matsushita, **K. Fukushima**

3:25 CELL 46. Chomophores from hexeneuronic acids (HexA) – identification of structures, formation mechanisms, and destruction by peroxide bleaching. **T. Rosenau**, A. Patthast, T. Hosoya, N. Zwirchmayr, T. Dietz

3:50 CELL 47. Desorption behavior of guest molecule from cellulose I-EDA complex crystals: Molecular dynamics study. **T. Yui**, T. Uto

4:15 CELL 48. Atomic level structure characterization of carbohydrate pre and post lignin treatment by dynamic nuclear polarization: Enhanced solid state NMR. **H. Luo**

†Cooperative Cosponsorship

Section B

Loews New Orleans Hotel
St. Landry

New Horizons in Sustainable Materials

Financially supported by Elsevier–Carbohydrate Polymers; The Center for Renewable Carbon–University of Tennessee; Department of Sustainable Biomaterials–Virginia Tech; School of Forest Resources, University of Maine
S.M. Murphy, M. Roman, *Organizers*,
Presiding

1:05 CELL 49. Toward carbon fibers from single component Kraft lignin systems: An application of green chemistry with forest biomaterials. **S.V. Patil**, H. Sadeghifar, S. Sen, J. Zhu, D. Argyropoulos

1:30 CELL 50. Clicking lignin towards functional renewable materials. **Y. Habibi**

1:55 CELL 51. Gelatin hydrogel actuators. **L. Hanzly**, J.R. Barone

2:20 CELL 52. Interactions at biopolymer blend thin films. **K. Niegelhell**, M. Süßenbacher, J. Sattelkow, K. Zhang, H. Plank, T. Mohan, **S. Spirk**

2:45 Intermission.

3:00 CELL 53. Bacterial NanoCellulose: closer to the market. **M. Gama**, F. Dourado

3:25 CELL 54. Highly porous and highly permeable bacterial cellulose nanopaper as reinforcement for polymers. A. Santmartí, M. Hervy, A. Mautner, A. Kondor, A. Bismarck, **K. Lee**

3:50 CELL 55. Length distributions of nanocelluloses can be evaluated by rheological measurements of their dispersions. **R. Tanaka**, Y. Kashiwagi, T. Inoue

4:15 CELL 56. Nanocellulose for nanotechnologies. **L. Hu**

4:55 Concluding Remarks.**Section C**

Loews New Orleans Hotel
St. Tammany

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Cosponsored by AGFD, ANYL and CARB
H. Kamitakahara, C. Wong, *Organizers*
M. Aebi, B.G. Davis, Y. Ito, A. Planas,
Presiding

1:05 CELL 57. Concepts of N-linked protein glycosylation. **M. Aebi**

1:30 CELL 58. Homogeneous N-glycoprotein containing a common glycan structure for the improvement of antibody-based therapeutics. **N. Lin**

1:55 CELL 59. Systematic synthesis of glycosaminoglycan oligosaccharides. **J. Tamura**

2:20 CELL 60. Regioselective derivatizations of *E. coli* chondroitin polysaccharide through tailored multi-step procedures. **E. Bedini**

2:45 Intermission.

3:00 CELL 61. Propelling chemically modified glycosaminoglycans into the clinic. **G.D. Prestwich**

3:25 CELL 62. Protection-free direct anionic activation for key glycosyl intermediates. **S. Shoda**, M. Naguchi, G. Li

3:50 CELL 63. Understanding and engineering the deacetylation pattern of chitin deacetylases. **A. Planas**

4:15 CELL 64. Pectins—are they polysaccharides, proteoglycans, glycan domains of multi-glycan polymers, or all three? Evidence from studies of pectic homogalacturonan biosynthetic galacturonosyltransferases and mutants/transgenics thereof. **D. Mohnen**, M.A. Almodjo, A.K. Biswal, L. Tan, K. Engle, R.A. Amos

Section D

Loews New Orleans Hotel
Beauregard

Assembly & Colloidal Interactions of Cellulose Nanocrystals

Cosponsored by COLL
Financially supported by EPNOE
C. Schütz, *Organizer*
W. Thielemans, *Organizer*, *Presiding*

1:00 Introductory Remarks.

1:05 CELL 65. Probing assembling and aggregation of cellulose nanocrystals at the nanoscale using small angle scattering. Y. Liu, D. Stoeckel, K. Gordeyeva, C. Schütz, **A.B. Fall**, L. Bergstrom

1:30 CELL 66. Cellulose-based multifunctional photonic structures. **G. Guidetti**, A. Espinha, B. Frka-Petesic, S. Atifi, M.C. Serrano, A.G. Dumanli, A. Blanco, W.Y. Hamad, C. Lopez, S. Vignolini

1:55 CELL 67. Bimodal cellulose nanocrystal blends for bioinspired damage tolerant photonic films. **B. Natarajan**, A. Krishnamurthy, C.D. Emiroglu, X. Qin, A. Forster, D. Fox, J. Foster, C. Weder, J. Obrzut, S. Ketten, J.W. Gilman

2:20 CELL 68. Controlling the diffraction of light by cellulose nanocrystal assemblies using electric or magnetic fields. **B. Frka-Petesic**, G. Guidetti, G. Kamita, H. Radavidson, B.R. Jean, L. Heux, S. Vignolini

2:45 Intermission.

3:00 CELL 69. Controlling the deposition pattern of cellulose nanocrystals in drying droplets using internal flow fields. A. Gencer, C. Schütz, **W. Thielemans**

3:25 CELL 70. Development of nanoparticle alignment regimes in drying cellulose nanocrystal droplet suspensions for additive manufacturing. **C. Pritchard**, F. Navarro-Arzate, M. Roman, M. Bortner

3:50 CELL 71. Hierarchical self-assembly of cellulose in a confined geometry. **R. Parker**, B. Frka-Petesic, G. Guidetti, G. Kamita, T. Zhao, S. Vignolini

4:15 CELL 72. Rheology and application of cellulose nanocrystal inks for direct ink writing. **M. Hausmann**, G. de Freitas Siqueira, R. Libanori, D. Kokkinis, P. Rühls, T. Zimmermann, A. Studart

Section E

Loews New Orleans Hotel
Terrebonne

Wood-Based Materials for Energy & Water**Wood-Fiber & Wood-Scaffold Based Technologies**

Cosponsored by ENFL, ENVR and MPPG
L. Hu, S. Lee, L. Nyholm, Z. Ren, J. Zhu,
Organizers
L. Wagberg, *Organizer*, *Presiding*
F. Jiang, *Presiding*

1:05 CELL 73. Polydopamine assisted Cu NPs deposition on biomass substrates for flexible, wearable and self-cleaning electronics. **X. Wang**, Y. Yang, Q. Huang

1:30 CELL 74. Environmentally sound textile dyeing technology with nanofibrillated cellulose. **Y. Kim**, L. McCoy, E. Lee, H. Lee, R. Saremi, C. Feit, I. Hardin, S. Sharma, S. Mani, S. Minko

1:55 CELL 75. Paper fines as renewable source for supercapacitor electrode materials. **M.A. Hobisch**, E. Mourad, W. Fischer, A. Zankel, A. Mautner, S. Freunberger, R. Eckhart, W. Bauer, S. Spirk

2:20 CELL 76. Structural design of cellulose paper composites for green chemistry and electronics. **H. Koga**

2:45 Intermission.

3:00 CELL 77. Conductive wood membrane electrode for energy recovery from wastewater treatment. **Z. Ren**, Z. Huang, A. Gong, L. Hu

3:25 CELL 78. Functional lignocellulosic materials for water purification applications. **E. Cabane**, M. Vidiella del Blanco, S. Vitas

3:50 CELL 79. Modification of transparent wood for photonics functions. **L. Berglund**, Y. Li, Q. Fu, S. Popov, I. Sychugov, M. Yan

4:15 CELL 80. Energy storage and energy generation based on the materials and structures derived from wood. **H. Zhu**, A. Mukhopadhyay, L. Yang

Science Cafes & Engaging the Public: Techniques for Hosting Successful Events

Sponsored by PRES, Cosponsored by CATL, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, I&EC, INOR, MPPG, SCHB and YCC

Bioenergy & Bio-Based Chemicals

Sponsored by ENFL, Cosponsored by CELL

Energy, Water & Food Production

Sponsored by AGFD, Cosponsored by CELL, GEOC and MPPG

Plant Omics

Sponsored by ANYL, Cosponsored by CELL and MPPG[†]

SUNDAY EVENING**Section A**

Ernest N. Morial Convention Center
Hall D

General Posters

M. Roman, *Organizer*

7:00–9:00

CELL 81. Modification of cellulose with methyl ester through transesterification reaction in imidazolium carboxylates. **S.B. Kusuma**, S. Nomura, M. Yamaguchi, D. Hirose, Y. Yasaka, K. Ninomiya, K.

Takahashi

CELL 82. CO₂ adsorbent material based on cellulose nanofibrils derived from agricultural wastes. F. Valdebenito, G. Ciudad, G. Chinga-Carrasco, **Y. Habibi**

CELL 83. Cellulose-cyclodextrin co-polymer for removal of microcystin on water remediation. **D. Gómez Maldonado**, M.N. Hornus, B. Vega, I. Filpponen, A. Wilson, M. Waters, M. Peresin

CELL 84. Withdrawn

CELL 85. Enhancing in situ hydrogen peroxide generation of greige cotton nonwoven wound dressings via ascorbate stabilized copper micro- and nanoparticles. **N.T. Prevost**, V. Edwards, B.D. Condon, D. Yager

CELL 86. Design, preparation and activity of intelligent cellulose-based protease sensor & modulating/fibroblast promoting (PROTOS-FIBRO) dressings. **V. Edwards**, K.R. Fontenot, N.T. Prevost, D. Yager, F. Liebner, B.D. Condon

CELL 87. Withdrawn

CELL 88. Nano-emulsions and nanolatexes stabilized by hydrophobically functionalized cellulose nanocrystals. **Y. Zhang**, V. Karimkhani, B.T. Makowski, G. Samaranayake, S.J. Rowan

CELL 89. Tannin micro- and nanocapsules for storage and controlled delivery of hydrophobic molecules. E.D. Bartzoka, **H. Lange**, L. Zongo, P. Mosesso, C. Crestini

CELL 90. Fluid flow in paper-derived silica-polymer hybrids. **N. Herzog**, M. Gallei, T. Meckel, M.A. Biesalski, A. Andrieu-Brunsen

CELL 91. Cationic starch as strengthening agent in nanofibrillated and bacterial cellulose nanopapers. **M. Hervy**, P. Lahtinen, T. Tammelin, K. Lee

CELL 92. Cellulose nanofibrils production using deep eutectic solvents and twin screw extrusion. H. Spieser, F. Rol, F. Bardot, V. Meyer, **J. Bras**

CELL 93. The role of residual lignin in lignin containing cellulose nanofibrils (L-CNF). **M.C. Iglesias**, R. Gleisner, J. Zhu, L. Tetard, K. Stana-Kleinschek, C.E. Frazier, M. Peresin

CELL 94. Morphological, chemical, thermal and mechanical effects of cellulose nanocrystals ratios on silk fibroin/cellulose nanocrystals electrospun mats. **S. Sanchez Diaz**, T.J. Elder, A. Restrepo Osorio, O. Fasina, M. Peresin

CELL 95. Synthesis and characterization of nanocrystalline hydroxyapatite derived from eggshell for biomedical applications. **E. Moura**, A. Lodis, P. Reis, R. Wellen

CELL 96. Synthesis and characterization of nanocellulose obtained from pineapple peel wastes. **J. Vega-Baudrit**, M. Camacho, Y. Corrales Ureña, M. Lapretti, G. Moreno

CELL 97. Evaluating the biological response and biodistribution of cellulose nanocrystal nanocomposite hydrogels. **K.J. De France**, M. Badv, J. Dorogin, E.D. Cranston, T. Hoare

[†]Cooperative Cosponsorship

CELL 98. Continuous composite fiber based on TEMPO-oxidized cellulose nanofibril/chitosan obtained by interfacial polyelectrolyte complexation. **R. Grande**, E. Trovatti, A.J. Carvalho

CELL 99. Tunable surface energy wood-biopolymer macrofibers. **T. Nypelo**, S. Asaadi, G. Kneidinger, H. Sixta, J. Konnerth

CELL 100. Residual wood polymers facilitate compounding of microfibrillated cellulose with poly(lactic-acid) for 3D printer filaments. **A. Winter**

CELL 101. Protein/polysaccharides biocomposite characterization via confocal microscopy. **D.E. Verrill**, A. Morales, S. Brown, S.M. O'Malley, D. Salas-de la Cruz

CELL 102. Different strategies for the preparation of nanocellulose composites with three-dimensional structure. A. Santamaria-Echart, L. Urbina, A. Arbelaz, A. Reteigi, M. Corcuera, **A. Eceiza**

CELL 103. Valorization of hemicellulose hydrolyzates into eco-friendly surfactants. **W. Liu**, M. Roman

CELL 104. New foamed materials from hemicelluloses. **L. Hardelin**, A. Ström, A. Larsson

CELL 105. Food packaging made from chitosan and hemicellulose. **A.M. Johnson**, D. Camacho, H. Jeon, S. Renneckar

CELL 106. Clicking hemicelluloses and nanocellulose toward functional fully biobased materials. L. Puchot, J. Communal, D. Da Silva Perez, **Y. Habibi**

CELL 107. From low-molecular weight hemicelluloses to new biopolymers. **L. Puchot**, D. Da Silva Perez, Y. Habibi

CELL 108. Microwave-assisted extraction of lignin from coconut shell: Insights on the effects of Brønsted and Lewis acids catalysts in the lignin structure. **F. Figueredo-Sobrinho**, M.M. Souza Filho, S.E. Mazzetto, D. Lomonaco

CELL 109. Synthesis and mechanical characterization of high pressure laminates modified with Kraft lignin. M. Taverna, V.V. Nicolau, **D. Estenoz**

CELL 110. Search for production of high quality lignin from technical lignins by enzymatic catalysis. **J. Mikkilä**, J. Kuuskeri, M.R. Mäkelä, J. Kontro, P. Nousiainen, J. Sipilä, K. Hildén

CELL 111. Design of a new, accurate laccase activity assay method based on "lignin-like" compounds. **V. Perna**, J. Agger, J. Holck, A.S. Meyer

CELL 112. Ceramic membranes for lignin valorization. S. Schoenherr, D. Humpert, M. Ebrahimi, P. Geigle, S. Demharter, S. Schuetz, F. Ehlen, **P.M. Czermak**

CELL 113. Multiphase materials of lignin and cellulose mesophases. **M.G. Laborie**, R. Gleuwitz, J. Mao, C. Friedrich

CELL 114. Functionalized lignin as building block for biobased polyurethane foams. **M. Ziegłowski**, S. Trosien, M.A. Biesalski

CELL 115. Fractionation of lignin derived

compounds from thermochemical processed lignin towards antimicrobial properties. **L. Dodge**, J. Shi, S. Nokes

CELL 116. Microwave-assisted extraction of lignin from water hyacinth (*Eichhornia crassipes*). **P. Sing-udom**, T. Chaisuan, A. Luengnaruemitchai, S. Wongkasemjit

CELL 117. Real-time measurement of laccase catalyzed formation of radicals in lignin by electron paramagnetic resonance spectroscopy. **L. Munk**, M. Andersen, A.S. Meyer

CELL 118. Lignin based polyurethane foam: Relationship between chemical structure, molecular weight, and foam properties. **L. Liu**, L. Ji, S.C. Patankar, M. Cho, S. Renneckar

CELL 119. Applicability of laccase mediator systems of recombinant laccase catalyzed oxidation of lignin at low pH. **J. Kontro**, P. Nousiainen, M. Kähkönen, U. Hyvääkö, J. Mikkilä, M.R. Mäkelä, K. Hildén, J. Sipilä

CELL 120. Mediator supported lignin enzymatic degradation for aromatic production. **L. Longe**, G. Garnier, K. Saito

CELL 121. Application of lignins in phenol formaldehyde adhesive. H. Jameel, **X. Jiang**, F. Zhang, J. Du, H. Chang

CELL 122. Carbonization of electrospun and wet spun lignin based fibers. **T. Hinkel**, **C. Upp**, **A. Bansode**, H. Nam, I. Filpponen, S. Adhikari, M. Avad

CELL 123. Polymer morphology of lignin in carbon fiber precursors from hardwood and herbaceous feedstocks. **V. Garcia-Negron**, O. Hosseinaei, S. Pingali, S.C. Chmely, D.P. Harper

CELL 124. Cellulose-based carbon fiber reinforced polymers: Intensifying interfacial adhesion. **L. Szabo**, S. Imanishi, R. Hoshino, N. Kawashima, D. Hirose, T. Tsukegi, K. Takahashi

CELL 125. Production of functional lignin units as building units with germicidal activity from cereal residues. **M. Lopretti**, G. Lluberá, A. Rodriguez, H. Cerecetto, N. Lecot, J. Vega-Baudrit

CELL 126. Microcapsules and membranes from biorefinery of products of soya industrialization. G. Lluberá, J. Herrera, J. Zygaallo, P. Raimonda, J. Vega-Baudrit, **M. Lopretti**

CELL 127. Thermogravimetric screening of blowing agents for application as an additive in experimental fast pyrolysis of cellulose. **E. Terrell**, M. Garcia Perez

CELL 128. High performance cyanate esters and poly(benzoxazine) from fast pyrolysis of lignocellulosic biomass. **M. Barde**, C.W. Edmunds, N. Labbé, **M.L. Auad**

CELL 129. Synthesis of unsaturated monomers from carbonyl compounds in pyrolytic bio-oil. **M. Barde**, **K. Avery**, C.W. Edmunds, N. Labbé, M. Avad

CELL 130. Effective adsorption and recovery of furfural and 5-hydroxymethylfurfural by cross-linked polyethylenimines. **Q. Yang**

CELL 131. Analysis of the influence

of lignocellulose characteristics on thermal behavior using pyrolysis gas-chromatography/mass spectrometry. **S. Hodges**, G. Marthá, C. Dupont, E. Santillan-Jimenez

CELL 132. High value carotenoids from biorefinery waste streams. **M. Vin-Najjofor**, J. Shi, L. Das

CELL 133. Oxypropylation of lignocellulosic agro-industrial residues: New approaches and tools towards process optimization. J.A. Pinto, M.A. Prieto, I.C. Ferriera, N. Belgacem, A.E. Rodrigues, **F. Barreiro**

CELL 134. Single crystals of biosynthesized and biodegradable Poly[(R)-3-hydroxybutyrate-co-(R)-3-hydroxyhexanoate] (PHBHx). **C. Liu**, I. Noda, D.C. Martin, B. Chase, J.F. Rabolt

CELL 135. Effect of hot water pretreatment in simple pulping utilizing a laboratory scale microwave reactor. **U.T. Hyvääkö**, **P. Nousiainen**, P. Kilpeläinen, J. Sipilä

MONDAY MORNING

Section A

Loews New Orleans Hotel
LaFourche/Pointe Coupee

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama

Cosponsored by BIOL, BIOT and POLY
U.P. Agarwal, R.H. Atalla, H. Chanzy, *Organizers*
A. Isogai, *Organizer, Presiding*
K.J. Edgar, *Presiding*

8:00 Introductory Remarks.

8:05 CELL 136. Phase separation and rheological properties of cellulose nanocrystals with different surface charge densities. T. Abitbol, D. Kam, Y. Kalisman, **D.G. Gray**, O. Shoseyov

8:30 CELL 137. Function of the Golgi apparatus in differentiating xylem in *Chamaecyparis obtusa*. **K. Takabe**

8:55 CELL 138. Laccase/TEMPO oxidation in the production of hemicellulose hydro- and aerogels. K. Parikka, I. Nikkilä, **M. Tenkanen**

9:20 CELL 139. Electric and magnetic properties of cellulose nanocrystals in suspension revealed by field-induced birefringence. **B. Frka-Petesic**, J. Sugiyama, B.R. Jean, S. Kimura, H.D. Chanzy, G. Maret, L. Heux

9:45 Intermission.

10:00 CELL 140. Putting a charge into polysaccharides. B.L. Nichols, Y. Dong, **K.J. Edgar**

10:25 CELL 141. Magnetic field induced alignment of cellulose nanocrystals in polyvinyl alcohol suspensions. **M. Wada**, H. Morii, R. Kusumi, F. Kimura, T. Kimura

10:50 CELL 142. Tissue-specific cellulose microfibril assembly patterns in plant cell walls: A study with sum frequency generation microscopy. **S.H. Kim**

11:15 CELL 143. Outstanding toughness of cherry bark achieved by a unique cell wall structure. **K. Kobayashi**, Y. Ura, S. Kimura, J. Sugiyama

Section B

Loews New Orleans Hotel
St. Landry

2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in honor of Rafael Luque

Cosponsored by ENVR and I&EC
S.O. Obare, *Organizer, Presiding*
G. Beckham, *Presiding*

8:00 Introductory Remarks.

8:05 CELL 144. Continuous manufacturing of fine chemicals for a sustainable future. **C. Kappe**

8:30 CELL 145. Glucose to fructose isomerization over natural MgO catalysts. **K. Triantafyllidis**, A. Marianou, C. Michailof, S. Karakoulia, E. Iliopoulou, A. Lappas

8:55 CELL 146. Catalytic transfer hydrogenolysis of aromatic ethers promoted by the bimetallic Pd/Ni system. E. Paone, R. Pietropaolo, **F. Mauriello**, R. Luque

9:20 CELL 147. Nanoparticle mediated conversion of biorenewables into biofuels and commodity chemicals. **S.O. Obare**

9:45 Intermission.

10:00 CELL 148. Biological conversion of thermochemical wastewater streams. **G. Beckham**

10:25 CELL 149. Polysaccharides dissolution in deep eutectic solvents (DES) a promising approach for biomass refining. E. Morais, M. Freire, C. Freire, J. Coutinho, **A. Silvestre**

10:50 CELL 150. Catalytic C-O bond cleavage in non-derivatized alcohols. **J.S. Samec**

11:15 CELL 151. Benign-by-design methodologies for a more sustainable future: from nanomaterials to heterogeneous (photo)catalysis and biomass conversion. **R. Luque**

Section C

Loews New Orleans Hotel
St. Tammany

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Cosponsored by AGFD, ANYL and CARB
H. Kamitakahara, C. Wong, *Organizers*
K.J. Edgar, T.J. Heinze, L.L. Kiessling, L. Wang, *Presiding*

8:05 CELL 152. End-functionalization of polysaccharide in cellulose chemistry. **H. Kamitakahara**, R. Suhara, M. Yamagami, H. Kawano, R. Okanishi, K. Miki, T. Asahi, A. Yoshinaga, Y. Tanaka, T. Takano

8:30 CELL 153. Multivalent glycopolypeptide-based micelles and polymersomes. **S. Lecommandoux**

8:55 CELL 154. Microbial polysaccharides in pathogens. **L.L. Kiessling**

9:20 CELL 155. Automated glycan assembly as basis for material science. **P.H. Seeberger**

9:45 Intermission.

10:00 CELL 156. Streamlining complex carbohydrate synthesis through enzymatic procedures. **G. Boons**

[†]Cooperative Cosponsorship

10:25 CELL 157. Phase 2 clinical results of a carbohydrate (GloboH)-based cancer vaccine. **C. Yu**

10:50 CELL 158. Influenza vaccine and ADCC. **C. Ma, C. Wong**

11:15 CELL 159. Siglecs: Putting the brakes on the immune system. **J.C. Paulson, B. Arlian, S. Duan, L. Edgar, C. Kikuchi, M. Macauley, C. Nycholat, L. Pang, A. Srivastava**

Section D

Loews New Orleans Hotel
Beauregard

Assembly & Colloidal Interactions of Cellulose Nanocrystals

Cosponsored by COLL
Financially supported by EPNOE
C. Schütz, Organizer
W. Thielemans, Organizer, Presiding

8:00 Introductory Remarks.

8:05 CELL 160. Water inclusion-based modeling of CNC film assemblies through non-contact dielectric characterization. **C.D. Emiroglu, B. Natarajan, J. Obrzut, J.W. Gilman**

8:30 CELL 161. Fabrication technique for clearly transparent nanopaper from highly concentrated cellulose nanofiber dispersion. **T. Kasuga, N. Isobe, H. Koga, M. Nogi**

8:55 CELL 162. Formation of flexible hybrid materials with embedded hierarchically structured components. **B.L. Tardy, B.D. Mattos, L. Garcia Greca, K. Klockars, M. Borghiei, O. Rojas**

9:20 CELL 163. Novel multilayered nanostructured drug delivery systems obtained by layer-by-layer assembly of cellulose nanocrystals. **M. Maia, C. Vilela, R.J. Pinto, B. Valente, T. Carvalho, C. Freire**

9:45 Intermission.

10:00 CELL 164. Kinetic of polymers and nanoparticles adsorption on cellulose nanocrystal surfaces. **Z. Jaafar, C. Mauroy, A. Villares, A. Brosse, J. Vigououx, N. Beury, C. Levard, J. Rose, M. Lahaye, B. Cathala**

10:25 CELL 165. Investigating the interaction of cellulose with lipid membranes. **Y. Navon, B.R. Jean, L. Heux**

10:50 CELL 166. Self-Assembling crustacean-mimetic CNC/polymer nanocomposites with hierarchical energy dissipation mechanisms. **A. Walther**

11:15 CELL 167. Buckling-based metrology for measuring the Young's modulus of polyvinyl alcohol – cellulose nanocrystals thin biocomposites layers. **J. Desmains, E. Niinivaara, U. Gill, A. Dufresne, E.D. Cranston, J. Bras**

Section E

Loews New Orleans Hotel
Terrebonne

Wood-Based Materials for Energy & Water

Wood-Based & Related Materials

Cosponsored by ENFL, ENVR and MPPG
L. Hu, S. Lee, Z. Ren, L. Wagberg, J. Zhu, Organizers
L. Nyholm, Organizer, Presiding
H. Zhu, Presiding

8:05 CELL 168. Functional bacterial

cellulose for energy and biomedical application. **G. Yang**

8:30 CELL 169. Chitin nanofiber transparent paper: A renewable material platform for green electronics and energy devices. **J. Jin**

8:55 CELL 170. Hierarchical alignment of chitin fiber as a novel non-woven separator for metal-based batteries. **J. Jin, S. Kang**

9:20 CELL 171. The use of the layer-by-layer technology and low density networks of cellulose nanofibrils for preparing new materials for energy storage. **L. Wagberg, M. Hamed, A. Marais, G. Nystrom, H. Francon, H. Granberg, J. Erlandsson**

9:45 Intermission.

10:00 CELL 172. Advanced wood nanostructures for solar water. **L. Hu**

10:25 CELL 173. Form factor-free, flexible paper power sources. **S. Lee**

10:50 CELL 174. Optimum utilization ways of cellulose toward high-power, environmentally friendly, and renewable energy storage devices. **H. Yu**

11:15 CELL 175. Solar-driven simultaneous steam production and electricity generation from seawater. **J. Zhou**

11:40 Concluding Remarks.

MONDAY AFTERNOON

Section A

Loews New Orleans Hotel
LaFourche/Pointe Coupee

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama

Cosponsored by BIOL, BIOT and POLY
U.P. Agarwal, R.H. Atalla, H. Chanzy, A. Isogai, Organizers
T. Kondo, T. Larsson, Presiding

1:00 Introductory Remarks.

1:05 CELL 176. Elucidation of hemicelluloses functions on lignification using artificial wood cell wall based on honeycomb-patterned cellulose. **Y. Uraki**

1:30 CELL 177. Optimal pretreatment of lignocellulosic biomass for better biorefinery. **Y. Horikawa**

1:55 CELL 178. Hydrogen disorder: the nature of crystalline cellulose. **P. Chen**

2:20 CELL 179. Enzymes degrading cellulose: From molecular mechanisms to traffic simulator. **K. Igarashi**

2:45 CELL 180. Highly strong materials constructed from cellulose solution based on formation of nanofibers. **L. Zhang, A. Lyu, J. Cai, C. Chang, K. Zhu, D. Ye**

3:10 CELL 181. Natural nanofiber films welding via ionic liquids. **G. Reyes, O.J. Rojas, M. Borghiei**

Section B

Loews New Orleans Hotel
St. Landry

Lignin: From Fundamentals to New Materials & Applications

Fundamental Understanding of Lignin

Cosponsored by ENVR and POLY
C. Crestini, H. Lange, M. Mattinen, M. Sipponen, Organizers
M.K. Osterberg, Organizer, Presiding
S. Sarkanen, Presiding

1:00 Introductory Remarks.

1:05 CELL 182. Probing the mechanical effects of lignification on primary cell walls. **S.N. Kiemle, D. Cosgrove**

1:30 CELL 183. Molecular dynamics simulation study of interaction of lignin monomers and dimers with lipid bilayers. **X. Tong, B. Novak, D. Moldovan**

1:55 CELL 184. Density functional theory study of cross-coupling of lignin with tricin and ferulates. **T.J. Elder, L. Berstis, G. Beckham, M.F. Crowley**

2:20 CELL 185. Novel structural model for softwood kraft lignins. **C. Crestini, H. Lange, M. Sette, D. Argyropoulos**

2:45 CELL 186. The chemical character of lignin: Interactions with solvents. **L. Petridis**

3:10 CELL 187. Green gasoline and road diesel from black liquor in three steps. **J.S. Samec**

3:35 Concluding Remarks.

Section C

Loews New Orleans Hotel
St. Tammany

Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries

Cosponsored by AGFD, ANYL and CARB
H. Kamitakahara, C. Wong, Organizers, Presiding

1:05 CELL 188. Dissolution of cellulose in NaOH/zinc nitrate at low temperature. **A. Lyu, S. Wang, L. Zhang**

1:30 CELL 189. Highly selective polysaccharide modification. **B.L. Nichols, Y. Dong, L.I. Mosquera-Giraldo, L. Taylor, K.J. Edgar**

1:55 CELL 190. Withdrawn

2:20 CELL 191. Amphiphilic polysaccharide Schiff base delivery vehicles for controlled release of biologically active compounds. **B.L. Nichols, K.J. Edgar**

2:45 CELL 192. Chemical modifications of nano/cellulose for functional materials. **K. Zhang**

3:10 CELL 193. Scalable, continuous process to ethyl cellulose-based oleogels. **R. Appell, D. Malotky**

3:35 Concluding Remarks.

Section D

Loews New Orleans Hotel
Beauregard

Assembly & Colloidal Interactions of Cellulose Nanocrystals

Cosponsored by COLL
Financially supported by EPNOE
C. Schütz, Organizer
W. Thielemans, Organizer, Presiding

1:00 Introductory Remarks.

1:05 CELL 194. Exploring cellulose nanocrystal dispersion dynamics: A Landau-de Gennes approach. **M.**

Pospisil, M.J. Green, V.A. Davis, M. Noor, P. Saha, S. Abdulquddos

1:30 CELL 195. Tunability of water/cellulose nanocrystal interactions through altered hydrolysis conditions and subsequent purification. **E. Niinivaara, C. Fraschini, J. Bouchard, E.D. Cranston**

1:55 CELL 196. Surface charge influence on the chemistry, colloidal stability, and self-assembly of cellulose nanocrystals. **T. Abitbol, H.S. Marway, A.F. Palermo, S.A. Kedzior, X. Yang, A. Franey, D.G. Gray, J. Moran-Mirabal, E.D. Cranston**

2:20 CELL 197. Grafting well-defined CO₂-responsive polymers to cellulose nanocrystals via nitroxide-mediated polymerization: Effect of graft density and molecular weight on dispersion behaviour. **J. Glasing, J. Bouchard, P. Champagne, P.G. Jessop, M.F. Cunningham**

2:45 CELL 198. Pickering emulsions stabilized by esterified cellulose nanocrystals: application to the elaboration of polymer latexes and colloidosomes. **G. Sebe, A. Werner, V. Héroguez, Z. Zhang**

3:10 CELL 199. Incorporating cellulose nanocrystals into the core of polymer latex particles through polymer grafting. **S.A. Kedzior, M. Kiriakou, E. Niinivaara, M.A. Dubé, C. Fraschini, R.M. Berry, E.D. Cranston**

Section E

Loews New Orleans Hotel
Terrebonne

Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus

Value Added from Agricultural Crops

Cosponsored by AGFD, ENFL, ENVR and MPPG
B. Ghotra, L.A. Lucia, T. Younos, Organizers
A. Ayoub, Organizer, Presiding

1:00 Introductory Remarks.

1:05 CELL 200. Value-added and sustainable product processing of by-products from agricultural commodities – with grape as the main model. **C. Xu, X. Xie, J. Lu, M.R. Marshall**

1:30 CELL 201. Advances in immobilized enzyme systems to mine value-added products from agricultural waste streams. **J.M. Goddard**

1:55 CELL 202. Value added applications of peanut processing plant waste. **L.L. Oehrl, B.J. Hess**

2:20 CELL 203. Structural evaluation during conversion stages of lignin feedstocks to carbonaceous products. **D.P. Harper**

2:45 CELL 204. Catalytic upgrading of bio-oils derived from agricultural crop residue: A study of application and mechanism. **N. Hao, A. Ragauskas, Y. He, S. Laursen**

3:10 CELL 205. Comparison of biodiesel crude glycerol pretreatments of bamboo for efficient enzymatic hydrolysis. **L. Ji, J. Jianxin**

2018 ACS Sustainable Chemistry & Engineering Lectureship Awards:

[†]Cooperative Cosponsorship

Symposium in honor of Fengqi You

Sponsored by I&EC, Cosponsored by CELL

MONDAY EVENING

Section A

Ernest N. Morial Convention Center
Halls D/E

Sci-Mix

M. Roman, Organizer
8:00–10:00

40, 48, 51, 70, 81, 83, 85–86, 88–89, 95–97, 101–103, 107–108, 111–112, 115–117, 120–125, 128, 131–134, 191, 204. See previous listings.

230, 283, 322, 327, 384, 392, 399, 413. See subsequent listings.

TUESDAY MORNING

Section A

Loews New Orleans Hotel
LaFourche/Pointe Coupee

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama

Cosponsored by BIOL, BIOT and POLY
U.P. Agarwal, R.H. Atalla, H. Chanzy, A. Isogai, Organizers
S.H. Kim, T. Rosenau, Presiding

8:00 Introductory Remarks.

8:05 CELL 206. Branched structures of cellulose molecules in high-molecular-mass fraction of softwood revealed by SEC/MALLS/IR/UV analysis. **A. Isogai**, Y. Ono, T. Saito

8:30 CELL 207. Temperature and strain induced frequency shifts of infrared signals of cellulosic materials: Fundamental and applied aspects. **C. Altaner**, F. Guo

8:55 CELL 208. Xyloglucan-cellulose organization in plant primary cell walls: Reassessment by imaging approaches. Y. Zheng, X. Wang, Y. Chen, E. Wagner, **D. Cosgrove**

9:20 CELL 209. The state of cellulose in cold alkali solutions. **T. Larsson**

9:45 Intermission.

10:00 CELL 210. Nanoporous celluloses: Previously unknown forms, as the best primary feedstocks for energy, chemical and agricultural feed production. **R.H. Atalla**, R. Atalla

10:25 CELL 211. Cell wall carbohydrate structure and biosynthesis in pathogenic oomycetes
V. Bulone

10:50 CELL 212. Investigating individual wood cell wall layers with X-ray micro and nano beams. **M. Mueller**

11:15 CELL 213. Transformations of wood-cellulose ultrastructure: Investigations of molecular-conformation, extent of disorder, and crystallinity by FT-Raman spectroscopy. **U.P. Agarwal**

Section B

Loews New Orleans Hotel
St. Landry

Lignin: From Fundamentals to New Materials & Applications

Advances in Lignin Characterization

Cosponsored by ENVR and POLY
M. Mattinen, M.K. Osterberg, M. Sipponen, Organizers
C. Crestini, H. Lange, Organizers, Presiding

8:00 Introductory Remarks.

8:05 CELL 214. Evaluation of lignin branching. **E.A. Capanema**, M. Balakshin

8:30 CELL 215. New insights into the molecular structure of kraft lignin and its mechanisms of formation. C. Lancefield, H.L. Wienk, R. Boelens, B. Weckhuysen, **P. Buijtinckx**

8:55 CELL 216. Lignomics: Nanoscience, structure determination and MW-based fractionation using SEC, MS, STEM, TD-pyr-GC/MS and thermal carbon analysis. **A. Kubatova**, A. Andrianova, S. Lu, S. Reagen, J.E. Schumaker, H. Bilek, I.P. Smoliakova, E. Kozliak

9:20 CELL 217. Characterization of protein amino acid residues and a monolignol conjugate in whole plant cell walls by solution-state 2D NMR and their interference with authentic *p*-hydroxyphenyl (H) unit estimation. **H. Kim**, D. Padmakshan, Y. Li, J. Rencoret, S. Karlen, R.D. Hatfield, J. Ralph

9:45 Intermission.

10:00 CELL 218. Structural characterization of corn stover lignins after combinatorial pretreatment strategies. **S. Shinde**, Z. Liu, M.L. Olson, X. Wang, N. Hao, C. Yoo, S. Bhagia, J. Dunlap, Y. Pu, K. Kao, M. Jin, J. Yuan, A. Ragauskas

10:25 CELL 219. Study of a new chemical derivatization method on lignin hydroxyl groups for size exclusion chromatography analysis. **E. Esakkimuthu**, M. Brochier-Salon, N. Marlin, G. Mortha

10:50 CELL 220. Structural analysis of lignin isolated from a novel biorefinery process and identification of condensed structures using 2D NMR. **L. Lagerquist**, P. Eklund

11:15 CELL 221. Do lignin-carbohydrates complexes (LCC) survive to acid chlorite delignification? **D. Da Silva Perez**, M. Gonzalez Martinez, C. Dupont, X. Meyer, C. Gourdon, C. Crestini

11:40 Concluding Remarks.

Section C

Loews New Orleans Hotel
St. Tammany

2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in honor of Ning Yan
Cosponsored by ENVR and I&EC
J. Zhang, Organizer, Presiding

8:00 Introductory Remarks.

8:05 CELL 222. Carbohydrate stabilization with formaldehyde prevents degradation and facilitates sugar recovery during biomass depolymerization. **J. Luterbacher**

8:30 CELL 223. Withdrawn

8:55 CELL 224. Highly efficient molecular transformation using ordered alloys as catalysts. **S. Furukawa**

9:20 CELL 225. Exploiting support effects and composition in Cu based bimetallic catalysts for sustainable

chemical conversion. **P. Christopher**

9:45 Intermission.

10:00 CELL 226. Perovskite catalysts for oxidative coupling of methane. Y. Sim, J. Yoo, D. Kwon, **J. Jung**

10:25 CELL 227. Halide perovskite nanostructures for energy harvesting and optoelectronics. **L. Dou**

10:50 CELL 228. Techno-economic and life cycle optimization of multiple waste-to-energy and resources pathways. H. Yang, **X. Wang**

11:15 CELL 229. Shell biorefinery: Dream or reality? **N. Yan**

Section D

Loews New Orleans Hotel
Terrebonne

Biobased Water Purification System Approaches

Cosponsored by AGFD, CHAS and ENVR
H. Jameel, N.S. Simon, Organizers
R. Gonzalez, L.A. Lucia, Presiding

8:00 Introductory Remarks.

8:05 CELL 230. Dynamics and kinetics of marine exoskeleton-based heavy metal biosorption and desorption. **C. Londono Zuluaga**, H. Jameel, L.A. Lucia, R. Gonzalez

8:30 CELL 231. Chitosan derivatives for metal removal from wastewater. **S. Mincke**, T. Grima, I. Verheye, G. Du Laing, C.V. Stevens

8:55 CELL 232. Polymer-grafted chitosan for applications in dye and heavy metal removal and recovery from water. O. Garcia-Valdez, E. Madill, B. Tsai, M. Cunningham, **P. Champagne**

9:20 CELL 233. Modified cellulose ethers aerogels for the removal of organic pollutants from wastewater. **D. Petri**

9:45 Intermission.

10:00 CELL 234. Hydrophobization by polymer adsorption to bacterial cellulose structures. **P. Spiliopoulos**, A. Lokka, E. Kontturi

10:25 CELL 235. Biosorbent films based on nanocellulose and lysozyme nanofibers for efficient removal of mercury (II) from natural waters. N.H. Silva, P. Figueira, C. Vilela, R.J. Pinto, I. Marrucho, M.E. Periera, **C. Freire**

10:50 CELL 236. Nanopaper nanofiltration membranes from seawater suspensions of TEMPO-CNF. **A. Mautner**, K. Lee, A. Bismarck

11:15 CELL 237. Nanocellulose for use in enhanced oil recovery: Transportation of nanocellulose dispersions through porous media. **E. Heggset**, R. Aadland, C. Dziuba, K. Syverud, O. Torsæter, S. Bryant

Section E

Loews New Orleans Hotel
Beauregard

Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus

Food, Water & Energy from Sustainable Crops

Cosponsored by AGFD, ENFL, ENVR and MPPG
B. Ghotra, L.A. Lucia, T. Younos,

Organizers

A. Ayoub, Organizer, Presiding

8:00 Introductory Remarks.

8:05 CELL 238. Sustainable production of foods with berry polyphenols. **B.W. Bolling**

8:30 CELL 239. Food processing alters phytochemicals and their absorption. **J. Cooperstone**

8:55 CELL 240. Withdrawn

9:20 CELL 241. Realizing integrated supercritical fluid biorefineries for the green processing of grains and oilseeds. **O. Ciftci**

9:45 Intermission.

10:00 CELL 242. How the commercialization of novel peppermint varieties is contributing to sustainable production of peppermint oil. **M. Morris**, D. Holmgren, J. Liu, J.G. Zeevaert, M. Bubnick

10:25 CELL 243. Microalgae cultivation for wastewater treatment and bioenergy production. **A. Bhatnagar**, E. Daneshvar

10:50 CELL 244. Value-added bio-based food products. **M.P. Yadav**

11:15 CELL 245. Investigation of sugar beets as a feedstock for sustainable alternative jet fuel in south Florida. **C. Dorado**, R.G. Cameron, K. Cooper

TUESDAY AFTERNOON

Section A

Loews New Orleans Hotel
LaFourche/Pointe Coupee

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama

Cosponsored by BIOL, BIOT and POLY
R.H. Atalla, H. Chanzy, A. Isogai, Organizers
U.P. Agarwal, Organizer, Presiding
Y. Nishiyama, Presiding

1:00 Introductory Remarks.

1:05 CELL 246. Junji Sugiyama and CERMAY: A long lasting impact. **H.D. Chanzy**

1:30 CELL 247. Allomorphic transition in native cellulose promoted by ultrasounds. **K. Mazeau**, P. Chen, Y. Ogawa, L. Heux, S. Molina Boisseau, J. Putaux, Y. Nishiyama

1:55 CELL 248. Ultrastructural characterization of celluloses by solid state NMR: has everything been done? **L. Heux**

2:20 CELL 249. Mutation analysis to explore potential functional differences among plant CESA isoforms
C.H. Haigler, J.N. Burris

2:45 CELL 250. All-atom structural model of plant cellulose synthase and cellulose synthase complex. A. Singh, **Y.G. Yingling**

3:10 CELL 251. Diffraction studies of cotton fibers. **A.D. French**

3:35 Intermission.

†Cooperative Cosponsorship

4:00 CELL 252. An electron crystallographer of cellulose microfibrils—revisit and hereafter. **J. Sugiyama**

Section B

Loews New Orleans Hotel
St. Landry

Lignin: From Fundamentals to New Materials & Applications

Lignin Valorization in Biorefineries

Cosponsored by ENVR and POLY
C. Crestini, H. Lange, M. Mattinen, M.K. Osterberg, M. Sipponen, *Organizers*
C. Crestini, D. Da Silva Perez, *Presiding*

1:00 Introductory Remarks.

1:05 CELL 253. Improving lignin homogeneity by aqueous solvent fractionation. **A. Jääskeläinen**, T. Liittä, T. Tamminen

1:30 CELL 254. Zambezi biorefinery: A novel lignin source with unique properties. **A.L. Jongerius**, J.C. Van der Waal, G. Van Klink, E. Dejong

1:55 CELL 255. Lignin acidolysis during thermomechanical wood refining. **M. Tasooji**, C.E. Frazier

2:20 CELL 256. Role of dispersion and polar interactions in the adsorption of cellulases onto lignin. **M. Roman**, F. Jiang, C. Qian, A. Esker

2:45 CELL 257. Fractionation of sugar cane bagasse lignin using hydrotropic process. **P.E. Fardim**

3:10 CELL 258. Influence of fractionation and phenolation of LignoBoost – Kraft-lignin on formation and properties of lignin-hydrogels. **A. Hoffmann**, M. Bremer, U. Fischer, J.P. Nong, S. Fischer

3:35 Concluding Remarks.

Section C

Loews New Orleans Hotel
St. Tammany

Functional Structures from Wood-Based Materials

Fibers & Filaments

Cosponsored by COLL
Financially supported by Adolphe Merkle Institute, University of Fribourg, MDPI Fibers
E. Filpponen, T. Nypelo, J.O. Zoppe, *Organizers*
M.K. Ek, S. Spirk, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 CELL 259. Characterization of the quality of pulp fines and their effect on paper properties. M. Mayr, R. Eckhart, A. Thaller, **W. Bauer**

1:30 CELL 260. Wood-based cellulosic fibers: Current challenges and further developments from an industrial perspective. **M. Pichler**, C. Bisjak, C. Sperger, J. Innerlohinger

1:55 CELL 261. Effect of particle dispersion on mechanical properties of filaments made of cellulose nanofibrils. **K. Haakansson**

2:20 CELL 262. Developing Pd-based nanomagnets in the lignocellulose matrix for natural fiber welding applications. **D.P. Durkin**, J.R. Morey, K.J. Livi, P.C. Trulove, H. Elbidwehy

2:45 CELL 263. Interfacial interactions

in lignin /carbon nanotubes precursors of carbon fibers. **M.G. Laborie**, J. Badorreck, G. Sivasankarapillai, M. Walter

3:10 CELL 264. Characterization of composite fibers from wood-based polymers: Investigation as a carbon fiber precursor. **D. Sawada**, H. Zahra, M. Trogen, H. Sixta, N. Byrne, M. Hummel

Section D

Loews New Orleans Hotel
Terrebonne

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems

Cosponsored by ENVR and POLY
J. Campos-Teran, O. Rojas, *Organizers*
M.L. Auad, *Organizer, Presiding*

1:00 Introductory Remarks .

1:05 CELL 265. Lignin and nanocelluloses in food and other emulsions. S. Huan, L. Bai, B.L. Tardy, M. Ago, J. Lehtonen, **O.J. Rojas**

1:30 CELL 266. Applications of molten salt hydrates in fractionation, conversion, and valorization of lignocellulosic biomass. **X. Pan**

1:55 CELL 267. Withdrawn

2:20 CELL 268. Depolymerized lignin & acrylate-based renewable photopolymers. **K. Rajan**, J.K. Mann, Y.N. Regmi, D.P. Harper, N. Labbé, S.C. Chmely

2:45 CELL 269. What method to measure natural fiber size distribution in polymer composite? Advantages and limitations of 2D scanner, automated analysis and microtomography. E. Di Giuseppe, R. Castellani, S. Dobosz, J. Malvestio, F. Berzin, J. Beaugrand, C. Delisée, B. Vergnes, S. Hamdi, **T. Budtova**

3:10 CELL 270. Carbon fibers from nanofibrillated lignocellulose for supercapacitors. **L. Wang**, M. Borghei, P. Lahtinen, A. Papageorgiou, M. Lundahl, M. Ago, O. Rojas

Section E

Loews New Orleans Hotel
Beauregard

Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus

Biomaterials Processing

Cosponsored by AGFD, ENFL, ENVR and MPPG
B. Ghotra, L.A. Lucia, T. Younos, *Organizers*
A. Ayoub, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 CELL 271. Modification of the cellulosic surfaces through adsorption of reactive polysaccharides. A. Bouchut, A. Pettignano, C. Moreau, B. Cathala, M. Lecourt, M. Petit-Conil, J. Bernard, A. Charlot, **E. Fleury**

1:30 CELL 272. Microalgae: A new resource for processing bio-based polymer materials. **N. Le Moigne**, F. Delrue, J. Sassi, G. Arrachart

1:55 CELL 273. Synthesis and characterization of hemicellulose-based hydrogels. **J. Pawlak**, W. Geng, R.A. Venditti

2:20 CELL 274. Application of subcritical

water to the sustainable production of agricultural crops and processing by-products. **J.W. King**, L. Howard, K. Srinivas

2:45 CELL 275. Ionic liquids: New Generation of additives for biopolymers processing. **S. Livi**

3:10 CELL 276. Towards added value biomaterials: Hemicellulose isolation and its application as thermoreversible network. **W. Farhat**, R.A. Venditti, A. Ayoub, M. Taha, N. Mignard, F. Becquart

WEDNESDAY MORNING

Section A

Loews New Orleans Hotel
Lafourche

Plant Heteropolysaccharides: Interactions within Lignocellulosics, New Modifications & Future Applications

Structures, Interactions, & Extraction of Plant Heteropolysaccharides

Cosponsored by CARB
K.S. Mikkonen, *Organizer*
M. Tenkanen, F. Vilaplana, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 CELL 277. Non-cellulose wood polysaccharides – a need for a stricter structural and functional classification? **G. Henriksson**, J. Berglund, J. Wohler, M. Lawoko, S. Aminzadeh, M.E. Lindström, F. Vilaplana

8:30 CELL 278. Nanostructures, molecular interactions, and anisotropic elastic moduli of lignocellulosic cell walls with moisture. **N. Rahbar**, J. Jakes

9:20 CELL 279. Chromatographic fractionation of lignocellulosic extracts: Influence of the extraction conditions. **P. Pontalier**, V. Oriz, J. Peydecastaing

9:45 Intermission.

10:00 CELL 280. Influence of the molecular structure of wood hemicelluloses on the recalcitrance of lignocellulosic biomass. A. Martínez-Abad, A. Jimenez Quero, J. Berglund, N. Giummarella, G. Henriksson, M.E. Lindström, J. Wohler, M. Lawoko, **F. Vilaplana**

10:25 CELL 281. Withdrawn

10:50 CELL 282. Extraction and characterization of residual hemicellulose in dissolving pulp. C. Kim, J. Lee, T. Treasure, J. Skotty, T. Floyd, S.S. Kelley, **S. Park**

11:15 CELL 283. Structural colour from a helicaloid cellulose fibres architecture in the cell wall of *Margaritara nobilis*. **L.M. Steiner**, Y. Ogawa, M. Busse-Wicher, P. Dupree, S. Vignolini

Section B

Loews New Orleans Hotel
St. Landry

Lignin: From Fundamentals to New Materials & Applications

Nanoscaled Materials from Lignin

Cosponsored by ENVR and POLY
C. Crestini, M. Mattinen, M. Sipponen, *Organizers*
H. Lange, M.K. Osterberg, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 CELL 284. Fabrication of lignin nanoparticles for developing natural broad-spectrum sunscreens. **Y. Qian**, J. Wang, D. Yang, X. Ouyang, X. Qiu

8:30 CELL 285. Colloidal lignin particles towards gluing biological matrices. **M. Mattinen**, M.K. Osterberg

8:55 CELL 286. Lignin-based nanocarriers for the controlled release of agrochemicals. **D. Yiamsawas**, W. Kangwansupamonkon, M. Prawatborisut, D. Crespy

9:20 CELL 287. Producing lignin nanoparticles directly from raw lignocelluloses at $\leq 80^\circ\text{C}$ in an aqueous system using a recyclable acid hydrotrope. **J. Zhu**

9:45 Intermission.

10:00 CELL 288. All-lignin approach for preparation of cationic colloidal lignin particles and their use in Pickering emulsions. M. Sipponen, T. Leskinen, **M.K. Osterberg**

10:25 CELL 289. Facile fabrication of enhanced electrode materials for energy storage using composite of self-assembled lignosulfonate nanosheets and graphene. **W. Meng**, F. Xu, X. Zhang

10:50 CELL 290. Spherical lignin particles for triggered release of anti-inflammatory drugs. **M. Sipponen**, H. Lange, C. Crestini

11:15 CELL 291. Lignin-modified carbon nanotubes/graphene hybrid as efficient flame retardant. **K. Song**, I. Ganguly, I. Eastin, A. Dichiarà

11:40 Concluding Remarks.

Section C

Loews New Orleans Hotel
St. Tammany

Functional Structures from Wood-Based Materials

Paper & Fibrils

Cosponsored by COLL
Financially supported by Adolphe Merkle Institute, University of Fribourg, MDPI Fibers
M.K. Ek, E. Filpponen, S. Spirk, J.O. Zoppe, *Organizers*
T. Nypelo, *Organizer, Presiding*
W. Bauer, *Presiding*

8:05 CELL 292. Novel polysaccharides for strength improvement and coatings for paper and paperboard structures. **J. Fisher**

8:30 CELL 293. Comparing approaches to very high wet adhesion between wet cellulose surfaces. **A. Gustafsson**, D. Yang, R.H. Pelton

8:55 CELL 294. Liquid flame spray (LFS) deposited nanoparticles on natural fibre based substrates for antimicrobial activity. **J. Saarinen**, B.K. Jocelyn, J. Haapanen, M. Gunnell, E. Eerola, P. Huovinen, J. Mäkelä

9:20 CELL 295. Tailored nano-latexes for modification of nanocelluloses: Compatibilizing and plasticizing effects. **J. Engstrom**, F. Hatton, A. Boujemouaui, C. Cobo Sanchez, L. Wagberg, F. D'Agosto, M. Lansalot, L. Fogelstrom, E.E. Malmstrom, A.E. Carlmark

[†]Cooperative Cosponsorship

9:45 Intermission.

10:00 CELL 296. Industrially relevant cationic starches: Interaction with cellulose thin films. K. Niegelhell, A. Chemelli, T. Griesser, H. Reiter, U. Hirn, **S. Spirk**

10:25 CELL 297. Flow-assisted organization of nanostructured bio-based materials. **N. Mittal**, F. Lundell, L. Wagberg, M. Hedhammar, D. Soderberg

10:50 CELL 298. Morphological and thermal characterization of polysaccharides/protein biocomposites as a function of alcohol and peroxide content. **D. Salas-de la Cruz**, D. Verrill, J. Stanton

11:15 CELL 299. Maintenance of functional effectivity of modified cellulosic fibers during textile refining. **F. Wendler**, M. Krieg, K. Stauche, F. Meister

Section D

Loews New Orleans Hotel
Terrebonne

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems

Cosponsored by ENVR and POLY
M.L. Avad, O. Rojas, *Organizers*
J. Campos-Teran, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 CELL 300. Preparation and properties of solution cast films from pennycress protein isolate. **G.W. Selling**, M. Højilla-Evangelista, W. Hay, K. Utt, G. Gross

8:30 CELL 301. Encapsulation of valuable algae-based compounds in biopolymeric nanoparticles. S. Ortiz, L. Rodas, S. García-Pérez, R. Parra-Saldívar, J. Campos-Teran, **I. Arroyo-Maya**

8:55 CELL 302. Thermodynamics of algal growth substrates made from renewable macromolecules. **Z. Karimi**, J.M. Passantino, D.W. Herring, G. Proano Pena, D. Bleresch, V.A. Davis

9:20 CELL 303. Zinc-free synthetic isoprene rubber vulcanizates using wheat protein as an activator. **B.L. DeButts**, R. Thompson, J.R. Barone

9:45 Intermission.

10:00 CELL 304. Crystallization of polypropylene in the presence of plant tissue. **P.R. Navard**, J. Girones, L. Vo, J. Haudin, L. Freire, V. Song, S. Boyer, C. Barron

10:25 CELL 305. Invasive plants in Western Europe as renewable raw materials for biorefining: The case study of Japanese knotweed. **A. Hospied**, Q. Schmetz, A. Richel

10:50 CELL 306. Utilization of aqueous phase of biomass pyrolysis for synthesis of novel olefins and polyolefins. **M. Barde**, K. Avery, C.W. Edmunds, N. Labbé, M.L. Avad

11:15 CELL 307. Wood biorefinery in subcritical water conditions. **P. Pontalier**, G. Vilarem, N. Beauflis, L. Rigal, L. Candy

Section E

Loews New Orleans Hotel
Beauregard

Biobased Gels & Porous Materials Functionalised Nanocellulose Gels

Cosponsored by COLL and PMSE
Financially supported by EPNOE
T. Budtova, *Organizer*
F. Liebner, *Organizer, Presiding*
S.J. Eichhorn, *Presiding*

8:00 Introductory Remarks.

8:05 CELL 308. Structure-property relationship of nanocellulose gels. **L. Mendoza**, W. Batchelor, G. Garnier

8:30 CELL 309. Novel preparation method of self-sustaining hydrogel using only cellulose nanofiber dispersion. **S. Suenaga**, M. Osada

8:55 CELL 310. Tuning rheological properties of polysaccharide gels using hydrophobic cellulose nanocrystals. R. Nigmatullin, J. Scott, K.J. Edler, Y.Z. Khimiyak, J. Angulo, **S.J. Eichhorn**

9:20 CELL 311. Dynamic networks of cellulose nanofibrils as a platform for tunable hydrogels, aerogels, and chemical modifications. **T. Benselfelt**, L. Wagberg

9:45 Intermission.

10:00 CELL 312. Sorghum protein based biocomposites reinforced by cellulose nanowhiskers: Effect of hydrolysis time. **W. Li**, B. Mu, Y. Yang

10:25 CELL 313. Cellulose-based gel beads for quantifying the swelling behavior of plant fibers. **P. Karlsson**, T. Larsson, L. Wagberg

10:50 CELL 314. 3D printing functional nanocellulose hydrogels. O. Fourmann, **G. Siqueira**, M. Hausmann, M. Schubert, T. Zimmermann

11:15 CELL 315. Nanostructured hydrogels for potential application in 3-D bioprinting. N.H. Silva, C. Vilela, R.J. Pinto, **C. Freire**

Bioenergy & Bio-Based Chemicals

Sponsored by ENFL, Cosponsored by CELL

WEDNESDAY AFTERNOON

Section A

Loews New Orleans Hotel
Lafourche

Plant Heteropolysaccharides: Interactions within Lignocellulosics, New Modifications & Future Applications

Modification & Future Applications of Plant Heteropolysaccharides

Cosponsored by CARB
M. Tenkanen, F. Vilaplana, *Organizers*
K.S. Mikkonen, *Organizer, Presiding*
U. Edlund, *Presiding*

1:05 CELL 316. Safety considerations of softwood galactoglucomannans in food use. L. Pitkanen, M. Heinonen, **K.S. Mikkonen**

1:30 CELL 317. Extraction of distinct populations of bioactive arabinoxylans from wheat bran using sequential chemo-enzymatic processes. **A. Jimenez Quero**, R. Rudjito, A. Martínez-Abad, A. Ruthes, F. Vilaplana

1:55 CELL 318. Spruce galatoglucomannan stabilized emulsions are potential carriers for bioactive compounds. **H. Zhao**, K.S. Mikkonen, A. Lampi, P. Kilpeläinen, M. Lehtonen

2:20 CELL 319. Enzymatic modification of corn bran arabinoxylan alters the *in vitro* fecal fermentation profiles by human gut microbiota. **X. Zhang**, B. Hamaker

2:45 Intermission.

3:00 CELL 320. Bioplastics and composites from plant heteropolysaccharides. A. Svärd, M. Sterner, **U. Edlund**

3:25 CELL 321. Xylan nanotiles. **A.M. Johnson**, M. Karaaslan, S. Rennecker, S. Mansfield, F. Unda

3:50 CELL 322. Insights into hemicellulose-cellulose interactions from thermochemical pretreatment of model composite materials. **R. Shah**, D. Sawada, B. Evans, S. Pingali, B.H. Davison, H.M. O'Neill

4:15 CELL 323. Solubility and adsorption of different xyloglucan fractions to model surfaces. **S. Kishani**, J. Wohlert, F. Vilaplana, L. Wagberg

4:40 Concluding Remarks.

Section B

Loews New Orleans Hotel
St. Landry

Lignin: From Fundamentals to New Materials & Applications

Carbon Fibers & Chemicals from Lignin

Cosponsored by ENVR and POLY
C. Crestini, H. Lange, M. Mattinen, M.K. Osterberg, *Organizers*
M. Sipponen, *Organizer, Presiding*
D. Argyropoulos, *Presiding*

1:00 Introductory Remarks.

1:05 CELL 324. Against all odds: Carbon nanofibers from unmodified low molecular weight lignin fractions. R. Ebrahimi Majdar, **H. Lange**, F. Basoli, M. Trombetta, C. Crestini

1:30 CELL 325. Ultralight nanofibrous lignin aerogels with outstanding shape-recovery properties. **M. Cho**, M. Karaaslan, H. Wang, S. Rennecker

1:55 CELL 326. Carbon fibers made from cellulose-lignin hybrid filaments. **M. Hummel**, M. Trogen, D. Sawada, H. Sixta, N. Byrne

2:20 CELL 327. Dry-jet wet-spun lignin-based carbon fibre precursors: Phenomena and properties. **J. Bengtsson**, K. Jedvert, T. Köhnke, H. Theliander

2:45 Intermission.

3:00 CELL 328. Electrochemical conversion of Kraft-lignin to valuable products. **S.R. Waldvogel**, M. Zirbes

3:25 CELL 329. Lignin degradation using recyclable formate ionic liquids and microwave. **J. Dai**, A. Patti, K. Saito

3:50 CELL 330. Elucidation of the behavior of lignin in switchable solvents: Partitioning, dissolution and/or self-assembly? **T. Berchem**, T. Lepage, A. Richel

4:15 CELL 331. Aerobic vanadium catalysis for lignin valorization: A bottom-up approach. **G. Licini**

4:40 Concluding Remarks.

Section C

Loews New Orleans Hotel
St. Tammany

Functional Structures from Wood-Based Materials

Films & Low-Density Composites

Cosponsored by COLL
Financially supported by Adolphe Merkle Institute, University of Fribourg, MDPI
Fibers
M.K. Ek, E. Filpponen, T. Nypelo, S. Spirk, *Organizers*
J.O. Zoppe, *Organizer, Presiding*
I. Filpponen, *Presiding*

1:05 CELL 332. Ultrasounds welding of nanocellulosic materials: A proof of concept. C. Monot, B. Harthong, R. Peyroux, D. Imbault, D. Guerin, J. Viguie, **J. Bras**

1:30 CELL 333. Cellulose nanopapers from elephant manure. **A. Mautner**, K. Weiland, A. Bismarck

1:55 CELL 334. Thermal and electrical properties of TEMPO-oxidized nanocellulose films with quaternary alkylammonium carboxylates. **M. Shimizu**, R. Kusumi, T. Saito, A. Isogai

2:20 CELL 335. Polysaccharide film as a ductile substrate for gas phase treatment. **T. Nypelo**, H. Amer, J. Konnerth, A. Potthast, T. Rosenau

2:45 Intermission.

3:00 CELL 336. Cellulose xanthate as an aqueous source to generate functional cellulose thin films. **M. Weißl**, K. Niegelhell, D. Reishofer, A. Zankel, S. Spirk

3:25 CELL 337. Understanding and improvement of mechanical properties in plasticized cellulose acetate polymers. **A. Charvet**, D. Long, C. Vergelati

3:50 CELL 338. Novel method for producing formable low-density materials from self-assembled cellulose nanofibrils. **H.S. Françon**, J. Erlandsson, V. López Durán, H. Granberg, L. Wagberg

4:15 CELL 339. Nano-FTIR spectroscopy: Nanoscale resolved infrared spectroscopy of individual CNC fibers and thin films. **T. Gokus**, P. Schäfer

Section D

Loews New Orleans Hotel
Terrebonne

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems

Cosponsored by ENVR and POLY
M.L. Avad, J. Campos-Teran, O. Rojas, *Organizers*
D. Estenez, *Presiding*

1:00 Introductory Remarks.

1:05 CELL 340. Withdrawn

1:30 CELL 341. Imparting moisture resistance to transparent nematic i-CNF aerogels by scCO₂-antisolvent coating of the interior with ultrathin PMMA layers. S. Plappert, S. Quraishi, J. Nedelec, J. Konnerth, H. Renhoffer, H. Lichtenegger, **F. Liebner**

1:55 CELL 342. Formulation and composition effects in phase transitions of emulsions stabilized by cellulose nanofibrils and an ionic surfactant. **S. Huan**, S. Yokota, L. Bai, M. Ago, M. Borghei, T. Kondo, O. Rojas

†Cooperative Cosponsorship

2:20 CELL 343. Cellulose nanofibrils in ice cream: An analysis of its influence in the matrix structure. **J.A. Velasquez**, C. Gomez Hoyos, A.M. Serpa Guerra, P.F. Ganan, L. Duizer, C. Castro Herazo, D. Goff, R. Zuluaga Gallego

2:45 Intermission.

3:00 CELL 344. Use of cellulose nanofibrils as replacement of xanthan gum in water based drilling fluids for Argentina shale. Y.A. Villada Villada, M. Iglesias, N. Casis, M. Peresin, E. Erdmann, **D. Estenoz**

3:25 CELL 345. Nanocellulose from wood residues for water-based polymer reinforcement. **G. Cheng**, B. Via, L. Wei, N. Stark

3:50 CELL 346. Withdrawn

4:15 CELL 347. Environmental benign and salt-free reactive dyeing of cellulose using a cottonseed oil/water system to achieve high dye fixation. **B. Mu**, H. Xu, Y. Yang

Section E

Loews New Orleans Hotel
Beauregard

Biobased Gels & Porous Materials

Cellulose & Non-Cellulose Gels: Synthesis, Properties, Applications

Cosponsored by COLL and PMSE
Financially supported by EPNOE
T. Budtova, F. Liebner, *Organizers*
N. Baccile, C. Freire, *Presiding*

1:05 CELL 348. Functional agarose hydrogels and composite hydrogels. **M. Gericke**, M. Witzler, A. Enkelmann, G. Schneider, M. Schulze, T.J. Heinze

1:30 CELL 349. Multifunctional hyaluronic acid based hydrogel with enzymatically embedded silver/lignin nanoparticles. **S. Pérez Rafael**, K. Ivanova, I. Stefanov, T. Zzanov

1:55 CELL 350. Developing renewable and high strength hydrogels by incorporating lignin. **K. Rajan**, D.P. Harper, T.G. Rials, D. Carrier, N. Labbé, S.C. Chmely

2:20 CELL 351. Hydrogels from self-assembled microbial glycolipids. G. Ben Messaoud, S. Roelants, L. Van Renterghem, **N. Baccile**

2:45 Intermission.

3:00 CELL 352. Controlling the nanomorphology of anisotropic cellulose II aerogels by diffusion-driven gradual molecular self-assembly in a templating solvent. S. Plappert, H. Renhöfer, H. Lichtenegger, **F. Liebner**

3:25 CELL 353. Microstructural dynamics and rheology of flocculated micro/nanofibrillated cellulose suspensions. **E. Facchine**, O.J. Rojas, S. Khan

3:50 CELL 354. Spreading of water in low density nanocellulose networks: From capillaries to specific surface area. **L. Wagberg**, H. Granberg, J. Erlandsson, H. Francon, F. Zou, R. Östman

4:15 CELL 355. Low-cost and chemically stable quaternary ammonium salts for cellulose homogenisation. **G.J. Partl**, S. Väinämö, J.K. Helminen, D. Rico del Cerro, I.A. Kilpeläinen, A. King

Bioenergy & Bio-Based Chemicals

Sponsored by ENFL, Cosponsored by CELL

THURSDAY MORNING

Section A

Loews New Orleans Hotel
Lafourche

Advances in Bacterial (Nano) Cellulose Research

Bacterial (Nano)Cellulose Formation, Structure & Medical Applications

Cosponsored by ANYL
M. Gama, *Organizer*
D.O. Klemm, T. Rosenau, *Presiding*

8:00 Introductory Remarks.

8:05 CELL 356. From comparative genomics to BNC structural variants production. **K. Kubiak**, M. Ryngajllo, P. Jacek, M. Jedrzejczak-Krzepkowska, S. Bielecki

8:30 CELL 357. Simulations of cellulose synthesis in bacteria suggested a primer-independent mechanism. **H. Yang**, M. Tien, Y.G. Yingling, J.D. Kubicki

8:55 CELL 358. Modification of bacterial nanocellulose – in terms of (bio)molecular aspect and its application. P.P. Rytczak, M. Ryngajllo, I. Cielecka, **S. Bielecki**

9:20 CELL 359. Design of bacterial nanocellulose materials using a novel matrix technology. **D.O. Klemm**, F. Kramer, S. Nietzsche, K. Petzold-Welcke, T. Richter

9:45 Intermission.

10:00 CELL 360. Withdrawn

10:25 CELL 361. Novel multilayered drug delivery systems based on bacterial nanocellulose for skin treatment. **C. Freire**, C. Vilela, C. Rodrigues, D. Fonseca, A. Silvestre

10:50 CELL 362. Epicite – A new advanced wound dressing made from bacterial cellulose. **D. Kralisch**, N. Hessler, M. Funk, F. Schubert

11:15 CELL 363. Biocellulosis as scaffold for tissue regeneration in modern surgery. **F. Rauffuss**

Section B

Loews New Orleans Hotel
St. Landry

Lignin: From Fundamentals to New Materials & Applications

Polymers & Resins from Lignin

Cosponsored by ENVR and POLY
C. Crestini, M. Mattinen, M.K. Osterberg, M. Sipponen, *Organizers*
H. Lange, *Organizer*, *Presiding*
U.P. Agarwal, *Presiding*

8:00 Introductory Remarks.

8:05 CELL 364. Lignin based 3D-printing materials: Printability and performance. **N.A. Nguyen**, S.H. Barnes, K. Meek, C.C. Bowland, J.K. Keum, A.K. Naskar

8:30 CELL 365. Organosolv lignin as epoxy polymer reinforcing agent. R. Kokali, D. Giliopoulos, P. Lazaridis, A. Fotopoulos, K. Karagiannidis, X. Pappa, **K. Triantafyllidis**

8:55 CELL 366. Novel biobased epoxy

resins from depolymerized native lignin. **D. van de Pas**, E. Feghali, K. Torr

9:20 CELL 367. Lignin-caused performance improvements of poly(lactic acid)/CNCs composites. L. Wei, **U.P. Agarwal**, L. Matuana, R. Sabo, N. Stark

9:45 Intermission.

10:00 CELL 368. Prospects for high levels of industrial Kraft lignin (Indulin AT) in functional polymeric materials. Y. Chen, **S. Sarkanen**

10:25 CELL 369. A retrosynthesis perspective on new thermoset resin applications based on industrial Kraft lignin. **M. Jawerth**, M.K. Johansson, S. Lundmark, C. Gioia, M. Lawoko

10:50 CELL 370. Beat it! Foam templated macroporous lignin foams. M. Jalalian, Q. Jiang, **A. Bismarck**

11:15 CELL 371. Elucidation of the phenolated lignin structures and phenolation mechanism. **X. Jiang**, J. Liu, H. Chang, H. Jameel

11:40 Concluding Remarks.

Section C

Loews New Orleans Hotel
St. Tammany

Functional Structures from Wood-Based Materials

Biosensing & Biomaterials

Cosponsored by COLL
Financially supported by Adolphe Merkle Institute, University of Fribourg, MDPI
Fibers
M.K. Ek, E. Filpponen, T. Nypelo, S. Spirk, J.O. Zoppe, *Organizers*
I. Filpponen, M. Laborie, *Presiding*

8:05 CELL 372. Cellulose nanocrystal (CNC) microelectromechanical systems (MEMS) for biosensing. P. Saha, R. Ashurst, **V.A. Davis**

8:30 CELL 373. Derivatization and processing of biodegradable polymers into biomaterials. T. Mohan, T. Maver, M. Kurečić, R. Kargl, T. Elschner, T.J. Heinze, **K. Stana Kleinschek**

8:55 CELL 374. Polymer analogous reactions comparing polysaccharides with polyvinylalcohols. A. Bratuša, K. Stana Kleinschek, **R. Kargl**

9:20 CELL 375. 3D printing wood – a biomimetic approach. **K. Markstedt**, P. Gatenholm

9:45 Intermission.

10:00 CELL 376. Cellulose nanocrystals for fabricating biomimetic cartilage. A. Kumar, K. Lee, H. Liang, **A. Asadi**

10:25 CELL 377. Cellulose nanofibrils from wood as a new substrate for covalent immobilization of pro-drug molecule by click chemistry. **H. Durand**, E. Zeno, I. Baussanne, M. Demeunynck, S. Fort, N. Belgacem, J. Bras

10:50 CELL 378. Acquiring antibacterial and hemostatic properties for polypropylene nonwovens via layer-by-layer surface modification using soybean protein. **A.M. Abdelgawad**, C. Fritz, O.J. Rojas

11:15 CELL 379. Construction of chitosan/rectorite/cellulose nanofibers composites and their applications in

biomedical materials. **Y. Du**, A. Lyu, H. Gao, X. Shi

Section D

Loews New Orleans Hotel
Terrebonne

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems

Cosponsored by ENVR and POLY
M.L. Auad, J. Campos-Teran, *Organizers*
O. Rojas, *Organizer*, *Presiding*

8:00 Introductory Remarks.

8:05 CELL 380. Hybrid nanocelluloses to design functional emulsions. **I. Capron**, J. Mougel, O. Chauvet, B. Cathala, P. Bertoncini, N. Shandilya

8:30 CELL 381. Nanocellulose derivatives: A comparative study of nanocelluloses from wood- and vegetable-based raw materials. **N. Pahimanolis**, J. McKee, H. Mertaniemi, A. Laukkanen

8:55 CELL 382. Control of Pickering emulsion properties by the structural characteristics of nanocelluloses. **C. Jimenez Saelices**, I. Capron

9:20 CELL 383. Continuous filaments from cellulose with impressive wet strength. **A. Tripathi**, M. Ago, **S. Khan**, O. Rojas

9:45 Intermission.

10:00 CELL 384. Sustainable bio-ethanol production from crystalline cellulose promoted by Pd/Fe₃O₄ catalyst. **B. Gumina**, F. Mauriello, C. Espiro, R. Pietropaolo, S. Galvagno

10:25 CELL 385. Study of biopolymeric hydrogel interactions with photodynamic systems. **D. Gómez-Maldonado**, R. López-Simeon, A. Topete Camacho, **J. Campos-Teran**

10:50 CELL 386. Cellulose surface modification using polysaccharide multifunctional systems. **I. Vega Erramuspe**, M. Peresin, T.J. Heinze, P.E. Fardim

11:15 CELL 387. Stabilization of cellulose nanocrystal-based Pickering emulsion induced by cellulose nanofibrils: Impact of depletion effect on the phase behavior of emulsion droplets. **L. Bai**, S. Huan, W. Xiang, O. Rojas

Section E

Loews New Orleans Hotel
Beauregard

Biobased Gels & Porous Materials

Biomedical Applications of Polysaccharide Gels & Aerogels

Cosponsored by COLL and PMSE
Financially supported by EPNOE
T. Budtova, F. Liebner, *Organizers*
J. Bras, K. Syverud, *Presiding*

8:05 CELL 388. Cellulose nanofibril hydrogels as scaffolds for tissue engineering. **K. Syverud**, E. Heggset, A. Rashad, K. Mustafa

8:30 CELL 389. Development of nanostructured systems based on poly(3,4-ethylenedioxythiophene) (PEDOT) aerogels of starch/K-carrageenan for biomedical applications. **R. Zamora**

8:55 CELL 390. Bioinspired capsules based on nanocellulose, xyloglucan and pectin for biomedical applications. **T.**

[†]Cooperative Cosponsorship

Paulraj, A.J. Svagan

9:20 CELL 391. Biocompatible bacterial cellulose/Ti₃C₂-MXene electroactive composite hydrogels for skin tissue repair and regeneration. **L. Mao**, Z. Shi, G. Yang

9:45 Intermission.

10:00 CELL 392. Green porous Chitosan microspheres as microcarriers for "real" 3D culture of hepatocytes. **L. Huang**, L. Xiao, G. Yang

10:25 CELL 393. Injectable anisotropic cellulose nanocrystal hydrogels as a platform for functional tissue engineering applications. **K.J. De France**, K. Yager, K. Chan, B. Corbett, E.D. Cranston, T. Hoare

10:50 CELL 394. Nanocellulose based materials in liquid for stem cell growth monitoring. **J. Bras**, M. Smyth, C. Picart, J. Foster

11:15 CELL 395. Hemocompatibility of porous sulfonated *Cladophora* cellulose beads towards a blood purification material with anticoagulant properties. **I. Rocha**, N. Ferraz, A. Mhramyan, M. Strömme, J. Lindh

THURSDAY AFTERNOON

Section A

Loews New Orleans Hotel
Lafourche

Advances in Bacterial (Nano) Cellulose Research

Pharmaceutical, Medical & Technical Applications

Cosponsored by ANYL
D.O. Klemm, T. Rosenau, *Organizers*
S. Bielecki, M. Gama, *Presiding*

1:05 CELL 396. Surface microstructured bacterial nano-cellulose for anti-adhesive and anti-fibrotic protection of medical devices. **A. Ferrari**, S. Bottan, F. Robotti, G. Pellegrini, D. Poulikakos, C. Starck

1:30 CELL 397. Bacterial nanocellulose: A natural biopolymer for controlled drug delivery. **D. Fischer**

1:55 CELL 398. Nanocelluloses from cotton waste, bacterial nanocellulose and glycidyl methacrylate grafting: specific adsorption properties towards target molecules. **E. Vismara**, C. Bongio, G. Torri

2:20 CELL 399. Bacterial cellulose 3D structuring towards new applications. **L. Garcia Greca**, J. Lehtonen, B.L. Tardy, J. Guo, O. Rojas

2:45 Intermission.

3:00 CELL 400. Fabrication and evaluation of nanofibrous biomaterials for biomedical applications. **L. Fu**, G. Yang, W. Wan, C. Panchal

3:25 CELL 401. Mechanical response of multi-layer bacterial cellulose nanopaper-reinforced polylactide laminated composites. **M. Hervy**, K. Lee

3:50 CELL 402. Fracture resistance of bacterial cellulose-reinforced poly(methyl methacrylate) composites. **A. Santmarti**, M. Hervy, K. Lee

4:15 CELL 403. (Ultra-)low grammage bacterial cellulose nanopaper-reinforced polylactide composite laminates. **M.**

Hervy, F. Bock, **K. Lee**

4:40 Concluding Remarks.

Section B

Loews New Orleans Hotel
St. Landry

Lignin: From Fundamentals to New Materials & Applications

Biochemical Modification of Lignin

Cosponsored by ENVR and POLY
C. Crestini, H. Lange, M. Sipponen, *Organizers*
M. Mattinen, M.K. Osterberg, *Organizers*, *Presiding*

1:00 Introductory Remarks.

1:05 CELL 404. Enzymatic lignin modification without solvents in water-soluble alkaline conditions. **M.W. Heikkila**, K. Birikh, T. Gronroos

1:30 CELL 405. Lignin-rich residues originated from a range of pretreatments: Structural characterization and anaerobic microbial biomethane production. **D. Mulat**, J. Dibdiakova, M. Opedal, S. Horn

1:55 CELL 406. Laccase treatment as means to improve membrane filterability of lignin-containing birch hot water extract. **A.K. Kalliola**, T. Tamminen, J. Lahti, T. Virtanen, M. Kallioinen, H. Lange, C. Crestini

2:20 CELL 407. Enzymatic modification of lignin by fungal laccases. **A.S. Meyer**, M. Kabel, L. Munk

2:45 Intermission.

3:00 CELL 408. Towards more uniform technical lignin. **L. Liu**, N. Sathitsuksanoth, M. Cho, S. Chowdhury, S. Rennecker

3:25 CELL 409. Carbon fibers derived from fractionated-solvated lignin. J. Jin, J. Ding, A. Klett, M.C. Thies, **A.A. Ogale**

3:50 CELL 410. Expanding capability of ¹³C NMR spectroscopy in comprehensive lignin analysis. **M. Balakshin**, E.A. Capanema

4:15 CELL 411. Fungal growth and enzyme production on alkali lignin from grasses. **M. Daou**, D. Navarro, S. Raouche, **C. Faulds**

4:40 Concluding Remarks.

Section C

Loews New Orleans Hotel
St. Tammany

Functional Structures from Wood-Based Materials

Designed Structures & Processing

Cosponsored by COLL
Financially supported by Adolphe Merkle Institute, University of Fribourg, MDPI Fibers
E. Filpponen, T. Nypelo, S. Spirk, *Organizers*
M.K. Ek, J.O. Zoppe, *Organizers*, *Presiding*

1:05 CELL 412. Ductile and thermoplastic cellulose with novel application and design opportunities. **P.A. Larsson**, E. Linvill, G. Lo Re, S. Östlund, L. Wagberg

1:30 CELL 413. Enhanced functional properties of co-exfoliated graphene doped microfibrillated cellulose composites. **J. Phiri**, L. Johansson, P. Gane, T.C. Maloney

1:55 CELL 414. Bio-based fire retardant and its application in cellulose-based thermal insulation materials. **C. Zheng**, D. Li, M.K. Ek

2:20 CELL 415. Application of nanocotton and nanocollagen on cotton/polyester blend fabric using layer-by-layer (LBL) technique. **S.M. Mansour**

2:45 Intermission.

3:00 CELL 416. From vapour to gas: Optimising cellulose degradation with gaseous HCl. **T. Pääkkönen**, E. Kontturi

3:25 CELL 417. Withdrawn

3:50 CELL 418. Stabilization kinetics of polyacrylonitrile/cellulose nanocrystals composite fibers. **H. Chang**, J. Luo, H.C. Liu, S. Kumar

4:15 CELL 419. Polymer nanocomposites with cellulose nanocrystals: Effects of polymer grafting and processing methods on thermomechanical properties. S. Wohlhauser, J. Natterodt, **J.O. Zoppe**, C. Weder

4:40 Concluding Remarks.

Section D

Loews New Orleans Hotel
Terrebonne

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems

Cosponsored by ENVR and POLY
M.L. Avad, J. Campos-Teran, O. Rojas, *Organizers*
I. Vega Erramuspe, *Presiding*

1:00 Introductory Remarks.

1:05 CELL 420. Processing of chicken feathers using a deep eutectic solvent. **E. Nuutinen**, A. Jääskeläinen

1:30 CELL 421. Composites from natural resources: Hemp fiber reinforced composites from 3D orthogonal woven preforms and their potential applications in US. **A. Gupta**

1:55 CELL 422. Two-step process for recovery of copper naphthenate from end-of-life railroad ties. **H.L. Haber**, P. Kim, S.C. Chmely, J. Lloyd, Y.N. Regmi, N. Abdoulmoumine, N. Labbé

2:20 CELL 423. Economic analysis of integrated continuous process for colloidal lignin particle via aerosol flow method. **M. Ago**, C. Abbati de Assis, L. Garcia Greca, R. Gonzalez, O. Rojas

2:45 Intermission.

3:00 CELL 424. Synthesis of UV curable poly (ethylene glycol) diacrylate macromer based semi-IPN hydrogel with polysaccharides. **P. Joshi**, S. Breaux, M. Avad

3:25 CELL 425. Incorporation of dialdehyde cellulose microfibrils within a biobased polyfurfuryl alcohol thermosetting matrix: Structure and properties relations. **R. Ganfoud**, N. Guigo, L. Heux, N. Sbirrazzuoli

3:50 CELL 426. Fabrication of strong nanocomposite films with renewable forestry waste/montmorillonite/reduction of graphene oxide for fire retardant. **G. Chen**, F. Peng, C. Yao, R. Sun

4:15 CELL 427. Cross-linkable hydrogels for 3D bioprinting. **N. Alizadeh**, R. Broughton, M. Avad

Section E

Loews New Orleans Hotel
Beauregard

Biobased Gels & Porous Materials

Polysaccharide Foams, Cryogels & Aerogels

Cosponsored by COLL and PMSE
Financially supported by EPNOE
F. Liebner, *Organizer*
T. Budtova, *Organizer*, *Presiding*
P.E. Fardim, *Presiding*

1:05 CELL 428. Thermal conductivity of bio-aerogels. **T. Budtova**

1:30 CELL 429. Withdrawn

1:55 CELL 430. High porosity cellulose-based foams by ice-templating. C. Antonini, O. Nylén, **T. Geiger**

2:20 CELL 431. On the mechanism of freeze-induced crosslinking of aerogels made from periodate-oxidised cellulose nanofibrils. **T. Pettersson**, J. Erlandsson, P.A. Larsson, L. Wagberg

2:45 Intermission.

3:00 CELL 432. Green synthesis of nanocellulose aerogels decorated with palladium nanoparticles and their application in water purification. **J. Gu**, A. Dichiaro

3:25 CELL 433. Cellulose-reinforced and hybrid cellulose-based biofoams for structural and flame resistance applications. **P.E. Fardim**, C. Lange, J. Obradovic

3:50 CELL 434. Cellulose and cellulose composites for carbon dioxide sorption at low and elevated temperatures. R. Dassanayake, C. Gunathilake, A.C. Dassanayake, M. Jaroniec, **N. Abidi**

4:15 CELL 435. Low density foam-formed fibre structures with enhanced elasticity and strength. **K. Torvinen**, T. Pöhler, L. Timo, J. Ketoja

4:40 Concluding Remarks.

CHED

Division of Chemical Education

C. Gauthier, **N. Snyder** and **A. Marsh**, *Program Chairs*

OTHER SYMPOSIA OF INTEREST:

ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences: Symposium in honor of Jani C. Ingram (see ANYL, Tue)

Active Learning in the Undergraduate Analytical Chemistry Curriculum (see ANYL, Sun)

Chemical Information Literacy: Innovation, Collaboration & Assessment (see CINF, Tue)

Implementing ACS Safety Education Guidelines (see CHAS, Mon)

Environmental Chemistry Undergraduate Education in the Classroom, Laboratory & Beyond (see ENVR, Mon, Wed)

†Cooperative Cosponsorship

10:25 CHED 12. Temperature sensitive paper as a medium to study reaction energies and equilibrium constants. G.G. Via, **R.C. Dudek**

10:45 CHED 13. Optical properties of alloyed noble metal nanoparticles: A nanotechnology experiment for chemistry and engineering students. **T. Vasicek**, S.V. Jenkins

11:05 CHED 14. Thiourea and amidothiourea based rhenium (I) complexes as luminescent and colorimetric anion sensors. **M.O. Odago**

11:25 CHED 15. Science of light and color: A multidisciplinary course for design majors. **L.J. Medhurst**

11:45 CHED 16. Synthesis and Spectroscopic study of a different salicylidene imines as a laboratory exercise. **J.B. Dudek**, J. Bennett

12:05 Concluding Remarks.

Section C

New Orleans Marriott Convention Center
Tchoupitoulas

Citizens First!

Cosponsored by CEI
C. Maguire, *Organizer*
R.D. Sheardy, *Organizer, Presiding*
N. Kohan, *Presiding*

8:30 Introductory Remarks.

8:35 CHED 17. Pseudoscience fair crosses chemistry and other disciplines.

F.M. Yarberry, J. Schneider, S. Turner

8:55 CHED 18. Fostering a STEM education learning network with community benefits through cooperative partnerships. **L. Robinson**, P.J. Carlson, G. Bishop

9:15 CHED 19. Developing scientific literacy through analysis of news reports. **T. Jordan**, S. Kay, R. DiYanni

9:35 CHED 20. Civic and social responsibility for chemistry majors. **C. Maguire**, N. MirsalehKohan, R.D. Sheardy

9:55 Intermission.

10:20 CHED 21. Maintaining the context-content balance for elementary education students. **B.D. Fahlman**

10:40 CHED 22. Democratized cloud-based computational chemistry in support of undergraduate chemical education and citizen science. **B.B. Magers**, P.J. Carlson, B.D. O'Gwynn, H. McAlexander, D.H. Magers, G. Bishop

11:00 CHED 23. Science in the public interest. **K.K. Oates**

11:20 CHED 24. Assessing citizenship. **S. Carroll**

11:40 Concluding Remarks.

Section D

New Orleans Marriott Convention Center
Blaine Kern B

Strategies Promoting Success of Two-year College Students

T.B. Higgins, *Organizer*
L.J. Anna, A.M. Palmer, *Organizers, Presiding*

Integrating Polymer Science in the Curriculum (see POLY, Mon, Tue)

SOCIAL EVENTS:

Chemistry Educators Luncheon, 12:00 PM: Sun

Social Reception, 5:30 PM: Sun

SUNDAY MORNING

Section A

New Orleans Marriott Convention Center
Blaine Kern C/D

Chemistry Teachers Day Program

Cosponsored by SOCED
S.C. Rukes, *Organizer*
K.B. Gosciniaik, *Presiding*

8:00 Registration.

8:30 Introductory Remarks.

8:35 CHED 1. Development of organic solar cells. **L. Zhai**

9:05 CHED 2. Beyond Benign solar cell technology: Making dye-sensitized solar cells with blackberries. **K. Anderson, M.C. Enright, L.J. Doody**

9:40 CHED 3. Energy and safety in high school chemistry labs. **I.G. Cesa**

10:10 Intermission.

10:15 CHED 4. Solution chemistry as an introduction to food science, energy, and water. **S.B. Mitchell**

10:50 CHED 5. Looking at chemical education around the world. **J. Holman**

11:20 CHED 6. How to use AACT demonstrations in a first and second year chemistry class. **J.L. Ball, K.B. Gosciniaik, K. Duncan**

Section B

New Orleans Marriott Convention Center
Blaine Kern A

Using Light, Color & Spectroscopy to Increase Student Engagement in the Laboratory

J. Bennett, *Organizer*
J.B. Dudek, M.O. Odago, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 CHED 7. Simple and green synthesis of colorful, fluorescent, photochromic, and thermochromic imines for organic chemistry laboratory. **J. Bennett**

8:55 CHED 8. Thought-provoking colorful sophomore organic chemistry laboratory experiment. **A.B. Waghe**, A.A. Waghe

9:15 CHED 9. Fostering student understanding of spectroscopy in a general chemistry laboratory. **K. Schnitzenbaumer**, J. Snyder, J.L. Brown-McDonald, R.E. Rosenberg

9:35 CHED 10. Understanding fluorescence instrumentation using guided inquiry. **M.P. Hill**, E. Nam

9:55 CHED 11. Discover light, and understand matter. **J. Schmeisser, S. Glazier**

10:15 Intermission.

8:30 Introductory Remarks.

8:35 CHED 25. Implementation of the ALEKS chemistry placement test as a tool for student success. **J. Alexander**, A. Wenz

8:55 CHED 26. Developing a mobile-compatible interactive game for naming molecular compounds. **V. Flaris**, J. Ziegler, E. Lehner

9:15 CHED 27. Expanding access to instrumentation through strategic partnerships. **C.J. Stromberg**, K.H. Bennett, D. Ellis, P. Wood, W. Nellis, P. Sheppard, G. Patterson

9:35 Intermission.

9:45 CHED 28. Strategies for overcoming significant challenges faced by the two-year college student. **S. Botha, D.M. Lewis, R. Wooten-Moyer, A.J. Sanders**

10:05 CHED 29. Attachment theory: Guiding STEM majors through significant change. **B.M. Fetterly**

10:25 CHED 30. The right course for the right student. **S. Burchett, J.L. Hayes**

10:45 Intermission.

10:55 CHED 31. Trying on teaching: The learning assistant program at a two-year college. **C.P. Schick**

11:15 CHED 32. Exploring the capacity to improve teacher education (ExCITE). C. Benjamin, S. Donnelly, R. Durren, S. Emerson-Stonnell, M.L. Fink, P. Hastings, V. Lewis, **M.C. Rhoten**, L. Shilling

11:35 CHED 33. Bridges to the baccalaureate: A partnership between Baton Rouge Community College and Louisiana State University to promote student success. **S.L. Watt**, G. Thomas, M.G. Miller, S. Guzman, L. Younger, I.M. Warner, G. Ferreyra

11:55 Concluding Remarks.

Section E

New Orleans Marriott Convention Center
Fulton

Research in Chemistry Education

New & Noteworthy

G.T. Rushton, J.P. Walker, *Organizers, Presiding*
R. Komperda, A. Moon, *Presiding*

8:30 Introductory Remarks.

8:35 CHED 34. Graduate student instructors' knowledge for teaching organic chemistry. **G.V. Szymczak**, A. Moon, M. Connor, E. Zotos

9:15 CHED 35. Thinking processes associated with undergraduate chemistry students' success at applying a molecular-level model in a new context. **M.A. Teichert, L.T. Tien**, L. Dysleski, **D. Rickey**

9:55 Intermission.

10:10 CHED 36. Students' perceptions of a project-based organic chemistry laboratory environment: A phenomenographic approach. **N. Burrows**, S.R. Mooring

10:50 CHED 37. Differential use of study approaches by students of different achievement levels. **D.M. Bunce**, R.

Komperda, M.J. Schroeder, D.K. Dillner, S. Lin, M.A. Teichert, J. Hartman

11:30 Concluding Remarks.

Section F

New Orleans Marriott Convention Center
Blaine Kern E

NMR Spectroscopy in the Undergraduate Curriculum

Financially supported by Anasazi Instruments, Bruker BioSpin, JEOL, Magritek, Mestrelab
D.P. Soulsby, A.S. Wallner, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 CHED 38. NMR spectra of dietary supplements. **J.T. Ippoliti**, G. Larson

8:55 CHED 39. Using ¹⁹F-NMR spectra in organic teaching labs. **M.L. Druelinger, D.L. Dillon**, J.P. Hatfield

9:15 CHED 40. Introducing carbon-13 NMR into the initial molecular model building activities of organic chemistry. **S.A. Hershberger**

9:35 Intermission.

9:50 CHED 41. Organic laboratory activities for teaching heteronuclear nmr to undergraduates. **S.M. Schelble**

10:10 CHED 42. Using a multi-step synthesis and progressive paper to teach NMR spectroscopy in a capstone course. **L. Bastin**, S. Van Bramer

10:30 CHED 43. Fractional hybridization e.g. $sp^{2.5}$, exists and is useful for distinguishing close ¹³C chemical shifts. **D.D. Clarke**

10:50 Concluding Remarks.

Section G

New Orleans Marriott Convention Center
Magnolia

Undergraduate Research Papers

Organic & Medicinal Chemistry

C.V. Gauthier, *Organizer*
J.V. Ruppel, N.L. Snyder, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 CHED 44. Synthesis of an ethylene-linked calixarene dicavitand scaffold: Continued development and optimization of synthetic routes. **E. Peterson**, N.A. Yakelis, J. Freeman

8:45 CHED 45. Synthesis of multipodal organic ligand frameworks for use in combining CMPO groups. **B.G. Wackerle**, S.M. Biros

8:55 CHED 46. Diarylpyrrolinol silyl ether as organocatalyst for asymmetric cycloaddition of β,β -unsaturated aldehydes to 3-hydroxyoxindoles to produce spirocyclic β -lactones in aqueous media. **K. Mills**, A.D. Headley, B. Ni

9:05 CHED 47. Synthesis of amides using microwaves and titanium dioxide. **E. Peters**, M. Wentzel

9:15 CHED 48. The use of chiral, non-racemic homoallylic amines as building blocks for piperidine synthesis. **H. Allen**, M.G. Donahue

[†]Cooperative Cosponsorship

9:25 Intermission.

9:35 CHED 49. Scalable synthesis of cancer preventing benzylmorpholines. **J. Torgunrud**, M.M. Bobylev

9:45 CHED 50. 4-dimethylamino chalcone synthesis optimization and medicinal properties. **H. Cox**, J. Alexander

9:55 CHED 51. Progress on the synthesis of carbohydrate porphyrin conjugates for the photodynamic inactivation of mycobacterium tuberculosis. **L. Russell**, M. Burch, D. Dennis, J.V. Ruppel, N.L. Snyder

10:05 CHED 52. Towards the synthesis of bacteriochlorin glycoconjugates. **N. Abualeinan**, M.R. Parris, D. Dennis, M. Burch, N.L. Snyder, J.V. Ruppel

10:15 CHED 53. Synthesis of new novel CK1d inhibitors as potential therapeutics for Alzheimer's disease. **C. Gettridge**, V. Jha, H. Duong, M. Bratton, J. Sridhar

10:25 Intermission.

10:35 CHED 54. Inhibition of lysyl oxidase in breast cancer cells using derivatized β - aminopropionitrile. **K.A. Johnston**, K.M. Lopez

10:45 CHED 55. Antimycobacterial compounds isolated from marine bacteria and their potential role in biofilm formation. **D. Mellor**, J.A. Trischman

10:55 CHED 56. Antimycobacterial compounds from a marine bacterium isolated from the surface of *Ulva californica*. **K. Moorman**, E. Paul, J.A. Trischman

11:05 CHED 57. Identification of a pharmacophore capable of potentiating β -lactam antibiotics in methicillin-resistant *Staphylococcus aureus* (MRSA) via fragment based screening. **K. Gillard**, M. Seeman, H.B. Miller, M.S. Blackledge

11:25 Concluding Remarks.

Section H
New Orleans Marriott Convention Center
Fleur De Lis

Chemistry Education Research: Graduate Student Research Forum

A. Hjerstedt, J.M. Pratt, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 CHED 58. Comparison of emission spectra from various light sources: A physical chemistry education outreach project. **A.E. Steen**, K.D. Scott, N. Hammer

8:55 CHED 59. Theory of planned behavior applied to high school chemistry teachers implementing next generation science standards. **A. Pierce**, C.E. Brown

9:15 CHED 60. Identifying epistemic games to assist in improving students' chemistry reasoning. **S. Couture**, H. Sevan

9:35 CHED 61. Authentic environmental chemistry research in the high school classroom. **N. May**, J.L. Spencer, A. Watson, L. Bricker, R. Dershimer, K.A. Pratt, G.V. Szymczak

9:55 Intermission.

10:10 CHED 62. Transitioning to eBooks: Student use of various textbook features. **E. Day**, N.J. Pienta

10:30 CHED 63. Optimistic student predictions vs. reality in first semester chemistry. **M. Leake**, D. Mlnsa

10:50 CHED 64. The long-term and cumulative effect of online metacognitive training in general chemistry. **B. Casselman**, C.H. Atwood

11:10 CHED 65. Integrating scale themed instruction into an undergraduate anatomy and physiology course. **V. Fisher**

11:30 CHED 66. Using analogies as formative assessment tool to help students learn in chemistry. **D.V. Xue**, M.N. Stains

11:50 Concluding Remarks.

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&E, INOR, MPPG, SCHB and YCC

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

SUNDAY AFTERNOON

Section A
New Orleans Marriott Convention Center
Blaine Kern C/D

Chemistry Teachers Day Program
Cosponsored by SOCED
S.C. Rukes, *Organizer*
K.B. Gosciniaik, *Presiding*

1:30 Introductory Remarks.

1:35 CHED 67. The *Journal of Chemical Education* in the precollege classroom. **D. Cullen**, G.T. Rushton

1:45 CHED 68. Award Address
(James Bryant Conant Award in High School Chemistry Teaching Sponsored by the Journal of Chemical Education and ChemEd X). The chemistry of opportunity: From the commode to the Conant Award. **B.J. Kennedy**

2:15 CHED 69. Demonstrations, experiments and research involving the Diet Coke and Mentos experiment. **T.S. Kuntzleman**

2:55 CHED 70. Serendipity in the history of chemistry. **D.E. Lewis**

3:25 Intermission.

3:30 CHED 71. What's in the water? Modelling, measuring and visualizing solutions. **T.M. Loschiavo**

4:00 CHED 72. Chemical security education in US educational system. **A. Nelson**

4:25 CHED 73. Polymer science and

engineering laboratory activities for the high school classroom developed by RET participants at the University of Southern Mississippi. **S.E. Morgan**, K. Wingo, J. Brownlow, J. Sorrell, R. Hooper

5:05 Concluding Remarks.

Section B
New Orleans Marriott Convention Center
Blaine Kern A

Process-Oriented Guided Inquiry Learning (POGIL)

R.S. Moog, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 74. POGIL and The POGIL Project. **R.S. Moog**

1:55 CHED 75. Assessing POGIL process skills in general chemistry using standards-based grading. **J.G. Davis**

2:15 CHED 76. Information processing of POGIL models. **S.G. Prilliman**

2:35 Intermission.

2:45 CHED 77. Incorporating dynamic models into POGIL activities for general chemistry. **S. Gardiner**, J. Johnston

3:05 CHED 78. Providing students an opportunity to learn chemistry: combining interactive lecture demonstrations, computer simulations, and POGIL-ish activities in a large lecture setting. **T.J. Greenbowe**, D.B. Exton, D.R. Sullivan

3:25 CHED 79. Framework to support instruction and assessment of noncovalent interactions in general chemistry and biochemistry. **V.M. Thorsell**, J.A. Loertscher, J.E. Lewis, A.M. Mercer, A. Dragon, J.D. Pagdanganan, M.T. Werth

3:45 Intermission.

3:55 CHED 80. POGIL activity clearinghouse: Helping authors to create, test, and distribute peer-reviewed POGIL activities. **S. Garrett-Roe**, C. Fish, M.P. Garoutte, M.S. Reeves, C.M. Teague, R.M. Whitnell, A. Grushow, S.S. Hunnicutt

4:15 CHED 81. Significance of significant figures: Introducing metrology in freshman chemistry lab. **M. Howard**

4:35 CHED 82. Implementing POGIL in a flipped organic chemistry lecture. J. Lamblin, L. Luckins, **A. Mueller**

4:55 CHED 83. Are two POGIL's better than one? A study done across multiple semesters. **E.L. Bailey**

5:15 Concluding Remarks.

Section C
New Orleans Marriott Convention Center
Tchoupitoulas

Citizens First!
Cosponsored by CEI
R.D. Sheardy, *Organizer*
C. Maguire, *Organizer, Presiding*
L. Robinson, *Presiding*

1:30 Introductory Remarks.

1:35 CHED 84. Stewardship of public waterways: Immersion in the Chesapeake Bay environment. **M.C. Rhoten**, M.L. Fink

1:55 CHED 85. Non-majors general chemistry course as a forum to promote civic responsibility. **N.M. Crompton**

2:15 CHED 86. Sharing your research with the general public: A trip to the mall. **N. Mirsaleh-Kohan**

2:35 CHED 87. Teaching green chemistry principles in environmental chemistry. **S.J. Bachofer**

2:55 Intermission.

3:20 Panel Discussion.
4:35 Concluding Remarks.

Section D
New Orleans Marriott Convention Center
Blaine Kern B

Green Chemistry Student Chapters: Stories of Success

M.C. Enright, J. MacKellar, *Organizers, Presiding*

1:30 Introductory Remarks.

1:50 CHED 88. Splashing into green C=chemistry with both fizzies! **S. Margis**, **S. Turner**, **S. Stokes**, **E.N. Tran**, **J. Schneider**, **C.L. Emmerling**, G.R. Naumiec, F.M. Yarberry

2:00 CHED 89. ACS Green Chemistry Division at UPR-Aguadilla: A story of continuous success. **L. Acevedo-Soto**, **A.E. Hernandez**, B.J. Ramos-Santana, R.A. Estremera-Andújar, C.A. Nieves-Marrero

2:10 CHED 90. Green chemistry at the University of Tennessee at Martin. **M. Kerbersky**, S. Oliva, T. Rinehart, S.E. Max, B. Ide, W.L. Kuenzinger, A.H. Shelton

2:20 Intermission.

2:40 CHED 91. Making a difference: Green chemistry in West Virginia. M. Nicolay, A. Smith, R. Morris, **M.W. Fultz**

2:50 CHED 92. Green chemistry activities at Tennessee Technological University. **R. Baker**, A.J. Carroll

3:00 CHED 93. Raising green chemistry awareness on college campuses and throughout the Toledo community. **C.M. Schreidah**, M.P. Klingberg, E.N. Kenney, G.T. Hymel, M.J. Demmings, E.T. Diemler, J.D. Koffman, O.M. Tharp, J.P. Fife, D.K. Kaeley, N. Mai, E.P. Kippenhan

3:10 Intermission.

3:30 CHED 94. (gc)²: Gordon College's commitment to green chemistry. **Q. Dougherty**, L. Atlas, V. Ganss, A.H. Kjellson, S. Lareau, J.J. Levy

3:40 CHED 95. Innovation for a healthier planet: Green Chemistry student activities at the University of New England. **J. White**, **K.A. Chalmers**, A.E. Keirstead

3:50 CHED 96. ACS UPRB: Emerging as green chemistry ambassadors. **D. Rivera-Rodriguez**, L. Santiago, N.I. Estarellas San Miguel, J. Oyola, B. Padilla Maldonado

4:00 Concluding Remarks.

4:20 Discussion.

Section E
New Orleans Marriott Convention Center
Fulton

Perspectives on Climate Change Literacy & Education: Local to International
Cosponsored by CEI
K.E. Peterman, *Organizer*

[†]Cooperative Cosponsorship

G.P. Foy, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 97. Climate change: Reasons for hope. **T.J. Watson**

1:55 CHED 98. Climate change and perspective: Local and global views on problems and solutions in climate change. **J. White**, G.P. Foy, K.E. Peterman

2:15 CHED 99. Biology and climate change: The emergence of biofuels. **Z.J. Snier**, K.E. Peterman, G.P. Foy

2:35 CHED 100. Water's role in climate change. **M. Civitella**, G.P. Foy, K.E. Peterman

2:55 Intermission.

3:05 CHED 101. Understanding of climate science among deaf and hard-of-hearing laboratory technology students improve with the ACS Climate Science Toolkit. **A.D. Ross**, T.E. Pagano

3:25 CHED 102. Withdrawn

3:45 CHED 103. Feasibility of implementing solar power as a primary source of power. **J. Pothoof**, K.E. Peterman, G.P. Foy

4:05 CHED 104. Innovations of renewable resources and the role of the US at the UNFCCC 23rd Conference of Parties. **H. Kruelle**, G.P. Foy, K.E. Peterman

4:25 Panel Discussion.

4:35 Concluding Remarks.

Section F

New Orleans Marriott Convention Center

Blaine Kern E

NMR Spectroscopy in the Undergraduate Curriculum

Financially supported by Anasazi Instruments, Bruker BioSpin, JEOL, Magritek, Mestrelab
D.P. Soulsby, A.S. Wallner, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 CHED 105. Nuclear magnetic resonance: The initial student experience in a university/high school collaboration. **E. Gray**, **M.J. Fromerth**

1:55 CHED 106. Incorporation of benchtop NMR spectroscopy into undergraduate laboratory curricula: Challenges and considerations. **S. Riegel**, J. Araneda

2:15 Intermission.

2:30 CHED 107. A multi-outcome experiment for the preparation of enamines in the undergraduate organic chemistry teaching laboratories. **K. Yeaarty**, R. Maynard, R.C. Moore, R.W. Morrison

2:50 CHED 108. Structure elucidation of an unknown organic molecule using spectroscopic techniques. **J.A. Pigza**

3:10 CHED 109. A multi-outcome experiment involving the green oxidation of alcohols in the undergraduate teaching laboratories. **K. Yeaarty**, C.E. Glessner, R.W. Morrison

3:30 Concluding Remarks.

Section G

New Orleans Marriott Convention Center
Magnolia

Undergraduate Research Papers

Analytical & Physical Chemistry

C.V. Gauthier, N.L. Snyder, *Organizers*
J.V. Ruppel, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 110. Taming SERS headspace sampling with temperature control. **R.H. Thompson**, M.N. Alam, W. Senanayake, D.E. Thompson

1:45 CHED 111. Characterization of thirdhand smoke constituents on aged smoke-exposed fabrics using high resolution mass spectrometry. **H. Bayat**, A. Whillatch, W. Jiang, Q. Zhang, S.F. Schick, T.B. Nguyen

1:55 CHED 112. Analysis of E-cigarette fluids with direct sample injection (DSI) GC-MS/MS. **K. Rogers**, K.J. Biscaglia, L. Huang

2:05 CHED 113. Identification of 2-butanone and other VOC's in ivy plants exposed to cigarettes. **J.C. Carter**

2:15 CHED 114. SPME-GC/MS analysis of bacterial volatile organic compound biomarkers for ventilator associated pneumonia. **S.E. Worthy**, C.J. Taylor

2:25 Intermission.

2:35 CHED 115. Using 2D J-resolved NMR to understand carbohydrate conformations. **S. Culver**, J.S. Rhoad

2:45 CHED 116. Isothermal titration calorimetry study of the ligand exchange of oleate-CdSe quantum dots with pyridine. **L.P. Hicks**, J.D. Keene

2:55 CHED 117. Adsorption and hydrolysis of volatile methyl siloxanes on alumina surfaces. **K. Fabrizio**, K.M. Stocker

3:05 CHED 118. Using microstructures of gold-coated photodefinable glass as substrates for surface enhanced Raman spectroscopy. K. Tantawi, **Y. Musa**, S. Dowd, R. Kamali, E.A. Waddell, J. Williams

3:15 CHED 119. Far-infrared synchrotron spectroscopy of formic acid. **K. Hull**, P. Raston

3:25 Intermission.

3:35 CHED 120. Using mathematical tools to characterize chromatin geometries in crystal, cryo-EM and simulated structures. **O. Maxian**, S. Todolli, W.A. Olson

3:45 CHED 121. Multicomponent flexible film of organometallic polymers with polyimide as high k and low loss dielectric. **C.M. Anastasia**, S. Nasreen, G.M. Treich, M.L. Baczkowski, M. Tefferi, Y. Cao, G. Solzing

3:55 CHED 122. Amino acid-derived decoration agents for radionuclides. **B.M. Jones**, A.D. Parfenov, M.Y. Farraj, J.D. Dignam, K.J. Friedrich

4:05 CHED 123. Polyaniline and nickel hexacyanoferrate modified Prussian blue electrochemical sensors. **M. Byrne**, D. Budner

4:15 CHED 124. Designing a Let-7i detection strategy to elucidate disease states. **A. Gee**, J. Grennell, S. Sitaula, M.F. Ali

4:25 Concluding Remarks.

Section H

New Orleans Marriott Convention Center

Fleur De Lis

Chemistry Education Research: Graduate Student Research Forum

A. Hjerstedt, J.M. Pratt, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 CHED 125. Acclimation of first-year graduate teaching assistants to the undergraduate organic chemistry instructional laboratories. **K. Yeaarty**, R.W. Morrison

1:55 CHED 126. Teaching assistants' topic-specific pedagogical content knowledge in ¹H NMR spectroscopy. **M. Connor**, G.V. Szymczak

2:15 CHED 127. Creation of an undergraduate certificate in chemistry education program: Updates and findings. **E.L. Atieh**, D.M. York

2:35 CHED 128. Understanding perceptions and beliefs biochemistry instructors hold and the influence these factors have on their personal style of teaching. **F.K. Lang**, G.M. Bodner

2:55 Concluding Remarks.

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC[†], MPPG[†] and PRES[†]

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDIF[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Science Cafes & Engaging the Public: Techniques for Hosting Successful Events

Sponsored by PRES, Cosponsored by CATI, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, I&EC, INOR, MPPG, SCHB and YCC

SUNDAY EVENING

Section A

Ernest N. Morial Convention Center Hall D

General Posters

I.J. Levy, *Organizer*

7:00–9:00

CHED 129. Biennial Conference on Chemical Education: A place to share information about the teaching and learning of chemistry. **J.M. Sophos**, R.S. Cole, J. Henderleiter Aldrich, D.S. Heroux, S.S. Hunnicutt, I.J. Levy, S.R. Mooring, M. Orgill, C. Sorensen-Unruh, D.G. Sykes, V.M. Williamson

CHED 130. Changing the course of chemistry: Adopting the green chemistry commitment. **D. Ward**, A.S. Cannon, I.J. Levy

CHED 131. Participant feedback on laboratory argumentation BCCE workshops: Why do I want to incorporate argumentation into my lab instruction? **M.T. van Opstal**, J.P. Walker, D.I. Del Carlo

CHED 132. Biotechnology NSF S-STEM program at Western Kentucky University. **K. Williams**

CHED 133. STEM academy: A summer program for NSF S-STEM scholars. **R. Montgomery**, P.A. Shelton, M. Gibson, R. Witmer, J. Devito, B. Bradley

CHED 134. Chemical science investigation: Sandia National Laboratories. **J.M. Sears**, T.J. Boyle, B.A. Hernandez-Sanchez, J. Bremmer

CHED 135. Teaching diversity in second-semester organic chemistry: A contemporary, student-centered approach. **J. Gavenonis**

CHED 136. Applied mathematics and aerospace engineering academy for middle school girls. E.A. Nalley, **M.E. Brown**, M. Magness, T. Sullins

CHED 137. 'Biology' and other chemistry concepts unleashed: Enhancing the undergraduate chemistry curriculum with 3D printing. **S. Ryan**

CHED 138. Investigating the effect of deliberative democracy on students' perceptions of science and confidence interpreting scientific material. **R. Komperda**, K. Hosbein, J. Barbera, E.E. Shortlidge, G.P. Shusterman

CHED 139. ACS meets IUPAC: Chemical nomenclature and the role of NTS. **M.M. Rogers**, **M.A. Strausbaugh**, **D. Rabinovich**

CHED 140. Looking back – looking forward: Analyses of ACS Examinations and the anchoring concepts content maps as tools for evaluating curricula. **S. Srinivasan**, J.J. Reed, K.L. Murphy, T. Holme, J.R. Raker

CHED 141. Design and implementation of chemistry curriculum for fire fighters in Macau. **P.K. Yuen**, C.D. Lau, E.M. Yen

CHED 142. Using the resources available: Faculty recruiting prospective students in STEM. **M.W. Fultz**

CHED 143. Humor in the classroom: Increasing classroom attendance and engagement through humor. **J. Meyer**

CHED 144. Virtual practice in STEM teaching assistant professional development: Using a mixed-reality teaching simulator to enhance classroom discourse in student-centered learning environments. **E. Saitta**

CHED 145. Comparing the productivity of science-specific and general databases for chemistry primary literature searches. H. Schlarman, **S.D. Wiediger**

CHED 146. Impact of curricular and non-curricular research involvement in STEM persistence. **M. Bolanos**, A.M. Ruiz, B.L. Gonzalez

[†]Cooperative Cosponsorship

CHED 147. Withdrawn

CHED 148. Liquid nitrogen ice cream: College student conceptual chemistry understanding and intended goals for chemistry outreach events. **J.M. Pratt**, E.J. Yeziarski

CHED 149. Using a scanning electron microscope as an outreach education tool. **B.J. Bellott**

CHED 150. Meeting our students where they are: Using text messaging to both promote effective studying and provide formative assessment in introductory chemistry. **D.G. Herrington, P.L. Daubenmire, R. Sweeder, M. Smith, E. Stumpe**

CHED 151. Using Instagram as a tool to help undergraduate students in chemistry. **A.J. Roering**, S.C. Silver, J. Mondloch, A.L. Korich

CHED 152. Taking a step toward the future: Being a learning assistant at a two-year college. **C.P. Schick**, A. Tariq, V.L. Miller

CHED 153. Sci-phi: An honors seminar on the science and philosophy of *Dr. Who*. **S.E. Hubbard**, M.K. Douglass

CHED 154. Using humor as an attention focusing tool in a liberal arts chemistry class. **B. Budy**

CHED 155. CHEM 115 – A new model for under-prepared chemistry students. **G. Smeureanu**, D.M. McGregor, P. Mills

CHED 156. Chemistry of fashion: Course for nonscience majors. **K.A. Tallman**

CHED 157. Teaching chemoinformatics at the undergraduate level. **J.L. Medina-Franco**, F. Saldívar-González

CHED 158. From KDD to computational toxicology: A course for graduate students in Mexico. **K. Martinez Mayorga**, K. Gonzalez-Ponce

CHED 159. Conceptual understanding of the linear least-squares expressions by means of mechanical analogs. **D.A. Engbreton**, J. Carey

CHED 160. PhET simulations assigned transparently in introductory chemistry. **K.A. Kaiser**, D. Nguyen-Graff, L. Ye

CHED 161. Remote interview methods. **J.M. Trate**, C.J. Luxford, M.A. Teichert, J.L. Schneider, K.L. Murphy

CHED 162. Integrating writing and computing in the general chemistry curriculum. **S. Bidwell, H. Harb**, H.P. Hrachian, M. Colvin, E.J. Menke, P. Gibbons, A. Zanzucchi, J. Leslie

CHED 163. Compute-to-Learn: Authentic learning via development of interactive computer demonstrations within a peer-led studio environment. M. Jafari, A.R. Welden, K. Williams, B. Winograd, **E. Mulvihill**, H.P. Hendrickson, M. Lenard, A.C. Gottfried, E. Geva

CHED 164. Research to practice: Examining the application of a construct map in support of biochemistry students' understanding of the physical basis of interactions. **S. Feola, A.M. Mercer**, P. Lemons, V.M. Thorsell, J.A. Loertscher, J.E. Lewis

CHED 165. Development of an inventory to measure students' understandings of quantization and probability using representations of the electronic structure of the atom. **Z. Allred**, S. Bretz

CHED 166. Are they the same or not the same? Close-ended versus open-ended assessments for student learning in chemistry. **L. Ye**

CHED 167. Development of a concept inventory to assess students' understandings of enthalpy and entropy changes in the context of dissolving and precipitation. **T.N. Abell**, S. Bretz

CHED 168. Investigating students' conceptions of chemical kinetics and reaction coordinate diagrams. **M. Croisant**, S. Bretz

CHED 169. Task complexity measures and Item response theory parameters: How are they related? **T.C. Pentecost**, J.R. Raker, K.L. Murphy

CHED 170. Effects of undergraduate student perceptions of inquiry-based laboratory experiences on future research interests. **D.M. Oldendorf**, T. Gupta

CHED 171. Enhancing the teaching ability of young teachers relying on the construction of the course team. **Z. Wang**, Z. Jiang

CHED 172. Development of assessments for student understanding of core chemistry ideas in introductory biology. **A.T. Kararo**, R. Matz, K. Parent, A. Gotwals, S.M. Underwood

CHED 173. Active learning assessment in a Biochemistry course. **C.E. Brown**, R.M. Hyslop

CHED 174. Standards based grading in the chemistry classroom: Assessing outcomes, making grading simple and maintaining rigor. **S.A. Toledo**

CHED 175. Assessing the effect of empirical reasoning support on student learning outcomes in general chemistry. A. Rod, R. Friedkin, D. Weiman, **J.S. Alexander**

CHED 176. Influence of test blueprint publication on student perceptions and performance in an inorganic chemistry course. **K. Young**, S. Lashley, S. Murray

CHED 177. Climate change science: Measuring ancient temperatures and atmosphere compositions. **P.R. Robinson**

CHED 178. Paper spectrometers: The intersection of environmental chemistry and engineering. **A. Kahl**

CHED 179. NanoEarth: An earth and environmental nanotechnology collaborative for research, education, outreach, and diversity. **M. Chan**, T. Pruiitt, P.J. Vikesland, M.F. Hochella

CHED 180. Chemical entrepreneurship in a typical chemical instrumental analysis course. **P.J. Carlson**, L. Robinson, G. Bishop

CHED 181. Investigation of nucleation mechanisms in the candy-cola soda geyser. **T.S. Kuntzleman**, B.T. Shadley, M. Nydegger, N. Doctor, D.J. Campbell

CHED 182. Contextualizing general

chemistry with biological applications: How collaborative learning and problem-solving supports may help. R.A. Garner, J.M. Maguire, K.A. Leamy, J.R. Miller, L.E. Ritchey, **P.C. Bevilacqua**

CHED 183. Investigation of student attitudes and understanding in an online versus traditional introduction to inorganic chemistry course. **H. Nennig**, L. Salzer, R.M. Theisen

CHED 184. Interteaching in the general chemistry classroom: A low-tech alternative to the conventional "flipped" approach. **K.J. Feierabend**, B.T. Karaszia

CHED 185. Simulation use in general chemistry: Improving student conceptual understanding. **R.D. Sweeder**, J.R. Vandenas, D.G. Herrington

CHED 186. Withdrawn

CHED 187. An integrated laboratory-based and guided inquiry approach to teaching the second semester of the general chemistry sequence. **T.L. Longin**, D.B. Wacks, D.L. Van Engelen

CHED 188. Implementation and assessment of a successful one-semester general chemistry that replaces the traditional full-year sequence. **W. Kennerly**, K. Frederick, K. Sheppard

CHED 189. Analysis of general chemistry lecture discourse regarding gases and its effect on students' perception of chemical representations. **M.L. Head**, A. Gallimore, I. Brozino, J. Sukumar, K. Forsberg

CHED 190. Encouraging general chemistry students to come to office hours. **D.B. King**

CHED 191. General chemistry performance expectations: Report on a workshop and the nucleation of a community. **D.J. Wink**, A. Donovan

CHED 192. NanoExplorers: A high school summer science academy A STEM enrichment activity. E.A. Nalley, **M. Magness**, M.E. Brown, B. Schmidt, D. Coffee, J. Drake

CHED 193. Roadmap to success: Connecting urban high school students with Syracuse University research experience. B. Kunnath, G. Bonomo, **M.M. Gillett-Kunnath**, K. Ruhlandt-Senge

CHED 194. Determination of ethanol concentration using Raman spectroscopy. **S. Meyer**, **E. Marshall**, K.H. Bennett, S.M. Ensel, C.J. Stromberg

CHED 195. ZnO nanocrystals imaged with scanning electron microscopy: An interdisciplinary undergraduate laboratory module. **J.M. Fritsch**, J.C. Mann

CHED 196. Pre-laboratory instruction: An investigation of effectiveness by mode of delivery. **L. Aronne**, A. George, C. Nagle, J. Styers, A. Combs

CHED 197. Active learning does not stop in lecture: Carry over into the general chemistry lab setting. **A. Jameer**, **A. Sower**, R.L. Falconer, A. Caster

CHED 198. Molecular dipole moments & solvent polarity: Concepts bridging

molecular and bulk-matter phenomena in physical chemistry instruction. **P.O. Sandusky**

CHED 199. Nitric acid as a weak acid: Interpreting evidence from Raman spectroscopy. **E.M. Rezler**, J.E. Haky, A.C. Terentis, S. Hyvarinen

CHED 200. Identification of chemical signatures from latent fingerprints using a Griffon 450 GCMS. **K. Jankowski**

CHED 201. POGIL activity linking thermodynamic parameters of protein unfolding to structure using differential scanning fluorimetry data in the biophysical chemistry classroom. **P. Emery**, E.J. Yeziarski, R.C. Page

CHED 202. Surface tension, density, and refractive index of binary water: Monoalcohols liquid systems. **H. Bascal**

CHED 203. Determining enantiomeric excess in ibuprofen. **A. Frangiadis**, G.P. Foy

CHED 204. Distilling the rainbow: A simple distillation for the sophomore organic chemistry lab. P. McKegg, **J. Patrone**

CHED 205. Organic chemistry students' challenges with making connections between reactions and reaction coordinate diagrams. **M. Popova**, S. Bretz

CHED 206. Big fish in a big pond: Tools and techniques to make a large organic chemistry class feel like a small one. **A.E. Keirstead**

CHED 207. Integration of iPads into the organic chemistry sequence. **B.A. Provencher**, J. Franco

CHED 208. Hybrid teaching & beyond: Use of videos across the organic chemistry curriculum. **R.L. Woodward**, C.S. Reid

CHED 209. Labeled mechanism arrows in organic chemistry. **J. Mullins**

CHED 210. Modification of a classic acid-neutral separation experiment for a first semester organic chemistry lab. **T.J. Bruner**, K.P. Reber

CHED 211. OrganicERs: A cCWCS community of organic chemistry educators. J. Houseknecht, **A. Leontyev**, V.M. Maloney, J.L. Muzyka, R.D. Rossi, C. Welder, **L. Winfield**

CHED 212. Using molecular polygons to characterize effects of geometry on macrocycle self-assembly in the organic teaching laboratory. **A. Schafer**, E.J. Yeziarski, C. Hartley

CHED 213. Microwave-assisted isolation of eugenol from cloves. **K.R. Overly**

CHED 214. Course based undergraduate research in the organic chemistry laboratory. **M. Hunsen**

CHED 215. Change is inevitable: A perspective on the evolving instruction of first year organic chemistry. **M.L. Druelinger**, **A.M. Schoffstall**

CHED 216. Factors influencing the retention of concepts between first and second semesters of organic chemistry. **W.E. Brenzovich**, W. Hollis

[†]Cooperative Cosponsorship

CHED 217. Grignard reactions using unknown aldehydes or ketones. **D.C. Haagenson**

CHED 218. Synthesis and analysis of merocyanine dye: A wet/dry lab approach in undergraduate organic chemistry laboratory. **A.A. Waghe, A.B. Waghe**

CHED 219. Concept of effective mass in understanding quantum confinement in quantum dots and nanocrystals. **D.A. Engebretson, R.M. Bercau**

CHED 220. Modernization of traditional physical chemistry experiments. **A.S. Frantzen**

CHED 221. Does supplemental instruction improve grade percentages in organic chemistry. **J.A. Jenson, R. Claus**

MONDAY MORNING

Section A
New Orleans Marriott Convention Center
Blaine Kern C

ACS Award for Achievement in Research for the Teaching & Learning of Chemistry

M.H. Towns, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 CHED 222. Herding cats: Chemical education scholarship at a "compass" school. **D.I. Del Carlo**

8:55 CHED 223. Relationship between student study time, satisfaction and exam grade in two chemistry courses. **J.R. Pribyl, M. Hadley, S. Bowman**

9:15 CHED 224. Everything old is new again: A story of finding a dissertation relevant many years later. **K. Casey**

9:35 CHED 225. Theories into practice in chemical and science teacher education. **J.W. Shane**

9:55 Intermission.

10:05 CHED 226. De-construction before construction. **G. Bhattacharyya**

10:25 CHED 227. Revisiting the problem-solving mindset: Reflections from the classroom. **D.E. Gardner**

10:45 CHED 228. Investigating the feasibility of integrating biopolymers as a STEM activity into an elementary education science methods course as a prompt to reveal understanding of polymer science concepts. **R. Ferguson**

11:05 CHED 229. Accessibility of symbolic representations of chemical reactions. **A.L. Lewis**

11:25 CHED 230. Exasperating encounters in chemistry education scholarship while developing and implementing educational innovations for students enrolled in general chemistry. **T.J. Greenbowe**

Section B
New Orleans Marriott Convention Center
Blaine Kern A

ACS-CEI Award for Incorporating Sustainability into Chemical

Education
Cosponsored by CEI and ENVR
S.O. Obare, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 CHED 231. 2011-2018: Advances in the personal and professional life of a materials scientist using sustainability as a platform for success. **A.E. Marteel Parrish**

9:05 CHED 232. Education for sustainable development in high school through inquiry-type socio-scientific issues. **R. Mamlok-Naaman**

9:35 CHED 233. Awareness and promotion of the roles of chemistry and chemical education in sustainability. **V.H. Grassian**

10:05 Intermission.

10:25 CHED 234. Relevant learning in science education: Research, development and implementation. **M. Hugerat**

10:55 CHED 235. Green & sustainable chemistry workshop for high school teachers. **J.E. Wissinger, C. Knutson, C. Javner**

11:25 Panel Discussion.

11:55 Concluding Remarks .

Section C
New Orleans Marriott Convention Center
Tchoupitoulas

Active Learning in the General Chemistry Curriculum

J.K. Robinson, *Organizer, Presiding*

8:30 CHED 236. Student attitudes and self-concepts in an active learning preparatory chemistry classroom utilizing the construction of explanations to promote understanding. **M.B. Atkinson, S. Krishnan, L. McNeil, J.A. Luft, N.J. Pienta**

8:50 CHED 237. Comparison of technology implementation used to integrate active learning into massive lecture courses. **A. Holton**

9:10 CHED 238. Active learning tools for general chemistry. **N. Tro**

9:30 CHED 239. Incorporating in-class active learning modules using online-accessed content in a collaborative learning classroom. **D.K. Wicht**

9:50 Intermission.

10:05 CHED 240. Combined instructional strategy and technology to engage and encourage students in active learning and teamwork discussion in integrated chemistry classroom activities. **N. Sanguantrakun**

10:25 CHED 241. Adding active learning to the first day of general chemistry lab. **E.P. Kippenhan**

10:45 CHED 242. Active learning via the "study buddy" system and team-presentations. **M. Ilies**

11:05 CHED 243. Chem 101: Using smart suggestions as a novel digital input method for chemical nomenclature, formulae, and reactions to enable active learning assessments in first-year chemistry. **J.B. Weinberg**

11:25 CHED 244. Engaging general chemistry students with interdisciplinary

investigations. **K.S. Owens, A. Murkowski, H. Price, A. Johansen**

Section D
New Orleans Marriott Convention Center
Blaine Kern E

State-of-the-Art: Two Decades Advancing the 12 Principles of Green Chemistry
Cosponsored by PRES
J.C. Warner, *Organizer*
I.J. Levy, *Presiding*

8:30 Introductory Remarks.

8:35 CHED 245. Green chemistry theory & practice: Principle 1. From improving what is to inventing what could be. **J.C. Warner, P.T. Anastas**

9:35 Intermission.

9:45 CHED 246. Principle 2. From atom economy to circular economy. **S. Hunter, R. Helling**

10:05 CHED 247. Principle 3. Towards organic chemistry without organic solvents: The case for use of designer surfactants for safer organic reactions. **M. Cortes-Clerget**

10:25 CHED 248. Principle 4. Concepts of green chemistry and its role in the identification and design of safer chemicals and products. **P. Spencer**

10:45 Intermission.

10:55 CHED 249. Principle 5. Greener solvent alternatives for common medicinal chemistry applications. **J. Murray**

11:15 CHED 250. Principle 6. Delta S: An environmentally benign and worker safe asphalt additive. **J. Bianchini**

11:40 Concluding Remarks.

Section E
New Orleans Marriott Convention Center
Fulton

Research in Chemistry Education

J.H. Carmel, *Organizer*
M. Anzovino, *Organizer, Presiding*
J. Carmel, *Presiding*

8:30 Introductory Remarks.

8:35 CHED 251. Peers promoting a growth mindset in the general chemistry laboratory. **H.B. Miller, T. Knippenberg**

8:55 CHED 252. Engaging students in green chemistry: Motivational outcomes of a green chemistry laboratory design in a first-semester general chemistry course. **L.J. Doody**

9:15 CHED 253. Developing assessment tasks for the scientific practices: Alignment, design, and testing. **J.H. Carmel, E.M. Duffy, D.G. Herrington, M. Cooper**

9:35 CHED 254. Implementation and evaluation of designated laboratory partnerships in an undergraduate chemistry laboratory. **D. Samarasekara, D. Mlsna**

9:55 Intermission.

10:10 CHED 255. Success in biochemistry: The GIG model and student backgrounds. **C.T. Cox**

10:30 CHED 256. Upper-division chemistry students' navigation and use of quantum chemical models: A fragmented

conceptual landscape. **J. Beck, M.N. Muniz**

10:50 CHED 257. The utility of learning progressions in the undergraduate biochemistry curricular sequence. **A.M. Mercer, A. Wolfson, S. Suheimer, J.E. Lewis**

11:10 CHED 258. The instructional profiles of undergraduate science classes: Characterizing teacher and student behaviors in over 2,000 classes. **J. Harshman, M.N. Stains**

11:30 Concluding Remarks.

Section F
New Orleans Marriott Convention Center
Blaine Kern B

Curricular Innovations in Undergraduate Chemical Education Impacted by NSF

R.K. Boggess, *Organizer*
C.A. Burkhardt, *Organizer, Presiding*

8:30 Introductory Remarks.

8:40 CHED 259. Assessing the impacts of the flipped classroom environment on student learning and motivation in chemistry. **J. Barbera, M.M. Phillips**

9:05 CHED 260. Improving STEM education through departmental action teams. **J.C. Corbo, K. Falkenberg, C. Ngai, M. Pilgrim, G. Quan, D. Reinholz, S. Wise**

9:30 CHED 261. Moving faculty from experimentation with to long-term adoption of engaged student learning in analytical chemistry. **R.S. Cole, T.J. Wenzel, I. Brown**

9:55 Intermission.

10:05 CHED 262. Promoting analogical reasoning in general chemistry laboratory experiments. **M.R. Bruce, J.C. Walter, A.E. Bruce, A.C. Turner, D. Howard, S.R. Poll, C.D. Eaton**

10:30 CHED 263. Technology-based support for students' representational competencies improves their learning of chemistry concepts. **M. Rau**

10:55 CHED 264. Visualizing chemistry with infrared thermography. **C. Xie, A.T. Torelli**

11:20 Intermission.

11:30 CHED 265. Building early career undergraduate research experiences at Pasadena City College. **V.I. Jaramillo**

11:55 CHED 266. NSF-Noyce at a primarily undergraduate institution: Initiating institutional change towards improving the pipeline of pre-service secondary STEM teachers. **D.L. Jacobs**

12:20 Concluding Remarks.

Section G
New Orleans Marriott Convention Center
Magnolia

Undergraduate Research Papers Biochemistry

C.V. Gauthier, J.V. Ruppel, *Organizers*
N.L. Snyder, *Organizer, Presiding*

8:30 Introductory Remarks.

[†]Cooperative Cosponsorship

8:35 CHED 267. Tapping in to the mystery of membrane protein expression. **C. Akley**, M.D. Rieth

8:45 CHED 268. Purification, crystallization, and characterization of essential *Mycobacterium tuberculosis* Rv3802. **C.M. Schreidah**, C.M. Goins, D.R. Ronning

8:55 CHED 269. Lysozyme denaturation in DMSO mixtures: A study on cryopreservation. **K. Rajesh**, K. Oh, C. Baiz

9:05 CHED 270. Decreasing PC on the surface of the LD correlates with altered protein binding and steatosis. **A. Jernberg**, A.K. Stoeckman, L. Listenberger

9:15 CHED 271. Remnant lipoprotein size distribution profiling via dynamic light scattering analysis. **A.V. Hernandez**, R. Chandra, B. Mellis

9:25 Intermission.

9:35 CHED 272. Visualizing gammaherpesvirus replication using viruses that encode fluorescently-tagged proteins. **D.N. Games**, S. Owens, J.C. Forrest

9:45 CHED 273. Elucidating the role of globin coupled sensors in *Pectobacterium carotovorum* virulence and quorum sensing pathways. **L. Briggs**, J. Burns, P. Jariwala, E.E. Weinert

9:55 CHED 274. Elucidating the roles of heme pocket residues in bacterial oxygen sensors. **P.G. Young**, S. Rivera, E.E. Weinert

10:05 CHED 275. Role of MRC2 in Wolff-Parkinson-White syndrome. **L. Acevedo-Soto**, X.H. Wehrens, S.K. Lahiri

10:15 CHED 276. Effect of an arginine to isoleucine active site mutation on *Escherichia coli* malate dehydrogenase enzymatic activity. **J. Zatorski**, B.J. Heyen

10:25 Intermission.

10:35 CHED 277. Synthetic biology: Production and utilization of aspirin producing bacteria. L. Gwyn, **M.J. Duckwall**

10:45 CHED 278. Photothermal effects of gold nanoparticles on A-375 skin melanoma cells. **A. Gorman**, T.J. Dominguez, M. Steiger, B. Mellis

10:55 CHED 279. Determination of the LD₅₀ of muscle relaxants when combined with silver and gold nanoparticles on *Daphnia magna*. Y. Santos Vazquez, **P. Garcia Gonzalez**, **C. Cabrera Lopez**, E. Ferrer Torres

11:05 CHED 280. Human topoisomerase II β inhibition by new palladium (II) and platinum (II) complexes of a 2-acetylpyrazine tert-butylthiosemicarbazone ligand. **S.N. Grossarth**, S.G. Bowman, J.L. Hill, X. Jiang, E.C. Lisic

11:15 CHED 281. Inhibition of oxidative DNA-protein crosslinking via EGCG and quercetin. **P. Perez**, **J. Ordenana**, **M. Martinez**, E. Kroll

11:25 Concluding Remarks.

Section H
New Orleans Marriott Convention

Center
Fleur De Lis

International Perspectives of Chemistry Education Teaching & Practice

A. Leontyev, *Organizer*
C.T. Cox, W.E. Schatzberg, *Organizers*,
Presiding

8:30 CHED 282. International classrooms: An environmental perspective. **L. Abraham**

8:50 CHED 283. One country, two cultures: A multi-perspective view on Israeli chemistry teachers' beliefs about teaching and learning. **M. Hugerat**

9:10 CHED 284. Professional development and safety procedures in international chemistry education. **A. Farnsworth**, J.B. Nielson

9:30 Intermission.

9:45 CHED 285. Chemical education in India: Transformation through ages. **N. Bharti**, T.S. Kumbhar

10:05 CHED 286. Global adaptation of a scientific writing course: From Missouri to China. **K. Yang**, **R. Glaser**, C. Guo

10:25 CHED 287. Upcoming international conferences in chemistry education in 2018. **W.E. Schatzberg**

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC[†], MPPG[†] and PRES[†]

Integrating Polymer Science in the Curriculum
Sponsored by POLY, Cosponsored by CHED and PMSE

Environmental Chemistry Undergraduate Education in the Classroom, Laboratory & Beyond
Sponsored by ENVR, Cosponsored by CHED

MONDAY AFTERNOON

Section A
New Orleans Marriott Convention Center
Blaine Kern C

ACS Award for Achievement in Research for the Teaching & Learning of Chemistry

M.H. Towns, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 288. Overview of the National Academies of Science, Engineering and Medicine (NASEM) report titled *Developing Indicators for Monitoring Undergraduate STEM Education*: Committee process and conclusions. **G.C. Weaver**

1:55 CHED 289. Inclusion in chemistry for students with visual impairments. **C.A. Supalo**

2:15 CHED 290. Fostering creativity and innovation: STEM to STEAM at South Dakota State University. **D.P. Cartrette**, D.M. Behl

2:35 CHED 291. Investigating the

conversations of undergraduate research experiences. **S. Johnson**, G.M. Bodner

2:55 Intermission.

3:05 CHED 292. Modification of organic laboratory experiments to engage pharmacy students. **S. Holladay**

3:25 CHED 293. What's happening in laboratory? Encouraging meaningful learning in an electrochemistry laboratory. **A.J. Phelps**

3:45 CHED 294. Teaching assistants' perceptions and use of external representations when teaching acid-base titrations in introductory chemistry laboratory courses. **N. Millick**, **M. Orgill**

4:05 Intermission.

4:15 Introduction of Awardee.

4:20 CHED 295. Award Address (ACS Award for Achievement in Research for the Teaching and Learning of Chemistry Sponsored by the ACS Exams Institute). Changing how data are collected can change what we learn from discipline-based educational research. **G.M. Bodner**

Section B
New Orleans Marriott Convention Center
Blaine Kern A

US-Cuba Collaborations in Chemical Education

C.H. Atwood, R.M. Kelly, *Organizers*,
Presiding

1:30 Introductory Remarks.

1:35 CHED 296. Developing relationships between Cuba and the American Chemical Society since 1998. **Z.M. Lerman**, M.Z. Hoffman

1:55 CHED 297. Progress report on DivCHED interactions with the Cuban Chemical Society. **C.H. Atwood**, R.M. Kelly

2:15 CHED 298. Some complementarities where Cuba and US can work together in science. **L. Montero**

2:35 Intermission.

2:45 CHED 299. Chemical education focused on biomedical research: The Cuban experience. **D. Garcia Rivera**

3:05 CHED 300. Ernest Eliel Workshop: US and Cuba collaboration in chemistry education and neglected disease drug discovery. **W.L. Scott**, A.A. Fuller, A.B. Dounay, J.G. Samaritoni, M.J. Odonnell, P. Dave, J. Sanchez, D. Tiano, D. Garcia Rivera

3:25 Intermission.

3:35 CHED 301. Environmental education from a chemical perspective. **M. Villanueva-Tagle**

3:55 CHED 302. Research to practice: Exploring ways to engage students with molecular animations. **R.M. Kelly**

4:15 CHED 303. Curricular and extracurricular activities that contribute to the research training of the chemistry graduate at the University of Havana, Cuba. **L.Y. Gonzalez**

4:35 Panel Discussion.
4:55 Concluding Remarks.

Section C

New Orleans Marriott Convention Center
Tchoupitoulas

Active Learning in the General Chemistry Curriculum

J.K. Robinson, *Organizer*
A. Murkowski, *Presiding*

1:30 CHED 304. Large lecture? No problem! Overcoming barriers to active learning to build excitement in large general chemistry courses. **J.K. Schwartz**, W.C. Pfalzgraff

1:50 CHED 305. Withdrawn

2:10 CHED 306. Strategies to promote active learning in a large general chemistry course. **J.K. Robinson**

2:30 CHED 307. Teaching mole concepts and stoichiometry using the active learning approach. **A.M. Bopegedera**

2:50 Intermission.

3:05 CHED 308. Overcoming obstacles to active learning in introductory chemistry for the health professions. **L.D. Frost**

3:25 CHED 309. Lessons learned in transforming my general chemistry course into full active learning under non-ideal circumstances. **M. Delgado**

3:45 CHED 310. Active learning when all your colleagues lecture: striking a balance. **S.M. Taylor**

4:05 CHED 311. Implementing a "What's In The Bottle Lab" guided inquiry lab in a first semester general chemistry class as an assessment tool for the general education program. **S.W. Carrigan**

4:25 CHED 312. Withdrawn

Section D
New Orleans Marriott Convention Center
Blaine Kern E

State-of-the-Art: Two Decades Advancing the 12 Principles of Green Chemistry
Cosponsored by PRES
J.C. Warner, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 313. Principle 7. Leveraging renewable feedstocks to drive consumer delight in fabric care products. **W. Shearouse**, **T. Cline**

1:55 CHED 314. Principle 8. NCDs—Powerful tools for reducing derivatives and realizing the green chemistry opportunity. **E. Stoler**

2:15 CHED 315. Principle 9. Catalysis: Catalytic coupling of phenol without using coupling reaction. **C. Li**, Z. Chen, H. Zeng, Z. Qiu, A.D. Huerta

2:35 Intermission.

2:45 CHED 316. Principle 10. Learning from nature how to make materials compatible with nature. **J.C. Warner**

3:05 CHED 317. Principle 11. An open discussion of unmet needs in analytical chemistry for green chemistry. **A.S. Cannon**, **I.J. Levy**

3:25 CHED 318. Principle 12. Can Green Chemistry prevent accidents or will chemistry always pose an inherent safety risk? **A.S. Cannon**

[†]Cooperative Cosponsorship

3:45 Concluding Remarks.**Section E**

New Orleans Marriott Convention Center
Fulton

General Papers

S.A. Fleming, *Organizer*
R.M. Kissling, *Presiding*

1:30 Introductory Remarks.

1:35 CHED 319. Incorporating a peer-led approach for TA training. **C.T. Cox**

1:55 CHED 320. Reciprocal peer tutoring in general chemistry: Benefits to information retention and lowered student test anxiety. **D.W. Carpenetti**

2:15 CHED 321. Getting students to speak our language: Adaptive tools for teaching nomenclature. J.P. Blinco, K. Mullen, **N.R. Boase**

2:35 CHED 322. Undergraduate teaching assistants as part of the teaching-service model in large introductory organic chemistry courses. **R.M. Kissling**

2:55 Intermission.

3:10 CHED 323. Withdrawn

3:30 CHED 324. Supplementary instruction and flipped classroom in organic chemistry. **S. Xie**

3:50 CHED 325. Implementation and analysis of a placement exam in first year chemistry courses at Henderson State University: Results, assessments, and outlook. **D. Bateman, B.A. Rowland**

4:10 Intermission.

4:30 CHED 326. Chemflix: A unique approach to combining traditional and online office hours for large lecture classes. **B. Turnpenny**, A.S. Silva, A.M. Haruk

4:50 CHED 327. Impact of an atom-first approach on student outcomes in a two-semester general chemistry course. **C. Rezsnyak**

Section F

New Orleans Marriott Convention Center
Blaine Kern B

Curricular Innovations in Undergraduate Chemical Education Impacted by NSF

C.A. Burkhardt, *Organizer*
R.K. Boggess, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 328. National Science Foundation programs that support undergraduate chemistry education. **T.D. Kim, D. Rickey**

2:00 CHED 329. The student participant perspective: Enhancing undergraduate research through international research experiences. **S. Hodges**, M.T. Fox, N. Brown, A. Niyongabo, J. Flores, R.A. Perez, J.A. Rosales, K.A. Jones, A. Keys

2:25 Intermission.

2:35 CHED 330. Development of Project ChemABLE (Active and Blended Learning): Design, implementation, assessment, and dissemination of blended learning (flipped classroom) activities. **J.F. Eichler**

3:00 CHED 331. Alliance model

for S-STEM project. **O. Jenda**, B. McCullough

3:25 CHED 332. Withdrawn

3:50 Intermission.

4:00 CHED 333. NSF-S-STEM: Iona DESIRE – Development of excellence in science through intervention, resilience, and enrichment. **S. Lee**

4:25 CHED 334. Development of an emporium styled general chemistry course. **M.A. Franks**, J. Emrani, M.M. Basti

4:50 Concluding Remarks.**Section G**

New Orleans Marriott Convention Center
Magnolia

Undergraduate Research Papers**Inorganic, Bioinorganic & Materials Chemistry**

J.V. Ruppel, N.L. Snyder, *Organizers*
C.V. Gauthier, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 335. Halogen to hydrogen bonding switch in complexes of iodo-, bromo-, and chloroform with anionic and neutral nucleophiles. **B. Watson**, O. Grounds, S.V. Rosokha

1:45 CHED 336. Synthesis and activation of small molecules by water-soluble iridium and rhodium complexes. **J.G. Knapp**, S.H. Schreiner

1:55 CHED 337. Application of air-stable palladium(II) precatalysts to Suzuki cross-coupling reactions and C-H activation of pyridine N-oxides. **J.R. Howard**, K.L. Barnett, K.H. Shaughnessy

2:05 CHED 338. Investigation and selection of inert substitutes for the energetic content of rolled steel cylinders in high energy laser effects research using differential scanning calorimetry. **J. Johnson**, D.E. Riegner

2:15 CHED 339. Predicting the properties of high oxidation state of some An(OH)_x complexes. **A.C. Hartley**, Z. Lee, D.A. Dixon

2:25 Intermission.

2:35 CHED 340. Supercapacitor application of phosphorus and nitrogen co-doped carbon materials from renewable precursor materials. **S.P. Macchi**

2:45 CHED 341. Photoluminescence and stability enhancement of CsPbBr₃ NCs using amines and thiols for LED application. **A. Gunawan**, Z. Tan, Y. Wong, A. Ng

2:55 CHED 342. High-performance porphyrin-based dye-sensitized solar cells with iodine and cobalt redox shuttles. **J. Li**

3:05 CHED 343. Synthetic strategies for enhancing the properties of layered manganese dioxide for heterogeneous water oxidation catalysis. **L. Mohamad**, I.G. McKendry, M. Zdilla

3:15 CHED 344. Evaluating pellet-clad interactions using cerium oxide simulants and depleted thorium and uranium oxide thin films on zircaloy. **D. Perales**, T.J. Boyle, S. Briggs, K. Hattar, R. Dingerville

3:25 Intermission.

3:35 CHED 345. Synthesis of less toxic gold nanorods by using dodecyltrimethylammonium bromide as an alternative growth-directing surfactant. **M. Blahovec**, J. Xu, J.W. Stone

3:45 CHED 346. Cooperative catalytic metalloenzyme mimic with dinuclear metal ion binding sites. **G. Tegenkamp**, L. Carroll, A. Lajmi

3:55 CHED 347. Synthesis of a novel platinum(II) complex and investigation of its anticancer potential. **J. Jones**, D.J. Swartling, E.C. Lisic, G.A. Mullins

4:05 CHED 348. Degradation of tetracycline and tylosin using an iron modified titania photocatalyst. **J.L. Butler**, M. Clothier, J.E. Boyd

4:15 CHED 349. Development of a coumarin based molecular probe for trace metal ions. **R. Curtis**, K.J. Wallace

4:25 Concluding Remarks.**Section H**

Ernest N. Morial Convention Center
Halls D/E

Undergraduate Research Posters
Agricultural and Food Chemistry

Cosponsored by AGFD and SOCED
N. Di Fabio, J. Roberts, *Organizers*

12:00–2:00

CHED 350. An investigation into the characterization of unifloral honey samples by SNIF NMR. **C. Nicodemus**, A. Marchetti

CHED 351. Comparative analysis of date fruits from two different regions of the world. **S.F. Alharbi**, C. Chant

CHED 352. Identification of QTLs associated with consumer aesthetics and taste in *Vaccinium corymbosum*. **A. Hudson**, X. Li

CHED 353. Withdrawn

CHED 354. The role of nutritional components of vegetables in decreasing cancer incidence in Peru. **A. Edozor**, C. Quinonez, V. Viveros, B. Zavaleta, L. Nogaj, S. Deprele, L. Roberts

CHED 355. Determination of the effect of meringue under different conditions. **M.T. Nguyen**, E.D. Stemp

CHED 356. Quantitative analysis of arsenic in basil. **B. Corporon**, R. Nava, K. Pollok, A.M. Bray

CHED 357. Fabrication of polyvinyl alcohol thin film synthesized with gold nanoparticle and β -cyclodextrin for detection of parathion. **M. Koh**, A. Deckert

CHED 358. Determination of allelopathic compounds in sugarcane field residue extracts. **K.J. Kraemer**, J. Zhu, D.S. Landrum, C.L. Webber, P.M. White, D. Wayment

CHED 359. Effect of the decaffeination process on chlorogenic acid levels in coffee beans using UV/VIS spectroscopy. **D. Patel**, S.W. Carrigan

CHED 360. Analysis of sugarcane billet seed treatment chemicals in agricultural

soil by HPLC. **K.A. Torres**, H.J. Ledet, C.L. Webber, P.M. White, **D. Wayment**

CHED 361. What the taffy: Tensile strength relative to corn syrup viscosity. **U. Wilkerson-Dixon**, P.A. Brletic

CHED 362. Color me caramel: Impact of milk source on taste and physical behavior. **E. Chambers**, P.A. Brletic

CHED 363. Study of the antimicrobial activity of honey against antibiotic resistant bacteria. **L. Andrews**, N.S. Green

CHED 364. Isolation and structural elucidation of color from the mushroom *Polyozellus multiplex*. **O.Z. Schaefer**, A. Kleinschmit

CHED 365. Immobilizing acetolactate decarboxylase to eliminate diacetyl from beer. **J. Hitt**, R.A. Hunter

CHED 366. Antibacterial activity of pyrogallol-based polyphenols and compounds in wine. **K.A. Thomas**, M.A. Fisher

CHED 367. Rates and levels of saturated, monounsaturated, and polyunsaturated dietary triglyceride oxidation. **A. Verlander**, E. Csuhai

CHED 368. Examining and preventing zein protein aggregates. **L. Sanchez**, L.J. Moore

CHED 369. Qualitative analyses of local craft spirits compared to common large brands using gas chromatography-mass spectrometry. **C. Shinn**, A. Pilchowski, J.A. Trischman

CHED 370. Comparison of growth and energy content of *Spirodela polyrhiza* and *Lemna minor*, two potential biofuel sources. **R.M. Robinson**, **P.S. Whitehead**, P.W. Sharp, S. McKim, N.L. Paiva

CHED 371. Determination of the quality of phytopharmaceuticals and dietary supplements of products that are marketed in Costa Rica. **J. Ramirez Torres**, R. Murillo Masis, J. Quesada Espinoza

CHED 372. Extraction and determination of phytochemical and antioxidant activities of watermelon seed oil (*Citrullus Lanatus*). **S.A. Aderibigbe**, G.K. Oloyede

CHED 373. Flavor chemistry of Texas bourbon: Detection and separation of flavonoids by dispersive liquid-liquid micro-extraction (DLLME). **B. Pelletier**, **T. Craig**, K. Drake

CHED 374. Chemistry of baking: Analyzing volatile compounds in basic bread. **E.R. Currens**, L.J. Moore

CHED 375. Enhanced antioxidant activity in hypertriglyceridemic serum measured through a ferric reduction assay. **A. Rasool**, R. Chandra, S. Ghaoui

CHED 376. Variation of chemical composition of coffee in relation to time after roast. **C. Morder**, E.A. Baldauff

CHED 377. Measuring calcium uptake and release by *Saccharomyces cerevisiae* throughout the fermentation process. **N. Mesloh**, L. Benedict, M. Ackerman

CHED 378. Analysis of chemical and physical properties of west Tennessee

[†]Cooperative Cosponsorship

honeys. **B. Barrett**, A.H. Shelton

CHED 379. Quantitation of dimethyl sulfide in beer using headspace flame-photometric detection and gas chromatography/mass spectrometry. **N. Bice**, L. Benedict, Z. Bodah

CHED 380. Isolation and structure elucidation of alteichin, a fungal natural product that inhibits *Xylella fastidiosa*, the bacterium that causes Pierce's Disease. **S. Davis, S. Thompson, V. Berry, C. Brandenburg**, P. Polshausen, C. Roper, K.N. Maloney

CHED 381. Xanthohumol derived from hops *Humulus lupulus*: Application in oral health. **A.R. Chavez**, W. Deutschman

CHED 382. Application of the atomic absorption spectrophotometer to determine the bioavailability of cadmium in *Raphanus*. **J. Stanley**, K.E. Garrison

CHED 383. Analysis of catechin and methylxanthine composition in tea (*Camellia sinensis*) by high pressure liquid chromatography. **C. Hull**, S. Hughes, R. Jalbert, P. Sheumaker, D. Choffnes

CHED 384. Fate of calcium, magnesium, and zinc throughout the brewing process. **P. Keehn**, L. Benedict, Z. Bodah

CHED 385. Induced monoterpene defense strategies in eastern white pine against blue-stain fungi *Ophiostoma minus*. **M.T. Phan, R. Funai, A. Arango-Velez, S. Chakraborty**

Section H

Ernest N. Morial Convention Center
Halls D/E

Undergraduate Research Posters

Analytical Chemistry

Cosponsored by ANYL and SOCED
N. Di Fabio, J. Roberts, *Organizers*

12:00–2:00

CHED 386. An optimized method for the identification of pesticides in cannabis products using GC/MS with AMDIS. **K. Cochran**, H. Harris

CHED 387. Carbon based anode for microbial water treatment system. **A. Gonzalez**, M. Morales, C.R. Cabrera

CHED 388. Electrochemical characterization of HSA-heme-imidazole complexes towards future nitrite reductase activity. **A. Kelly**, J.A. Bennett, M.I. Galinato

CHED 389. Viability of Ni(OH)₂ and CeO₂ as electrocatalysts for oxygen evolution in metal-air batteries. **R. Lopez**, D. Mitra, S. Narayan

CHED 390. Developing thermal devices for donor-acceptor columnar liquid crystals alignment and analysis. **G. Pleitez Gomez**, J. Reczek

CHED 391. Quantifications of epicatechin content in brewed cocoa and factors that influence extract efficiency. L.B. Thompson, **S. Chen**

CHED 392. Determination of lead and other heavy metal contamination of maple syrup produced in St. Lawrence and Chittenden counties. **P. Park**, M.C. Skeels

CHED 393. Identification of volatile

organic compounds present in decaying chicken organs using SPME-GC/MS. **A. Flotteron, T.N. Lewis**, M. Sabo

CHED 394. Investigating the impact of lipid formulations on the aggregation and behavior of amphotericin B. **T.N. Lewis**, K. Higgins, G. Sarabia, T.R. Calhoun

CHED 395. Development and validation of a method using QuEChERS and liquid chromatography-mass spectrometry for atrazine determination. D.J. Dayfield, C.R. Florido, **K.S. Lambert**, K.M. Marji, K.M. Marshall, D.N. Maxwell, I. Sayed, V.C. Torres, K.E. Yacoo, R.M. Belanger, E. Roberts-Kirchhoff, K.R. Evans

CHED 396. Colorimetric array for pH determination of soil samples. **R. Wiederkehr**, T. Bilinski, R.M. Burks

CHED 397. RGB image analysis for colorimetric real-time reaction monitoring. **C. Azaldegui**, L. Gaunt, R.M. Burks

CHED 398. Development of a nitrate/nitrite determination in salt water using an azo dye method to study the effects of titanium dioxide nanoparticles in the nitrogen cycle of *Favites Pentagona* Coral environment. M.O. Montes, **M. Wood**

CHED 399. Surface-enhance fluorescence enhancement studies on electrochemically deposited silver fractal-like structures. **D. Rios**, J. Yarbrough, R. Fudala, I. Gryczynski, T. Shtoyko

CHED 400. Increasing ICP-MS sensitivity. **R. Peterson**, W.E. Schatzberg

CHED 401. Control over the alignment of naphthalene diimides on a Langmuir-Blodgett trough. **X. Gao**, A. Edwards, J.J. Reczek

CHED 402. Capillary electrophoresis of glycosaminoglycans with indirect detection using naphthalene sulfonates. **L.R. Kuhn**, J. Fasciano, R.T. Taylor, N.D. Danielson, S. Shamsi

CHED 403. Effect of pH and counterion on chiral recognition of undecylenic leucine surfactant. F.H. Billiot, E. Billiot, K.F. Morris, Y. Fang, **A. Risley**

CHED 404. Physical properties of undecyl valine surfactant at different pHs. **S. Subniak**, F.H. Billiot, E. Billiot, K.F. Morris

CHED 405. Study of amino acid surfactant undecyl leucine using diffusion ordered spectroscopy technique. **M. Aleksich**, K.F. Morris, E. Billiot, F.H. Billiot

CHED 406. Construction and testing of a 2D photocurrent scanning station for the evaluation of thin film ternary metal oxide water-splitting photocatalysts. **A. Battiste**, S.M. Drew, K.L. Mertz

CHED 407. Detection of nitrotoluenes in canine fur samples using GCMS/PSI-probe. **H. Maruskin**, G. Patterson

CHED 408. Blood alcohol and arson investigation using SPME fibers. **C. Parker**, R. Montgomery

CHED 409. Construction and testing of an inexpensive spin coater. **K.L. Mertz**, S.M. Drew, A. Battiste

CHED 410. Use of principal component analysis and hierarchical clustering

analysis to evaluate fingerprint residues. **R.B. Thomas**, T.J. Kuhns, S. Zentz, D.S. Egolf

CHED 411. Photocatalytic degradation of fenofibrate and other pharmaceuticals. **S.K. Bard**, L.A. Tom

CHED 412. Biodiesel synthesis and analysis: Qualitative comparison. **E. Millward**, J. Didelot, M.B. Jacobs, S. Ahsan

CHED 413. Electrochemical investigation of facilitated terbium(III) transfer at micro-liquid/liquid interfaces. **Z.T. Vander Tuin**, S.N. Thorgaard

CHED 414. Identification and quantitation of synthetic cannabinoids by gas chromatography-mass spectrometry. **D.M. Biller**, T. Frielle

CHED 415. Detection of miRNA 92a as a viable means of elucidating disease states. **K. Thomas**, A. Gee, N. Nguyen, M.F. Ali

CHED 416. Determining the age of a bloodstain through ultraviolet visible spectroscopy. **T. Yurasits**, G.P. Foy, K. Opel

CHED 417. Screening method development for the identification of nontargeted designer drugs by GC-MS⁺ and LC-MS/MS. **M.S. Fulmer**, J.O. Boles, T.H. Boles

CHED 418. Temperature-dependent rotational correlation times for liquid phase acetic acid. **C. Straub**, J.A. Goodnough

CHED 419. Analysis of sulfate levels in drinking water, wastewater, and natural water using UV-vis spectroscopy. **L.A. Cutler**, G.P. Foy

CHED 420. Investigation of heavy metal content in sand following beach renourishment in South Carolina. **L. Howe**, J.M. Fautsch

CHED 421. Method validation of titanium dioxide nanoparticle analysis. **C. Kristoff**, M. Ellington, L.A. Holland

CHED 422. Effects of fingerprint degradation on the success of development methods. **G. Vitale**, K. Opel

CHED 423. Surface-enhanced Raman spectroscopy (SERS) analysis of western African artifacts. **M.C. Marshall**, J.M. Esson

CHED 424. Evaluation of conductive filaments through 3D printing technology and electrochemical experimentation. **M.J. Sheaff**, H.D. Whitehead, G. LeBlanc

CHED 425. Analysis of different types of inks by UV-vis spectrometry. **R.C. Pendley**, R. Fietkau

CHED 426. Elemental profiling of gunshot residue using total-reflection X-ray fluorescence spectroscopy. **M.E. Oliva**, N. Homburger, L. Huang, J. Berger

CHED 427. Analysis of metal content in ore from Alabama's first iron mine. **C. Boyd**, S.A. Burton, M.J. Kendrick-Murphy

CHED 428. Improving the fabrication of carbon fiber microelectrode sensors. **D.R. Miller Jr.**, R.B. Keithley

CHED 429. Simple analytical techniques for small breweries. **M. Symcox**, J. Sabo, G. LeBlanc

CHED 430. Multiplexed point-of-care breast cancer marker detection system in human body fluids. **B.S. Dang**, P. Pham, Z. Huang, Z. Wang

CHED 431. Determination of the metal content in deer hooves and duck feet: Sentinels of health, nutrition and the environment. **J.C. Reynolds**, L. Gildea, L. Selph, M.J. Kendrick-Murphy

CHED 432. Testing IR spectroscopy as an alternative method for water content determination in aviation fluids. **M.E. Cook**, G.T. Eldridge, R.K. Larsen

CHED 433. Glucose biosensing integrating aerogel components. **C.J. Brady**, D. Saad, N. Kosciuszczek, M.C. Leopold, A.S. Harper-Leatherman

CHED 434. Uptake of nitrate and phosphate ions by native, non-invasive plant species. **M.B. Strickley**, W.R. Cummins, R.L. Bretz

CHED 435. Determination of pK_a's of various glycine metal complexes by NMR. **T. Tran**, T.K. Ellis, J.C. Henrikson

CHED 436. Thermal behavior of carbamazepine polymorphs characterized by variable temperature NMR. **S. Stuchell**, J.T. Hosfelt, R. Iuliucci

CHED 437. Characterization and application of field deployable thermodesuder for atmospheric aerosol volatility measurements. **G. Burke**, K. Kolesar, K.A. Pratt, M. Gunsch

CHED 438. Analysis of sitagliptin in milk using gas chromatography mass spectrometry. H.N. Currie, **B. Day**

CHED 439. Preparative chromatography of polyphenolics using size-exclusion and reverse-phase chromatography. **B. Trimmer**, P.V. Maciejczyk, G. Bradley

CHED 440. Determining the nutrient health of the Oconee River. **D. Cook**, C.H. Lisse

CHED 441. Determination of pesticide residues in soil. **N. Bauer**, C.H. Lisse

CHED 442. Quantitation of metal ions in surface waters in Southeastern Wisconsin. **L. Hall**, C.A. Blaine

CHED 443. Towards the development of a bioadhesion-resistant self-assembled scaffold for the chemical attachment of enzymes to gold surfaces. **J. Duchesneau**, B.W. Gregory

CHED 444. Development of metal ion specific sol-gel targets for trace metal total reflection X-ray fluorescence analysis. **L. Skalrood**, A.M. Butler, A. Arndt, R.N. Dansby-Sparks

CHED 445. Ion formation from inorganic salt aerosols in single-particle mass spectrometry. **A.E. Watson**, N. May, M. Gunsch, N. Olson, A.P. Ault, K.A. Pratt

CHED 446. Electrochemical determining of acetaminophen with multi hydrogen bonding manipulated single-molecule recognition. **P. Pham**, Z. Huang, K.E. Riley, Z. Wang

[†]Cooperative Cosponsorship

- CHED 447.** Synthesis and characterization of fragrance encapsulated in silica sol-gels. **J. Fortwengler**, C.H. Lisse
- CHED 448.** Examining atrazine accumulation and histological changes in the hepatopancreas of crayfish post-exposure. **D.J. Dayfield, D.N. Maxwell, V.C. Torres, K.E. Yacoo**, K.S. Lambert, I. Sayed, C.R. Fiorido, K.M. Marji, K.M. Marshall, K.M. Barawi, N.K. Abraham, R.M. Belanger, E. Roberts-Kirchhoff, K.R. Evans
- CHED 449.** Validation of grazing angle ATR-FTIR for analysis of self-assembled monolayers. **R. Araj**, A. Radadia
- CHED 450.** Optimizing an SPE-GC-MS/MS method for wastewater-based epidemiology. **G. Kroening, J. Aquino**, K.J. Bisceglia
- CHED 451.** Liquid-liquid extraction and analysis of the antioxidant, resveratrol, from various red and white wines. **C.L. McGlocklin**, F.C. Mayville
- CHED 452.** Development of a cost effective alternative for spatter blood. **S. Choi**, K. Opel
- CHED 453.** Cation exchange-solid phase extraction protocol for the isolation and analysis of alkaloids in poison frogs. **K.S. Gleason, J.R. Sanders, N.R. Andreassen, J.M. Smith**, K.T. Bell, R.W. Fitch
- CHED 454.** Determining the effects of *in vitro* adulterants to valium drug tests. **R. Revuelta**, K. Opel
- CHED 455.** Spectrophotometric investigation of the suitability of indole for the determination of nitrite. D.A. Habboush, **M. Aboueissa**
- CHED 456.** Assessment of trace element content in fingernails: Association with physical activity in female college students. **M. Clausell, H.M. Parks**, M.J. Kendrick-Murphy
- CHED 457.** GC analysis of carburetor component reactions with gasoline. **E. Wesolowski**, T.R. Burkholder
- CHED 458.** Fluorescence quantitation of human lipoproteins through anion exchange HPLC. **R.H. Montoya, N. Nguyen**, R. Chandra
- CHED 459.** Separation of steroid isomers by ion-mobility mass spectrometry for forensic and metabolomics applications. **T. Martin**, A.L. Rister, E.D. Dodds
- CHED 460.** Isolation of potential antifungal compounds in *Aloe cameronii*. **A.N. Colah, L.N. Raess**, M.R. Lee, R.L. Bretz
- CHED 461.** Scratching the surface: Applications of AFM-IR in indoor surface chemistry. **S.P. Schwab**, V.W. Or, V.H. Grassian
- CHED 462.** Determination of pesticide residues in vegetable samples. **E. Bullington**, C.H. Lisse
- CHED 463.** Molecular fingerprinting of K562 human leukemia cells via MALDI-TOF mass spectrometry. **T. Lyons**, E. Hong, A. Gaito, L. Cintron-Rivera, L. Dupree, C.J. Andersen, A.R. Van Dyke
- CHED 464.** Lead in avian eggshells and egg contents. **M. Freeman**, R.C. Dudek
- CHED 465.** Qualitative and quantitative analysis of heavy metals in cigarettes via inductively coupled plasma optical emission spectrometry. **D.T. Bortz**, F.C. Mayville
- CHED 466.** Determination of bisphenol A (BPA) in infant oral hygiene devices using fluorescence spectrophotometry. **K.A. Thomason**, S.E. Hubbard
- CHED 467.** Colorimetric analysis of nicotine in cigarettes via ultraviolet-visible spectrometry. **D.T. Bortz**, F.C. Mayville
- CHED 468.** Relating the chemical and morphological characterization of plaster cast statues to durability. **J.N. Ferreri**, A.S. Harper-Leatherman, K. Schwab, J. McGovern, M.A. Kubasik
- CHED 469.** Characterization of a paper-based analytical device for low molecular weight and unfractionated heparin. **C.E. Norris**, J.M. Esson
- CHED 470.** Further studies of the analytical method for the determination of phenylarsonic acid. **R. Herbers**, B.M. Hopkins
- CHED 471.** Mass spectral identification of isopropyl acetate in Louisiana flood water. **J. Shelby**, D. Oldendorf, D.P. Gautreaux
- CHED 472.** Development of a methodology for the characterization of primitive meteorites by infrared spectroscopy. **J. Coovert**, S.F. Wolf
- CHED 473.** Measurement of urinary sulfate levels in pigs by conductometric titration. **S.N. Crews, J. Garcia**, L.D. Schultz
- CHED 474.** Detection and determination of food residues in Native American pottery. **K. Plotzke**, J. Seebree, D. Gaff
- CHED 475.** Isolation of aptamers for detection of *Renibacterium salmoninarum* in water. **M.D. Hoppe**, B.G. Staebler-Siewell, B. Peterson, A.G. Cavinato
- CHED 476.** Effects of soil chemistry on the distribution and abundance of sundews (*Drosera* sp) on the Craven Community College campus. **C.A. Hardtle**, D.W. Carpenetti, Q.E. Lupton
- CHED 477.** Synthesis and analysis of impure functional group substituents of dihydrodeoxymorphine "krokodil". **D. Verret**, D. Oldendorf, D.P. Gautreaux
- CHED 478.** UPLC/ESI-TOFMS method development for cocoa origin classification. **L.W. Monroe**, R.E. Sours, S.E. Stitzel
- CHED 479.** Effects of blood degradation in presumptive testing for blood evidence. **E. Nikolaus**, K. Opel
- CHED 480.** One year later: GC-MS study of water quality following a 1000-year flood in the Baton Rouge region. **A. Vick**, D. Oldendorf, D.P. Gautreaux
- CHED 481.** Optimization of disulfide bond reduction for use in point-of-care microfluidic-based devices with applications in early cancer diagnosis. **S. Cook**, C.T. Culbertson
- CHED 482.** Analysis of the chemical composition of spinach after exposure to glyphosate. **S. Glynn**, D. Oldendorf, D.P. Gautreaux
- CHED 483.** Amphibian chemical ecology: Method development in natural product identification. **E. Doe, A. Poltronetti**, T.P. Umile, L. Rollins-Smith, K.P. Minbiole
- CHED 484.** Identification of ethyl isobutyl ether in Louisiana flood water using GC/MS. **S. Deynzer**, D. Oldendorf, D.P. Gautreaux
- CHED 485.** Identifying the manufacturer of unknown fingernail polishes. **C. Carbajal**, G. Naisbit
- CHED 486.** Identification of volatile organic compounds in flood waters using GC/MS. **P. Prevost**, D. Oldendorf, D.P. Gautreaux
- CHED 487.** Electrochemical comparison of dicyanoferritroporphyrin-modified carbon and Pt microelectrodes for selective H₂S detection. **H. Pharathikoune**, J.A. Bennett
- CHED 488.** Aerosol deposition of metal-organic framework thin films. **B. Barrett**, J.E. Shankwitz, A. Hauser, G. Szulczewski
- CHED 489.** Development of a raspberry Pi and Arduino-based thermal controller and desorber for GC/MS vapor analysis. **D. Holden**, G. Patterson
- CHED 490.** Precipitation SELEX: Selection and study of DNA aptamers that template calcium phosphate mineralization. **K. Meserve**, A.E. Gerdon
- CHED 491.** Qualitative determination of the adherence of VOCs to building materials. **J. Turner**, C.H. Lisse
- CHED 492.** Thermodynamic studies of gas-phase equilibrium in MALDI-MS. **M.H. McMinn**, L.A. Elliott, G.R. Kinsel
- CHED 493.** Kinetic analysis of thermal degradation in high temperature high-performance liquid chromatography: Acetylsalicylic acid. **B. Levine**, J. Arena
- CHED 494.** Evaluation of aroma compounds of small-batched, unaged wheated whiskey. **A.V. Horton**, N.E. Huddleston
- CHED 495.** Determination of quench in Cherenkov counting of soil samples. **R. Myers**, W.B. Connick, S. Herman, S. Glover, H. Spitz
- CHED 496.** Investigating the Beer-Lambert law in a cavity-enhanced spectroscopic method. **Z.R. Thornburg**, K.J. Feierabend, S. Lehman
- CHED 497.** Analysis and verification of alternate industrial volatility testing methods. **B. Pinkley**, S. Dubecky, R. Johnston
- CHED 498.** Energy dispersive X-ray fluorescence analysis of a series of copper-based coins of the Indo-Parthian king Gondophares I. J. Pothoof, **M. Bhagwagar, T. Ngo**, M.A. Benvenuto
- CHED 499.** Quantum dot probes for protein biomarker detection. **K.A. Medley**, A.P. Cordner, K.L. Parks, M. Yu
- CHED 500.** Voltammetric detection of lead and cadmium using a cloud point extraction. **A. Keating-Zaid, T. Martin, M. York**, A.F. Bange
- CHED 501.** Immobilization of porphyrins in sol-gel matrices. **M. Schellman**, C.H. Lisse
- CHED 502.** Development of simple quantum dots-based bioassays for protein biomarker detection. **K.L. Parks**, A.P. Cordner, K.A. Medley, M. Yu
- CHED 503.** Fluorescence intensity alteration of quantum dots by protein biomarkers. **T. Parks**, A. Rowley, M. Yu
- CHED 504.** Chemical analysis of artistic and cultural heritage objects from western Africa. **M.H. Tran**, J.M. Esson
- CHED 505.** Analysis of vibrational modes of chemically modified tone wood. **M.M. Flesch**, J.D. Rollison, C. Hanson
- CHED 506.** Evaluating the water quality of selected polluted sites in New York City. **J. Zapata**, E.E. Mojica, L. Birney
- CHED 507.** Binding capacity of nanoceramics with sulfa drugs. **G. Iannone**, E.E. Mojica
- CHED 508.** Phenol content and antioxidant activities of several commercial tea samples. **A. Villaggi**, E.E. Mojica
- CHED 509.** Binding interaction of nanoceramics (metal oxides) with human serum. **T. Nolan**, E.E. Mojica
- CHED 510.** Sample preparation and analysis of PAHs (polycyclic aromatic hydrocarbons) in milk samples. **L. Wyan**, E.E. Mojica
- CHED 511.** Forensic soil analysis by subtractive FTIR spectroscopy. **C.A. Haines**, S. Davis
- CHED 512.** Stability of AH-7921 and U-47700 in polar organic solvents. **M. Murphy**, K. Scott
- CHED 513.** Persistence of gasoline deposited on typical footwear. **A. Narehood**, M. Cipoletti
- CHED 514.** Determining levels of bisphenol A leached into water from thermal receipt paper using fluorescence spectrophotometry. **M. Bolin**, S.E. Hubbard
- CHED 515.** Determination of erythromycin in fish tissue by liquid chromatography with UV detection. **C.D. Cunningham, C.A. Freeman**, E. Lavadour, G. Rodriguez, A.G. Cavinato
- CHED 516.** Two-dimensional vibrational analysis of tone wood in string instruments. **J.D. Rollison**, M.M. Flesch, J. Seebree, C. Hanson
- CHED 517.** Development of analytical methods for butylorganotin compounds. **G. Dangel**, A. Hardee, B.M. Hopkins
- CHED 518.** Measurement of sulfate levels in west Texas groundwater by conductometric titration, ion chromatography, and SulfaVer methods. **R. Srinivasan, W.M. Grumbles, J. Garcia**, L.D. Schultz

CHED 519. Characterization of DNA aptamers for sensor development. **H.M. Breen, J.K. Carter, A.G. Cavinato**

CHED 520. Chromatographic analysis of amphetamines in biological samples. **L. Reilly, E.E. Mojica**

CHED 521. Characterization of bee propolis from Bulgaria and Serbia. **J. Farshi, E.E. Mojica**

CHED 522. Optimization of surface chemistry of thiol-ene crosslinked organo-silica monolithic columns and their application in capillary liquid chromatography. **A. Burkus-Matsevac, Z. Zajickova, F. Svec**

Section H
Ernest N. Morial Convention Center
vHalls D/E

Undergraduate Research Posters

Biochemistry

Cosponsored by BIOL and SOCED
N. Di Fabio, J. Roberts, *Organizers*

12:00–2:00

CHED 523. Compensatory mutations in the M13mp phage series. **R. Aldakhallah, L. Gray, M. Salemi, A. Sylvia, M. Hall**

CHED 524. Cinnamic aldehyde conjugate-based nanoparticles for the treatment of arterial restenosis. **C. Pérez Verdejo, E. Valentin Méndez, H. Lutz, N.E. Buglak, W. He, E.M. Bahnson**

CHED 525. Construction of a more virulent lacZ β -containing M13 phage vector. **E. Botelho, G. Mahame, M.F. Hall**

CHED 526. Molecular mechanics investigation of the potential binding sites of cannabinoid derivatives on the human CB1 and CB2 receptors. **W. Smith, M. Dorko**

CHED 527. Effect of citral on apoptosis in human melanoma cells. **K.S. George Parsons, M.K. Johnson**

CHED 528. Characterization of somatic mutations found in polymerase kappa. **C.E. Fitzgerald, J. Andrade, S. Lone**

CHED 529. Role of signaling lipid phosphoinositides PI(3,4,5)P₃ and PI(3,4)P₂ in neural growth cone invadosomes. **A. Bali, C. Short, T. Gomez**

CHED 530. Characterization of the phosphoribosyl transferase ToyH; An essential enzyme in the production of the antibiotic sangivamycin. **C.J. Aston, N.A. Bruender**

CHED 531. Peptide-based targeting of antimicrobial conjugates to sporulated *Bacillus anthracis*. **B. Cooper, S. Campbell, R. Giorno-McConnell, S. Poh**

CHED 532. Progress In synthesizing a novel bromo-substituted aureone as a cyclooxygenase-2 inhibitor. **S. Forbes-Pentecost, S. Stephenson, C.J. Mills**

CHED 533. Identifying KDAC5 substrates. **J. Carmon, T. Toro, T. Watt**

CHED 534. Investigating the DNA protective effect of Mn²⁺ import in *E.coli* strain DH5-alpha and CSH 104. **A. Edobor, B. Cadena, D. Duran, P.E. Lee**

CHED 535. Characterization of the inducible biosynthetic pathway. **J. Korchak, A. Lane**

CHED 536. Biosynthesis of diketopiperazine natural products from unnatural amino acids. **R. Lopez, C. Webb, R. Viswanathan, A. Lane**

CHED 537. Synthesis, characterization and biological testing of methylated flavonoid derivatives as potential cyclooxygenase-2 inhibitors. **L. Co, C.J. Mills**

CHED 538. Extraction, characterization and screening of plant extracts used in the traditional medicine of Zambia. **S. Stephenson, A. Cowart, S. Mutiti, M. Mutiti, C.J. Mills, S. Mutiti**

CHED 539. Calcium, caspase, and cancer: Connections through circular dichroism spectroscopy. **S. Hethcox, L. Love, A.L. Stewart, M. Davis Mcgibony**

CHED 540. Investigations of protein conformational changes as a signal for apoptosis. **L. Love, S. Hethcox, A.L. Stewart, M. Davis Mcgibony**

CHED 541. Synthesis and characterization of novel flavonoid derivatives as tau self-aggregation inhibitors for the treatment of Alzheimer's disease. **S. Martin, G.A. Layfield, C.J. Mills**

CHED 542. Using high-performance liquid chromatography in determining a drug's ability to permeate the blood-brain barrier for the treatment of Alzheimer's disease. **P. Espinosa, C.J. Mills**

CHED 543. Development of screening strategy for potential antibiotics. **B. Grosso, S.M. Kennedy, A.L. Miller**

CHED 544. Exploring substrates for lysine deacetylase 7. **K. Nichols, T. Toro, T. Watt**

CHED 545. Role of N346 in class C beta-lactamases. **L. Hinojos Madrid, S.T. Lefurgy**

CHED 546. Role of Trm732 in tRNA modification and cell growth. **J.K. Ziebro, D. DiVita, H.E. Sizemore, M. Guy**

CHED 547. Microgravity-mediated resistance of *Helicobacter pylori* to stress. **L. Grafton, J. Truong, D. McGee**

CHED 548. Evolution of cephamycinase activity in Class C beta-lactamases. **H.W. Servius, S.T. Lefurgy**

CHED 549. Synthesis of metal chelating nucleosides. **J. Bernal, N.J. Greco**

CHED 550. Os(phen)₂dppz³⁺: An osmium metallointercalator that selectively oxidizes guanine oxidation products. **R. Kroll, J. Dominguez, E.D. Stemp, K.R. Miller, Z.A. Esguerra, M. Safaeipour, M. Bekarian**

CHED 551. Role of the deep brine layer in mercury cycling within the Great Salt Lake. **A. Piskadlo, F. Black, S. Yang, R. Rowland, W.P. Johnson, A. Reynolds, A. Robert, G. Pandey, C. Rumsey**

CHED 552. Inhibition of DNA oxidative damage by green tea in vitro and in human melanoma cells. **E. Kroll, M. Serrano, E.D. Stemp, M. Martinez, J.**

Ordenana, P. Perez, L. Nogaj

CHED 553. Solubility studies and investigation of delivery of a curcumin- β -cyclodextrin inclusion complex using a microdialysis probe. **E. Loch, H.J. Fletcher**

CHED 554. Modification of hOSBP ligand binding domain. **E. Wilson, A. Burgett, N. Kothapalli**

CHED 555. Analysis of DNA damage in *Bacillus subtilis* induced by nanoscale complex metal oxide. **K. Hoang, T. Pho, T.A. Qiu, A. Carra, M.N. Hang, R.J. Hamers, S. Balbo, C.L. Haynes, V. Feng**

CHED 556. KDAC4 specificity and mechanism. **D. Hill, T. Toro, T. Watt**

CHED 557. Synthetic chalcones as inducers of the Nrf2/Keap1 transcription factor-mediated signaling pathway. **J. Haseleu, M. Hillwig**

CHED 558. Effects of lioplectamine MessengerMAX on hybridization state of DNA-based molecular beacons. **F. Sanchez-Conde, C.H. Battle**

CHED 559. Role of Notch 2 receptor signaling during eosinophil activation in a house dust mite model of inflammatory asthma. **C.L. Olbrich, E.D. Howard, E.W. Cornwell, L.A. Spencer**

CHED 560. Using FRET to elucidate the lipid trafficking mechanism of SP-B C and N terminal peptides in comparison with KL₄. **K. Kroning, O. Braide-Moncoeur**

CHED 561. Biochemical characterization of YbeY from *E. coli*. **A. Krysztofowicz, B. Smith, G. Culver**

CHED 562. Elucidation of amino acids regulating the species-selective activation of TRPM8 by coal fly ash particles. **H. Peterson, C. Reilly, J.G. Lamb**

CHED 563. Synthesis and antibacterial testing of terpene-substituted Cefotaxime. **B. Hunt, A. Maroney, S.A. Brouet**

CHED 564. Effects of expression of myoglobin in *E. coli* on the bioavailability of iron. **C. Carroll, T. Sivy**

CHED 565. Reduction of high-valent iron species in hemoglobin: Implications for heart disease. **J. Ejim, H.R. Williamson**

CHED 566. Determining the effect of surfaces on islet amyloid polypeptide and prion peptide aggregation. **C.M. Yip, A.M. Schenck, E.A. Yates**

CHED 567. Differential expression of glycine receptors in the globus pallidus, thalamus, and striatum. **J.A. Paul, M. Miranda**

CHED 568. Protein kinase inhibitor H-89 blocks a metabolic switch in cells lacking the tumor suppressor p27kip1. **R. Khattab, A. Alarabi, R. Sheaff**

CHED 569. Glucose control of a metabolic switch in cells lacking the tumor suppressor p27kip1. **S. Sullivan, R. Sheaff**

CHED 570. Pharmacokinetic studies of aspirin degradation in the presence of enzymes. **A. Wagoner, R.V. Macri**

CHED 571. FRET-detected catalysis

as a method to study RNA folding. **J. Pfeilstifter, A. Schaller, J. Potratz**

CHED 572. Evaluating the effect of nucleotide modifications on G-wire self-assembly. **A. Minogue, T.C. Marsh**

CHED 573. Synthesis and characterization of silver-coated gold nanoparticles as drug delivery vehicles introduced to yeast cells in vitro. **A. Alfaro, B.D. Gilbert**

CHED 574. Investigation of selective reactive oxygen species quenching ability of a novel self-cyclizing antioxidant and its derivatives. **P.A. Hahn, S. Abdul Salam, E. Merino, J. Liu**

CHED 575. Structure-function relationships in the HIV-1-Rev-Response-Element protein complex. **C. Garfola, I. O'Carroll**

CHED 576. Effect of metal ion compound concentration on the degradation of neuromelanin with application to Parkinson's disease. **B. Sutterfield, G. Ludewick, C. Schinnerer, G. LeBlanc**

CHED 577. Characterization of inhibitors of DNA-damage bypass polymerase DinB for SOS induction. **J. Andrade, C.E. Fitzgerald, A. Hotchkiss, N.M. Antczak, S. Lone, P.J. Beuning**

CHED 578. In silico Pin1 inhibitor testing: Implications towards anti-cancer drugs. **A. Yanumula, N.A. Valley, C.W. Wostenberg**

CHED 579. Kinetic studies on the aqueous chemistry of the glutathione-methyleneoxindole conjugate to model its inhibition of glyoxalase I. **A. Borges, J. Witcher, E.J. Brush**

CHED 580. Isatin thiosemicarbazone ligands and their characterization by NMR spectroscopy: Formation of their Cu(II) metal complexes. **A.K. Buckner, J.E. Little, S.G. Bowman, X. Jiang, E.C. Lisic**

CHED 581. Purifying potential cancer-inhibiting compounds in basket plant (*Callisia fragrans*). **S. Ho, A. Bermudez, K. Truong, M. Brandon, A. Hoffman**

CHED 582. Identification of the enzyme responsible for acp3U tRNA modification in bacteria. **M. Thomas, T. Vornhede, J. Burchett, J.B. Mamaril, M. Guy**

CHED 583. Effects of oxidative stress on non-B DNA structures in a yeast model system. **A. Riggs, N. Mebane, M. Douglas, K.M. Vasquez, M. Zewail-Foote**

CHED 584. Identification of tRNA 2'-O-methylation enzymes in humans and fruit flies. **R. Bales, J.B. Mamaril, M. Guy**

CHED 585. From folklore to reality: A biochemical study of the anti-carcinogenic properties of the *Annona cherimola*. **P. Cheng, S. Deprele, L. Nogaj**

CHED 586. Expression and purification of *Plasmodium falciparum* cytochrome c. H. Prieto, **Z. Wright**

CHED 587. Assembly of ASK1-MKK4/7-JNK3 kinase cascades. **R. Baker, X. Zhan**

CHED 588. Inhibition of *Borrelia burgdorferi* Bgp MTA/SAH nucleosidase. **T. Firica, W. Meyers, R. Mukuna, L.**

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Wayment, J.H. Thurston, D. Xu, K. Cornell

CHED 589. Understanding the generation of the non-proteinogenic amino acid β -hydroxyasparagine in bleomycin biosynthesis. **A. Vaze**, C.T. Calderone

CHED 590. Peptide-functionalized magnetically-active nanoparticles for targeted manipulation of amyloid fibrils. **N.D. Fusco**, B.D. Fellows, J.E. Smith-Carpenter, O.T. Mefford, B.J. Alper

CHED 591. Exploring the mechanism of glyoxalase I inhibition and inactivation by the glutathione conjugate with 3-methyleneoxindole. **J. Witcher**, A. Borges, E.J. Brush

CHED 592. Inhibition of oxidative DNA-protein crosslinking via tryptophan based antioxidants. **J.I. Contreras**, **A. Hernandez**, **D. Moore**, P. Perez, E.D. Stemp

CHED 593. Effect of tRNA modifications on pseudohyphal growth in yeast. **J.H. Brooks**, D. DiVita, K. Stuessel, J. Carmen, M. Guy

CHED 594. Identification of protein interactions for the mitochondrial transcription factor TFAM and mutants. **S. Reece**, M. Bestwick

CHED 595. Determining the role of retinoid X receptor alpha in mitochondrial DNA transcription. **S. Rempelos**, M. Bestwick

CHED 596. Effects of parthenolide on heat shock proteins. **T. Bailey**, **U. Dinh**, **J. Ferris**, R.E. Connor

CHED 597. Quantifying the role of copper in modifying cytochrome c oxidase expression and oxidant production in yeast mitochondria. **M.E. Walser**, M. Bestwick

CHED 598. Structural characterization of the RRE RNA of the human endogenous retrovirus **K. B. Kondrup**, I. O'Carroll

CHED 599. Design of a bifunctional nucleobase for molecular recognition of G-C base pairs in double-stranded RNA. **M. Campbell**, K. Hess, **L. MacRhyann**, C. Schweibenz, A.K. Williams, E. Rozners, T.E. Hagan, L. Gibson, J.A. MacKay

CHED 600. Fluorescent detection of reactive oxygen species in *Saccharomyces cerevisiae* applied to chronological lifespan. **K. Schultz**, M. Bestwick

CHED 601. Elucidating the role of transcription in adaptive mutagenesis with *rad26* Δ cell lines of *Saccharomyces cerevisiae*. **X. Huang**, T. Saxowsky

CHED 602. Structure-function relationships in P99 cephamycinase. **A. Sica**, S.T. Lefurgy

CHED 603. Elucidating the mechanism of action of titanium(IV) complexes for a new anticancer drug design strategy. **S. Perez**, E. Akam, K. Gaur, Y. Delgado, E. Tomat, A.D. Tinoco

CHED 604. Withdrawn

CHED 605. Utilization of the β -Glutamyl Cycle by NIH-3T3 cells. **N.S. Kowalkowski**, G. Boysen, R.B. Penney, M. Clemens

CHED 606. Impact of Cu(II) on zinc finger structure and function. **H. Phan**, C. Phan, K.E. Splan

CHED 607. Ethanol inhibition of protein synthesis in mammalian cells. **A.A. Pohl**, G.H. Purser, R. Sheaff

CHED 608. Assessment of the toxic effects of PAH on the pancreas of pregnant sprague dawley dams. **S.A. Buckeridge**, H.K. Wilson, E.W. Howarth, W. Yau, **W.E. Gato**

CHED 609. Chemical trapping of residual vancomycin to mitigate bacterial selection for resistance. **B. Russ**, R.W. Mull, Y. Tal-Gan

CHED 610. Isolation of antibacterial and antifungal activity of ancient soil sediment actinomycetes. **M. Otto**, A. Hoffman

CHED 611. Characterizing a novel signaling pathway in *Pseudomonas entomophila*: Elucidation of the signal cascade initiated by pseudomonas virulence factor (PVF) through transposon mutagenesis. **M. Knechel**, A. Kretsch, B. Li

CHED 612. Assessment of the link between environmental exposure and type-1 diabetes induction. **I. Seise**, Z.A. Pilz, W.E. Gato

CHED 613. KDAC6: Catalytic domain substrate specificity. **I. Parham**, T. Toro, T. Watt

CHED 614. Synthesis and structural variations of peptide-based molecular building blocks and their self-assembly. **A. Jeffreys**, J. Bird, L. Laperriere, D. Patterson, S.C. Butler

CHED 615. Zebrafish as a brain model to investigate the anticonvulsant properties of a photoactivatable diazepam. **W. Scudder**, J. Dallman

CHED 616. Examining longitudinal immunohistochemistry of alpha and beta cells in the NOD-mouse model of type 1 diabetes. **A. Short**, W. Joesten, M. Kennedy

CHED 617. Effect of polyphenols on buprenorphine metabolite concentrations. **A. Leddon**, M.A. Fisher

CHED 618. Effects of green tea on blood glucose levels in mice with induced diabetes. **C. Gribik**, B.A. Davis

CHED 619. Determining detection limits of gold nanospheres through UV/VIS spectrometry. **D. Daujatas**, K.E. Molter, D. Graham

CHED 620. Tyrosine 141 provides an important hydrogen bond in DNA polymerase β . **C. Westgate**, S. Lone

CHED 621. Drivers of tunable iridescence in squid skin. **C.V. Sharma**, R. Levenson, D.E. Morse

CHED 622. Effect of vitamin D₃ on paclitaxel potency in triple negative breast cancer cell lines. **C. Wilhelm**, **Z. Clor**, J. Kels

CHED 623. Mechanistic studies of para-guaiacols as new substrates for dehaloperoxidase from *Amphitrite ornata*. **N.C. Sanders**, A. McGuire, R.A. Ghiladi

CHED 624. Expression of charged transfer species in *Sewanella oneidensis* in the presence of nanomaterial metals. **A.M. Bell**, R. Payne, S. Lampa-Pastirk

CHED 625. Spectroscopic studies of metallo- β -lactamases and inhibitors with β -Lactam antibiotics. **C.G. Miller**, A. Bergstrom, Z. Chen, A. Chen, P. Thomas, R. Bonomo, W. Fast, S. Cohen, R.C. Page, D.L. Tierney, M. Crowder

CHED 626. Using CRISPR/Cas9 system to develop switchable gene expression cassettes in *Arabidopsis thaliana*. **R. Spurlin**, C. Doherty

CHED 627. Analysis of palmitoylated actin by mass spectrometry. **J. Merritt**, L.R. Frost

CHED 628. Purification and crystallization of geranylgeranylgeranyl phosphate synthase from *T. volcanium*. **B. Gillott**, K. Alderfer, J.A. Himmelberger

CHED 629. Evolvability vs. barrel contribution to the active site in TIM barrel fold superfamilies. **A.Z. Xiang**, E.C. Mundorff

CHED 630. Electrochemical studies of L-histidine/zinc interactions in aqueous media. **D. Clark**, G.T. Cheek

CHED 631. Synthesis of giant unilamellar vesicles for use in studying the stability and permeability of cellular membranes. **C. Schweibenz**, T.E. Hagan

CHED 632. Overexpression of YAP1-TFE3/FAM118B fusion genes. **C.R. Love**, F. Szulzewsky, E. Holland

CHED 633. Deducing the mechanism by which deprenyl increases lifespan in *C. elegans*. **H. Folse**, **W. McLean**, K. Weeks

CHED 634. Quantifying tetrodotoxin using a competitive ELISA. **D. Schreiner**, R.L. McCann, P. Delis

CHED 635. Encapsulation of elastase inside the P22 virus-like particle. **K. Anazia**, D. Patterson, A. Azhgani

CHED 636. Analysis of biogenic amines present in fossilized black flies. **M. Birmingham**, M.A. Fisher

CHED 637. Examining the glutathione S-transferase assay: Understanding nitro position specificity using disubstituted chloronitrobenzenes. **Y. Olowookere**, **Q. Le**, K. Drake

CHED 638. Catecholamine compounds as inhibitors of amyloid β -42 aggregation in Alzheimer's disease. **C.V. Johnson**, S.J. Gravelle

CHED 639. Characterization of ligand binding to supramolecular G-DNA. **E. Kalb**, T.C. Marsh

CHED 640. Insights into immune mechanisms through immunoblot analysis of activation induced cytidine deaminase (AID) point mutations. **A. Malik**, J. Chaudhuri

CHED 641. Determination of the pathway leading to zonula occludin 1 phosphorylation and subsequent tight junction alteration in diabetic retinopathy. **R. Shaffer**, R.L. McCann

CHED 642. Evaluating a dissolved oxygen sensor using glucose oxidase. **D. Raval**, A. Kalantari, R. Sheaff

CHED 643. Functional cysteine residues for antigen 85C activity. **A. Mandato**, Y. Chai

CHED 644. Molecular mechanics investigation of the potential binding sites of MYCN in the treatment of neuroblastoma. **H. Foster**, M. Dorko

CHED 645. Sequential encapsulation of enzymes within the P22 virus-like particles indicates maturation of an enzyme is important to obtaining optimal kinetic activity. **D. Patterson**, **C. Hjorth**, A. Irias, J. Bird, T. Douglas

CHED 646. Development of a light-based dissolved oxygen sensor. **A. Kalantari**, D. Raval, R. Sheaff

CHED 647. Deciphering AMB biosynthesis. **Y. Miao**, C.T. Calderone

CHED 648. Isolation and characterization of dandelion (*Taraxacum officinale*) peroxidase. **P.A. Voss**, S.C. Silver

CHED 649. Investigation of potential drug inhibitors against DNA polymerase Eta. **K. Bryson**, S. Lone

CHED 650. EF-hands 3 and 4 have distinct roles in modulating DREAM conformations. **D. Seka**, J. Miksovskva

CHED 651. L- and D- glutamine peptide synthesis: Microscale. **A. Murphy**, D. Harris

CHED 652. Development of hepatocellular carcinoma and TP73 expression: Does DNA methylation play a role? **S. Samuel**, Z. Sherif, Z. Yao

CHED 653. Analysis of cilantro and coriander extracts as natural chelates for treating mice exposed to lead acetate. **E. Volna**, B.A. Davis

CHED 654. Investigating the proteolytic processing of mitochondrial fusion protein OPA1. **K. McMahon**, **C. Griggs**, J. Fishovitz

CHED 655. Comparative analysis of the SH2B3/LNK gene in mammals: A key to understanding myeloproliferative neoplasms. **A. Adebajo**, Z. Zhao

CHED 656. Detection of N4-acetylcytidine modification in *saccharomyces cerevisiae* mRNA. **B. Williams**, B. Addepalli, P.A. Limbach

CHED 657. Proteomic analysis of MTN deficiency in enterohemorrhagic *E. coli* O157:H7. **K.R. Bertagnolli**, M. Boll, G. Liu, S. Pu, K. Cornell

CHED 658. Water-soluble red fluorophores: Synthesis, spectral properties, and protein association study. **H. Parker**, **H.R. Lykins**, R. Choudhury

CHED 659. Study of the degradation of natural and unnatural amino acids in extraterrestrial conditions. **K.L. Davidson**, C.C. Mammoser, A.J. Gunter, S. Dhar, B. Brown, J.R. Peller, L.A. Rowe

CHED 660. NO detection with bovine oxyhemoglobin. **A. Smith**, **D.J. Hirsh**

[†]Cooperative Cosponsorship

- CHED 661.** Effects of DMSO on uptake of polyphenols by *Escherichia coli*. **C. Cardenas**, H. Udo, K. Griffin, J. Meyers
- CHED 662.** Toward segmental isotopic labeling of large disordered polypeptides. **R. Cachero**, J. Antos, S. Smirnov
- CHED 663.** Expression of proteins TNF- β and VEGF-C involved in hepatic tumor induction of fibrosis. **M. Eichers**, D. Martin
- CHED 664.** Characterization of hen egg lysozyme and bovine serum gamma globulin amyloid fibrils using thioflavin T fluorescence and scanning electron microscopy. **C. Engesser**, S. Skaar, J. Welshons, M.E. Lee
- CHED 665.** Preventing aggregation in peptides derived from β -sheet rich sections of β -synuclein. **B.R. Fitzgerald**, S. Petty
- CHED 666.** Biosynthesis of zinc sulfide and cadmium sulfide nanoparticles with *Shewanella oneidensis*. **S. Forney**, A.M. Bell, S. Lampa-Pastirk
- CHED 667.** White turnip peroxidase enzymatic stability with calcium chloride and ethylene glycol. **C. Munson**, A. Hoffman
- CHED 668.** Understanding origins of multicellularity by protein analysis of *Monosiga brevicollis* vinculin. **M. Delgadillo**, R.H. Singiser
- CHED 669.** Characterization of drug-protein interface between methylene blue and *P. falciparum* glutathione reductase using HDX mass spectrometry. H. Prieto, **C. Vazquez**
- CHED 670.** Comparative study of unfolding states of lysozyme and cytochrome C employing continuous-wave spectroscopy. **R. Pedretti**, S. Lampa-Pastirk
- CHED 671.** Development of the molecular biology and crystallization processes for fruit fly telomeric proteins. **M. Loncaric**, G. Horner, E.M. Miller, C. Brazel, R. Kurzthals, C. Ragain
- CHED 672.** Inhibition of luciferase by novel naphthoquinone derivatives. **A. Rowe**, O.J. Alao, J.C. Dicesare, R. Sheaff
- CHED 673.** Effects of macromolecular crowding on the kinetics of human dihydrofolate reductase. **T. Sheehy**, D.W. Seybert
- CHED 674.** Conformational study of surface attached proteins by attenuated total reflection spectroscopy. **M. Hallberg**, B. Negru, H. Shi, M. Su
- CHED 675.** Inducing β -sheets in disordered peptides in β -Synuclein. **P. Mon**, S. Petty
- CHED 676.** Detecting enzyme activity in coastal aerosol. **A. Anides Morales**, M. Pendergraft, C. Lee, F. Malfatti, K. Axelrod, K.A. Prather
- CHED 677.** Mapping protein repertoire in the cell. **K. Cave**, T. Mithu, A. Barnes
- CHED 678.** Investigating the nucleating region of protein misfolding in alpha-synuclein. **C. Fernandez**, S. Petty
- CHED 679.** Exploring efficient methods for protein production in an undergraduate lab setting. **H. Simpson**, **A. Wilson**, J. Johnson, C.D. Mitchell, T. Dunlap
- CHED 680.** Effects of lipophilicity of propofol derivatives on cancer lung cell death. **J.R. Miller**, K.S. George Parsons
- CHED 681.** Investigating the loss of function of position 470 in human DNA polymerase K using site-directed mutagenesis. **P. Chong**, C.E. Fitzgerald, S. Lone
- CHED 682.** Solid phase peptide synthesis protocol optimization and application. M.J. Crawford, **B. Day**, **J.F. Larrimore**
- CHED 683.** Biophysical characterization of a G-quadruplex structure on the FMR1 gene at exon 12. **P. Cannanbilla**, M. Mihailescu
- CHED 684.** Comparative analysis of bisphenol A (BPA) versus human papillomavirus induction of oncogenic genomic instability. **E. Canty**, **S. Arya**, S. Mingarelli
- CHED 685.** Amino acid metabolism by cells lacking the tumor suppressor p27kip1. **R. Kaur**, R. Sheaff
- CHED 686.** B35 neuroblastoma cells cultured on phosphonic acid-modified and unmodified nitinol nanoparticles to test effects on neural morphology. **S. Garretson**, **L. Salameh**, H. Smith, N. Spitzer, R. Quinones
- CHED 687.** Differential oxygen usage in cells lacking the tumor suppressor p27kip1. **D. Thomas**, A. Saleh, R. Sheaff
- CHED 688.** Crystallographic studies of PrP: Discovering potential leads for drug development. **F. Pavlovici**, M. Nonato Costa
- CHED 689.** Conformational analysis of substrate bound methylenetetrahydrofolate reductase mutants utilizing hydrogen-deuterium exchange and mass spectrometry. E.M. Marzluff, E.E. Trimmer, **J. Wang**
- CHED 690.** Effect of the anti-cancer drug KP1019 on DNA in cancerous and healthy epithelial cells. **A.D. Groover**, K.L. Hayden
- CHED 691.** ANGPTL4 promotes lymphangiogenesis in head and neck squamous cell carcinoma. **T. Linfield**, H. Park, D. Menon, S. Montaner
- CHED 692.** Methionine 234 participates in orientating substrate for catalysis by human carbonyl reductase I. **J. Williams**, **M. Paul**, S. Etzler, M. Brownlee, D. Lobato, H.A. Charlier
- CHED 693.** Synthesis and incorporation of 1,2-alkanolamine-functionalized lysine as a non-canonical amino acid into GFP. **C. Rowlett**, J. Morse, W. Liu
- CHED 694.** Novel ribociclib derivative induces cell cycle arrest and cell death. **T. Hansel**, K. Barkovich, Q. Fan, K.M. Shokat, W.A. Weiss
- CHED 695.** Development of an unnatural amino acid-specific aminoacyl tRNA synthetase. **C.C. Mammoser**, L.A. Rowe
- CHED 696.** Analysis of the secondary structure of *C. parvum* pyruvate kinase and its novel disulfide bridges. **J. Potts**, K.L. Hayden, D. Chattopadhyay
- CHED 697.** Affect of various genetic mutants on intraflagellar transport in *Chlamydomonas reinhardtii*. **M. Loncaric**, J. Lee, A. Turner, J. Kessler
- CHED 698.** Probing the tetrameric structure of *Leishmania major* pteridine reductase (PTR1) with point mutations and interface-derived peptides. **M.G. Johnson**, J. Gavenonis
- CHED 699.** Fluorescent tagging of HIV-1 using a novel recombinant protein. **D. Haas**, B. Roper, **M. Lauria**, M. Farrar, J. Kleingardner
- CHED 700.** Correlating the stability of coiled-coil structures with changes in the sequence. **E. Allgeyer**, P. Fisk, W. Cross, M. Blackburn
- CHED 701.** Development of techniques for the comparison of tetramers and dimers of MTHFR with hydrogen-deuterium exchange liquid chromatography and mass spectrometry. **A. Glebov-McCloud**, C. Jeon, E.E. Trimmer, E.M. Marzluff
- CHED 702.** Preparation of small laccase (SLAC) for immobilization via click chemistry and bioremediation applications. **B. Mushala**, C.M. Johnson
- CHED 703.** Effects of macromolecular crowding on enzyme kinetics. **C. Chung**, **J. Jackson**, **K. Slade**
- CHED 704.** Effect of Hierba Santa and Hierba Manayupa extractions on HeLa cells and the identification of their chemical composition via GC/MS. **A. Aceves**, C. Castillo, S. Deprele, L. Nogaj
- CHED 705.** Regulation of miRNA maturation pathway by pre-miRNA G-quadruplex structure. **J. Roth**, M. Mihailescu
- CHED 706.** Exploring intermolecular interactions during the early stages of phase separation in elastin-like proteins. **C.J. Price**, **T. Branyan**, Y. Zhang, G.L. Bidwell, J.J. Correia, N. Fitzkee
- CHED 707.** Cloning, overexpression and purification of tetrahydrodipicolinate N-succinyltransferase (DapD) from *Serratia marcescans*. **A.F. Clark**, **B.S. Lawson**, C.M. Johnson
- CHED 708.** Structure-activity relationship studies between GBAP analogues and the *Enterococcus faecalis* fsr quorum sensing circuit. **C. Cameron**, D. McBrayer, B. Gantman, Y. Tal-Gan
- CHED 709.** Preparation of the antifungal compounds HSAF and analogs from *lysobacter enzymogenes*. **B. Lacock**, J. Jiang, L. Du
- CHED 710.** Effectiveness and mechanism of action of modified porphyrins for photodynamic therapy of triple negative breast cancer cells. **A. Abbott**, **H. Brandon**, J.E. Bradshaw, T.E. Hayes
- CHED 711.** Regulation of plant defense compound synthesis in oilseed crop *Camelina sativa* in response to biotic stress. **G. Aguirre**, J. Celenza, M. Babaei Amameh
- CHED 712.** Structural investigations on ER membrane complex subunit 9. **C. Murphy**, **B. Wilcox**, K.R. Gallagher
- CHED 713.** Analysis and characterization of lanthipeptide biosynthetic gene clusters in *Salinispora*. **M. Halbert**, **D. Scott**, C. Kittrell, E. Limbrick
- CHED 714.** Pulse amplitude modulation fluorometry as a means to determine photosynthetic modes of *Chlorella vulgaris*. **P.E. Adkins**, D. Kolling, B. Woodworth, A. Holland, A. Stevenson
- CHED 715.** Concentration dependence of TDP-43 aggregation during stress conditions. **M. Guzman Sosa**, V. Harjono, B. Zid
- CHED 716.** Metabolic response of cells lacking the tumor suppressor p27kip1 to low oxygen levels. **A. Saleh**, D. Thomas, R. Sheaff
- CHED 717.** Exploring the molecular mechanism of Tat-SF1 in HIV-1 infectivity through fluorescence correlation spectroscopy. **R. De Cataldo**, J. Trautman, K. Griffith, K.H. Fogarty, H.B. Miller
- CHED 718.** Using curcumin to target cancer cells with deregulated p27kp1. **J.J. Parackal**, K.M. Counter, R. Sheaff
- CHED 719.** Determining carbon source hierarchy of *Sinorhizobium meliloti* using ¹H NMR spectroscopy and complete reduction to amplitude frequency table (CRAFT). C. Hughes, N. Stubb, **D.P. Soulsby**, D.B. Wacks
- CHED 720.** Identification of Pks13 inhibitors for antitubercular drug discovery. **S. Leon Quinonez**, R. Shrestha, A. Aggarwal, A. Roychowdhury, M.K. Parai, W. Dong, J.C. Sacchettini
- CHED 721.** Kinetics of the non-enzymatic hydrolysis of aqueous L-arginine ethyl ester in vitro. **P.A. Harville**, A. Beffa, M.D. Reavis, G.H. Purser
- CHED 722.** Hydroxylamine reactivity with heme proteins. J. Vardanega, C.J. Krewson, **Q.C. Durfee**, B.N. Bradley, C.R. Andrew
- CHED 723.** Synthesis of hydroxylamine building blocks for oxime-based diversity libraries. **W. Oyewole**, D. Huang, L.E. Brown
- CHED 724.** Investigation of the effect of molecular weight on polymer blood compatibility. **R.O. Anyaeche**, N. Ayres, Q. Chai
- CHED 725.** Comparing attachment of myoglobin and BSA on nanodiamonds. **C. Sylvia**, B. Negru, H. Shi, M. Su
- CHED 726.** Molecular modeling of human β -glucuronidase. **A. Hawks**, K.T. Lane
- CHED 727.** Up-cycling expired ibuprofen. **C.N. Harris**, H.S. Barcelona
- CHED 728.** Effects of oxidative DNA damage on survival and mutagenesis in *Saccharomyces cerevisiae*. **O.U. Egejuru**, T. Saxowsky
- CHED 729.** In vivo inhibition of *S. cerevisiae* β -glucosidase validates molecular modeling and in silico inhibitor docking studies. **J.L. Turner**, S.A.

Kennedy

CHED 730. Development of *Escherichia coli* membrane preparations of human cytochrome P450 2A6. **J. Velasco**, J. Harrelson, J.M. Chan

CHED 731. Design extraction techniques of the hemolymph in invertebrate species from Puerto Rico. **S.M. Escobar Avilés**, B.J. Ramos-Santana

CHED 732. New insights into the "Manna from Heaven" hypothesis. **C. Laubenthal**, E. Shipley, J. Sebre

CHED 733. Structure-activity relationship studies of the competence stimulating peptide (CSP) signal utilized by *Streptococcus mutans*. **S.R. Hamry**, C. Bikash, Y. Tal-Gan

CHED 734. Mechanism of DNA hydrolysis and target specificity of Co, Ni, and Zn cyclen and cyclam complexes. M. Oertel, S.I. O'Neal-Johnson, **A. Bond**, **P. Vahchuama**, L. Gwyn

CHED 735. Crosslinking interactions between stromal cpTatC and mature precursor. **G. Thomas**, K. Hird, A. Habtmichael, C. Dabney-Smith

CHED 736. Expressing & engineering eukaryotic lipid channels in *Escherichia coli*. **T. Zlomie**, G. Conover, A. Laganowsky

CHED 737. Quadruplex molecular beacon stability: Salt & sequence effects. **A. Brink**, C.H. Battle

CHED 738. Effects on the behavior and survival rate of *Daphnia magna* exposed to silver nanoparticles functionalized with acetylsalicylic acid. **M. Barriera Diaz**, Y. Santos Vazquez, A. Homs Ortiz, J.I. Ramirez Domenech

CHED 739. Fast detection of cancer biomarker proteins with quantum dots. **A. Rowley**, T. Parks, M. Yu

CHED 740. Regulation of the class II transactivator (CIITA) by the molecular scaffold 14-3-3 beta. **H. Malik**, D. Cressman

Section H

Ernest N. Morial Convention Center Halls D/E

Undergraduate Research Posters

Biotechnology

Cosponsored by BIOT and SOCED
N. Di Fabio, J. Roberts, *Organizers*

12:00–2:00

CHED 741. Paper-based lateral flow strip for detection of traumatic brain injury protein biomarker. **D. Shell**, X. Gao, N. Wu

CHED 742. Glucose and xerogel incorporated Prussian Blue modified electrochemical sensors. **A. Moreno**, D. Budner

CHED 743. Modification of collagen's surface through the attachment of histidine-tagged peptides. **J. Pham**, V. Suresh, J.A. Chmielewski

CHED 744. Ultra-sensitive assay development for early detection of tuberculosis. **M.I. Almaraz**, L. Xie, D. Walt

CHED 745. An investigation of PHLPP1 phosphorylation. **J. Shirkey**, A. Grezchnik, A. Newton

CHED 746. Maximizing output from an aspirin producing bacteria. **M. Morehart**, **B.A. Lizotte**, **M.J. Duckwall**, L. Gwyn

CHED 747. Structure-based design of molecularly imprinted polymers for G-quadruplex nucleic acids. **J.D. Mizvesky**, **R. Wodzinski**, **A. Golod**, **M.R. Elshaer**

CHED 748. Cobalt redox mediators for integration in photosystem I biohybrid solar cells. **E.A. Ooi**, J. Medina, A. Teodor, N. Brady, M. Vaughn, B.D. Bruce, J. Bergkamp

CHED 749. Structure activity studies of insulin recognition by cucurbit[7]uril. **H. Anderson**, **M. Gallagher**, W. Li, A. Grice, A.R. Urbach

CHED 750. Developing the HK97 virus-like particle as a nanomaterial platform. **M. King**, D. Patterson

CHED 751. Antifungal activity induced by generation of reactive oxygen species. **D. Little**, K. Anderson, A.G. Volkov

CHED 752. Measuring tamoxifen-inducible Cre expression in placental and embryonic tissues following treatment of pregnant female mice. **N. Popp**, M. Storage, Q. Yang, M. Bordas, R. Sood

CHED 753. Creating a DNA computer using five interconnected NAND gates with a half-adder function. **M. Grillo**, T. Molden, D. Kolpashchikov

CHED 754. Synthesis and characterization of low toxicity, ionic liquid extraction solvents. **G. Ifijeh**, R.E. Del Sesto

CHED 755. Ionic liquids as green biofuel extractants. **T. Christensen**, **A. Everett**, R.E. Del Sesto

CHED 756. Amino acid ionic liquids as non-toxic biofuel extractants. **C. Sloan**, T. Christensen, A. Everett, A.T. Koppisch, R.E. Del Sesto

CHED 757. Ionic liquid and deep eutectic materials to break down pathogenic biofilms. **T. McElroy**, **M. George**, C. Migliori, D. Warner, A.T. Koppisch, R.E. Del Sesto

CHED 758. Synthesizing carbon nanostructures. **J. Garbutt**, V. Goss

CHED 759. Characterization of eosinophils in a eosinophil-specific Notch2-deficient mouse. **D. Anketell**, **Y. Huang**, **C.L. Olbrich**, **E.W. Cornwell**, **L.A. Spencer**

CHED 760. Study of the Interactions between DNA and Metal Complexes using Surface-Enhanced Raman Spectroscopy. **J. Butkus**, S.M. Basu

Section H

Ernest N. Morial Convention Center Halls D/E

Undergraduate Research Posters

Chemical Education

Cosponsored by SOCED
N. Di Fabio, J. Roberts, *Organizers*

12:00–2:00

CHED 761. Identification of Cu(II) salts based on solubility: Undergraduate laboratory experiment. **K.L. Bullard**, **J. Garcia**, L.D. Schultz

CHED 762. Investigating the mechanism and selectivities of alcohol oxidation by sodium hypochlorite: Expanding green organic chemistry lab experiments for undergraduates. S. Ellis, **T. Ellis**, T.K. Ellis

CHED 763. Investigating hazardous waste practices in the general chemistry laboratory. **O. Slater**, S.D. Wiediger

CHED 764. Withdrawn

CHED 765. Teaching the relative reactivity of carboxylic acid derivatives through a discovery-format laboratory. **L.N. Engberg**, **D. Brownholland**

CHED 766. Using molecular modeling as an aid to understanding stereoselectivity. **M. Leonhard**, A. Johnson, **D.L. Dillon**

CHED 767. Using a meta-analysis to assess the effectiveness of flipped learning in chemistry. **P. Maldonado**, A. Leontyev

CHED 768. Community Chemistry Integration Group (CCIG): Fostering an engaged community through STEM service-learning. **A. Chatters**, J. Adkins, V.C. Miles, T. McClelland, M.F. Ali

CHED 769. Instrumental and environmental chemistry discovery laboratory: Utilizing various analytical methods to study the chemistry of water. D. Vargas Trujillo, C. Grizer, R. Kidwell, J. Carvajal de Luna, S. Tittle, A. Kolek, **M. Wilk**, J.D. Beatty, M. Omary

CHED 770. Withdrawn

CHED 771. Investigating upper-division students' scientific modeling practices in the context of molecular vibration. **C. Crickmore**, J. Beck, M.N. Muniz

CHED 772. Partial least squares structural equation modeling of chemistry self-concept in introductory college chemistry. **L. Nuñez**, **C. Lai**, J. Ross

CHED 773. 3D printing in higher education. **D. Arias**, C. Arias, A. Leontyev, C. Adams

CHED 774. The development of a thermosolvatochromism laboratory exercise for the physical chemistry laboratory curriculum. **A. Boucher**, B. Findley

CHED 775. Greener Friedel-Crafts acylation using a deep eutectic solvent: An undergraduate laboratory method. **J.R. Bonney**, I.J. Levy

CHED 776. Job's method using a diode array based spectrometer: Undergraduate experiment. **J. Lee**, R. Fielkau

CHED 777. Safety as a core value of a student chapter. **C. Wilhelm**, M.R. Wilhelm

CHED 778. Analysis of a complex gaseous mixture using ro-vibrational spectroscopy: Study of the Ira Remsen reaction for the upper-division laboratory. **T.M. Sytsma**, A. Li, J.A. Ganske

CHED 779. Design of laboratory experiences in material science and

nanotechnology for cooperative project-based experimentation in general chemistry. **C. McCleary**, A. Villalta-Cerdas

CHED 780. Development of an undergraduate analytical chemistry laboratory experiment: Determination of relative fluorescence quantum yields. **P.P. Benz**, **C. Merritt**

CHED 781. Students' understandings of solution concentration. **C. Dobbs**, T.N. Abell, S. Bretz

CHED 782. Improving student understanding of intermolecular forces with transformed curricula materials. **G. Gadia**, S.M. Underwood, A.T. Kararo

CHED 783. BioVision: Object tracking in dynamic external representations. E. Shahrabani, **T.J. Bussey**

CHED 784. Improving student success on Lewis structures, VSEPR theory, polarity, and VB theory. **M. Burke**, E. Wilcox, F.M. Yarberr

CHED 785. Evaluation of potential pre-requisites in determination of student success in freshman-level chemistry courses. **J. Preston**, F.M. Yarberr

CHED 786. Improving success in freshman-level chemistry laboratories through online procedural videos. **K. Walden**, F.M. Yarberr

CHED 787. Science writing heuristic - lab performance compared to perceived usefulness. **N. Bonde**, D.I. Del Carlo

CHED 788. Development of a hybrid lecture/lab, interactive course in X-ray crystallography. **A.K. Kayser**, C. Bradley

CHED 789. Design of cooperative, project-based laboratory experiences to promote understanding of stoichiometry in college-level general chemistry courses. **A. Bui**, W. Fernandez, A. Villalta-Cerdas

CHED 790. Exploring connections between instructor discursive moves and student participation. **H. Fu**, M. Takemura, R.S. Cole

CHED 791. Development of a Fischer esterification experiment utilizing benchtop NMR. **M. Bansal**, A.E. Brown, H. Vail, J.L. Marshall

CHED 792. Comparing the learning outcomes in chemistry outreach between elementary charter schools and title I elementary schools. **A.M. Samani**, **M. Rosqvist**, **P. Kamath**, **R. King**, **B. Stockman**, **R.R. Burraston**, R.V. Valcarce, M. Alvarez, P.J. Iles, L.D. Giddings, N.R. Bastian, R. Holcomb

CHED 793. Symbolic and space-filling representations of a combustion reaction: General chemistry students' reasoning about bonding. **K. Ferguson**, M. Popova, S. Bretz

CHED 794. Students' understanding of atomic emission using the flame test concept inventory. **C. Spieser**, A.V. Mayo, G.H. Allen, S. Bretz

CHED 795. Quantum chemical calculations of H₂ in the ground and excited states on a spreadsheet. Y. Ge, R. Rittenhouse, J. Buchanan, B. Livingston, **M. Schimelfenig**

[†]Cooperative Cosponsorship

CHED 796. Characterizing teachers approaches in formative assessment in chemistry classrooms. H. Sevian, **K. Caushi**, V. Dini

CHED 797. Diels–Alder reaction using a solar irradiation heat source designed for undergraduate organic chemistry laboratories. S.M. Amin, A.M. Barnes, C.R. Buckner, **J. Jones**, M.K. Monroe, L. Nurmomade, T. Pinto, S.D. Starkey, B. Agee, D.J. Crouse, D.J. Swartling

CHED 798. Development of a comprehensive interdisciplinary chemistry lab course. R.A. Kharod, K.A. Coates, **S.A. Costin**

CHED 799. Let students develop quantum chemistry for a two-dimensional world. Y. Ge, **M. Schimelfenig**

CHED 800. A 3D printed photosynthesis model. **K.A. Smiar**, J.D. Mendez

CHED 801. Chemistry and the ethic of caring: How professional development can shape teachers' attitudes and beliefs about students. **D.J. Frank**, **N.W. Spurgus**, J.M. Pratt, E.J. Yezierski

CHED 802. Students' understandings of particulate representations of elements and compounds. **L. Huff**, S. Bretz, Z. Roche Allred

CHED 803. Utilization of Excel for fast Fourier transforms: Applications in analytical chemistry education. **M. Guckavan**, G. Patterson

CHED 804. Models and modeling in chemical education: Literature and textbook review. **J. Loefer**, A. Boeck, J. Beck

CHED 805. Developing undergraduate scientists: Training scientists using storyboards. **N.N. Shaw**, S.B. Sigmann, L. Richard

CHED 806. Redesigning general chemistry: Implementation of empiricism learning for enhancing basic general chemistry skills. **S.J. Blaylock**, M.A. Franks, J. Emrani, M.M. Basti

CHED 807. Measuring chemistry students' cognitive load on working memory: The development of an inventory of load-inducing topics in organic chemistry 1. **K.A. Hakim**, A. Bishop, K. Enneking, J. Nogle, E. Paulson, T. Gampp, N.P. Grove

CHED 808. Measuring chemistry students' cognitive load on working memory: The development of an inventory of load-inducing topics in organic chemistry 2. K.A. Hakim, A. Bishop, K. Enneking, **J. Nogle**, E. Paulson, T. Gampp, N.P. Grove

CHED 809. Using process oriented guided inquiry learning (POGIL) in an online general chemistry course. **K. Kubiszewski**, H. Patel, **N. Plys**, **P.L. Daubenmire**, L.C. Brazdil

CHED 810. Developing a biochemistry laboratory module: *In vitro* quantification of LDH binding affinity to nicotinamide adenine dinucleotide (NAD) derivatives. **M.E. Abel**, **J.F. Mauser**

CHED 811. Nanomaterial precursor synthesis for use in organic chemistry laboratory. **E.L. Smith**, A.J. Luca, T.S. Hughes, **L.J. Tucker**

CHED 812. Using 3D printing and Arduino technology to form a 'reaction chamber'. **C. Caldwell**, J.D. Mendez

CHED 813. Chemistry in art project: Synthesis, characterization and printmaking applications of various azo dyes. **A. Hanna**, E. Jovert, **A. Paige**, P.J. Rosado, M. Forrest

CHED 814. Analysis of an atoms first pilot at the United States Naval Academy. **O.N. Bair**, D.K. Dillner, M.A. Teichert, M.J. Schroeder, T.S. Thomas

CHED 815. Development of an effective and reproducible undergraduate experiment for the analysis of chlorogenic acid (CGAs) and caffeine in coffee through high-pressure liquid. **A. Farinas**, O. Greenwood, J.A. Schafer

CHED 816. Laboratory experiment in the preparation and analysis of poly(vinyl alcohol) self-healing hydrogels. **A.P. Hilker**, **T. Mattice**, R. Morris, M. Wentzel, P. Willoughby

CHED 817. Investigating how undergraduate general chemistry students interpret and explain everyday phenomena. **A. Sundberg**, E.E. Scott, S.M. Underwood, C. Anderson, M. KK, R.L. Matz, V. Sawtelle

CHED 818. Use of learning objects for first year chemistry students at the University of Costa Rica. **A. Fernández**, H. Arce

CHED 819. Withdrawn

CHED 820. Student reflections on test performance. W.E. Schatzberg, **S. Nielsen**

CHED 821. Embedding computing using free resources in honors general chemistry. **L. Asirwatham**, A.K. Sharma

CHED 822. Pilot investigation of zoo inquiry projects for introductory chemistry laboratories. **J. Kamitono**, D.F. Donnelly

CHED 823. Measuring science outreach effect on Title One elementary schools. **B.D. Powell**, C. Gunnell, J. Burgos, L. Hannibal, C. Anderson, M. Tsun, J. Wells, N. Alkheishali, R.V. Valcarce, P.J. Iles, L.D. Giddings, N.R. Bastian, M. Alvarez

CHED 824. pl determination of Lactate Dehydrogenase for use in an undergraduate biochemistry laboratory. **C.E. Crawford**, S. Bingaman, P.S. Biser

CHED 825. Diels–Alder reaction of β -phellandrene and p-benzoquinone as an experiment for the organic chemistry teaching lab and subsequent adduct polymerization. **J.W. Wittenberg**, T.W. Nalli

CHED 826. A cluster analysis of biochemistry students' misconceptions about enzyme–substrate interactions. **M.L. DeLuca**, K.J. Linenberger Cortes, G.H. Allen, Z. Allred, S. Bretz

CHED 827. Characterizing general chemistry students' knowledge structures about models of the atom and chemical bonding. **M. Smiley**, **B. Mulligan**, E.J. Borda, M.N. Muniz

CHED 828. Data-driven curriculum reform: Energy changes during bond making and breaking. **B. Minshall**, E.J.

Yezierski

CHED 829. Educational undergraduate synthesis of N-methyl Prozac®, a precursor to the classic SSRI fluoxetine. **R. Dohoney**, S.M. Schelble, C.L. Magee

CHED 830. Increasing the safety of the rainbow flame test demonstration. **A. Rossi**, **K. Wiley**, A.J. Carroll

CHED 831. Validating the use of the SAMM survey as a formative assessment in the sixth and seventh grade science classrooms to elicit students' thinking about the particulate nature of matter. **F. Wanjiku**, C. Ngai, H. Sevian

CHED 832. Investigations of riboflavin binding protein folding through fluorescence, UV-Vis and CD thermal melt studies. **J. Tomsich**, T.A. Murray, S.L. Hemmingsen, L. Pandiscia

CHED 833. Impact of required research experience on chemistry and biochemistry undergraduates. **A.M. Ruiz**, B.L. Gonzalez

CHED 834. Development of new undergraduate polymer laboratories using organic catalysts. **M. Malley**, M.T. Wentzel

CHED 835. Shedding light on student perception of chemical exposure. **B. Blackwell**, S.D. Wiediger

Section H
Ernest N. Morial Convention Center
Halls D/E

Undergraduate Research Posters

Computational Chemistry

Cosponsored by COMP and SOCED
N. Di Fabio, J. Roberts, *Organizers*

12:00–2:00

CHED 836. Computational studies of the O₂ binding energy and activation energy of O₂ dissociation over M₁₃@Pt₄₂ nanoparticle catalysts. **A. Pu**, M. Paul

CHED 837. Noncovalent interactions in networks of guanidine, urea, and water. **M.H. Byrd**, A.D. Kamischke, N. Hammer, S.A. Smith, D.H. Magers

CHED 838. Role of induction and hyperconjugation in haloacetic acids. **R. Rudisell**, E.D. Glendening

CHED 839. Minima and thermodynamic properties of a large lithium ion – Stockmayer Cluster. **G. DiEmma**, S. Kalette, E. Curotto

CHED 840. Ring polymer molecular dynamics derived from the Fourier path integral. S. Kalette, **G. DiEmma**, E. Curotto

CHED 841. Hydrogen bonding in hydrogen halide dimers. **J.J. Nysschen**, E.D. Glendening

CHED 842. Can transition state analogues be used to predict reaction enantioselectivity? Studies of organocatalytic desymmetrization of meso anhydrides. **E. Frank**, D.L. Kohen, G.E. Hofmeister

CHED 843. Structures and thermodynamics of a lithium atom in a mixed dipole cluster. **A. Fodor**, M.J. Hyers, D. Bierwisch, E. Curotto

CHED 844. Simulations of novel nanopost plasmonic crystal structures for SERS using FDTD methods. **A. Bigness**, J.M. Montgomery

CHED 845. B3LYP study of the dehydrogenation of ethane catalyzed by iridium and rhodium clusters. **M. Schimelfenig**, H. Jiang, R. Kato, P. Gummagatta, Y. Ge

CHED 846. Computational simulations of realkylation reactions of aged-acetylcholinesterase with quinone methide precursors. **I. Pelfrey**, R. Hopper, R.J. Yoder

CHED 847. Computational investigation of the ring-opening homo- and co-polymerizations of lactide and β -caprolactone. **D.E. Garcia**, J.M. Fritsch, B. Wilson

CHED 848. Computational studies of small heterocycles towards reactivation of aged acetylcholinesterase. **N. Yoshino**, R.J. Yoder

CHED 849. Targeted trifluoromethoxy transfer: Lithiated alkyl reagents with nucleophilic carbon. **H. Kuramochi**, K.T. Kuwata

CHED 850. Many-body convergence of the energetic and electrostatic properties of CO₂ systems. **J. Cherry**, O. Sode

CHED 851. Mechanistic examination of oxygen activation by Pt: Insertion of molecular oxygen into Pt–Me bond through light catalysis. **S.M. Loria**, J.M. Keith

CHED 852. Proteasome inhibition by selected cyclophane anticancer drugs—a computational chemistry analysis. **S. Riedel**, **G. Boothe**, C. Killer, M.D. Bezoari

CHED 853. Exploration of the molecular vibrations of small carbon dioxide clusters with *ab initio* electronic structure methods. **S. Maystrovsky**, O. Sode

CHED 854. Computational design of paradromic molecular rings: nth order Moebius metallacycles. **A. Goldberg**, **N. Tabassum**, M.M. Francl

CHED 855. All that glitters is gold: Modeling catalysis of hydride shifts. **S. Dutton**, C.H. McCulley, D.J. Tantillo

CHED 856. Theoretical circular dichroism spectra of β -helical proteins with the dipole interaction model including the n– π^* transition. **F.N. Ngassa**, A. Jungong, I. Uporov, R. Nori, K. Thomasson

CHED 857. Computational analysis of ro-vibrations in vinyl alcohol and the formation of 2-chloroethanol. **R. Soliday**, I. Sumner, P. Raston

CHED 858. Coarse-grained predictor of protein pK_a values. **C.D. Pauplis**, J. Cvitkovic, E. Theodorfi, G. Kaminski

CHED 859. Molecular drug docking on dopamine and cannabinoid receptors. **A. Walker**, U. Okafor

CHED 860. Deviations from ideality: Quantum cluster equilibrium theory and the methanol–benzene binary mixture. **N. Vigilante**, A. Buczek, M. Broda, T. Kupka, A. Kelterer

[†]Cooperative Cosponsorship

CHED 861. Comparison of charge density to pKa for cyclic carbonyl systems. **S. Bentz, A. Grushow**

CHED 862. Computational study of the Julia-Kocienski methylation of acetone using DFT. **M. Korman, J. Beck**

CHED 863. Theoretical studies of interactions between planar $C_{16}N_{12}$. **M.K. Alsarraj, J. Song**

CHED 864. Experimental and computational analysis of activation parameters for non-enzymatic hydrolysis of L-arginine ethyl ester at various pH values. **A. Beffa, M.D. Reavis, P.A. Harville, G.H. Purser**

CHED 865. Calculation of bond dissociation energies of electronically different N,N-dihalogenated sulfonamides. **L.J. Schroeder, M.D. Hopkins, G.H. Purser, A.A. Lamar**

CHED 866. Computational investigation of the thermal stability of protein-small molecule complexes. **K.W. Melton, K.E. Johnson**

CHED 867. Free energy study of the Diels-Alder reaction of isoprene and acrolein. **K. Gallo, V. Roytman, D.A. Singleton**

CHED 868. Molecular modeling of amphiphatic molecules at an organic/water interface in the presence of divalent cations. **T.B. Martin, K.E. Johnson**

CHED 869. Investigating the thermal stability of bacteria based alpha-amylases with molecular dynamics. **N. Olowo, K.E. Johnson**

CHED 870. Characterization of the mass spectra energetics of butane and propanol derivatives via *ab initio* methods. **A. Burke, G. Saliba, B.B. Magers**

CHED 871. A TD-DFT study of two fluorescent medical dyes. **J.A. Flack, J.D. Alia**

CHED 872. Rovibrational quantum chemical analysis of $c-C_2H_2$: Overcoming the failure of correlation for out-of-plane motions. **C.M. Novak, R.C. Fortenberry**

CHED 873. Characterization of amino acid based macromolecular assemblies with molecular modeling. **A. Billiot, Y. Fang, K.F. Morris**

CHED 874. Allosteric mechanism of peptide release in the molecular chaperone Hsp70. **J. Williams, D. Merz, R.I. Dima**

CHED 875. Computational studies of intramolecular charge transfer compounds. **V. Manam, C. Crider, J. Song**

CHED 876. Thermodynamic mechanism for the loss of CH_3SH from protonated methionine. **D. Devore, J. Johnston**

CHED 877. Withdrawn

CHED 878. Metal-ligand redox cooperativity in cobalt-catalyzed reactions. **K.G. Lopez, T.R. Cundari, B. Gary**

CHED 879. Computational investigation of the pseudo-Jahn-Teller effect on malonaldehyde and cyclobutane. **D. Zweerink, J.N. Woodford**

CHED 880. Development of phosphorylated amino acid parameters for AMBER-FB15. **J. Stoppelman, L. Wang**

CHED 881. Ammonium ligand binding to dibenzo-18-crown-6 in solvent. **B.M. Tilson, B.B. Magers, B. Minofar, D. Reha, J. Carey**

CHED 882. Theoretical investigation of isomers of C_2N_4 , C_2O_4 , and $C_2N_2O_2$. **D. Corey, J. Song**

CHED 883. Quantum roaming dynamics on model double Morse and ion-dipole potentials. **L. O'Connor, Z. Kramer**

CHED 884. Exploring the additivity of urea and anion interactions. **J.A. Edwards, J. Ellenberger**

CHED 885. Thermochemical and structural properties of cyclic nitramine compounds. **J. Pina, K.R. Jorgensen**

CHED 886. Node development, movement, and dissipation in the complex plane: Utilizing numerical analytic continuation and the complex plane to understand wavepacket scattering. **J. Mosely, C.W. Lechak, D. Bateman, B.A. Rowland**

CHED 887. Exploring the oxidative carbon-carbon cleavage of ketones mediated by biomimetic models of the Ni-ARD active site. **J.B. Lumpan, T.D. Shepherd, S.A. Toledo**

CHED 888. Electronic structure calculations for lithium- and copper-containing quaternary diamond-like semiconductors. **A.N. Radzanowski, C. Barton, J.R. Glenn, J. MacNeil, J.A. Aitken**

CHED 889. First principles modeling of gaseous molecules diffusing through graphene pores. **C. Celani, J.A. Keith, Y. Basdogan**

Section H
Ernest N. Morial Convention Center
Halls D/E

Undergraduate Research Posters

Environmental Chemistry

Cosponsored by ENVR and SOCED
N. Di Fabio, J. Roberts, Organizers

12:00–2:00

CHED 890. Aptamer-based biosensor for the electrochemical detection of arsenite in water. **N.A. Rivera Fuentes, K. Vega-Figueroa, P.E. Cruz Tato, E. Niculau**

CHED 891. Estimating changes from legalization of cannabis use through wastewater-based epidemiology. **R. Rushing, J. Sadetsky, R. Carpenter, D.A. Burgard**

CHED 892. Potentially toxic elements in urban soils from Lagos, Nigeria. **K. Burke, E.I. Obolo, C. Davidson**

CHED 893. Analysis of wastewater samples for attention deficit hyperactivity disorder (ADHD) medications by liquid chromatography-tandem mass spectrometry (LC-MS/MS). **W. Parker, T.H. Boles**

CHED 894. Manganese toxicity and bioaccumulation in *Chlorella vulgaris*. **N.L. Perry, A. Smythers, D. Kolling**

CHED 895. Seasonal comparison of

photocatalytic degradation of tetracycline in bovine wastewater. **J.E. Boyd, P.A. Skerratt, K. Squiggins, T.R. Hayden**

CHED 896. Bioremediation of fracking waste reservoirs. **C. Fogg, C. Cash, K. Drake**

CHED 897. Metal modification for the photocatalytic degradation of tylosin and tetracycline. **M. Clothier, J.L. Butler, J.E. Boyd**

CHED 898. Determination of heavy metal uptake in plants grown in agar by X-ray fluorescence (XRF). **E. Lee, M.J. Schroeder**

CHED 899. Survey of microplastic pollution in surface and drinking water using FTIR spectroscopy. **N. Blackmon, C.D. King**

CHED 900. Applications of a student-centered method for the study of lead in soil through analytical chemistry. **L.M. Nitti, C.R. Pulliam, J. Crandall**

CHED 901. Nutrient processing and storage in agricultural streams and ponds as revealed by high frequency observation. **C. Brunet, A. Graham**

CHED 902. Variation in sediment nutrient concentrations in an urban-mangrove ecosystem, Piñones, Puerto Rico. **J. Rivera Cruz, D. Ogurcak, T. Barreto, M.V. Santos, J. Kominoski, T.A. Crowl, J. Fourqurean, M. Ross, J. Meeder, J. Smoak, A. Lugo, M. Yu, S. Charles, A. Chappel**

CHED 903. Detecting nitrate with chemical field-effect transistor sensors. **J.M. Fehr, S. Fontenot, M.M. Haley, D.W. Johnson**

CHED 904. Impacts of Hurricane Harvey on distribution of metals in Greater Houston. **S. Christnacht, E. Opperman, K. Kim, S. Das, S. Chellam**

CHED 905. Impacts of cleaning agents and fouling on ageing of reverse osmosis membranes employed for potable water reuse. **R. Coker, B. Abada, S. Chellam**

CHED 906. Examination of possible lead and copper in local drinking water. **A. Trouten, A. Bowen, M.E. Railing**

CHED 907. Photolysis and biological activity of the polycyclic musks tonalide and galaxolide. **C. Heiling, B.G. Anderson, H.A. Cumbe, J.J. Willour, A.J. Bergerding, D. Martinovic-Weigelt, K.H. Wammer**

CHED 908. Catalytic hydrodefluorination of fluoroarenes and pharmaceuticals. **G. Lindquist, A.M. Luke, T.J. Dick, A.A. Peterson**

CHED 909. Preparation for service pilot by environmental chemistry course: Pilot of microwave lead extraction method. **M.E. Hogue, P.T. Kasunic, S.A. Radford**

CHED 910. Electrochemical oxidation of brilliant green in aqueous solution. **S.A. Mayo, G. LeBlanc, R. Sheaff, G.H. Purser**

CHED 911. Urban and rural phosphorus contributions of the Pinnebog River Watershed to Saginaw Bay. **P.T. Braman, E. Griswold, A. Rambow, A. Yankley, M. Dobulis, L. Koski, D.S. Karpovich**

CHED 912. Kinetic studies of hydroxyl radical reactions with aqueous-phase methylglyoxal and glyoxal in atmospherically relevant conditions. **C. Oman, C.M. Strollo**

CHED 913. Multi-decadal assessment of heavy metals in body tissue and vibrissae of select North Pacific marine mammals. **E. Pope, T. Juneja, P. Ferdinando, D.G. Giarikos, A.C. Hiron**

CHED 914. TRP channel agonists in air pollutants: Possible molecular mediators of pathogenesis for environmentally-sensitive respiratory diseases. **A. Scott, C. Deering-Rice, C. Reilly**

CHED 915. Measurement of lead and zinc in plants and soil around Silver Moon Mine in Branson Creek, Missouri. **S. Montoro, K.E. Garrison**

CHED 916. Investigating the antimicrobial activity of humic acids. **M. George, D. Warner, G. Chilom**

CHED 917. Determination of copper and iron concentrations in soil samples from various locations in middle Georgia. **S. Stephenson, S.C. Wilder, R. Fietkau**

CHED 918. Correlation study between particulate matter and PAH concentrations through the bio-monitoring of pine tree leaves. **R. Moran, S. Cortez, S. Deprele**

CHED 919. Application of biochemical polymers in sorption of crude oil. **R. Srinivasan, M. Meadows**

CHED 920. Bioremediation of analysis group I heavy metal cations in freshwater systems. **V. Rodriguez, C. Cash, K. Drake**

CHED 921. Understanding water source contribution in urban stormwater. **D. Read, M. Smith, J. Kominoski**

CHED 922. Use of plant based polymers as effective removal agents of solid and radioactive waste in Dockum aquifer. **R. Srinivasan, T.B. Roberson, W.M. Grumbles, P. Naran, R. Olivo**

CHED 923. Identification of heavy metal in water used for agriculture in the west region of Puerto Rico. **P. Garcia Torres, B.J. Ramos-Santana**

CHED 924. Optimization of EDC detection in aquatic environments: LC-MS/MS detection & quantification of trenbolone. **A. Atwood, S. O'Brien, C.J. Monceaux**

CHED 925. Removal of organic dyes from aqueous solutions using Fe_2O_4 nanoparticles using a modified Fenton process. **C. Torres-Martinez, C. Osorio-Cantillo**

CHED 926. Analysis of nutrient concentrations and distributions in tree leaves from Costa Rican lowland tropical forests. **A. Schwarz, J. Sager, R.L. Sanders**

CHED 927. Examination of atmospheric perchlorate response during large volcanic eruptions using an Antarctic ice core. **H. Przelomski, T. Cox, J. Kennedy, J. Cole-Dai**

CHED 928. Withdrawn

CHED 929. Kinetics of methylene

[†]Cooperative Cosponsorship

blue adsorption on humic acids. **K.A. Monday**, O. Ruiz, G. Chilom

CHED 930. Analysis of DDT and its metabolites in polluted sediment. **J. Wright**, M. Hopko, J. Liebens, **P.P. Benz**

CHED 931. Determination of heavy metal contents by atomic absorption spectroscopy (AAS) in medicinal aquatic macrophytes. **W. Figueroa**, **J. Dumeng**, Y. Cortes, **V. Rivera**, M.L. Ramos

CHED 932. Analysis of air and water samples for the presence of heavy metals in Clark County, Arkansas. **A. Eckerstorfer**, **K. Nordengren**, B.A. Rowland, D. Bateman

CHED 933. High-resolution mass spectrometry analysis of procured polyethylene extractions. **M. Brown**, A. Ter Halle

CHED 934. Challenges of hydrophosphorylation during surfactant synthesis. **V. Lee**, S. Deprele

CHED 935. Quantifying the response of model bacteria *Shewanella oneidensis* grown in the presence of plastic and plastic additives. **L. Fawcett**, M.A. Maurer-Jones, K. Koval

CHED 936. Intake of copper into *Brassica juncea* and distribution of copper in soil at various pH levels. **E. Garbioglu**, J. Bayline, J. Kilgore

CHED 937. Characterizing dissolved organic matter in surface waters through excitation-emission fluorescence spectroscopy and parallel factor analysis. **C. Vergil**, S. Pribil, K.J. Sorauf

CHED 938. Chemical and physical characterization of water quality in Wolf Creek as affected by the Lawton, Oklahoma community. C.D. Bryan, C. Iluno, **G. Jensen**, **E. Momoh**

CHED 939. Quantifying the properties of hydrocarbon mixtures containing compounds with low cetane numbers to assess their impact on diesel combustion. **S.L. Graft**, T.R. Johnson, D.J. Luning Prak

CHED 940. Determination of lead content in local water sources by differential pulse stripping voltammetry. **G. Stelmacovich**, G.D. Claycomb

CHED 941. Photocatalytic destruction of endocrine disrupting chemicals. **C. Cervantes**, J. Parsons, H.M. Morales

CHED 942. Removing lead from water with chitin and chitosan. **S. Baumgartner**, J.D. Mendez

CHED 943. Withdrawn

CHED 944. Quantification of soluble ions in atmospheric particulate matter using ion chromatography. **P.R. Tumminello**, M. Cassingham, G. Featherston, H. Dana, C.D. Hatch

CHED 945. Proposed teaching lab and improved procedure for the removal of molybdenum and sin from waste generated by the quantitative analysis of phosphate: Verification by atomic absorption spectroscopy. **M. Wood**, R. Mauldin

CHED 946. Qualitative analysis of PM2.5

organic compounds in Conway, Arkansas. **M. Cassingham**, G. Featherston, H. Dana, J.C. Gann, C.D. Hatch

CHED 947. Use of XRF as a method to study environment changes along the Upper Mississippi and St. Croix Rivers. **R.E. Schellinger**, K. McMahon, T.D. Levine

CHED 948. Water adsorption on volcanic ash as a function of relative humidity. **M. Sipes**, M. Cassingham, H. Dana, G. Featherston, C.D. Hatch

CHED 949. Effect of pH on the absorbance and structure of compounds within atmospheric aerosols. **R. Holappa**, M.M. Galloway

CHED 950. Photochemical aging of atmospheric aerosol in a diurnal cycle. **J. Ackendorf**, D.N. Grace, M.B. Sebold, M.M. Galloway

CHED 951. Effect of pH on the photocatalytic activity of PMMA-titania composite materials. **J.M. Van Riper**, E.R. Bishop, J.E. Boyd

CHED 952. Antimicrobial compounds produced by endophytes isolated from yellow rabbitbrush. R. MacKay, **M.D. Halling**

CHED 953. *Rubus ursinus*: The search for novel antimicrobial compounds. **J. Lindow**, **M.D. Halling**

CHED 954. Utilizing structure activity relationships to determine binding capabilities & selectivity in aqueous solution. **J. Sadio**, C. Fournier, S.G. Tajc

CHED 955. Novel biologically active compounds produced by endophytes from a raspberry plant. **A. Matkowska**, M.D. Halling

CHED 956. Structural-activity relationship of group 2 metal cations using pyridine based small molecules. **D. Painter**, C. Jones, S.G. Tajc

CHED 957. Refinement of the RSIT method. **S.R. Thompson**, A.S. Frantzen, M. Tiller, B.P. Oswald

CHED 958. Fluorescence based monitoring of sewage inputs to urban rivers. **L. Mendoza**, N. Mladenov

CHED 959. Analysis of methylmercury concentrations of *Morone saxatilis* in Lake Cumberland, KY show levels much greater than FDA reported values for the species. **H.D. Ellis**, E. Guth, S. Pearish, C. Chen

CHED 960. Deliquescence relative humidity of inorganic aerosols in the presence of soluble organics. **C. Merritt**, C.M. Strollo

CHED 961. Biochemical and metabolomic profiling of Switchgrass (*Panicum virgatum*), a native plant, for potential as a phytoremediation agent to clean-up BPA contaminated systems. **A. Harford**, J. Murphy, A.K. Merrill, S. Joseph, C. Roote, B. Brown, D. Giachero, S. Zamule, P. Das

CHED 962. Lead (Pb) concentrations in households: A survey. **A. Lieberman**, F.M. Dunnivant

CHED 963. Development of magnetic iron-oxide polymer coated core-shell nanoparticles for the removal of fecal

bacteria from contaminated water samples. **M. Wild**, A. Deckert

CHED 964. Reaction products of methylglyoxal and glycolaldehyde in secondary organic aerosol mimics. **D.N. Grace**, J.M. Ackendorf, M.M. Galloway

CHED 965. Developing a sustainable zero-waste multi-process remediation technology, involving chemical immobilization and phytoremediation to remove excess nutrients from a sewage treatment plant (STP) effluent. **F.E. Downes**, G. Connors, J. Murphy, I. Gergi, J. Losee, J. Wessel, D. Painter, P. Das, S. Zamule, D. Giachero

CHED 966. Determination of biofouling mechanisms of single and binary protein solutions of BSA and hemoglobin under varying pH and salinity conditions. **S.V. Tewari**, E.M. Stennett

CHED 967. Understanding the solvent reactions of some common chloroformic acid esters with herbicidal properties. **O. Mahmoud**, **J.J. Wirick**, M.J. D'Souza

CHED 968. Iron welding fumes: Human health consequences and potential beneficial reuse. **A. Yang**, T. Luxton, J.G. Clar

CHED 969. Caffeine as an indicator of wastewater volume in rivers. **C. Wheeler**, F.M. Dunnivant

CHED 970. Comprehending the substituent and solvent effects in ethyl esters of chloroformic acid. **M.I. Dina**, M.J. D'Souza

CHED 971. Wasted fracking water: An examination of components by instrumental methods to assess potential environmental impact. **S. Wappes**, **S.M. Williams**, S. Tittle, T. Nguyen, B. Overton, D. Steffy, M. Wilk, M. Omary, J.D. Beatty

CHED 972. Pore size and zeta potential effects on colloid removal by clean microfiltration membranes. **S. Wilson**, K. Kim, H. Nouri, R.E. Baltus, S. Chellam

CHED 973. Bromination and chlorination kinetics in natural waters: How useful are data collected in "clean" systems? **M.H. Schammel**, T.L. Swanson, R.P. Dias, J.D. Sivey

CHED 974. Exploring the bromination kinetics of anisole and salicylic acid in natural waters. **T.L. Swanson**, M.H. Schammel, J.D. Sivey

CHED 975. Evaluating freshwater ecosystem quality using bioindicators and physicochemical indicators. **R. Davila-Rivera**, B.J. Ramos-Santana

CHED 976. Characterization and quantification of phosphorus containing compounds in algae biofuel. **E. Timmel**, D.S. Heroux

CHED 977. Sulfur and iron geochemistry in the rhizosphere of wild rice (*Zizania palustris*). **K. Lugo**, A. Orloff, S. La-Fond, N.W. Johnson

CHED 978. Release of ZnO nanoparticles used in surface coatings: Effects of NP size on leaching characteristics. **S. Boggins**, T. Luxton, J.G. Clar

CHED 979. Primary production is greener

on the other side: Influence of hurricanes on the West Florida shelf. **C. Nickel**, R. Masserini

CHED 980. Modeling of surface area and pore volume of activated carbons prepared from renewable and low cost precursors. **A. Balesano**, **C. Domville**, **A. Schwartz**, **K. Seferi**, **E. Alkhatib**, P.A. Snetsinger

CHED 981. Investigation of the impacts of indirect photolysis on select contaminants along the St. Louis River. **Q.T. Whiting**, J.A. Herli, S. Berg, C.K. Remucal, K.H. Wammer

CHED 982. Environmental fate of the steroid trenone: nucleophile effect on photochemical stability and product formation. **M. Hankard**, K.C. Breuckman, N.C. Pflug, D.M. Cwierny, K.H. Wammer

CHED 983. Total alkalinity trends and troubles in Tampa Bay. **J. Vargas**, K. Yates, R. Masserini

CHED 984. Environmental analysis of the persistent metal pollutants from acid mine drainage using ICP-OES. **S.M. Vaal**, S.M. Lamos

CHED 985. Determination of caffeine in water sources in Morehead, Kentucky. **S. Little**, M.C. West, B.D. Miller, B.G. Vanness

CHED 986. Buoyant photocatalyst used for the degradation of organic pollutants. **K.a. Steward**, M.J. Nee

CHED 987. Optimizing the extraction and LCMS analysis of emodin for application to biological systems. **K.R. Chao**, J. Piatt

CHED 988. Investigating the green claims of bio-based plastic by measuring chemical migration during simulated food contact. **S. Virgen**, A. Burns, L. Smith, J. Layshock

CHED 989. Characterization of thiamethoxam removal from aqueous solution by select bacterial species under laboratory conditions. J. Widmer, A. Merrill, R. Pacella, **E. Hyde**, B. Biswa, J. Murphy, P. Das, S. Zamule

Section H

Ernest N. Morial Convention Center Halls D/E

Undergraduate Research Posters Geochemistry

Cosponsored by GEOC and SOCED
N. Di Fabio, J. Roberts, *Organizers*

12:00–2:00

CHED 990. Withdrawn

CHED 991. Identification of adsorption sites for nucleobases on clay mineral surfaces. **H. Kats**, D. Roznovjak, R.L. Sanders

CHED 992. Investigating the impact of floating oyster aquacultures on carbon and nitrogen flux with the sediment for potential use in nitrogen-removal. **P. Dunn**, **E. Gibeault**, **K. Paquette**, D. Stone, S. Lott, R. Cox, J. Shea, R. Bence, A. Cobban, C. Mazur, V. Edgcomb, D. Rogers

CHED 993. Analyzing heavy metal contamination of abandoned cobalt mine

†Cooperative Cosponsorship

in Chatham, Connecticut using handheld XRF. **L. Thompson**, B.L. Westcott

CHED 994. Advancing the vanadium paleoredox proxy: Defining the chemistry controlling vanadium speciation in sulfidic natural waters. **P. Vue**, A.A. Vezina, S. Miller, M. Caspersen, T.P. Vorlicek

CHED 995. Microtopographic control of groundwater geochemistry and Hg methylation in a river floodplain. **A. Wadle**, A. Graham

CHED 996. Mercury methylation and bioaccumulation in an Iowa terrace-fen complex. **K. Smith**, A. Graham

Section H

Ernest N. Morial Convention Center Halls D/E

Undergraduate Research Posters

Green Chemistry & Sustainability

Cosponsored by CEI and SOCED
Financially supported by GCI: ACS Green Chemistry Institute

N. Di Fabio, J. Roberts, *Organizers*

12:00–2:00

CHED 997. Preliminary investigation into unintended consequences of caffeine exposure on children. **J. Kinyua**, E.J. Brush, C.D. King

CHED 998. Electrochemical oxidation in wastewater samples. **L.D. Rivera Cubero**, C. Rusinek, G.M. Swain

CHED 999. Catalytic oxidative dehydrogenation of light alkanes: Energy-efficient means of meeting the demand for alkenes. **K.L. Lawrence**, M. Julin, C.A. Carrero

CHED 1000. Gas-phase partial oxidation of natural gas blends in a tubular-flow reactor. **A. Nguyen**, **N. Penaloza**, E.B. Ledesma

CHED 1001. Sustainability and cost reduction efforts in our school by converting spent cooking oil into biodiesel: Process development study. **C. Luong**, **A. Tran**, E.B. Ledesma

CHED 1002. Hydrosilylation of highly functionalized alkenes catalyzed by Pt(0) nano-dispersed in organically modified silicates. **B.R. Adolph**, **E.N. Akeroyd**, S.V. Bhatt, S.V. Bhatt, J. Fofie

CHED 1003. Synthesis of cofacial perylene bisimide luminophores for light management. **T.M. Nakama-Fukuhara**, J. D'Amelio, T. Kowalczyk, D.L. Patrick, J.D. Gilbertson

CHED 1004. Green chemistry synthesis of primary amides using microwave energy. E.A. Nalley, **T.S. Nwaiwu**

CHED 1005. Withdrawn

CHED 1006. Substituting ordinary Portland cement with biomass ash: Greener way to make concrete. J. Lynam, T. Garrett, **J.A. Supple**

CHED 1007. Synthesis and substrate testing of a bis(diphenylthiophosphinoyl) methanediide platinum(II) pincer complex for the catalytic synthesis of lactones and lactams. **A. Esper**, A. Pujol, M. Boutignon, N. Mézailles

CHED 1008. Synthesis of 1-acetyl-

1-cyclohexene using ionic liquids. **B. Gillott**, **B.A. Dierolf**, F.C. Mayville

CHED 1009. Synthesis using solar irradiation and spectral analysis of meso-tetraphenylporphyrins. **T. Pinto**, G.A. Mullins, D.J. Swartling

CHED 1010. Effects of varying electrolytes in dye-sensitized solar cells (DSSCs). **J. Delgado**, L.C. Klein

CHED 1011. Synthesis of PSLA-mPEG-550: Designer surfactant for optimizing micellar catalysis through an immobilized proline-derivative catalyst. D. Brownholland, **A.J. Szczodrowski**

CHED 1012. Synthesis of a model compound for lignin and investigating catalysts for depolymerization. **M. Tan**, J. Jennings, A.K. Franz

CHED 1013. Task-specific ionic liquid as a base catalyst and a reaction medium for Michael addition reactions. **K. Akselrod**, R.N. Manchanayakage

CHED 1014. Electrophilic addition to alkenes in ionic liquids. **M. Ohlhausen**, R. Kroeker Sachs

CHED 1015. Ring opening of chalcone epoxides in a Lewis acidic ionic liquid via intramolecular Friedel-Crafts alkylation. **A. Canfield**, R.N. Manchanayakage

CHED 1016. Synthesis and characterization of a cesium-doped, iron oxide photocatalyst. **H. Li**, L.R. Sharpe

CHED 1017. Micelle-catalyzed metathesis reactions in-flow. **M.K. Jones**, D. Brownholland

CHED 1018. Synthesis of alkene-terminating steroidal surfactants designed for micelle-catalyzed organic synthesis. J. Haggett, **A.E. Reiter**, **L.N. Engberg**, D. Brownholland

CHED 1019. Greener synthesis of dithiocarbamates. **I. Hammer**, E.C. Sylvester, R.A. Haley

CHED 1020. Use of a microwave reactor to synthesize isoxazoles. **N. Aoki**, S. Helm, L. Bastin

CHED 1021. Using C-D vibration to study CO₂-ionic liquid interactions. S. Dutta, **I. Williams**

CHED 1022. Ionic liquid property effects on the natural fiber welding process. **R. Chung**, D.P. Durkin, S. Park, L.M. Haverhals, H. De Long, P.C. Trulove

CHED 1023. Green synthesis of dithiocarbamates. **G.W. Bell**, J.F. Fuller

CHED 1024. Methane reforming with carbon dioxide to produce syngas over Ni/SBA-15 catalysts. **C. Boyd**, Z. Bao, J. Dou, F. Yu

CHED 1025. Green synthesis and analysis of imine-metal complexes. **A.L. Gaynor**, J. Bennett

CHED 1026. Evaluation of imine synthesis in a variety of solvents. **J. Marcantonio**, J. Bennett

CHED 1027. Electrochemical synthesis of urea derivatives with carbon dioxide in ionic liquids. **C. Le**, Z. Huang, Z. Wang

CHED 1028. Getting insights on the influence of inorganic metal species on the activity/selectivity of HZSM-5 during CFP of pinewood towards arene compounds. **N. Stephens**, R. Thakur, C.A. Carrero

CHED 1029. Electrochemical reduction of CO₂ to CO catalyzed by superoxide radicals in ionic liquids. **M.L. McNeil**, Z. Huang, A. Gupta, Z. Wang

CHED 1030. Green synthesis of a cross-linked polymerized hydrogel containing NDHGA-capped gold nanoparticles for skin lesion treatment. **E. Rugutt**, M.O. Montes

CHED 1031. Green modifications to the Hajos pathway to an important steroid intermediate. **C. Cooper**, J.K. Berch

CHED 1032. Cyclic asymmetric aldol additions and dehydrations in hot pressurized water. **O.V. den Besten**, J.K. Berch

CHED 1033. Lipid extraction of wet algal biomass via osmotic shock. **A. Ansari**, A.M. Parker

CHED 1034. Greener options in the chemistry classroom: A titrimetric analysis of coffee. **T. Avery**, M.D. Garrett

Section H

Ernest N. Morial Convention Center Halls D/E

Undergraduate Research Posters

Inorganic Chemistry

Cosponsored by INOR and SOCED
N. Di Fabio, J. Roberts, *Organizers*

12:00–2:00

CHED 1035. Development of new cobalt(II) pincer complexes for catalytic applications. **S. Parkins**, Y. Li, H. Guan

CHED 1036. Ti(Deferasirox)₂, a highly cytotoxic chemical transferrin mimetic Ti(IV)-based compound, displays one of the highest aqueous stabilities in the Ti(IV)-based anticancer field. **A. Vazquez**, S.A. Loza-Rosas, A. Vazquez, K.I. Rivero, L.J. Negrón, Y. Delgado, J.A. Benjamín-Rivera, T.B. Parks, C. Munet Colón, A.D. Tinoco

CHED 1037. Cross-linking investigation of recycled poly(vinyl chloride) with recycled cross-linked polyethylene (XLPE mesh #50). **R.O. Ali**, S. Soares, N. Hnatchuk, W. Brostow

CHED 1038. Analysis and characterization of iron, manganese, and cobalt catalysts for oxidation of a lignin model compound. **G. Perry**, K. Aletty, E. Brown, K. Young

CHED 1039. Investigation of the inclusion complexes of alpha-cyclodextrin with anthranilic acid-derived N, N, O-terdentate ligands. **G. Reinartz**, N.R. Lien

CHED 1040. Synthesis and characterization of transition metal lanthanide metal-organic materials. **V. Parra**, M. Payne, A.S. Jayasinghe, T. Forbes

CHED 1041. Development of water-soluble photodynamic therapy agents. **S. Owens**, J.E. Bradshaw

CHED 1042. Indium phosphide etching mechanism studies. **J.M. Rosado**, E.J.

McLaurin, S. Lee

CHED 1043. Synthesis and reactivity of carboxylated CB₁₁ carborane anions. **W.T. Mendelsohn**, G. Dwulet, J. Reed, M.A. Juhasz

CHED 1044. Synthesis, characterization and spectroscopy of a terbium-centered complex: Remarkable emission from a colloidal mixture. **A. Daniels**, L.A. Ligon, J.J. Stace

CHED 1045. Mechanical and photochemical properties of polysaccharide-based, metal-coordinated hydrogels. **J. Medina**, A. Ostrowski

CHED 1046. Silylation of pyridine and pyridine derivatives using diruthenium catalysts. **J. Prybil**, R.M. Chin

CHED 1047. Precipitation of metal-organic frameworks at elevated temperature. **J.A. Daly**, X. Chen, J.B. Parise

CHED 1048. Spiro synthesis for uses in perovskite solar cells. **D.W. Valencia**, J. Potvin, J. Herring, S.K. Hurst

CHED 1049. DFT study of [Co₂O₂] clusters relevant to O₂ formation by water splitting. **K. Pasley**, C.A. Bayse

CHED 1050. Luminescence of lanthanide/transition metal heterobimetallic phosphinoamide complexes. **A.T. Haley**, K.A. Burke, A. Hill

CHED 1051. Compounds containing the anionic half-sandwich (pentamethylcyclopentadienyl) vanadium(III) chloride complex, [Cp⁻VCl₃]⁻. **H.J. Bates**, **B. Vo**, **N.E. Wyse**, C.D. Abernethy

CHED 1052. Kinetics and product characterization of the oxidation of veratryl alcohol catalyzed by an iron coordination complex. **E. Brown**, K. Aletty, G. Perry, C. Apel, C. Alsip, L. Niu, K. Young

CHED 1053. Polymerization and metal coordination of spirane complexes for material studies. **J. Potvin**, D.W. Valencia, J. Herring, S.K. Hurst

CHED 1054. Synthesis, characterization, and photosensitization of a series of [Ru(LL)₂(quo)]²⁺ complexes as potential PDT agents. **F. Delano IV**, **K. Roche**, D. LaChance, B.M. Bailey, R.N. Garner, B.B. Sears

CHED 1055. Hydration of nitriles to amides using silver trifluoromethane complexes. **W.J. Cochran**, B. Fox

CHED 1056. Synthesis and characterization of a bipyridine adduct for the formation of new Ru(II) complexes. **A. Chung**, D.G. Giarikos

CHED 1057. Solvent-dependent photophysical properties of luminescent metal-organic frameworks doped with polypyridyl osmium carbonyl complexes. **K. Hess**, J.A. Rood, K. Kneas

CHED 1058. Exploring the potential of biogenic chelidonic acid as a trigonal building block for mixed-metal MOFs. **T.B. Tyson**, J.F. Eubank

CHED 1059. Toward metal-organic

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frameworks containing isocyanoarenes and half-sandwich iridium(III)-based building blocks. **T. Stell**, J.J. Meyers

CHED 1060. Raman and FTIR spectroscopy of tooth enamel and dentin. **C. Hueske, S. Marazita**, M.B. Jacobs

CHED 1061. Synthesis and characterization of LaMnO₃ perovskite-based catalysts. **R.R. Mitton**, J.M. Garcia-Vargas, M.A. Tarr, A. Giroir-Fendler

CHED 1062. Systematic investigation into the bonding, electronic structure, and reactivity of metal/soft-donor complexes. **C. Phipps**, E. Hanna, A. Dickey, J.L. Brown-McDonald

CHED 1063. Catalytic activity of M-NHC complexes in polar organic and aqueous solvents. **M.B. Sebold**, R.J. Swails

CHED 1064. Extinction coefficient of germanium nanoparticles. **J.B. Lundervold**, K.A. Newton, S. Kauzlarich

CHED 1065. Suzuki and Heck coupling catalyzed by a Pd-NHC/pyridinium complex. **A. Conner**, R.J. Swails

CHED 1066. New trends in core size effect for oxygen reduction by quantized gold nanomolecules. **L. Sumner**, A. Antonysamy, S. Chakraborty, N. Sakthivel, K. Artyushkova, H. Schrock

CHED 1067. Synthesis of chiral sulfoxide ligands containing the 1-(4-methylnaphthyl)sulfinyl group. **C.N. Miller**, T.J. Brunker

CHED 1068. Synthesis and relaxivity of target-specific MRI contrast agents. **C. Clement**, J.E. Bradshaw

CHED 1069. Catalytic activity and nucleophilicity of a hydrolytic metalloenzyme mimic. **L. Carroll**, G. Tegenkamp, S. Peyer, A. Lajmi

CHED 1070. Examining novel adamantyl bearing Pd-PEPSSI complexes. **S. Hejnosz**, J.K. Vohs

CHED 1071. Cyclopentadienyl molybdenum N-Heterocyclic carbene complexes. **H.N. Hosack**, J.K. Vohs

CHED 1072. Creating nanostructured photoelectrochemical electrodes from iron oxide. **L.V. Morris**, J.E. Katz

CHED 1073. Reactions of transition metal oxides with fused NaOH-KOH eutectic mixture. D.A. Habboush, **O. Alkhdhari**, **K.M. Campos**, F.E. Divisconti

CHED 1074. Click compatible aminophenol ligands. **J.R. Farrell**, C. Adams, J. Connor Recio, S. Zaheer, C.J. Ziegler

CHED 1075. Preparation of titanium-chloride coordination complexes. **M. Shoukry**, B. Crabb, M.V. Bennett, L.G. Beauvais

CHED 1076. Effects of morphology on the luminescent properties of upconverting lanthanide doped phosphors. **C. Kinane**, J.T. Ippoliti

CHED 1077. Comparative study aimed at improving dye-sensitized solar cells. **H. Wakidi**, C.J. Timpson

CHED 1078. Constructing imidazole complexes of human serum albumin reconstituted with heme and testing for globin-like reactivities. **A. Alfonso Castro**, C.D. Kimrey, M.I. Galinato

CHED 1079. Synthesis of possible intermediates in the catalytic silylation of carbon hydrogen bonds. **N. Jocić**, R.M. Chin

CHED 1080. Synthesis and elucidation of a novel crystalline phase for a phosphonate-based biocompatible coordination polymer. **F.O. Fernandez**, G. Quiñones, I. Rodríguez, V. López-Mejías

CHED 1081. N-heterocyclic carbene catalysts for green chemistry hydrogenation. **K.B. Idrees**, E. Rajaseelan

CHED 1082. Synthesis, characterization and spectroscopic comparisons of tris(3-phenylpyrazolyl)borato zinc(II) and nickel(II) semiquinone complexes derived from *in situ* oxidation of parent catechol complexes. **C. Cox**, D. Isaacs, M. Bezpalko, N.A. Piro, W.S. Kassel, M.T. Kieber-Emmons, W.G. Dougherty

CHED 1083. Factors affecting absorbance readings of potassium permanganate. **D. Abaryan**, **S. Suh**, **K. Robles**, M. Mills, J. Bonilla, A. Manjikian, T.A. Boan

CHED 1084. Experimental and theoretical study of hydrogen production from an iridium hydride complex and empirically-based procedures for air-free chemistry. **E.D. Douma**, Z. Mathe, J.B. Tsang, M.A. Bowring

CHED 1085. Iridium hydride complexes for hydrogen production: Synthesis and mechanistic study. **J.B. Tsang**, Z. Mathe, E.D. Douma, M.A. Bowring

CHED 1086. Synthesis of organometallic vanadium complexes as antibiotic analogues. **N. Ciolkowski**, J.A. Dabrowski

CHED 1087. Synthesis and characterization of a model multi-copper oxidase. B.J. Johnson, **J. Gavin**

CHED 1088. Modifications to nickel diimine catalysts for polyethylene formation. **C. McCormick**, J.K. Vohs

CHED 1089. Dehydrogenative coupling of dimethylamine borane and chloroform. **B. Haslop**, G.M. Edverson

CHED 1090. Complexation, extraction, and sensing of Hg(II) by thioamide ligands and analogs. **M.T. Fortunato**, I. Lehman-Andino, T. Jonah, O. Fernandez, K. Kavallieratos

CHED 1091. Mechanochemical synthesis of platinum compounds. **C. Taylor**, **J. Naidugari**, K. Williams

CHED 1092. Withdrawn

CHED 1093. Leaving ligand effects on solubility and reactivity of monofunctional platinum compounds. **H.L. Hruska**, K. Williams

CHED 1094. Synthesis and characterization of novel lanthanides with a macrocyclic ligand. **M. Gioia**, B.L. Westcott

CHED 1095. Synthesis and NMR characterization of acetyl-pyrazine methyl thiosemicarbazone and acetyl-pyrazine ethyl-thiosemicarbazone ligands: Formation of their Pd(II) and Pt(II) complexes. **K. Lawson**, D. Gardner, S.G. Bowman, X. Jiang, E.C. Lisic

CHED 1096. Synthesis and decarboxylation of tris(thione) copper carboxylate complexes. **J. Steets**, A.P. Honeycutt, J.M. Hoover

CHED 1097. Synthesis and characterization of pyruvic aldehyde-1-oxime thiosemicarbazones and their complex formation with Cu(II). **S.B. Crum**, S.G. Bowman, X. Jiang, E.C. Lisic

CHED 1098. Synthesis and characterization of new Anderson-Evans polyoxotungstate with iron(III) in its central cavity. **B. McKenna**, S. Nellutla

CHED 1099. Rhenium (I) tricarbonyls and their applications in anion sensing and CO₂ reduction. **D. Saugar**, M.O. Odago

CHED 1100. Halide and ligand effects on the fluorescence of thermochromic metal complexes. **I.V. Siepmann**, I. Wilt, A. Bowman

CHED 1101. Spectroscopic study of lanthanide complexation by tripodal tris-(pyrazolyl) ligands. **G.A. Flores**, T. Jonah, K. Kavallieratos

CHED 1102. Synthesis and NMR characterization of new AMOPY-TSC ligands and their Pd(II) complexes. **K.R. Lyons**, J.K. Allen, E.C. Lisic

CHED 1103. Catalytic synthesis of substituted benzimidazoles using metal phthalocyanines, pyridinoporphyrazines, and pyrazinoporphyrazines. **C. Genovese**, P.D. Voegel

CHED 1104. Sulfide oxidation for the removal of refractory sulfides from model oils via oxidative desulfurization with various polyoxometalates. **V. Anderson**, D. Thompson

CHED 1105. Synthesis of new redox mediators for dye sensitized solar cells. **J. Fitzgerald**, E.T. Papish, J.H. Delcamp, R.R. Rodrigues, O. Kuykendall, S. McKee

CHED 1106. Behavior of gold nanoparticles in aqueous environments. **S. Sobolewska**, J. Delph, H.S. Barcena, D. Berhanu

CHED 1107. Synthesis of pyruvaldehyde thiosemicarbazone (PTSM) metal complexes and their characterization by NMR. **A.C. Koch**, E.C. Lisic

CHED 1108. Synthesis, characterization, and electrochemical investigation of d⁸-metal hydroxamate complexes. **A. Nikolai**, A. Warhausen

CHED 1109. Field XRF monitoring of heavy metal Pb²⁺, Cd²⁺ and Zn²⁺ immobilization by fragmented and powdered shell beds from contaminated waters. **K. Kardas**, D. Rackie, S.K. O'Shea

CHED 1110. Characterization of alkanethiolate self-assembled monolayers on zinc selenide thin films. **S.K. O'Boyle**, A.R. Noble, N. Helligren

CHED 1111. Revisiting zirconocene

complexes for use as molecular photosensitizers. **M.E. Nally**, Y. Zhang, C. Milsman

CHED 1112. Synthesis of nitrosolated metal dithiolates and bis-phosphine ligands as bridges in quadruply bonded dimolybdenum complexes. **R. Hodges**, C. Pectol, M.Y. Darensbourg

CHED 1113. Viability of inorganic synthesis methods for producing CdSe, CdS and ZnS quantum dots. **K. Beck**, T. Vinton, S. Lampa-Pastirk

CHED 1114. Validating the presence and exploring the role of a silver hydroxide intermediate in the production of silver nanoparticles. **D.A. Maldonado**, A. Loya, K.A. Beran, M.O. Montes

CHED 1115. Tetranuclear neutral titanium(IV)-based assembly from zigzag-shaped oligophenylene generated via a multicomponent self-assembly approach. **E. Day**, P. Mobian

CHED 1116. Using thermogravimetric analysis and X-ray data to determine how water is bonded in seven coordinate complexes. **S. Thibado**, J.H. Davis

CHED 1117. Direct growth of graphene on cobalt(II) oxide. **J. Castillo**, O.B. Olanipekun, C. Ladewig, J. Kelber

CHED 1118. The effect of chemical environment on the stability of metal-organic frameworks (MOFs). **D. Katic**, A. Spore

CHED 1119. Sequestration of CO₂ by gamma cyclodextrin metal-organic frameworks. **M.F. Drew**, B.C. Manor, E. Maslowski

CHED 1120. Investigation of mesoporous silica for urea adsorption. **L. Veenstra**, B.J. Winters, K.E. Rohly

CHED 1121. Quantifying the thermodynamics of the surface modification of oleate-capped CdSe quantum dots with dodecylphosphonic acid via isothermal titration calorimetry. **Z. Di Giusto**, J.D. Keene

CHED 1122. H₂O₂ adducts of phosphine oxides: Safe, solid, stoichiometric, and soluble new oxidizing agents. **K.J. Angle**, F. Eberle, J. Bluemel

CHED 1123. Utilizing luminescence of europium(III) with chlortetracycline complexes as bioprobes. **T.A. Cabrerros**, A.J. Riives, G. Muller

CHED 1124. Synthesis of new glyoxime-based electrocatalysts for small-molecule activation. **D. King**, A. Kumar, V. Day, J.D. Blakemore

CHED 1125. Synthesis and characterization of a novel copper (II) complex coordinated to a thiosemicarbazone ligand. **M. Rowand**, W.A. Weigand

CHED 1126. Synthesis and characterization of a copper (II) ethylene amine complex by an improved reaction methodology. **T. Adams**, W.A. Weigand

CHED 1127. Synthesis and characterization of new thiadiazole sulfonamide ligands reacted with copper (II) salts. **R. Peraino**, W.A. Weigand

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- CHED 1128.** Aqueous preparation of metal-organic frameworks for biomedical applications. **E.A. Morley, M. Mangun, J.W. Jamboretz, K.S. Malloy, N.D. Allen, J.J. Pak**
- CHED 1129.** Synthesis and characterization of copper(II) complexes supported by pyridylamide ligands. **J. Schneider, L. Yang**
- CHED 1130.** Synthesis and characterization of novel fluoro-bridged copper(II) complexes. **B. Johnson, L. Yang**
- CHED 1131.** Synthesis and structure of metallacrowns with varying alkali metal substitutions. **A. Kauffman, C.M. Zaleski**
- CHED 1132.** Synthesis and single-molecule magnet properties of metallacrowns with various bridging carboxylate ligands. **S. Nagy, C.M. Zaleski**
- CHED 1133.** Nickel-nickel dimers structurally reminiscent of common nickel scorpionates. **T.J. Clements, P. Desrochers, N. Gerasimchuk**
- CHED 1134.** Synthetic strategies for new thio-carboxylate-based metal-organic frameworks and their properties. **J.W. Jamboretz, K.S. Malloy, E.A. Morley, N.D. Allen, M. Mangun, J.J. Pak**
- CHED 1135.** Efficient preparation of R-scorpionate from R-boronic acids and microwave heating. **S. Margis, P. Desrochers**
- CHED 1136.** Modification of WSe₂ nanoplates created by screw dislocations. **J. Foster, M. Shearer, S. Jin**
- CHED 1137.** Effect of buffering agents on NP agglomeration in cement specimens during electrokinetic treatment. **A. Brown, S.E. Eklund**
- CHED 1138.** Surface modification of indium tin oxide substrates for depositing aqueous cobalt phosphate thin films. **A.T. Winegar, R. Carter, C. Heideman**
- CHED 1139.** Toward a low-valent, poly-electrochromic nanocomplex with up to 20-electron redox capacity. **D.A. Maldonado, J.C. Applegate, M.V. Barybin**
- CHED 1140.** Investigation of the antimicrobial mechanism of zinc oxide particles through morphological testing. **C. Beckley, K. Casanova, A. Schnoebelen, B. Torrance, W.L. Cody, E. Steinmiller**
- CHED 1141.** Synthesis and magnetic properties of cobalt(III)-pyrazine metal-organic frameworks. **D.V. Kravchuk, J. Prybil, M.M. Kuntz, J.R. Parks, A. Ellern, P.M. Shand, C.L. Weeks**
- CHED 1142.** Metal-organic framework polymer composite nanofibers for catalytic degradation of chemical warfare agent simulants. **D. Cooke, D. Dwyer, W.E. Bernier, W.E. Jones**
- CHED 1143.** Synthesis of 2-pyridinecarbaldehyde N-oxide. **K. Goerl, P. Baran**
- CHED 1144.** Synthesis of variable sized silver for the binding and delivery of drug derivatives. **A.N. Eubanks, P.J. Rosado**
- CHED 1145.** Preparation of in-situ regolith-based geopolymers for Martian structures. **R. Cooper, S.E. Eklund**
- CHED 1146.** Development of a repeatable solid state synthesis for educational labs. **K.L. Tracey, B.J. Bellott**
- CHED 1147.** Sol-gel synthesis and characterization of methylammonium perovskite compounds. **A.M. DiBernardo, J.L. Hunting**
- CHED 1148.** Synthesis and characterization of ruthenium and manganese CORM complexes with thiosemicarbazone ligands. **H. Daniels, F.A. Beckford**
- CHED 1149.** Development of new dithiazolyl and dipyrazolyl substituted formamidate ligands for the stabilization of bimetallic and tetrametallic complexes. **S. Margaletta, S. Riley, S.C. Haefner**
- CHED 1150.** Interaction between chromate(VI) that has been reduced to chromium(III) and DNA. **S. Sinclair, S. Brown, J.B. Vincent**
- CHED 1151.** New β -hydroxy-acid ligands and their Al³⁺, Fe³⁺, and Ga³⁺ complexes. **W.H. Fitschen, C.M. Davis**
- CHED 1152.** Substituent and solvent effects on the magnetic properties of iron-based spin crossover complexes bearing hydrogen bonding groups. **M. Demmings, A.M. Rabon, J.L. Payton, M.C. Young**
- CHED 1153.** Reduction of KP1019/KP1339 using glutathione. **A. Rebic, L.K. Stultz**
- CHED 1154.** Synthesis, structure and reactivity of Ni(II) complexes with tridentate monoanionic ligands. **S. Lozowski, M.J. Prushan**
- CHED 1155.** Doping of YIn_{1-x}Mn_xO₃ with Cu, Gd, Sn, and Mo to form new inorganic pigments. **C.H. Levitt, J.L. Hunting**
- CHED 1156.** Investigating the chemistry of hexanuclear ruthenium cages and their trinuclear building blocks. **M. Niece, F.A. Beckford**
- CHED 1157.** Synthesis of Ru(bpy)₃²⁺-rubredoxin-cobaloxime photocatalytic hydrogen evolution system. **A.M. Brown, S.R. Soltau**
- CHED 1158.** Synthesis of mono- and bi-metallic complexes of an β -diimine/dithiolene ligand. **G. Peng, W.B. Heuer**
- CHED 1159.** X-ray crystal structures of metal thiolates. **C.D. Bryan, D.G. McGuire, C. Iluno, J. Tidwell**
- CHED 1160.** Treating breast cancer with light: The creation of a photodynamic therapy agent. **V.F. Lackey, J.E. Bradshaw**
- CHED 1161.** Investigation of aluminum clusters. **M. Cole, J.L. Bjorklund, T. Forbes, S.E. Mason**
- CHED 1162.** Utilizing a simple molybdate catalyst, [(MoO(O₂)₂)₂(μ -O)]²⁻, for the β -oxygenation of ethers. **D. Schreurs, D. Thompson**
- CHED 1163.** Investigation of composite materials of chitosan and metal-organic materials in the inhibition of aggressive bacterial films. **J.C. Sessums, C.V. Gauthier**
- CHED 1164.** Oxygenation of organic sulfides with [(MoO(O₂)₂)₂(μ -O)]²⁻ grafted onto amine functionalized silica support. **K. Deheck, D. Thompson**
- CHED 1165.** Synthesis and characterization of new lithium calcium transition metal quaternary nitrides. **K. Gilbert-Bass, J.L. Hunting**
- CHED 1166.** Photocatalytic degradation of aqueous cyanide using compound parabolic reflector arrays. **E.R. Bishop, J.M. Van Riper, J.E. Boyd**

Section H

Ernest N. Morial Convention Center
Halls D/EUndergraduate Research Posters
Medicinal ChemistryCosponsored by MED1 and SOCED
N. Di Fabio, J. Roberts, Organizers

12:00–2:00

CHED 1167. Design and synthesis of a halogenated dibenzoxazepine library to probe antibiotic adjuvant activity in MRSA. **N. Cutrona, K. Gillard, M.S. Blackledge****CHED 1168.** Effects of low-frequency deep brain stimulation in the reinstatement of morphine place preference. **G. Sánchez-Navarro, M.E. Lloret-Torres, F.J. Martínez-Rivera, J.L. Barreto-Estrada****CHED 1169.** Role of lipid droplets in metastasis and drug resistance. **A.E. Hernandez, S.C. Purdy, M. Wendt****CHED 1170.** Isoform-selective docking with HADDOCK: Assessing the effects of protein conformation and score reliability using PI3K β . **E. Elder, J. Grinstead****CHED 1171.** Optimization of scale-up synthesis of anti-cancer ceramide Analog 315. **T. Hill, T. Jackson, C. Do, S. Booker, M. Foroozesh, N. Goyal, J. Liu****CHED 1172.** Synthesis of modified ZorO analogues for probing biological function. **H. Holst, C. Gibson, B. Kennedy, S.R. Campagna****CHED 1173.** Proton spin-lattice relaxation of pharmaceutical polymorphs by high resolution solid-state NMR. **B.E. Lininger, J.M. Spehar, R. Quinones, R. Iulucci****CHED 1174.** Use of methyl scanning techniques in the development of novel ligands binding to the liver X receptor. **T. Nguyen, S. Kauloorkar, M. Woodruff, K. Riley****CHED 1175.** Synthesis of AAC(6')-Ib inhibitors to combat bacterial resistance to aminoglycosides. **L. Mellett, M. Pelkey, M. Simes, Z. Cole, K. Jansen Labby****CHED 1176.** Synthesis of novel ligands for platinum drugs. **W. Jones, A.E. Fraeyman, R.A. Banner, A.J. Carnathan, D.A. Lee, K. Providokhina, C.S. Chow, K.J. Friedrich****CHED 1177.** Met-enkephalin: A pharmaceutical treatment for the symptoms of post-traumatic stress disorder. **K. Striker, J. Thomson, R. Kroeker Sachs, N.**

Balten, J. Davis, E. Harkens, K. Jacunski, H. Rohland

CHED 1178. Asymmetric synthesis of fluorine substituted β -lactams as leads to advanced anti-bacterial organics. **B. Gamelin, J.C. Easdon****CHED 1179.** Analysis of a myelin sheath model membrane system with the addition of ginkgo biloba flavanols. **R.A. Book, A. Sostarecz****CHED 1180.** Design, synthesis, and evaluation of 1,2-dihydroquinazolin-2-ones against *Trypanosoma brucei*. **M.E. Walden, T. Pham, C.R. Butler, H. Zecca, E. Krakoff, B. Kopec, O. Ichire, C. Mackenzie, M. Pitot, M. Navarro, G. Ceballos-Pérez, R. Diaz-Gonzalez, A.B. Dounay****CHED 1181.** Specific, homologous peptides designed to mark A β 42 oligomers for microglial clearance. **M. Burlette, R. Cooper, J. Rodrigues, M.A. DeCoster, S. Poh****CHED 1182.** Inhibition of *Botrytis cinerea* with Terpinen-4-ol. **J. Walsh, D. Little, K. Anderson****CHED 1183.** *Bromelia pinguin* aerial root extract induces HeLa cell apoptosis: MTT assay-supported. **S. Luna, S. Deprele, L. Nogaj****CHED 1184.** mTOR inhibition increases lifespan in Li-Fraumeni Syndrome fibroblasts by positively influencing the DNA damage response. **L. Levy, L. Amar, R. Kafri, D. Malkin****CHED 1185.** Natural remedies and cancer in women: A peruvian communities survey study. **R. Moran, K. Guzman, D. Morales, S. Luna, S. Deprele, L. Nogaj, L. Roberts****CHED 1186.** Styrylquinoline: A scaffold for the next generation of antimalarials. **J. Kreisel, B. Roberts, Y. Zheng, D. Chakrabarti, Y. Yuan****CHED 1187.** Effects of maternal care and energetics on neural activation patterns in the African cichlid fish, *Astatotilapia burtoni*. **C. Forester, K. Field, K. Maruska****CHED 1188.** *In vivo* studies on non-toxic polysaccharide based delivery systems for chemotherapy treatment. **R. Srinivasan, J. Speshock, D. Edwards, J.D. Murphy, L. Hernandez, J. Orona, A. Palumbo, M. Cardenas, D. Bocanegro****CHED 1189.** Progress toward a photo-switchable kinase inhibitor. **B. Swartz, P. Sheperd, C. Streu****CHED 1190.** Synthesis of a photoisomerizing azobulone to inhibit ALK5. **L.E. Kelsey, T. Hall, C. Streu****CHED 1191.** Utilizing light sensitive ruthenium complexes to target cancer. **A.R. Hairston, S. Altman, J. Gray, F. Qu, J. Park, Y. Kim, E.T. Papish****CHED 1192.** *In vitro* studies on non-toxic polysaccharide based delivery systems for anti-cancer drugs. **R. Srinivasan, J.D. Murphy, L.G. Hernandez, J. Speshock, D. Edwards, J. Orona, A. Palumbo, M. Cardenas, D. Bocanegro****CHED 1193.** Preparation of synthetic analogs of Modafinil. **A. Williams, W.R.**[†]Cooperative Cosponsorship

CHED 1194. Synthetic strategies for novel fluorinated pyronins. **F. Boumelhem**, Z. Woydziak

CHED 1195. Recent progress on the synthesis of a methotrexate derivative to be used in ADEP therapy. **M.J. Rouffet**, **K. McFarland**

CHED 1196. Protonatable dipyrinones: Synthesizing a library of fluorescent pH probes. **N. Benson**, Z. Woydziak

CHED 1197. Synthesis of aminopyponin analogs and their biological use. **A. Johnson**, J. Newby, A. Kibbe, Z. Woydziak

CHED 1198. Synthesis and biological testing of chalcone derivatives. **C.J. Leatherwood**, S. Greer, A.L. Thomas, G. Cuadra

CHED 1199. Synthesis and anti-proliferative activity of *N,N'*-bis-substituted triazolium salts with various substituents. **Z. Lin**, C. Cardenas, J. Bies, J.D. Gorden, J. Strickland, M. Frazier, J.M. Meyers, K.L. Shelton

CHED 1200. Extraction and fractionation of polyphenols from Peruvian teas and their effect on mammalian cell viability. **D. Morales**, R. Moran, S. Deprele, L. Nogaj

CHED 1201. Continued progress toward a novel synthetic pathway to Aspernigrin A. **D. Lemen**, Z. Cross, D. McDermond, A.M. Reeve

CHED 1202. Chemical extraction, biological evaluation, and stability analysis of coastal Maine *Saccharina latissima* extracts that exhibit antimicrobial potency against MRSA. A.M. Deveau, K.M. Burkholder, Z. Miller-Hope, **A.J. Cusson**

CHED 1203. Synthesis of unique lubricants made of exotic butters infused with indigenous oils to promote inhibition of bacteria and protection against UV radiation. **M. Lopata**, K. Melkonian, J.I. Rizzo

CHED 1204. Novel antimicrobial surfaces derived from beeswax infused with exotic oils. **L.Z. Shapiro**, K. Melkonian, J.I. Rizzo

CHED 1205. Towards a new immobilization motif of cell adhesion peptides on titanium. **E.R. Leung**, A.M. Blystone, E.S. Gawalt

CHED 1206. Localized drug delivery of aspirin to stent sites via self-assembled monolayers. **A. Miskalis**, T.M. Lovelace, A. Blystone, E.S. Gawalt

CHED 1207. Increase colistin susceptibility in antibiotic resistant *Pseudomonas aeruginosa*. **M. Tran**, L.C. Miller Conrad

CHED 1208. Analysis of the apoptotic behavior of neutrophils in antipsychotic-induced neutropenia. **C. Swain**, P. Cavnar

CHED 1209. What Influence does parabens and paraben derivatives have on T cell immunity? **H. Kintz**, A.A. Yeagley, A. Barber

CHED 1210. Investigating the structure

activity relationship of the ester moiety in parabens through the analysis of bioisosteres. **K. Jones**, **A.A. Yeagley**

CHED 1211. Investigating the synergy between paraben derivatives and the antibiotics penicillin and erythromycin. **K. Jefferson**, A.A. Yeagley

CHED 1212. Repurposing the FDA-approved raloxifene to potentiate gemcitabine cytotoxicity in pancreatic cancer. **J. Trinh**, A. Badejo, Q. Love, H. True, D. Rao, A. Malhotra

CHED 1213. Development of selective kappa opioid receptor ligands. **H.W. Karstens**, N. Ramirez, D. Toth, B.A. Provencher

CHED 1214. Disruption of bacterial communication by targeting LuxI-type synthase Cvil. **T. Nguyen**, A. Balistreri, M. Aguilar, A. Chavez, M. Gomes, A. Jiu, L.C. Miller Conrad

CHED 1215. Synthesis and biological evaluation of new ceramide analogs containing a flavone moiety. **C. Do**, M. Hill-Odom, T. Ponnappakkam, N. Goyal, M. Foroozesh

CHED 1216. Antibiotics from actinomycete bacteria with activity against *E. coli*. **J. Chung**, A. Hoffman

CHED 1217. Synthesis of an amine containing antibacterial. **A.N. Roux**, J.T. Ippoliti

CHED 1218. Synthesis of a novel oxazolidinone antimicrobial agent. **T.J. Ogorek**, J.T. Ippoliti

CHED 1219. Synthesis and characterization of novel diphenyl urea antibiotics. **P.C. Dietz**, K.M. Nauta, M.E. Hart

CHED 1220. Will a change in the leaving group affect the rate and/or the mechanism of ROCOX solvolytic reactions? **J.J. Wirick**, M.J. D'Souza

CHED 1221. Introduction of a liquid chromatograph-mass spectrometer to the discovery of antimicrobial compounds from marine bacteria. **J. Dang**, J.A. Trischman

CHED 1222. Synthesis and evaluation of heterocyclic biaryls as aggregation inhibitors for Alzheimer's amyloid-beta peptide. **B. Hernandez**, M.G. Murray, B.L. Crenshaw, A.V. Vinson, M.J. Hurr, R.K. Lammi, J.M. Hanna

CHED 1223. Evaluation of organic solvents and thiazolidine-2-thiones for bacterial growth and biofilm inhibition. **S.C. Wallin**, T.J. Eckroat

CHED 1224. Synthesis of multicolor fluorescent ligands for nicotinic acetylcholine receptors. **A.N. Davis**, R.W. Fitch

CHED 1225. Use of cytosine-based tautomericly ambiguous nucleosides for induction of viral mutagenesis. **C.M. Clem**, V.K. Dunlap

CHED 1226. DNA binding studies of a copper 12-MC-4 metallacrown. **E. Manickas**, C.M. Zaleski, **A. Hurley Predecki**

CHED 1227. Biological studies of

ceramide analogs towards the treatment of breast cancer. **T. Saulsberry**, T. Jackson, T. Hill, M. Hill-Odom, T. Ponnappakkam, N. Goyal, J. Liu, M. Foroozesh

CHED 1228. DNA binding and intercalation studies of aryl sulfoxides. **M. Doleschal**, A. Hurley Predecki

CHED 1229. Synthesis of a novel oxazolidinone antibacterial agent containing an alcohol functional group. **B. Kraemer**, J.T. Ippoliti

CHED 1230. Synthesis and biochemical evaluation of piperine analogs for acetylcholinesterase inhibition. **M.N. Horn**, **T. Soto Torres**, T.J. Eckroat

CHED 1231. Synthesis of novel acyl hydrazones as inhibitors for fungal GlcCer synthesis. **J.E. Zambito**, K. Haranahalli, Y. Sun, C. Lazzarini, M. Del Poeta, I. Ojima

CHED 1232. Antimicrobial studies of monolignol compounds. **A.N. Winters**, L.J. Moore

CHED 1233. Promising anti-pancreatic cancer compound: Investigations into combination therapies and stability of DCM-MJ-I-21 in vehicle. **E. Wang**, E. Kusaka, A. Webb, D. Carrico-Moniz

CHED 1234. Design and syntheses of new dibenzofuran ether derivatives as potential cytochrome P450 inhibitors. **K.M. Williams**, M. Hill-Odom, N. Goyal, M. Foroozesh

CHED 1235. Synthesis of guanidino derivatives of aryl-substituted polyamines as inhibitors of *Trypanosoma cruzi* trypanothione reductase. **T. Utz**, M. Rizzo, **M. Smardz**, M.C. O'Sullivan

CHED 1236. *N*-Isopropyl derivatives of aryl-substituted polyamines: Synthesis and inhibition of trypanothione reductase. **M. Smardz**, M. Rizzo, **T. Utz**, I. Kozik, M.C. O'Sullivan

CHED 1237. Efficacy of specific polyphenolic compounds epigallocatechin gallate and gallic acid as antibacterial eluents in a macroscale polymeric drug delivery system for surgical sutures. **N. Borkowski**, D. Fish

CHED 1238. Synthesis of compound 10221 for peroxisome proliferator-activated receptor interactions. **T. Clark**, T. Hughes

CHED 1239. Advancements in magnetic resonance imaging: Synthesis of a bromo-functionalized macrocyclic pyrrophan ligand. **E.R. Dobias**, C. Galaup

CHED 1240. The synthesis of a novel oxazolidinone antibacterial derived from dopamine. **T.J. Higgins**, J.T. Ippoliti

CHED 1241. Computational modeling of a new series of somatostatin subtype 4 receptor agonists. **O. Slater**, A. Hospital, K. Sandoval, M. Kontoyianni

CHED 1242. Kinetic characterization of human low molecular weight protein tyrosine phosphatase wild type isoforms A and B. **S.L. Tinucci**, H.V. Jakubowski, E.J. McIntee

CHED 1243. Exploring early connections to the modern opioid crisis. **B.A. Steele**, C. Street

CHED 1244. Withdrawn

CHED 1245. Antimicrobial activity of penicillin in combination with potential beta-lactamase inhibitors. **S. Greer**, A.L. Thomas

CHED 1246. Synthesis and biological evaluation of a new series of sulphonamide-containing ceramide analogs. **S. Booker**, N. Goyal, M. Foroozesh

CHED 1247. Exploration of medicinal compounds in Peruvian spices and their effect on cervical and breast cancer. **P. Perez**, R. Solomon

CHED 1248. Phenotypically distinct subset of eosinophils is recovered with intestinal Intraepithelial leukocytes. **Y. Huang**, D. Anketell, J.J. Xenakis, K. Smith, C.L. Olbrich, E.W. Cornwell, E.D. Howard, L.A. Spencer

CHED 1249. Synthesis and investigation of a novel antimicrobial surface utilizing agar. **A.J. Sostre**, K. Melkonian, J.I. Rizzo

CHED 1250. Exploring evolutionary medicine through 19th century medical collections: Applications in archival studies. **T. Sturgill**, C. Street

CHED 1251. Monoacylglycerol lipase inhibition blocks gastric hemorrhages induced by the cyclooxygenase inhibitor diclofenac sodium. **H. Aliff**, M. Eckard, E. Silvestri, K. Trexler, M. Crowe, S. Kinsey

CHED 1252. Human serum albumin nanoparticles for drug delivery and release: Developing alternative treatments. **M. Hibino**, M.A. Tarr

CHED 1253. Fragment-based synthesis and biological evaluation of antimicrobial peptide derivatives. **A. Corkovic**, E.K. Leggans

CHED 1254. Development of novel chemotherapeutic agents via the Maillard reaction. **N. Hmeluk**, R. Sheaff

CHED 1255. Synthesis and biological evaluation of xenortide derivatives. **V. Cheslack**, E.K. Leggans

CHED 1256. Oleate rescue of lipotoxicity. **B. Berg**, A.K. Stoekman

CHED 1257. Biological evaluation of antimicrobial peptide analogues. **Z. Spahr**, M. Pietrusiak, E.K. Leggans

CHED 1258. Cellular mechanisms of lipotoxicity. **E. Inwards**, A.K. Stoekman

CHED 1259. Synthesis of 2(2-trifluoromethylsulfonamidephenyl) benzimidazole derivatives as LspF inhibitors for the development of novel antibiotics. **D. Harper**, M.J. Rouffet

CHED 1260. Effects of ultraviolet A and ultraviolet B radiation on melanoma cells. **D. Carlsen**, K.S. George Parsons

CHED 1261. Recent progress on the development of anthrax lethal factor inhibitors. **S. Veenbaas**, M.J. Rouffet

CHED 1262. Syntheses of 4-bocpiperidone chalcones and their potential as anticancer agents. **T.A. Pereres-De-León**, C. Vélez-Gerena, B. Zayas, M.J. Donate, M.M. Sánchez, M.

Martínez-Ferrer, D.J. Sanabria-Rios

CHED 1263. Influence of chronic restraint stress during adolescence on brain-derived neurotrophic factor (BDNF) hippocampal expression in adult male and female rats. **M. Bhardwaj**, K. Krolick, E. Gulla, S. Marshall, H. Shi

CHED 1264. Preparation of docetaxel (Dxtl)-encapsulated poly (lactic-co-glycolic acid) (PLGA) nanoparticles (NPs) and their potential as anticancer agent against highly metastatic prostate cancer cells. **G. García-Robles, K. González-González**, E. Nicolau, M.J. Donate, M.M. Sánchez, M. Martínez-Ferrer, D.J. Sanabria-Rios

CHED 1265. Isolation, purification, and characterization of the zwitterionic polysaccharides, PS-A1 and Sp1. **G.T. Hymel**, P.R. Andrea

CHED 1266. Optimal scaffold flexibility permits backbone polarity exclusion during passive membrane permeation in bRo5 peptide macrocycles. **M. Handford**, M. Naylor, A. Ly, S. Lokey

CHED 1267. HIV-1 envelope glycoprotein trimeric immunogens derived from donor 45 envelope sequences form highly stable and native-like trimers. **J. Santiago Echevarria**, J. Guenaga, B. Carrate, R. Wyatt

CHED 1268. Synthesis of an esterified calcein through a Friedel-Crafts-like reaction, by first synthesizing a modified resorcinol through a Mannich reaction, in order to make a membrane impermeable clickable fluorescent probe. **B. Roman**, M. Fiore, G. Leveau, D. Fayolle, P. Strazewski

Section H

Ernest N. Morial Convention Center
Halls D/E

Undergraduate Research Posters Nanochemistry

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12:00–2:00

CHED 1269. Efficient dual-site carbon monoxide electro-catalysts via interfacial nano-engineering. **D. Falkner**, Z. Huang, Z. Wang, Z. Liu

CHED 1270. Withdrawn

CHED 1271. Electrochemical properties of tin-coated vertically aligned carbon nanofiber array anode for Li-ion storage. **K.J. Jones**, G.P. Pandey, L. Meda

CHED 1272. Ionic conducting property of poly(propylene carbonate) interpenetrating cross-linked poly(ethylene glycol) network. L. Meda, Y. Yang, **J. Williams**

CHED 1273. Nickel-carbon composites as electrodes for the methanol oxidation reaction. **A. Reid**, K.M. Metz

CHED 1274. Controlled patterning of carbon nanotube growth utilizing polymer thin films. **I. Frenkel**, J.N. Albert, N. Pesika

CHED 1275. Print-welding functional biopolymer composites. **S. Park**, R. Chung, D.P. Durkin, L.M. Haverhals, H. De Long, P.C. Trulove

CHED 1276. Protein corona formation: Investigating the effects of cell culture growth media on nanoparticle size, stability, and net charge. **Y.I. Avila**, D.P. Simmons, M.A. Omary

CHED 1277. Effect of silver-based antibiotic infused nanofibers on bacterial growth and drug delivery. **A. White, J. Jones**, K. LaiHing

CHED 1278. Alloy Au/Ag nanoparticles introduced to yeast cells in vivo. **F. Falcon Ontiveros**

CHED 1279. Novel characterization of silver nanoparticles utilizing a laser system. **N. Hernandez**, K.A. Beran

CHED 1280. Scattered photon intensity as a tool to calibrate the size of Au and TiO₂ nanoparticles. **L. Ramirez**, K.A. Beran

CHED 1281. Colorimetric detection of DNA via catalytic release of polymer bead-immobilized gold nanoparticles. **C. Bonner**, D. Moyer, D. Lysne, J. Sigurdson, A. Nguyen, E.D. Graugnard, J. Lee

CHED 1282. Synergistic effects of organic nanofibers, honey and antibiotics for wound dressings. **C. Stewart**, S. Parkins, K. LaiHing

CHED 1283. Incorporation of silver-based antibiotic in maltose nanofibers for drug enhancement. **A. Saunders**, N. Fleary, K. LaiHing

CHED 1284. Aqueous phase transfer of CuInS₂/ZnS nanocrystals for toxicity studies. **C. Peterson**, S. Hughes
CHED 1285. Using layer-by-layer deposition to “trap” polyelectrolytes on gold nanoparticles. **A.V. Murray**, K. Andresen, L.B. Thompson

CHED 1286. Spectroscopic quantification of fluoxetine-loaded polyacrylamide linked to the surface of gold nanoparticles. **R.J. Gawel**, P.P. Fong, L.B. Thompson

CHED 1287. New solid polymer substrate containing gold nanoparticles. **B.A. Bober**, B. Negru

CHED 1288. Using pH to drive assembly of poly-L-lysine coated gold nanorods. **F.E. McFeaters**, L.B. Thompson

CHED 1289. A facile synthesis of pectin-coated silica nanoparticles. **G. Elizondo**, **F. Elizondo**, E. Evans, B. Mellis, J. Hollingsworth

CHED 1290. Two step syntheses of NiFe-P nanosheets as electrode materials for supercapacitors. **Z. Johnson**, J. Luo, Z. Zheng, W. Zhou

CHED 1291. Stability of C₆₀ fullerene solutions in vegetable oils. **L.D. Bienski**, R. Ortiz-Ayala, K.R. Warnke, C.A. Torres

CHED 1292. Investigation of a nanoscale surface area coverage by a self assembly of amyloidogenic peptides. **P. Shevlin**, K. Yokoyama, K. Brown

CHED 1293. Repurposing the anticancer drug cisplatin for a post-antibiotic era. **M. Foronda**, E. Michael

CHED 1294. Analyzing synergistic interactions between silver nanoparticles and antibiotics: Implications for microbial growth. **E. Stuffle**, N. Sakyi Opoku, M.

WaMaina, C. Stewart, E. Vanterpool, K. LaiHing

CHED 1295. Comparison of synthesis methods for Au nanoparticles. **F.P. Verdin**, M.G. Weir

CHED 1296. Repairing degenerately-doped nanocrystal films by gallium diffusion. **S.D. Mengel**, A.T. Fafarman

CHED 1297. Electrochemical and electrogenerated chemiluminescence study of organolead halide perovskite nanocrystals. **V. Arau**, Y. Wusimanjiang, S. Pan

CHED 1298. Homogeneous nucleation-driven formation of gold nanoprisms: A real time spectroscopic and microscopic investigation. **M. Kaur**, T. Lyanage, M. Agarwal, R. Sardar

CHED 1299. Fully solution processed semitransparent inorganic nanocrystal solar cells. **E. Donahue**, N. D'Antona, T. Townsend

CHED 1300. Probing the distance-dependence of surface-enhanced Raman Spectroscopy using nanocomposites composed of raman reference and probe conjugated copolymers grafted to gold nanoparticles. **S. Best**, E.G. Westbrook, P. Zhang

CHED 1301. Detection of testosterone through host-guest interactions of β-cyclodextrin functionalized silver nanoparticle. **A.A. Hill**, D. Buker, A. Deckert

CHED 1302. Porous metal-organic frameworks for hydrogen storage. Y. Liu, **P. Farias**

CHED 1303. Synthesis & characterization of cysteine derivatives for quantum dot growth. **S. Yang**, P.E. Lee

CHED 1304. Interaction of silver nanoparticles with cardiovascular drugs on *Daphnia magna*. **P. Garcia Gonzalez**, Y. Santos Vazquez, E. Ferrer Torres

CHED 1305. Synthesis of polymer/polyoxometalate multilayered gold nanoparticles. **C.N. Banson**, **B.T. Nhan**, S. Valcin, N.T. Flynn

CHED 1306. Thiol-ene photopolymerization of functionalized resorcinarene cavitand thiols. **S. Johnston**, S.D. Allmon, B. Ramjee

CHED 1307. Luminescent gold nanoparticles for sensing chromium (III) ions in physiological environment. **A. Lanzendorf**, C. Zhou

CHED 1308. Surface engineering of nanostructured electrodes and electrolytes for solid-state battery applications. **A.C. Mesnier**, D.C. Teeters

CHED 1309. Charcoal-based conductive paint. **A. Wyatt**, W.E. Schatzberg

CHED 1310. Nitric oxide-releasing materials for the remediation of microbial growth on cultural heritage items. **T.Y. Dilday**, R.A. Hunter

CHED 1311. Electrocatalytic detection of single Pd, Pt, and Rh nanoparticles at Au and Hg ultramicroelectrodes. **A.J. Capps**, S.N. Thorgaard

CHED 1312. Detection of sports doping drugs using noble metals nanoparticles. **A. Ruiz Ferrer**, M. Negron Garcia, E. Ferrer Torres

CHED 1313. Development of size-matched nanoparticles-silicon dioxide and gold for small organic compound detection. **L. Sanford**, E. Magennis, J.S. Kirk

CHED 1314. Synthesis of silica@gold core shell nanoparticles and their interaction with Capacetabine (an anti cancer drug). **F. Rodriguez Reyes**, J. Santiago Echevarria, E. Ferrer Torres

CHED 1315. Biomarker detection with different nanoparticles: A comparative analysis between plasmonic nanoparticles and quantum dots. **S. Szajek**, J.M. Wiester

CHED 1316. Using CuFeS₂ nanocrystals for solar-to-steam energy conversion. **A. Mapile**, V. Holmberg, B. Bishop, S. Lee

CHED 1317. Deposition and sintering techniques to strengthen silica nanoparticle crystals. **M. Koviekis**, S. Bingham, J.S. Kirk

CHED 1318. Synthesis and study of Ag, Au and Ag/Au nanoparticles for the detection of heavy metals and toxic agents in water samples. **C. Cabrera Lopez**, A.G. Colon Santiago, E. Ferrer Torres

CHED 1319. Synthesis of lipid-polymer hybrid nanoparticles: A drug delivery system. **J. Centore**, D. Fish

CHED 1320. Investigating protein adsorption on functionalized gold nanoparticles. **A.L. Code**, **M.T. Phan**, A. Uchitelle, A. Webb, N.T. Flynn

CHED 1321. Silicon monoxide nanoporous membranes for lithium ion battery anode. **N. Johnson**, J. Wu

CHED 1322. Fine-tuned nanoparticles synthesis for controlled pore size and condensation degree. **E. Hjelvik**, A. Noureddine, J. Agola, J. Croissant, C. Brinker

CHED 1323. Functionalization of gold nanoparticles with multiple stabilizing agents. **A. Uchitelle**, N. Al-Qadi, N.T. Flynn

CHED 1324. Size-dependent optical properties of cadmium selenide quantum dots. **C. Henderson**, M. Quackenbush, K. Schnitzenbaumer

CHED 1325. Synthesis and characterization of cadmium-free nanomaterials. **S. Hernandez**, K. Schnitzenbaumer

CHED 1326. Assessment of catalytic function of gold nanorod-bound TEMPO under NIR irradiation. **K. St. Clair**, K. Lavan, J.W. Stone

CHED 1327. Photothermal treatment of A-375 melanoma cells containing gallic acid capped gold nanoparticles. **T.J. Dominguez**, S. Huynh, E. Evans, A. Gorman, A. Tjandra, C. Flores, M. Steiger, B. Mellis

CHED 1328. Assessing the spontaneous nanorod linkages driven by the PEG on the GNR surface. **M. Braselton**, J.W. Stone

[†]Cooperative Cosponsorship

CHED 1329. Evaluation of coated gold nanorods on zebrafish embryos. **J. Smith**, M. Braselton, V. Sittaramane, J.W. Stone

CHED 1330. Carbon nanotube and transition metal oxide composites via microwave synthesis. **M.D. Havlik**, J. Zemke

CHED 1331. Synthesis, characterizations, and potential applications of Au-Ir nanoparticles. **D.S. Fernandez**, H. Guo, S.M. Humphrey

CHED 1332. The identification of bacterial isolates from cationic nanoparticle solutions and their interactions with cationic gold nanoparticles. **J.E. Kuether**, R. Tapia Hernandez, V. Feng

CHED 1333. Using EC-STM to study the binding of amino acids to metal surfaces. **I. Baljak**, J.A. Phillips, L.K. Harville, E.V. Iski

CHED 1334. Self-assembly of PbS Nanocrystals in thin Films. **C. Cuthbert**, W.B. Heuer

CHED 1335. Electronic properties of porphyrin nanowires. **M.L. Buzbee**, M.B. Elinski, T. Reyes, J. Batteas

CHED 1336. Synthesis of Au nanorods with Pd4 peptide-capped Pd nanoparticles functionalization for Suzuki coupling reactions. **J. Wagner**, B. Briggs, M. Smith

CHED 1337. Removal of heavy metals from aqueous solutions by alginate-AgAu nanoparticles composite. **J.G. Noel Torres**, C.B. Pellicier Rodriguez, C.M. Osorio Cantillo

CHED 1338. Direct growth of iron oxides on stainless steel as anode for Li-ion batteries. **K. Strong**, Y. Yang, L. Meda

CHED 1339. Investigate the effects of DNA structures and their interactions with gold nanoparticle surfaces. **L. Pierce**, J.E. Smith

CHED 1340. Pseudocapacitive study of NiO nanomaterials for electrochemical energy storage. **A. Day**, J. Adkins, L. Meda

CHED 1341. Gold nanorod-protein composites as a potential novel therapy for alpha-1-antitrypsin deficiency. **M. Kilpatrick**, J.W. Stone

CHED 1342. Vapor synthesis of MnO nanoparticles embedded in a carbon matrix as high performance anode for lithium-ion batteries. **N.X. Tran**, L. Leban, Y. Yang, L. Meda

CHED 1343. Electrochemical studies of RuO₂ reactions with lithium ion. **A. Merrell**, J. Adkins, J. Williams, Y. Yang, L. Meda

CHED 1344. Bifunctional peptide for synthesis of Fe₃O₄ and Pd nanoparticles for recycling in Suzuki coupling. **S. Castillo**, B. Briggs

CHED 1345. Amorphous niobium oxide thin film as anode for high rate lithium ion battery. **K.A. Kimble**, N.X. Tran, A.A. Abiade, J.I. Adams, J. Adkins, L. Meda

CHED 1346. Studies of Lipon coated metal oxides in lithium ion battery

conversion reaction. **E. Marin**, S. Desselle-Hirsch, J. Callaway, L. Meda

CHED 1347. EC-STM investigation of the thermal stability of silver halide thin films on Au(111). **L.K. Harville**, J.A. Phillips, I. Baljak, E.V. Iski

CHED 1348. Surface attachment of insulin upon nanodiamonds. **A. Arshi**, M. Su, B. Negru, H. Shi

CHED 1349. PVP-assisted synthesis of uniform carbon coated Li₂S/rGO for high-performance lithium-sulfur batteries. **J. Adkins**, G.P. Pandey, L. Meda

Section H
Ernest N. Morial Convention Center
Halls D/E

Undergraduate Research Posters
Organic Chemistry

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12:00–2:00

CHED 1350. Low band gap *p*-conjugated molecules featuring N β B coordination. **J.L. Lavoie**, C. Zhu, L. Fang

CHED 1351. Synthesis of polyaromatic hydrocarbons via mechanochemistry. **B. Theard**, J. Mack

CHED 1352. Preparation of novel ligands for the dynamic kinetic resolution of β -amino acids. **E. Allbritton**, **A. Bond**, **S. Crone**, **E. Hicks**, K. Kemp, **D. Tresp**, **D. Widick**, S. Hamburger, P.M. Wright, T.K. Ellis

CHED 1353. General mild method for cleavage of methoxymethyl ethers using bismuth trichloride. **A. Pacherille**, B. Tuga, I. Dos Reis, R. Sunasee

CHED 1354. Redox auxiliary mediated Z \rightarrow E switching of a stable *cis* azobenzene. **C. Meyers**, D. Warner, S.C. Blackstock

CHED 1355. Synthesis and photophysical properties of bindone derived heteroaryl dienes. **C. Roberts**, S. Helmy

CHED 1356. Solid-state studies of halogenated benzonitrile oxides and their dimers. **M. Stodolka**, W.H. Ojala

CHED 1357. Microwave assisted organic synthesis and purification of various N-phenyl succinimides derivatives. T.F. Guetzloff, **J.D. Simms**, M.B. Guetzloff, M.W. Fultz

CHED 1358. Molecular structure similarities vs. crystal structure similarities: bis(4-Chlorophenyl)furoxan vs. bis(4-methylphenyl)furoxan. **S. Whitcomb**, W.H. Ojala

CHED 1359. Microwave synthesis of various N-phenyl succinimide derivatives. T.F. Guetzloff, **M.B. Guetzloff**, M.W. Fultz

CHED 1360. Bisulfite extraction of aldehydes and reactive ketones: Extraction optimization and re-isolation of alpha chiral aldehydes without racemization. **M.H. Furigay**, **M.M. Boucher**, N.A. Mizgier, P.K. Quach, C. Brindle

CHED 1361. Microwave synthesis of N-phenyl succinimides and adaptation in organic chemistry laboratory. **T.F.**

Guetzloff, M.W. Fultz, M.B. Guetzloff

CHED 1362. Isomorphism in heteropentacycles: Crystal structure of a 1,2,4-oxadiazole and comparison to its isosteric analogues. **M. Neuzil**, W.H. Ojala

CHED 1363. Fluoroamide-directed fluorination of unactivated C–H bonds. **J. Bingham**, B.J. Groendyke, S.P. Cook

CHED 1364. PEG-based increases to conformational and proteolytic stability of a β -sheet protein depends on PEGylation strategy and location. **N.A. Becar**, S.R. Draper, P.B. Lawrence, W.M. Billings, Q. Xiao, N.P. Brown, D.J. Matheson, J.L. Price

CHED 1365. Improved synthesis of a highly soluble calix[4]arene-capped azobenzene. **L. Scharlott**, A.A. Darling, P.A. Bonvallet

CHED 1366. Progress towards the synthesis of mono- and dibenzal quinoxaline-spanned heterocapsules. **M. Lopez**, J. Ruiz, L.M. Tunstad

CHED 1367. Comparing solvent effects between resorcin[4]arene homologs. **J. Woojuh**, **D. Moreno**, **G. Walker**, L.M. Tunstad

CHED 1368. Synthesis of a short-tethered calixarene-capped azobenzene. **J. Shea**, **C.A. Litts**, C.M. VanDenburgh, P.A. Bonvallet

CHED 1369. Diastereoselective synthesis of a single diastereomer dipeptide analog in the Ugi reaction via the use of chiral N-acylhydrazine auxiliaries. **X. Zhu**, A. Davies, M.T. Peterson, A. Baker

CHED 1370. Cobalt-catalyzed hydroboration of 1,3-(E)-dienes. **M. Mehta**, T. Rajanbabu

CHED 1371. Synthesis and analysis of pyrazoline derivatives as alcohol dehydrogenase inhibitors. **M.E. Hackey**, L.L. Rossi

CHED 1372. Exploration of the role of base in selective phosphorylations. **E. Sisko**, B.R. Sculimbrenne

CHED 1373. Rapid synthesis of N-methyl-N-(2-nitrobenzyl)formamide. **S.E. Sundhagen**, L.I. Bobyleva, M.M. Bobylev

CHED 1374. Synthesis of azulporphyrins from 2-methylazulene. **J.D. Moriones**, T.D. Lash

CHED 1375. Intermolecular-trapping of 1,3-dialkyl diaziridines with HDDA-derived benzynes. **R. Rupasinghe**, S. Arora, T.R. Hoye

CHED 1376. Synthesis of bidentate, unsymmetric N-heterocyclic carbene ligands for potential applications in *cis*-selective olefin metathesis. **A.C. Edwards**, L.P. Bryant, K.D. Leibfried, H.J. Schanz

CHED 1377. Development of the formation of nitrogen-nitrogen bonds as a tool for synthesis and drug development. **B. Davis**, A. Reeder, A. Wollenburg, M.R. Prinsell

CHED 1378. Molecular switching of bis(azobenzene)aniline. **T.F. Morgan**, K.S. Strickland, S.C. Blackstock

CHED 1379. Synthesis and characterization of 5,10,15,20-tetrakis(4-hydroxy-3-methoxy-5-nitrophenyl)porphyrin. **A. Adeyemo**

CHED 1380. Photo-Nazarov reactions of heterocyclic aryl vinyl ketones: Development of a cost-effective route to cyclization substrates. **H.A. Young**, W.L. Ashley, T.C. Coombs

CHED 1381. Development of iron-based hydrogenation catalysts: Applications in the pharmaceutical industry. **J. Mobley**, L. Boisvert

CHED 1382. Synthesis and characterization of meso-tetrakis(2-fluoro-6-methoxyphenyl)porphyrin. **A. Adeyemo**

CHED 1383. Synthesis of 6,24-tritriacontene-2-one, a brown tree snake pheromone. **A. Johnston**, S. Lewis

CHED 1384. Metal complexes of a new photosensitizer: Potential anticancer agent. **A. Adeyemo**

CHED 1385. Synthesis of a photoactivatable protecting group for biological thiol activation. **S. Fang**, **A.D. Fenton**, M.D. Distefano

CHED 1386. Characterization of diene degradation products from allylic tosylate elimination. **T. Lingo**, C. Paquin, D.W. Boerth

CHED 1387. Regioselectivity in nucleophilic aromatic substitution with aryl sulfonates. **F.N. Ngassa**, E. Bookout, Z. Patel

CHED 1388. Searching for chirality in a new route to heteroleptic alkylphosphine oxides. **A.L. Dixon**, J. Barry, D.R. Tyler

CHED 1389. Synthesis of quinone methide precursors as acetylcholinesterase reactivators. **S. Sillart**, C. Callam

CHED 1390. Nucleophilic atroposelective kinetic resolution of selective pyrrolopyrimidine kinase inhibitors. **T. Duong**, J. Gustafson, M.M. Cardenas, S. Toenjes, C.J. Nalbandian

CHED 1391. Expansion of tosylation on new allylic systems. **C. Sherlock**, C. Paquin, D.W. Boerth

CHED 1392. Fluorogenic polymerization amplification as a new platform for disease detection. **J. Sackey-Addo**, Z. Allen, M. Hopps, J. Anderson, D. Tahseen, C.B. Cooley

CHED 1393. Utilization of a variety of internal and terminal alkynes toward a mercury-free, hydration reaction. B. Ide, C. Postel, **P.A. Shelton**

CHED 1394. Synthesis of espiptanol analogues for the treatment of leishmaniasis. **S.P. Stokes**, G.R. Naumiec

CHED 1395. Microwave-assisted gold(I)-catalyzed Friedel–Crafts-like arylation of benzylic alcohols to afford 1,1-diarylmethanes. **J. Oakley**, T. Stanley, R.G. Iafe

CHED 1396. Synthesizing the 7-carbon analog of gluconic acid. **D.G. Abraham**, M. Hayes

CHED 1397. Design of hydrogen-bonded

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- ternary cocrystals using a ditopic donor molecule and two acceptor molecules. **B. Mihelich**, D. Adson, R.J. Staples, S.M. Biros
- CHED 1398.** Evaluation of phenol modification in tandem Ugi-Smiles Diels-Alder reactions. **N. Reveli**, S. Luesse
- CHED 1399.** Investigation of the hydrogen bond connectivity between sulfadiazole and hydrogen bond acceptors in cocrystals. **I. Steinke**, D. Adson, K.A. Wheeler, R.J. Staples, S.M. Biros
- CHED 1400.** Iron-catalyzed reduction of Mannich bases. **K. Ferguson**, R.E. Whittaker, A. Redden
- CHED 1401.** Amide bond activation as an entry to alkene carbocyclization. **J. Humke**, J. Walker, K. Vickerman, L.M. Stanley
- CHED 1402.** First steps towards fast and selective synthesis of substituted pyranones. **M.D. Ruane**, **J. Nawara**, **D. Hernandez**, **L. Terrill**, **F. Rueda**
- CHED 1403.** Development of a polymer-backed, regenerating chlorinating agent. **M.D. Ruane**, **F. Rueda**, **L. Terrill**, **D. Hernandez**, **J. Nawara**
- CHED 1404.** Synthesis of 2-(fluoromethyl)-phenol. **Z. Wei**, R.E. Rosenberg
- CHED 1405.** Fluorescence-based sensors for the detection of biologically relevant ions. **D.M. Schnable**, N. Edwards
- CHED 1406.** Synthesis and coupling schemes of naphthalimide compounds with target drugs. **K. Parrott**, J.E. Elbert, T. Divis
- CHED 1407.** Comparative studies of metal complexes of meso-tetrakis(2-bromo-3-hydroxy-4-methoxyphenyl)porphyrin. **A. Adeyemo**
- CHED 1408.** Synthesis of photochromic and fluorescent imines. **M.R. Berry**, J.T. Ippoliti
- CHED 1409.** Withdrawn
- CHED 1410.** Synthesis of alkenylthiols and their formation as self-assembled monolayers for use in the laccase-mediated removal of phenolic compounds. **A.R. Preciado**, C.M. Johnson, B.W. Gregory, P. Wiget
- CHED 1411.** Synthesis of porous polymer electrolyte films using a nanophase separation approach. **T. Ali Kizi**, L. Wang, D.C. Teeters, A.A. Lamar
- CHED 1412.** Activated carbon for urea adsorption. **L. Eickhoff**, B.J. Winters, K.E. Rohly
- CHED 1413.** Regio-selective hydrogen-deuterium exchange reaction. **A. Martinez**, T. Nguyen, **N. Chandra**, **E. Nevarez**, X. Chen
- CHED 1414.** Diaminonaphthalene derivatives for tuning the phase behavior of a photoconductive charge-transfer liquid crystal. **N. Smith**, J. Reczek
- CHED 1415.** Structural elucidation of pyrrolizidine alkaloids from *Buglossoides purpurocaerulea*. **C.J. Burghard**, **P.E. Plucker**, **S.M. Stroud**, **R.B. Kelley**
- CHED 1416.** 6-Methylpyrid-2-yl thio glycosides. **S. Hasty**, J.E. Scherer
- CHED 1417.** Exploration of nitrogen-tethered [5+2] oxidopyrylium-alkene based cycloadditions. T.A. Mitchell, **J.P. Grabowski**
- CHED 1418.** Atroposelective dynamic kinetic resolution of aryl-naphthoquinone ethers. A.N. Dinh, R. Noorbehesht, **A.C. Jackson**, J. Gustafson
- CHED 1419.** Activated carbon urea adsorption with auxiliary complexing agents, SDDC and NTA. **T. Riggs**, B.J. Winters, K.E. Rohly
- CHED 1420.** SuFEx based click chemistry for peptide stapling. **J. Han**, V.V. Fokin
- CHED 1421.** Acridone compounds in cancer research. **H.n. Fleegle**, D. Fish
- CHED 1422.** Organocatalyzed pericyclic reactions: Exploring catalyst reactivity and substrate scope. **E. Rivera**, A. Imanishimwe, H.A. Dahlmann
- CHED 1423.** Tenofovir: A novel approach using commercially available, inexpensive material. **E. Stryker**, H.P. Mangunuru, E. Yu, F. Gupton
- CHED 1424.** Synthesis of hyaluronic acid mimics for targeting CD44. **M.A. Vencil**, A.J. Krueger, M.L. Regan, E. Xu, K.E. Gonzalez, N.L. Snyder
- CHED 1425.** Mild catalytic method for sulfenylation of electron-rich aromatics. **E. Alvarez**, C.J. Nalbandian, J. Gustafson
- CHED 1426.** Kinetic & thermodynamic studies of 2-furylmethyl benzoate and 2-(methoxymethyl)furan in model Diels-Alder reactions. **J. Kosko**, W. Hollis, P.A. Deck
- CHED 1427.** Synthesis of pyrrolidinium-based poly(ionic liquids) and examination of their antibacterial properties. **K. Richey**, T.R. Hayden
- CHED 1428.** Potential candidate for the evaluation of hydrogen bonding: Attempted synthesis of 9-fluoro-9H-fluoren-1-ol. **M. Hanna**, R.E. Rosenberg
- CHED 1429.** Synthesis and studies of thiourea and amidothiourea based anion sensing receptors. **H. Hance**, M.O. Odago
- CHED 1430.** Supramolecular assembly of a sulfonated calix[4]arene with 1,4-diazabicyclo[2.2.2]octane derivatives. **H. Glick**, J.L. Fantini
- CHED 1431.** Investigating the reactions of zinc enolates in aqueous solutions. **I.C. Anderson**, W.E. Brenzovich
- CHED 1432.** Kinetic studies of model Diels-Alder reactions using ¹⁹F NMR. **N. Price**, W. Hollis, P.A. Deck
- CHED 1433.** Investigation of the solvatochromic properties of benzo[c]fluorenone. **J. Napoli**, **R. Black**, T.C. Celius, B.W. Williams
- CHED 1434.** Triazole derivatives from 2-bromomethyl-3-phenylpyrazine. **L.M. Swanson**, A.M. Schoffstall
- CHED 1435.** Investigations into the effect of alkoxy substitution on palladium-catalyzed olefin difunctionalization. **M.C. Maust**, W.E. Brenzovich
- CHED 1436.** Synthesis of doxorubicin analogs for DNA binding studies. **H.M. Anchukaitis**, S.S. Tartakoff, S. Glazier
- CHED 1437.** Developing a flow process for a stereoselective aldol-spoxidation reaction. **D. Bell**, J.A. Hansen, K. Ruark, Y. Sawyer
- CHED 1438.** Determination of equilibrium constants of furan derivatives in model Diels-Alder reactions with N-(4-fluorophenyl)maleimide. **A. Corpuz-Nicolas**, W. Hollis, P.A. Deck
- CHED 1439.** Reaction schemes for the synthesis of photo-active naphthalimide-drug compounds. **T. Divis**, J.E. Elbert, K. Parrott
- CHED 1440.** Progress toward a calixarene-viologen unit for AB-type supramolecular assembly. **H. Tran**, J.L. Fantini
- CHED 1441.** Synthesis of perfluoropyridyl-1H-1,2,3-triazole derivatives. **M.N. Trujillo**, A.M. Schoffstall
- CHED 1442.** Withdrawn
- CHED 1443.** Synthesis of novel tripodal polymer frameworks based upon a 1,3,5-substituted aromatic ring. **B. Nagle**, T.A. Knoerzer
- CHED 1444.** Synthesis of novel aromatic heterocycles via oxo- and imino-gold carbene intermediates. **M. Marchioretto**, T.A. Knoerzer
- CHED 1445.** Stereodivergent synthesis of (+)- and (-)-pilosinine. **R.E. Anderson**, **T.J. Gibson**, R.J. Mullins
- CHED 1446.** Determination of phytosterols in dried shaggy mane and morel mushrooms by GC-MS. **N. Walker**, A. Overgard, S. Quint, T.W. Nalli
- CHED 1447.** Synthesis of isoxazoles via copper(I) catalysis with N-chlorosuccinimide. **W.R. Morris**, A.M. Schoffstall
- CHED 1448.** Mechanistic investigations into a novel palladium-catalyzed oxidative difunctionalization reaction. **Z.L. Croft**, W.E. Brenzovich
- CHED 1449.** Synthetic studies on guaipyridine alkaloids: Rupestines L and M. J.R. Vyvyan, **M. Deshaye**
- CHED 1450.** Triazole synthesis and microwave-assisted Diels-Alder cycloaddition. **J.L. Montanez**, A.M. Schoffstall
- CHED 1451.** Impact of water on lowering the catalyst loading in cobalt-catalyzed Kumada coupling reactions. **J.J. Mercado**, M.C. Perry
- CHED 1452.** Synthesis and isolation of functionalized quinoxalyltriazoles. **C.M. Clements**, A.M. Schoffstall
- CHED 1453.** Development of a fluorescent sensor for the detection of copper(II) and iron(III) ions. **A. Garber**, N. Edwards
- CHED 1454.** Sonogashira coupling reactions with bromomethyl quinoxaline derivatives. **A.T. McGrath**, **K.A. Stewart**, A.M. Schoffstall
- CHED 1455.** Synthesis of indolyl/indazolyl (N1 substituted) quinolones (C6 and C8 substituted) for study as possible anticancer/antibiotic/antimicrobial agents: Desired cyclized product or uncyclized intermediate? **K.R. Reicher**, **K.J. Derkson**, **R.A. Heyblom**, **M.A. Johnson**, **H.L. Carlson**, J. Thomforde, M. Msaki, L.M. Ito, P.G. Schulztenberg, D.A. Luke, **J.L. Langer**, **H.R. Olson**, R.R. Hansen, N. Beaulieu, **A. Davidson-Hunt**, T.M. Trygstad
- CHED 1456.** Computational studies of 1,2-diols. **L. Metoyer**, **D. Mbunwe**, J. Armstrong, K. Jenkins, K.M. Morgan
- CHED 1457.** Novel synthesis of serotonin using relatively mild reagents. **T.J. Oleskey**, K.M. Halligan
- CHED 1458.** Tertiary benzamides as possible antimalarial leads. **E. Williford**, M.J. Campbell
- CHED 1459.** Synthesis of phenol and pyridine containing LOX inhibitors. **P. Patel**, **F. Cervantes**, **F. Ramirez**, **A. Wan**, D.M. Solano
- CHED 1460.** Copper-catalyzed silylations of C—C π-bonds. **S. Harruff**, B.K. Mikesell, R. Van Hoveln
- CHED 1461.** Synthesis of oxobutanoate-substituted carvacrol and thymol derivatives as potential antibacterial agents. G.E. Henry, **A. Graybill**, N. Brotzman, A. Cocolas
- CHED 1462.** Synthesis and biological activity investigation of acetylphenyl benzoates. **R. Potenzino**, L. Chablani, R.N. Manchanayakage
- CHED 1463.** Synthetic studies on cananodine: Setting the C8 stereocenter. **R. Sabio**, J.R. Vyvyan
- CHED 1464.** Disilylation of aldehydes and ketones using a copper catalyst. **B.J. McCarty**, **W.L. Kirkman**, R. Van Hoveln
- CHED 1465.** Homocoupling of alkyl and vinylboronic acids using Mn(III) compounds: A first look. **Z.A. Kohanov**, C.E. Harris
- CHED 1466.** Copper-catalyzed nucleophilic addition to carbonyls using organosilanes. **T.S. Carpenter**, **B.M. Thomas**, R. Van Hoveln
- CHED 1467.** Design and synthesis of an effective tridentate molecular receptor for fullerenes. **M. Kramer**, C. Lee, M. Perkins, C. Griffin, P.A. Denis, M. Yanney
- CHED 1468.** Investigations into ligand tunability: Synthesis and characterization of NS containing cryptands. **L.M. Sadlowski**, T.L. Walker, I. Taschner
- CHED 1469.** Drug repositioning and diversification strategy for discovery of compounds with anti-cancer activity. **D. Gibson**, **M. Chapa**, B.A. Rowland, D. Bateman
- CHED 1470.** Design and synthesis of triphenylene based molecular receptors for fullerenes. **C. Lee**, C. Griffin, P.A. Denis,

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CHED 1471. Exploring the use of both planar and curved surface polycyclic aromatic hydrocarbons in the design and synthesis of molecular receptors for fullerenes. **C. Griffin**, C. Lee, P.A. Denis, M. Yanney

CHED 1472. Chemical composition of an acetone extract of *Vitis riparia*. **G.D. Reynolds**, J. Yarger, E. Castner, A. Graybill, G.E. Henry

CHED 1473. Selective functionalization of the primary rim of alpha-cyclodextrin for practical applications. **J.A. Romo**, O. Bistri, M. Sollogoub

CHED 1474. Conversion of ureas to hydroxyguanidines for conjugation to drug-releasing polymers by nitroso-Diels-Alder reactions. **N.G. Foulon**, M.N. Radford, N.A. Yakelis

CHED 1475. Microwave-assisted hydrogenations using frustrated Lewis pairs. **Y. Miao**, L. Robertson, E.M. Valentin

CHED 1476. Ionic salts of juglone for herbicidal applications. **I.L. Crouch**, T.W. Majors, O.A. Cojocar

CHED 1477. Synthesis and structural characterization of thiophene-fused azabodipy dyes. **C.R. Youshaw**, D. Chase

CHED 1478. Synthesis of secondary amides from amine derivatives and propionitrile using a continuous flow process. **K. Larson**, M.T. Wentzel

CHED 1479. Small molecular study of the dynamic exchange of the thiol-Michael reaction. P. Chakma, B. Zhang, **Z. Digby**, D. Konkolewicz

CHED 1480. Synthesis and NMR characterization of new isatin sulfonic acid thiosemicarbazone compounds. **C.E. Methvin**, E. Rush, E.C. Lisic

CHED 1481. Synthesis and photophysical properties of distyryl β -ketoiminate boron difluoride complexes. **L. Stevens**, C. Moore, D. Chase

CHED 1482. Synthesis and reactivity of (phenyliodonio)pyridines: Reagents for pyridinylation of nucleophiles. **R. Novak**, M.W. Justik

CHED 1483. Synthesis and biological evaluation of caffeic acid phenethyl ester (CAPE) derivatives as xanthine oxidase inhibitors. **S. Onate**, H. Istre, B. Heppler

CHED 1484. Organocatalytic synthesis of N,O-acetals by C–N bond insertion of aldehydes into electronically-activated amides. **T. Wittman**, M. Paeth, C. Rickerman, P. Willoughby

CHED 1485. Withdrawn

CHED 1486. Modified click-style Sonogashira coupling reactions involving silyl-protected alkynes at room temperature. **M.J. Mio**, S.M. Brikho, K. Suiter, M.M. Payne, H. Ali, N.R. Boynton, M.T. Dickow, P.S. Kamash, B.M. Ross, C.N. Sayah, S. Sayed

CHED 1487. Gem-dimethyl moiety β to hydroxyl position promotes cyclooctanoid synthesis via tandem 6-exo dig cyclization/Claisen rearrangement. **W.C.**

DeLomba, T.V. Ovaska

CHED 1488. Exploring the effects of a nitro group and lateral methyl groups on the phase behavior of 1-3-4-oxadiazole-based liquid crystals. **M. Riley**, E. Scharrer

CHED 1489. Salt formation vs. co-crystallization: An exploration of the ΔpK_a rule for a series of aromatic acids and bases. **K. Powers**, D.K. Geiger

CHED 1490. Synthesis of thujone derivatives as potential antibacterial agents. G.E. Henry, **E. Castner**

CHED 1491. Intramolecular spiroether synthesis from peroxy enolates. **L. Fan**, K.T. Kuwata

CHED 1492. Synthesis of tetrahydroquinoline derivatives as novel histamine H_4 receptor antagonists. **H. Chung**, A. Clark

CHED 1493. Synthesis and characterization of novel unsymmetric dithiocarbamate ligands. **R. Blumling**, M.E. Railing

CHED 1494. Synthesis of a nitrogen containing cyclooctanoid structure via tandem 6-exo dig cyclization/Claisen Rearrangement. **N.M. Theopold**, T.V. Ovaska

CHED 1495. Synthesis and NMR analysis of PPDO-TSC and INAP-TSC compounds: Complexation to form their Cu(II) complexes. **G.L. LaSala**, E.C. Lisic

CHED 1496. Synthesizing amines using cyanates and carbamates. **K. Marzotto**, B. Linton

CHED 1497. Design and synthesis of asymmetric ferrocenyl-substituted N-heterocyclic carbenes. **K. Freshour**, M.O. Odago

CHED 1498. Thermal chemistry of spiro[bicyclo[4.2.0]oct-2-ene-7,1'-cyclopropane]. **Y. Zhang**, P.A. Leber

CHED 1499. New rosin materials for the delivery of pharmaceuticals in liquid form. **J. Scantland**, O.A. Cojocar

CHED 1500. Exploring new unsymmetrically substituted oxadiazole-based liquid crystals: Optimization of the synthetic approach and phase behavior. **B. Bordokas**, A. Lisovsky, E. Scharrer

CHED 1501. Synthesis of new AMPY thiosemicarbazone ligands to form their respective Pd(II) metal complexes. **J.D. DeVaney**, W.G. Qualls, W. Carroll, E.C. Lisic

CHED 1502. Synthesis and NMR characterization of chloro-isatin thiosemicarbazone compounds. **J.E. Little**, A.K. Buckner, E.C. Lisic

CHED 1503. Utilization of spent coffee grounds for purification of biodiesel. **K.D. Dema**, J. Leake

CHED 1504. Effects of poor nutritional habits on the active ingredients in oral rinses. **J.O. Graham**, K.M. Halligan

CHED 1505. Synthesis, purification and characterization of the 2-selenylimidazole analog of L-histidine. **A. Schroll**, J.J. Dyer

CHED 1506. Effects of structural variation on aryl aldimine basicities. **N. Capra**, J. Bennett

CHED 1507. Tuning the recognition of biological phosphates by modifying the anion recognition group on a synthetic receptor. **S. Wakefield**, **H.C. Adamson**, K.J. Clear

CHED 1508. Quantification of ethanol in beverages using ^1H NMR. **M.D. Kellner**, J. Bennett

CHED 1509. Replacing liquid:liquid extraction: The use of swellable organically modified silica for the purification of organic compounds. A.N. Whitesell, **N.N. Shaw**, H.K. Huston, J.R. Hinds, E.B. Vaughan

CHED 1510. Synthesis and evaluation of the catalytic activity of a (cyclopentadienone)iron tricarbonyl compound in oxidative and reductive transformations. **E.E. Harrison**, T.W. Funk

CHED 1511. Effect of chain length on gelation ability of several biphenyl long-chain diesters. **S. Moore**, J. Schulman, M. Tran, C. Geiger

CHED 1512. Apocynin as an NADPH oxidase inhibitor. **T. Welsch**, J. David

CHED 1513. Green dehydrations for the undergraduate organic chemistry laboratory. **J.L. Terry**, M.S. Erickson

CHED 1514. Sonicated Mitsunobu reaction: Using the kinetic isotope effect for mechanistic analysis. **A. Intelli**, **M. Vukicevich**, M. Furgione, M. States, R. Heckler, R. Florre, S. Rajaraman, P.G. Cohn

CHED 1515. Withdrawn

CHED 1516. PEG-Stapled peptides: A novel stabilization method. **N. Brown**, Q. Xiao, J.L. Price

CHED 1517. Gold-catalyzed reactions of epoxy esters. **E. Starchman**, C. Enciso, J.R. Vyvyan

CHED 1518. Investigation of long-wavelength, photocleavable protecting groups based on Nile red. **E.R. Ranney**, T.C. Celius

CHED 1519. Development of a dye displacement assay for the evaluation of aldol catalysis. **E. Aguiluz**, L. Witus

CHED 1520. Using rosin based ligands to bind transition metals. **R.H. Hall**, O.A. Cojocar

CHED 1521. N-Substitution of carbazole centered ligands for metal binding applications. **K. Schofield**, A. Brown

CHED 1522. Synthesis and characterization of alkyl-pyrophosphate donors for the chemoenzymatic diversification of natural products. **J. Masterson**, **C. Bandari**, E.M. Scull, R.H. Tran, S. Singh

CHED 1523. Separation and analysis of the products from the reaction of 3-methyl-1-phenyl-2-pyrazoline-5-one and furfural. **A. Serreyn**, J.C. Easdon

CHED 1524. Quantum mechanical investigation of novel Friedel-Crafts acylation products. **A.M. Dove**, W.M.

Ames

CHED 1525. Functionalization of polyacrylates with TEMPO, PEG and hemoglobin binding groups. **M.E. Michaud**, O. Alomainy, A. McMahan, N. Singleton, H.J. Schanz

CHED 1526. Oxidation of secondary aromatic alcohols. **S.W. Baer**, **H. Jia**, L. Farber

CHED 1527. Synthesis and characterization of β -substituted chalcones and alkenones. **E. McClure**, L. Dolph, S.R. Sieck

CHED 1528. Synthesis and spectroscopic characterization of naphthalic anhydride derivatives. **E.C. Olson**, C.H. Battle

CHED 1529. Using the ionic liquid strategy to prevent drug-induced liver injury. **S. Visneski**, O.A. Cojocar

CHED 1530. Towards the synthesis of crassalactone A and development of hetero Diels-Alder methodology to access styryl lactones. **R. Hippman**, J.A. Mueller

CHED 1531. Rapid synthesis of N-(10-chloro-9-anthrylmethyl)-N-methylformamide. **J. Gooding**, L.I. Bobyleva, M.M. Bobylev

CHED 1532. Studies towards the synthesis of lobophoral derivatives. E.M. Valentin, **S. Hackenburg**

CHED 1533. Synthesis and characterization of fluoreno[3,2-b]fluorene derivatives. **V.A. Larson**, J.E. Barker, L.N. Zakharov, M.M. Haley

CHED 1534. Copper-catalyzed approach to beta-lactams. **M. Chaoui**, A.K. Isaacs

CHED 1535. Imine library synthesis via solvent-free reactions. J.E. Thames, S.K. Gillis, **S.M. Kennedy**

CHED 1536. Conformational analysis of β -substituted chalcones. **R. Xia**, T.A. Mobley, S.R. Sieck

CHED 1537. Thermal chemistry of 7-alkylbicyclo[3.2.0]hept-2-enes. **K. Kidder**, P.A. Leber

CHED 1538. Ammonia-borane as a hydrogen source for the reduction of amides to amines under mild conditions. **E. Pappaterra**, H. Dai, H. Guan

CHED 1539. Convenient synthesis of a dicyanoacetylene equivalent: Useful precursor to tetraazaporphyrins. **J. Korenak**, **J.P. Fitzgerald**

CHED 1540. Enantioselective catalysis using chiral Ti-Pd complexes. C. Ence, W. Walker, **E. Martinez**, D. Michaelis

CHED 1541. From detection to complexation: Detecting and removing aluminum from aqueous solutions. J.P. Rickett, J. Bowlin, **M.W. Fulz**

CHED 1542. Design, synthesis, and evaluation of cyanine-like fluorescent dyes for use as surgical tracking and visualization tools. **A.M. Noyes**, V.K. Dunlap

CHED 1543. Effects of adding a biguanide to carbohydrates on blood

glucose reabsorption. **C. Harmon**, J. Chaytor

CHED 1544. Enantioselective cross aldol reactions of aldehydes. **C. Slone**, B.G. Vanness

CHED 1545. Synthesis optimization and applications of a chiral selector adsorbent. **M. Dong**, S.A. Henrie

CHED 1546. Evaluating the potential of DPA to bind calcium, strontium, and barium cations from hydraulic fracturing flowback water. **A.K. Merrill**, **R.M. Moyles**, S.G. Tajc

CHED 1547. Squaramide-based anti-parasitic drugs toward the discovery of novel treatments for American trypanosomiasis. **E.N. Tran**, G.R. Naumiec

CHED 1548. Progress towards amino diversification of thiol phosphonamides. **M. Bidzimou**, S. Bruhn, S.R. Sieck

CHED 1549. Synthesis of a cavitand for use in eight-helix template assembled synthetic protein systems. **J. Delegard**, N.A. Yakelis, J. Freeman

CHED 1550. Synthesis of dianthin G, a peptide that promotes the formation of osteoblasts. **K. Underwood**, N. Toupin, P. Fryfogle, J. Chaytor

CHED 1551. Synthesis and characterization of novel metal-organic frameworks for the destruction of chemical warfare agents. **C. Whitaker**, P. Brennan, T. Hentges

CHED 1552. Synthesis of 2-dimensional aminopolyphenylethynylarenes. **B. Holmes**, T.D. Selby

CHED 1553. Proposed synthesis of anomoian B. **A. Merry**, K. Chan, N.Y. Stessman

CHED 1554. Investigation of electronic variables of x-pyrone-based oxidopyrylium-alkene [5+2] cycloadditions. **J. Shaw**, T.A. Mitchell

CHED 1555. Carbodiimide approach to the synthesis of chiral alpha-amino ester sulfonamides. **S. Waggoner**, S.R. Hitchcock

CHED 1556. Synthesis of 2-dimensional polypyridinylethynylarenes. **R.S. Ruiz**, T.D. Selby

CHED 1557. Investigation of chemoselective benzylic oxidation transforming toluene into benzaldehyde. **C. Carroll**, L. Handlin, B. Sweetman, Y. Liu

CHED 1558. Development of a greener method for modifying silica gel with a dendritic precursor for chiral column chromatography. **A. Forderhase**, S.A. Henrie

CHED 1559. Synthesis of 2-dimensional polyphenylethynylarenes. **K. Harthcock**, L. Bicker, T.D. Selby

CHED 1560. Synthesis of tropone-fused porphyrins. **E.K. Cramer**, T.D. Lash

CHED 1561. Michael reactions of tropone iron tricarbonyl: Towards the synthesis of complex azapolycycles. **D. Griffith**, **S. Valent**, **R. Tritt**

CHED 1562. Intramolecular 1,3-dipolar cycloaddition of a nitrone to a 1,4-quinone. **S.K. Bentley**, W.G. McMahon

CHED 1563. Synthesis of 2-dimensional polyphenylbuta-1,3-diynylarenes. **M. Martin**, T.D. Selby

CHED 1564. Synthesis of indenopyrazole and dihydroindenopyrazole compounds as potential pharmaceuticals. **C. Sullivan**, D. Stanley, F. Peters, M.T. Blankenbuehler

CHED 1565. Organic synthesis of O-acylated amino acid surfactants to examine antibacterial properties. **A. Szczepanski**, D.M. Tobiason, F.H. Billiot, D. Brownholland

CHED 1566. Palladium-catalyzed direct β -heteroarylation of ketones: Unusual domino reaction discovery. **Q. Nguyen**, S. Costan, A. Quillen, L. Ma

CHED 1567. Solid state energy transfer in multi-chromophore thin films of quinolate and BODIPY. **J. Vaal**, D. Eble, J. Acchiardo, K. Goggaravaru, **P. Hewavitharanga**

CHED 1568. Design and synthesis of triazole containing PNA monomers capable of triplex formation with the A-U base pair in double-stranded RNA. **A.K. Williams**, E. Rozners, J.A. MacKay

CHED 1569. Silica gel supported oxidative cleavage of alkynes using a ruthenium tetroxide catalyst. **H. Thompson**, M. Ali, R.A. Ripa

CHED 1570. Why are Hammett constants so effective in predicting the non-covalent binding energies of aromatic interactions: A review. **J. Carey**, M. Roguski, **D.A. Engebretson**

CHED 1571. Preparation and NMR analysis of chalcone derivatives. **A. Zeng**, T. Sapienza, M. Young

CHED 1572. Phosphine-free palladium catalysts for the direct arylation of heterocyclic aromatic compounds. **C. Franklin**, S.A. Alaniz, K.H. Shaughnessy

CHED 1573. Protein phosphatase inhibitors: An analysis of functionality, placement, and stereochemistry. **D. Forbes**, **L. Lopansri**, M. Forbes, H. Bobinger

CHED 1574. Evaluation of long-range hyperconjugation in constrained eight-membered rings. **J. Walters**, B. Bashrum, G. dos Passos Gomes, P. Wiget

CHED 1575. Continuous flow synthesis of quinones. **K. Volpe**, E.E. Podlesny

CHED 1576. Discovery of antibiotic compounds from natural ecological interactions of marine bacteria. **K.M. Greskovich**, S. Mascuch, J. Kubanek

CHED 1577. Synthesis and characterization of porphyrin and bacteriochlorin based glycoconjugates. **M.R. Parris**, **N. Abualeinan**, M.C. Bennion, A. Henderson, D. Dennis, M. Burch, N.L. Snyder, **J.V. Ruppel**

CHED 1578. Flow synthesis of an epoxide and brine shrimp lethality assay. **E. Grubbs**, J.A. Hansen, K. Panos

CHED 1579. Prodrug syntheses

of an inhibitor of the deoxyxylose reductoisomerase (DXR): A potential new antitubercular drug. **I.M. Manning**, M. Munier, D. Lievreumont, C. Grosdemange-Billiard

CHED 1580. Rapid synthesis of N-methyl-N-(4-nitrobenzyl)formamide. **E.A. Hernandez**, L.I. Bobyleva, M.M. Bobylev

CHED 1581. Synthesis and preliminary aqueous kinetic studies of carbinolamides derived from ketones. **R. Eppin**, A.L. Heinold, M. Dalton, R.W. Nagorski

CHED 1582. Progress toward the total synthesis of laurosides B. **V. Lansdale**, G.M. Smith

CHED 1583. Rapid Synthesis of N-(3-fluorobenzyl)-N-methylformamide. **T.A. Skinner**, L.I. Bobyleva, M.M. Bobylev

CHED 1584. Mechanochemical synthesis of diphenylporphyrins. **M. Reyes**, A. Henderson, J.V. Ruppel, T.D. Hamilton

CHED 1585. Rapid synthesis of N-methyl-N-(2-trifluoromethylbenzyl)formamide. **T.A. Dostert-Azzarello**, L.I. Bobyleva, M.M. Bobylev

CHED 1586. Synthesis of stabilizing ligands for metal oxide nanoparticles. **E. Agwarangbo**, Y.A. Tran, V.L. Kolesnichenko, G.Z. Goloverda

CHED 1587. Enhancing an oxidation experiment. **N.J. Beyer**, **V.J. Henry**, **E.J. Popma**

CHED 1588. Synthesis of LpxC substrate analogs for antibiotic. **W. Clay**, B. Lewis, A. Jagger, R.L. Woodward

CHED 1589. Synthesis of generation 3-bis(MPA) dendrimers for nanotherapeutic drug delivery systems. **G. Hodge**, J. Manono, S.C. Dimaggio

CHED 1590. Retro-Diels-Alder reactions of nitrosocarbamimides as potential urea prodrugs. **N.T. Tran**, N.A. Yakelis

CHED 1591. Synthesizing polyhydroxylated indolizidines from D-glucopyranoside. **S. Bryson**, L.J. Liotta

CHED 1592. One-pot preparation of 2,7-disubstituted cycloheptanones and their ring-closing metatheses. **N. Behrens**, A. Yoon, **J.B. White**

CHED 1593. Investigations into the conjugate hydrocyanation of α,β -unsaturated aldehydes in organic synthesis. **V. Nguyen**, M. Hubback, W. Serrano, T. Black, K. Carey, N.C. Kallan

CHED 1594. Mechanisms of flavin cofactors for enzymatic function. **M.A. Smith**, A.W. Jensen, D.K. Mohanty, W.L. Dilling

CHED 1595. Rapid synthesis of N-methyl-N-(3-nitrobenzyl)formamide. **M.D. Rodgers**, L.I. Bobyleva, M.M. Bobylev

CHED 1596. Synthesis, characterization, and phototoxicity studies of novel paraben compounds. **C. Alderman**, K. Pate, K.S. George Parsons

CHED 1597. Rapid synthesis of N-methyl-N-(4-phenylbenzyl)formamide. **M. Gudejko**, L.I. Bobyleva, M.M. Bobylev

CHED 1598. Visible light-induced regioselective remote halogenation of 1,2-diaminobenzene derivatives. **C.R. Smith**, D. Reddy, E. Watkins

CHED 1599. Chemo- and regioselectivity of hydroxyl radical reactions with arenes: How important is hydrogen abstraction? **A. Waggoner**, E.P. Gibson, M.A. Buckles, J.S. Poole

CHED 1600. Rapid synthesis of N-(9-anthrylmethyl)-N-methylformamide. **K.H. Heick**, L.I. Bobyleva, M.M. Bobylev

CHED 1601. Organic dye, visible-light photocatalytic imidation of arenes using N-halo reagents. **F.H. Refai**, D. Rogers, C.A. Cantwell, A.A. Lamar

CHED 1602. Synthesis of 1,2-dihydroisoquinolines. **J. Hendsey**, **J. Nicholson**, A.K. Isaacs

CHED 1603. Retro-nitroso-Diels-Alder reactions of 1-substituted-1,3-cyclohexadienes as a strategy for long-acting drug-polymer conjugates. **M.J. Kim**, J. Wong, N.A. Yakelis

CHED 1604. Modifications to para-menthane-(3,8)-diol to increase mosquito repellency. **H. Nowakowski**, C.M. Taylor

CHED 1605. Process development of a quinone-aldehyde synthesis for the purpose of studying intramolecular 1,3-dipolar cycloadditions. **A.N. Connolly**, W.G. McMahon

CHED 1606. Microwave synthesis of tetraphenylporphyrins and tetraphenylporphyrin derivatives. **E.A. Nalley**, **C. Caveny**, P. Hyolmo, K. Vajrjt

CHED 1607. Synthesis of multi-modal drugs toward treatment of Chagas disease. **R.M. Senn**, G.R. Naumiec

CHED 1608. Rapid synthesis of N-(2-fluorobenzyl)-N-methylformamide. **H.S. Lee**, L.I. Bobyleva, M.M. Bobylev

CHED 1609. Aqueous fluorogenic polymerization for signal amplification. **Z. Allen**, J. Sackey-Addo, C.B. Cooley

CHED 1610. Isolation of saturated pyrrolizidine alkaloids from *Arnebia pulchra*, *Lindelofia anchusoides*, and *Omphalodes verna*. **J.D. Jacobs**, **L.K. Johnson**, **R.A. Davis**, **B.E. Schroeder**, **R.B. Kelley**

CHED 1611. Sulfonamide nucleosides: Synthesis and *in vitro* studies. **H. Jacobs**, **M. Mabry**, A. Awad

CHED 1612. Total synthesis of (+)-bovidic acid. **W.R. Cassels**, K.J. Quinn

CHED 1613. Development of strategies for the synthesis of benziporphyrin dimers. **R.A. Tomlovich**, T.D. Lash

CHED 1614. Synthesis of organic ligands for improving the behavior of luminescent solar concentrators. **G. Ferguson**, **R.C. Chambers**

CHED 1615. Palladium-catalyzed direct α -heteroarylation of ketones: Ketone substrate scope study. **K. Lindsay**, L. Ma, M. Neiser, A. Quillen, A. Rosen, S. Ramirez, Q. Nguyen

CHED 1616. Using ionic liquid strategy

†Cooperative Cosponsorship

to convert phenothiazine drugs to a liquid form. **L. Pipkin**, O.A. Cojocar

CHED 1617. Structure-activity studies in the pair-inclusion motif for peptide recognition by cucurbit[8]uril. **H. Taylor**, Z. Hirani, A. Bockus, E. Babcock, E. Boms, A.R. Urbach

CHED 1618. Synthesis of a divinyllic carbaporphyrin for investigations into Diels-Alder cycloaddition reactions. **A.B. Carroll**, T.D. Lash

CHED 1619. Design and synthesis of an optically active ligand for the asymmetric preparation of non-proteinogenic amino acids. **K. Shoff**, T.K. Ellis

CHED 1620. Rapid synthesis of *N*-(4-fluorobenzyl)-*N*-methylformamide. **S. Park**, L.I. Bobyleva, M.M. Bobylev

CHED 1621. Reactions of imines with Danishefsky's diene. **C. Waters**, **D.P. Predecki**

CHED 1622. Optimization of reaction conditions for a visible-light photocatalyzed bromination of arenes using an organic dye. **R.G. Brown**, A.A. Lamar

CHED 1623. Synthesis of amino acids via diazo keto ester transformation. **N.A. Weirath**, **M. Bryan**, M.A. Lnu

CHED 1624. Dihydroxylation and alkene migration studies en route to altersolanol P. **B.L. Frey**, S.M. Kennedy

CHED 1625. Ugi-Smiles based triazole formation and derivatization. **H. Sperry**, S. Luesse

CHED 1626. Investigation of the role of light in the visible-light photocatalyzed activation of *N*-halosuccinimide reagents. **E.Y. Ko**, M.D. Hopkins, A. Lignieres, A.A. Lamar

CHED 1627. Progress towards the synthesis of the resin merremine E. **D. Schultz**, R. Ulrich, A. Pirinelli

CHED 1628. Solubility effects of sidechain modification in poly(phenylene vinylene) derivatives for use in organic light-emitting diode (OLED) devices. **G. Benito**, E. Evans, C.A. Young

CHED 1629. First survey of solution-state carbon-13 NMR spectra of ambers. **T.A. Contreras**, J.B. Lambert

CHED 1630. Synthesis of the isoindolinone moiety of stachybotrin D: Incorporating greener methods. **K. Alexander**, D.C. Bromfield-Lee

CHED 1631. Synthesis of amine conjugated naphthalimide derivatives. **G. Holtzman**, C.H. Battle

CHED 1632. Chlorination of heteroarenes under non-acidic, visible-light photoredox catalytic conditions. **J.C. Su**, A.T. Espinosa, D. Rogers, A.A. Lamar

CHED 1633. Synthesis and characterization of aza-Diels-Alder products. **B. Hockenberry**, **D.P. Predecki**

CHED 1634. Synthesis of covalently-linked fluorescent dye derivatives. **L. Pferdmenges**, K. Fogarty, P. Lundin

CHED 1635. Progress towards efficient synthesis of morphine analogue using the Wagner-Jauregg reaction. **A. Buck**, S.S. Tartakoff

CHED 1636. Oxidative addition of *para*-substituted aryl electrophiles to predict reaction selectivity. **A. Tomczyk**, A.K. Cooper, D.J. Nelson

CHED 1637. Reactions of acetophenones with nitric acid: The effect of ring substitution on β -nitration versus electrophilic aromatic substitution. **H. Tarbox**, N. Wachter

CHED 1638. Expanding the green scope of pentaerythritol acetal formation. J.R. Marrazzo, S.N. Simon, **S.M. Kennedy**

CHED 1639. Multivalent recognition of distant peptide sites by cucurbit[7]uril. **C. Kodadek**, A. Karla, Z. Hirani, H. Taylor, A.R. Urbach

CHED 1640. Utilization of the Thorpe-Ingold effect to access ketal- and dithioketal-functionalized cyclooctanoids via tandem δ -exo dig cyclization-Claisen rearrangement. **K.A. Alley**, T.V. Ovaska

CHED 1641. Selectivity of Wohl-Ziegler brominations of cyclohexene and *trans*-2-hexene. **R. Dorn**, T.W. Nalli, E. Willcox, J.K. West

CHED 1642. Synthesis of cyclized pharmaceutical precursors via activation of renewable sugars. **T. Schweickart**, J.A. Dabrowski

CHED 1643. Synthetic studies on brevicomin. **W.F. Connors**, **L.M. Howard**, K.J. Quinn

CHED 1644. Selective reactions of cysteine perfluoroaryl thioethers. **A. Resnikoff**, J. Gavenonis

CHED 1645. Epoxidation studies of intermediates en route to altersolanol derivatives. **T.C. Bentzel**, S.M. Kennedy

CHED 1646. Development of synthetic esters for the preparation of sulfinate esters and sulfnamides that minimizes the formation *S*-(*p*-tolyl) *p*-tolylthiosulfonate. **E. Jacobsen**, S.R. Hitchcock

CHED 1647. Exploring the regioselective Diels-Alder reaction scope of 1,4-naphthoquinones. **G.N. Good**, **W. Ma**, S.M. Kennedy

CHED 1648. Design and synthesis of oxadiazinones as tools for asymmetric organocatalysis. **T. Lindvall**, S.R. Hitchcock

CHED 1649. Isolation and elucidation of novel pyrrolizidine alkaloids from *Cryptantha maritima*. **B.L. Stavaas**, **M.M. Gianandrea**, **E.J. Holeman**, **R.B. Kelley**

CHED 1650. Coupling methods for 2,2'-bipyridines as precursors for novel Ru-bipyridine complexes. **A.R. Panson**, **S.B. Vazquez**, **B. Aukszi**

CHED 1651. Synthesis and evaluation of pyridine based quinone methide precursors for aged acetylcholine esterase reactivation. **J. Tabbaa**, A. DeYong, Q. Zhuang, A.J. Franjesevic, C. Callam, C.M. Hadad

CHED 1652. Synthesis and

characterization of meso-tetrakis(5-fluoro-2-methoxyphenyl)porphyrin. **A. Adeyemo**

CHED 1653. Synthesis of hypophosphite esters using transesterification and the primary alcohol dodecanol and nonanol. **E. Shokoya**, S. Deprele

CHED 1654. Synthesis of methoxytetrahydroane and trimethylsilylbicyclobutane. **E. Hickey**, L.J. Tilley

CHED 1655. Synthesizing tetrahydroxylated indolizidines from L-glucose. **M. Pomfret**, L.J. Liotta

CHED 1656. Synthesis of pyridyl and propiyl bicyclobutanes. **G.J. Giardino**, L.J. Tilley

CHED 1657. Synthesis of ergosta-5,22,24(28)-trienol. **C. Hilger**, T.W. Nalli

CHED 1658. Synthesis of sulfur- and nitrogen-containing constrained eight-membered rings for the evaluation of long-range hyperconjugation. **R.E. Lee**, B. Bashrum, G. dos Passos Gomes, P. Wiget

CHED 1659. Effects of alkyl substituents on the kinetics of beta-keto acids decarboxylation in aqueous solutions. **M. Springer**, A. Ignatchenko, W.W. Brennessel

CHED 1660. Synthesis of rasagiline and its derivatives. **T.S. Stercho**, J.K. Vohs

CHED 1661. New approach to the synthesis of 1,4-dithianes. **J.H. Oh**, F. Robertson

CHED 1662. Withdrawn

CHED 1663. Synthesis of amino alcohols from an epoxide. **A. Yu**, J.A. Hansen

CHED 1664. Lewis acid mediated synthesis of sulfonamides from sulfonyl fluorides. **C. Woroch**, M. Ruzznak, C. am Ende, P. Mukherjee, R. Franzese, S. Etuk, S. Kwan, N.D. Ball

CHED 1665. Expedient method to fused sulfur-containing heterocycles. **E. Frisco**, F. Robertson

CHED 1666. Syntheses of laurencione and its derivatives: Is laurencione involved in bacterial communication? **M. Dunbar**, D. Lievremon, C. Grosdemange-Billiard

CHED 1667. MacMillan-type Diels-Alder reactions using PAMAM bound imidazolidinone organocatalysts. **H.N. Koenig**, J.H. Ennist, M. Cloninger, T.N. Jones

CHED 1668. Nucleophilic aromatic substitution: Using microwave chemistry. **A. Madison**, K. Moore, N.H. Tran, L. Winfield, F.L. Payton

CHED 1669. Palladium-catalyzed direct β -heteroarylation of ketones: Reaction condition optimization. **A. Guillen**, Q. Nguyen, M. Neiser, A. Rosen, K. Lindsay, S. Ramirez, L. Ma

CHED 1670. Formation of peptide isosteres via olefin cross-metathesis. **T. Chickering**, B.R. Sculimbrene

CHED 1671. Quantum calculations of bimolecular etherification reaction of

trifluoromethyl peroxides and Grignard reagents. **M. Kim**, K.T. Kuwata

CHED 1672. Hydrogen bonding of leaving group correlation to stereoselective outcome. **K.N. Bluhm**, **S. Easley**, S. Hasty

CHED 1673. Synthesis of *N*-(2,6-dimethylphenyl)-*N*-(2-formylphenyl)formamide. **R. Kutzner**, G. Nocera, J.A. Murphy

CHED 1674. Investigation of 4,2'-pyridine-2-mercaptopyrimidine glycosides. **T. Nolkemper**, **J. Holbrook**, S. Hasty

CHED 1675. Two-step synthesis of complex aryl phosphonates via sequential elimination and 1,3-dipolar cycloaddition. **A. Haugen**, M. Schmid, E. Isaacson, J. Scanlon, P. Willoughby

CHED 1676. Historical pigments: Expanding scope, increased possibilities. **C. Knapp**, J.F. Lomax, S.Q. Lomax

CHED 1677. Aminoglycoside modification: The halogenation of kanamycin A. **S. Moore**, **S.E. Bowman**, A.L. Norris, E.H. Serpersu, D.C. Baker

CHED 1678. Intramolecular 1,3-dipolar cycloaddition of an azidoquinone. **C.A. McCabe**, W.G. McMahan

CHED 1679. Investigation of oxygen tethered pyrones toward [5+2] cycloadditions. T.A. Mitchell, J.R. Goodell, **J. Bulandr**

CHED 1680. Synthesis and reactivity of a variety of 1-aryldiaziridine derivatives. **L. Ostopowicz**, **C. Nowak**

Section H
ErnesN. Morial Convention Center
Halls D/E

Undergraduate Research Posters

Physical Chemistry

Cosponsored by SOCED
N. Di Fabio, J. Roberts, *Organizers*

12:00-2:00

CHED 1681. Investigating computational methods to predict organic redox potentials. **T. Rivera**, B. Levine, D. Hardwick

CHED 1682. Effects of molecular changes on verdet constants of achiral organic solvents. **G. Cifelli**, J. Orr

CHED 1683. Gas-phase spectra of MgO molecules: Possible connection from gas-phase molecules to planet formation. **K. Kloska**, R.C. Fortenberry

CHED 1684. Kinetic analysis of supported lipid bilayer (SLB) formation through variation in lipid concentration. **I. Alhallak**, P.J. Kett

CHED 1685. Development of a reusable colorimetric surface tethered polydiacetylene biosensor. **E.A. Pegues**, P.J. Kett

CHED 1686. Refinement of production grade biodiesel. K.C. McGill, **C. Axt**, **S. Ninneman**

CHED 1687. Thermal decomposition kinetics of select iodate salts. **M.H. Mellinger**, G.M. Bowers, R.K. Larsen

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- CHED 1688.** Equations for calculating limiting conductivities and ion-pair association constants for aqueous KCl under hydrothermal conditions. G.H. Zimmermann, **D.J. Staros**, H. Arcis, P.R. Tremaine
- CHED 1689.** Withdrawn
- CHED 1690.** Collisional energy transfer of highly vibrationally excited C_2H_2 at low temperatures. **J. Kuszynski**, N. West, J. Winner, Z. Buen, R. Bowersox, S.W. North
- CHED 1691.** Spectroscopic and computational study of metformin hydrochloride utilizing Raman under nitrogen spectroscopy to examine lattice structure. **T. Powell**, N. Hammer
- CHED 1692.** Study of the thermodynamics of fluoride-binding to understand the differences in the (heme pocket) structure and function of hemoglobin, myoglobin, and horseradish peroxidase. **A. Frankenfield**, D. Deysher, M. Lockwood, T.S. Nagle, K. Wodzanowski, J. Cerda
- CHED 1693.** Measurement of the activation parameters for fragmentation at penultimate proline in three tetrapeptides. **M.I. Dasch**, E.C. Sward, C.A. Gilmore, D.A. Hales, D. Fuller, T.J. El-Baba, D.E. Clemmer
- CHED 1694.** Reactivity of methane on Ni (111): Exploring high temperature surface sticking. **W. Coreas**, A. Mercier-Patterson
- CHED 1695.** Withdrawn
- CHED 1696.** Unusual structural features of halogen bonded and anion π complexes. **O. Grounds**, S.V. Rosokha
- CHED 1697.** Characterization of a covalently-linked dimer of rhodamine B using fluorescence correlation spectroscopy and fluorometry. **K. Griffith**, L. Pferdmenges, P. Lundin, K. Fogarty
- CHED 1698.** Synthesis of energy transfer systems utilizing guanosine and cytidine base pairing. **J. Hunter**, H. Owens, C.M. Lawrence
- CHED 1699.** Benzobisoxazoles cruciforms: Tunable, cross-conjugated platform for the generation of donor materials for organic solar cells. **L. Rainwater**, A. Burney-Allen, M. Jeffries-El, A.L. Tomlinson
- CHED 1700.** Silicate concentration effects in a "reverse chemical garden" reaction. **D. Chowdhry**, R. Palais, M.A. Horn
- CHED 1701.** Modelling the plant epicuticular layer with wax films. **S. Ly**, A. Edwards
- CHED 1702.** Organic crystals for THz generation. **L. Heki**, G. Valdivia-Berroeta, E. McMurray, S.J. Smith, D. Michaelis, J. Johnson
- CHED 1703.** Withdrawn
- CHED 1704.** Lifetime analysis of species in the laser-induced plasma using different energies on a variety of samples. **P. Morocho**, **A. Colon**, R. Chinni
- CHED 1705.** Molecular dynamics study of the photodissociation of ICN in ethanol. **A. Do**, N. Winter
- CHED 1706.** Gas phase structure and hydrogen/deuterium exchange of protonated tripeptides containing L-phenylalanine. **H.T. Vuong**, E.M. Marzluff
- CHED 1707.** Photoinitiated kinetics in a flow-tube: Characterization and first steps. **J. Scheeler**, A. Case, W. Merrill, F.F. Crim
- CHED 1708.** Temperature dependence of critical micelle concentration and of enthalpy of micelle dissolution for cetyltrimethylammonium bromide (CTAB) and dodecyltrimethylammonium bromide (DTAB). **H.E. Jackson**, L.C. O'Brien
- CHED 1709.** Development of an undergraduate-friendly single-molecule fluorescence system to study DNA base flipping and protein-DNA-interaction in UV-damaged DNA. **J.Y. Lo**, J.L. Godinez, C. Brummel, E.A. Aleman
- CHED 1710.** Withdrawn
- CHED 1711.** Photocatalytic study of the degradation of rhodamine B with reducible metal oxides. **R. Tritt**, A. Bhalkikar, A. Both, C. Cheung
- CHED 1712.** Kinetics of pseudo-first order phase transfer catalytic reactions. **X. Morrison-Wallace**, N. Shabestary
- CHED 1713.** Prebiotic potential of aerosols. **E. Shipley**, N. Bishop, J. Sebree
- CHED 1714.** Photophysical, electrochemical, and spectroelectrochemical characterization and solvent effect on the tautomerism of free-base corrole. **C.L. Reed**, **A. Leon**, **S.K. Mendez**, G.N. Calvillo, E.A. Aleman
- CHED 1715.** Decomposition pathways initiated by $Fe^{+}(^4D)$ and FeX^+ ($X = Cl, Br, I$) in halomethanes with significant global warming and ozone depleting potentials. **A.B. Eden**, C.L. Emmerling, W.S. Taylor
- CHED 1716.** RNA-based coacervate formation in the presence of macromolecular crowders. **B. Miller**, A. Marianelli, C.D. Keating
- CHED 1717.** Photoelectron spectroscopy experiments for the determination of electronic structure and reactivity of atmospheric ions: Ion trapping for improved temperature control. **K. Lister**, J. Melko
- CHED 1718.** Optimized photocatalytic synthesis of amides from amines and aldehydes. **K. Williams**, S.J. Gravelle
- CHED 1719.** Exploring the effects of differing concentrations of PTCDA on solar conversion efficiency and solar absorbance on TiO_2 catalyzed dye-sensitized solar cells. **H. LeClerc**, S.J. Gravelle, S.J. Pillsbury
- CHED 1720.** Characterization of a carbon dioxide-hexafluorobenzene complex using matrix isolation infrared spectroscopy. **Y. Payagala**, J.C. Amicangelo
- CHED 1721.** Fabrication and characterization of chalcone films with dispersed graphite nanoplatelets. **W. Bowling**, K. Cooper
- CHED 1722.** Investigating pharmaceutical crystal structures by ^{15}N chemical shift anisotropy. **J.T. Hosfelt**, S. Stuchell, R. Lulicucci
- CHED 1723.** *In situ* photo-kinetics and spectroscopy of organic aerosols. **N. Bishop**, E. Shipley, J. Sebree
- CHED 1724.** Binary phase diagrams of organic phase change materials. **D. Guo**, G.R. Van Hecke
- CHED 1725.** Structure of surfactant and polyelectrolyte stabilized hexadecane nanoemulsions. **B. Hickam**, A. Carpenter, G.L. Richmond
- CHED 1726.** Applications of TGA/DSC in energy science and energy geochemistry. **K. Huerta**, G.M. Bowers, S. Cuniff, R.K. Larsen
- CHED 1727.** Spectator ion effects in a "reverse chemical garden" reaction. **C. Cowley**, R. Palais, M.A. Horn
- CHED 1728.** Flow velocity effects in a "reverse chemical garden" reaction. **L. Butts**, R. Palais, M.A. Horn
- CHED 1729.** Characterization of the local dynamics of isotactic polystyrene in semi-dilute solution by NMR spin-lattice relaxation experiments and molecular dynamics simulations. **M. Meirow**, M.M. Fuson
- CHED 1730.** Laser ablation/molecular jet laser excitation spectroscopy of CaNCO. **D.M. Filion**, **B.T. Russ**, P.M. Sheridan
- CHED 1731.** Computational study of aluminum monoisocyanate isomers. **B.T. Russ**, P.M. Sheridan
- CHED 1732.** Raman spectroscopic studies of interactions between metal ions and ceramics. **K. Quist**, N. Hammer
- CHED 1733.** Characterization of DNA intercalation mechanisms of novel chemotherapy drug analogs. **K. Murphy**, **A. Peck**, S.S. Tartakoff, S. Glazier
- CHED 1734.** Raman spectroscopic and computational study of hydrogen bond interactions between urea, guanidine, and water. **A.D. Kamischke**, M.H. Byrd, S.A. Smith, D.H. Magers, N. Hammer
- CHED 1735.** Withdrawn
- CHED 1736.** Identification of unknown compounds produced in shock experiments. **J. Robbins**, V.P. McCaffrey, N. Zellner
- CHED 1737.** Analysis of commercial oxidative hair dyes using surface-enhanced Raman spectroscopy. **A. Henke**, N. Hammer
- CHED 1738.** Surface chemistry of crystal violet on titanium dioxide under acidic condition. **P. Raut**, K. Plotzke, J. Sebree, S. Coon
- CHED 1739.** Withdrawn
- CHED 1740.** Probing the structure and dynamics of the S21 pinholin protein. **R. Serafin**, D. Drew, G. Lorigan, I. Sahu, R. McCarrick, T. Ahammad
- CHED 1741.** Activation parameters for peptide cleavage at the penultimate residue: Dependence on identity of Yyy in XxxYyyGlyGly. **C.A. Gilmore**, M.I.
- Dasch, E.C. Sward, D.A. Hales, D. Fuller, T.J. El-Baba, D.E. Clemmer
- CHED 1742.** Raman under nitrogen spectroscopy (RUNS) and surface-enhanced Raman spectroscopy under nitrogen (SER SUN) of carbaceous materials. **C. Smith**, N. Hammer
- CHED 1743.** Studying the effects of hydrogen bonding in triazole and its derivatives. **L.A. Wallace**, A. Craig, J.H. Delcamp, G.S. Tschumper, N. Hammer
- CHED 1744.** Numerical and experimental study of calcium dynamics in the presence of environmental noise. **M. Moreno**, **C. Rosa**, S. Walker, J. Fry, S. Kadar
- CHED 1745.** Solubility, UV/Vis, and fluorescence study of various 2-aryl-3H-imidazo[4,5-b]pyridines. **A. Podgurski**, **S. Haddad**, K. Bernard, R.B. Mulligan, J.K. Murray
- CHED 1746.** Examining the photophysical properties of ibuprofen to develop a more effective method for screening drugs for photosensitive side effects. **N. Schug**, A. Bills
- CHED 1747.** Non-resonant two-photon excitation of photocaged compounds. **E. Lorenzo**, S. Senadheera, A.L. Houk, R.S. Givens, C.G. Elles
- CHED 1748.** Understanding the effect of osmotic pressure on the adsorption and rupture of phospholipid vesicles on a silicon dioxide surface. **A. Krone**, P.J. Kett
- CHED 1749.** Investigation of silica/titania composite materials doped with graphene oxide (GO) as substrates for plasmon-free surface enhanced Raman spectroscopy and analysis of GO defect density after thermal reduction. **L. Perez Morales**, E.J. Atkinson
- CHED 1750.** Effect of the Hofmeister series on supported lipid bilayer (SLB) formation. **I.H. Shah**, A. Krone, P.J. Kett

Section H Ernest N. Morial Convention Center Halls D/E

Undergraduate Research Posters Polymer Chemistry

Cosponsored by PMSE, POLY and SOCED
N. Di Fabio, J. Roberts, *Organizers*

12:00–2:00

CHED 1751. Developing and standardizing a methodology to investigate antibacterial surface coatings against *Escherichia coli* and *Staphylococcus aureus*. **R.T. Laemmle**, M. Jung, C. Horgan, A. Jaber, M. Yandian, E. Baulsir, R.W. Gurney, E. Scott

CHED 1752. Synthesis of an optoelectronic covalent organic framework from anthrone. **G.H. Pearson**, K. Allen

CHED 1753. Solid phase organic synthesis approach to polymers based on alternating ring opening metathesis polymerization. **I.H. Khan**, G. Li, G. Youn, L. Chen, N.S. Sampson

CHED 1754. Method for quantifying the oxidation within polymers using ATR-FTIR. **T. O'Keefe**, R. Duckworth, E. Hill, B. Hinderliter, M.A. Maurer-Jones

CHED 1755. Quantification of environmental photo-crosslinking in poly(butylene adipate-co-terephthalate) polymer. **E. Monzo**, M.A. Maurer-Jones

CHED 1756. pH-responsive polymeric vesicles as drug delivery systems. **A.E. Dubos**, D. Fish

CHED 1757. Biomass based polyurethanes and the effects of stereochemistry on physical properties. **S. Silver**, J.G. Kennemur, R.J. Kieber

CHED 1758. Elaboration, characterization & biodegradation of partially bio-based polymer composites in aerobic and anaerobic conditions. **K. Wendover**, R. Bayard, V. Massardier, M. Valente, A. Quitadamo

CHED 1759. Modifying biopolymers for medically desirable outcomes. **A. Malik**, K. Broaders

CHED 1760. Polymers of intrinsic microporosity with photoswitchable azo functional groups. **J.H. Hsu**, M. Klimes, M. Haaf

CHED 1761. Surface initiated ATRP on SS316L for corrosion reduction. **E. Allego**, A.J. Rupprecht, A.M. Blystone, E.S. Gawalt

CHED 1762. Progress towards synthesis of an AB monomer for a Wittig polymerization. **H.J. Smith**, R. Posey, N.E. Huddleston

CHED 1763. Raster solvent vapor annealing of semi-crystalline homopolymer films. **D. Christiansen**, S. Bliesner, J. Albert

CHED 1764. Silyl ether-hydroxyl exchange in vitrimer systems. **H.J. Bates**, D.J. Fortman, W. Dichtel

CHED 1765. Aerosol preparation of spherical metal oxides for the purpose of surface modification. **A.L. Bielski**, F.C. Mayville

CHED 1766. Effect of molecular weight and acrylate ratio on glass transition temperature of ionomers. **D.M. Lewis**, K.A. Cavicchi, J. Marin Angel

CHED 1767. Calorimetry reveals differences in lipid membrane interactions of cell-penetrating peptides. **A. Folska**, L. Prevette

CHED 1768. Renewable polymers from itaconic acid. **A.R. Wong**, J.T. Trotta, A.M. LaPointe, B.P. Fors

CHED 1769. Synthesis of synthetic mimics enriched tryptophan copolymers for the use in antimicrobial studies. **J. Ewing**, S.G. Mankoci, A. Joy

CHED 1770. Exploration of drug release profiles of several NSAIDs encapsulated in varying chain lengths of polyethylene glycol (PEG) polymer-silica composites. **T.R. Kuntz**, D. Fish

CHED 1771. Acid-sensitive polymersomes from diblock copolymers for glucose-responsive insulin. **J. Queenan**, L.E. Prevette

CHED 1772. Characterization of polyhydroxyalkanoate enzymatic degradation products by mass spectrometry. **H.M. Blevins**, S. Baron

CHED 1773. Synthesis and characterization of porous starch-based adsorbents. **G.A. Lang**, **J. Castro**, I. Nelson, S.E. Naleway, C. Gorney, P.M. Iovine

CHED 1774. Polysaccharide-based hydrogels incorporating iodine-loaded starch granules. **M. Tran**, P.M. Iovine

CHED 1775. Synthetic routes to polyprene-polysaccharide conjugates via [4+2] cycloaddition intermediates. **B.J. Orzolek**, P.M. Iovine

CHED 1776. Probing the reactivity of amine-end functionalized starches. **J.B. Young**, C. Pham, P.M. Iovine

CHED 1777. Main-chain triazoline polymers and their conversion to poly(aziridines). **A.C. Saiz**, P.M. Iovine

CHED 1778. Indophenine as a donor-acceptor copolymer. **A. Helmin**, W.D. Wilcox, T.M. Pappenfus

CHED 1779. Tri-block copolymer self-assembles and biodegrades for drug delivery. **B.C. Haas**, L.E. Prevette, J.T. Ippoliti

CHED 1780. Acetylated and phosphorylated G5 poly(amidoamine) dendrimers for gene delivery: Balancing toxicity and DNA packaging efficiency. **T. Wieser**, L.E. Prevette

CHED 1781. Synthesis of G1-ligand complex for nanotherapeutic drug delivery systems. **O. Morrison**, J.M. Manono, S.C. Dimaggio

CHED 1782. Investigating the binding thermodynamics of polycation-coated Au nanoparticles to gram-positive cell walls. **H. Ganzel**, L.E. Prevette

CHED 1783. Investigation of the antimicrobial activity of quaternized ammonium containing polymer chains. **C. Marick**, D. Fish

CHED 1784. Synthesis of monodisperse dendrimers for potential drug delivery materials. **B. Derbigny**, J. Manono, S.C. Dimaggio

CHED 1785. Analysis of intermolecular interactions in hydrazide containing metallogels. **Z.T. Armstrong**, J.L. Crane

CHED 1786. Preparation of surface-grafted poly(3-hexylthiophene) brushes using an easily cleavable self-assembled monolayer. **K. Campbell**, P. Lundin

CHED 1787. Synthesis of donor-acceptor dyads as a model for the active layer of single component organic photovoltaics. **R. Glass**, P. Lundin, G.B. Griffin

CHED 1788. Investigating novel hydrogel materials with thiol-ene click copolymerizations. **N. Schramm**, H. Zhu, J. Cubuk, M. Jani, D. Shah, S. Qavi, R. Foudazi, S. Rajaraman, P.G. Cohn

CHED 1789. Structure-property studies of anion-responsive liquid crystals. **H. Batchelor**, **B. Bouchard**, S. Cordero, L. Lam, K.A. Grabias, P.G. Cohn

CHED 1790. Improving the mechanical properties of Poly- β -valerolactone through aryl ring stacking and hydrogen bonding interactions. **F. Wenrich**, **L. Schroeder**

CHED 1791. Using multi-step synthesis for the production of hydrogels with adhesive properties. **M. Alcantar**, C.H. Lisse

CHED 1792. Investigating oxidized alginate-based fibers for biomedical applications. **A. Wilson**, W. Weeks, K. Penton, S.K. Hamilton

CHED 1793. Covalent organic frameworks for optoelectronic applications. **N. Sukanick**, K. Allen

CHED 1794. Synthesis of thermo-responsive functional poly(valerolactone)s via post-polymerization modification. **A. Yiu**, S. Sweningson, J. Hao

CHED 1795. Synthesis, self-assembly, and temperature-responsiveness of novel functional poly(valerolactone)s. **S. Sweningson**, A. Yiu, J. Hao

Implementing ACS Safety Education Guidelines
Sponsored by CHAS, Cosponsored by CCS and CHED

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC[†], MPPG[†] and PREST[†]

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

MONDAY EVENING

Section A
New Orleans Marriott Convention Center
Blaine Kern F

STRETCH Your Students' Minds by Using Materials to Engineer Ideas about Water, Food & Energy in the Chemistry Classroom

Financially supported by IPEC
S.C. Rukes, *Organizer, Presiding*

5:00 Introductory Remarks.

5:05 CHED 1796. Demonstrations and lab activities on a shoestring budget for all levels: A make and take session. **S.C. Rukes**

6:05 Intermission.

6:10 CHED 1797. Learning what AACT has to offer: Examples of resources from ACS and AACT. **J.L. Ball**, **S.C. Rukes**

6:45 CHED 1798. Ways of demonstrating and explaining matter and energy to middle school children. **J.D. Wilson**

7:20 Intermission.

7:25 CHED 1799. Converting chemistry activities to align with next generation standards. **K.B. Gosciniaik**

8:00 CHED 1800. Augmented reality and the atomic model. **K. Cusachs**

8:35 Concluding Remarks.

Section B
ErnestN. Morial Convention Center Halls D/E

Sci-Mix

C.V. Gauthier, A.L. Marsh, N.L. Snyder, *Organizers*

8:00-10:00

18, 58, 61, 88-89, 94, 105, 107, 109, 125, 127, 129-130, 131, 134, 136, 139, 146, 152, 170, 176-177, 179, 183, 191-192, 228, 231, 239, 243, 282-284, 1681. See previous listings.

1962, 1964, 1997, 2010, 2027, 2031, 2039, 2045, 2048, 2093, 2101-2102, 2106, 2129, 2133. See subsequent listings.

Section B
ErnestN. Morial Convention Center Halls D/E

Successful Student Chapters

N. Di Fabio, J. Roberts, *Organizers*

8:00-10:00

CHED 1801. Greening up the Reddies: Success with green chemistry at Henderson State University. **A. Eckerstorfer**, **C.M. Clem**, **C.W. Lechak**, **N. Steadman**, D. Bateman, B.A. Rowland

CHED 1802. Mississippi College's ACS student chapter: Using green chemistry in a garden. **K. Saleem**, **M. Martin**, T.D. Selby

CHED 1803. Motivating children, high school and undergraduate students with science through chemistry experiences. **A. Baez**, **D. Ciuro**, **K. Villa**, **A.S. Breton-Vega**, N.F. Morales-Pennington, J. Santos

CHED 1804. ACS-UPRB implementing community outreach through chemical education. **N.I. Estarellas San Miguel**, **D. Rivera-Rodriguez**, **R. Gracia Colon**, **C.D. Golderos-Trujillo**, **J. Ulloa**, L. Santiago, J. Oyola

CHED 1805. Fun of teaching teachers. **A. Guzman**, L. Santos

CHED 1806. Minot State University Student Chapter of the American Chemical Society. **J. Torgunrud**, M.M. Bobylev

CHED 1807. ACS Inter-Ponce food chemistry fun project. **S. Baez**, **C. Goicochea-Alvarado**, V. Torres Mejias, S. Meletiche Sepúlveda, A.G. Colon Santiago, E. Ferrer Torres

CHED 1808. Inter Ponce green division stands with Puerto Rico. **C. Cortes Bula**, **J. Costas Feliciano**, E. Ferrer Torres, A.G. Colon Santiago

CHED 1809. Friendship is magic: The Detroit Mercy Chem Club takes on sci-fi conventions. **M.J. Mio**, J. Pothoof, D.N. Maxwell, K. Suiter, R. Zouabi, T. Tieu Ngo, M. Bhagwagar, M.M. Payne

CHED 1810. Mole Day murder mystery: A chemical twist on a classic game. **M.J. Mio**, J. Pothoof, D.N. Maxwell, K. Suiter, R. Zouabi, T. Tieu Ngo, M. Bhagwagar, M.M. Payne

CHED 1811. Women in STEM: A topic worth discussion. **M.J. Mio**, J. Pothoof, D.N. Maxwell, K. Suiter, R. Zouabi, T. Tieu Ngo, M. Bhagwagar, M.M. Payne

[†]Cooperative Cosponsorship

- CHED 1812.** Academia Ponce Interamericana; promoting leadership and STEM. **A. Ruiz Ferrer, J.G. Noel Torres, C.B. Pellicier Rodriguez, M. Negron Garcia, E. Ferrer Torres**
- CHED 1813.** ACS Inter Ponce: Puerto Rico goes forward. **V. Torres Mejias, F. Rodriguez Reyes, E. Ferrer Torres**
- CHED 1814.** Making a difference: One group's work in community service. M. Nicolay, J. Bowlin, B. Graham, H.M. Payne, **M.W. Fultz**
- CHED 1815.** Understanding our Heritage: Learning the history of the Chemical Valley. J.P. Rickett, H. Aliff, **M.W. Fultz**
- CHED 1816.** Co-founders step-in to revamp the chemistry club after declining interest and participation. **M.M. Lopez, N.A. Osti, Z. Barcenas, J. Salazar, M. Flores, M. Lopez, G.R. Shelton**
- CHED 1817.** Inspiring tomorrow's society through the transforming power of chemistry. **L. Martir, I. Montes, G. Duran Camacho, D. Diaz, A. Rodriguez, S. Fuentes, J. Martinez, A. Gonzalez, E. Pagan, V. Soto, C. Maysonet, G. Colon**
- CHED 1818.** Mississippi College ACS student chapter activities and events. **J. Bethea, B. Montague, E. Robertson, T.D. Selby**
- CHED 1819.** Siena College Chemistry and Biochemistry Club: The benefit of being connected. **S.C. Curtsinger, E.L. Smith, N. Howells, Z.T. Farina, J.L. O'Donnell, J.W. Karr**
- CHED 1820.** ACS student member events, activities, and accomplishments at Duquesne University. E. Cooper, S. Shaik, L. Andreola, E. Castele, M. Baldwin, A. Schultz, P. Zakutansky, **H. Gering, E.R. Leung, K. McDougal, E. Allego, A. Miskalis, P. Johnson, E.S. Gawalt, J.D. Evanseck**
- CHED 1821.** Interrelationships between green chemistry, sustainability, and the community. X. Huang, C. Fisher, M.J. Kim, A. Klussmann, K. Johnson, A.M. Munro, **J. Freeman**
- CHED 1822.** Centenary College chemistry club: Connecting chemistry with community. **G. Doucet, M. Abo-Zahrah, N. Walker, B. Jackson, T.M. Tichich**
- CHED 1823.** Chapter activities for the Henderson State University Student Affiliate Chapter in 2017. **C.M. Clem, L. Russell, A.M. Noyes, C. Smith, D. Bateman, B.A. Rowland**
- CHED 1824.** Community engagement through chemistry and science education series. **C.M. Schreidah, M.P. Klingberg, E.N. Kenney, G.T. Hymel, M.J. Demmings, E.T. Diemler, J.D. Koffman, O.M. Tharp, J.P. Fife, D.K. Kaeley, N. Mai, E.P. Kippenhan**
- CHED 1825.** Infusing diversity and inclusion initiatives into the Student Chemists Association at The College of New Jersey. **S. Liang, A. Smith, B.A. Bogin, C. Mileham, J. Steets, R. Goncalves, B.C. Chan, A.R. O'Connor, M.R. Bunagan**
- CHED 1826.** South Dakota School of Mines and Technology: A successful student chapter of the American Chemical Society. **H.G. Leppert, J. Swanson, K. Giorgio, M. Acevedo, J. Meyer**
- CHED 1827.** Wayne State University American Chemical Society-Student Affiliates. **P. Marshall, D. Klemet, A. Prenkocevic, M. Silenski, A. Alnabolsi, R. Araj, M. Rayes**
- CHED 1828.** Delta State University ACS: Serving the MS delta through outreach and professional development. **A. Camarillo, Z.K. Kinler, K. Penton, S.K. Hamilton**
- CHED 1829.** Dynamic activities of the ACS student chapter at Inter American University of Puerto Rico -Metropolitan Campus. K.A. Parga Rivera, **P.E. Peña-González, K.F. Coballes**
- CHED 1830.** Fund raising as a compromise to maintain the student chapter united. **G.E. Martínez Bracero, E.d. Franceschini Silva, S.M. Vargas Padilla, E.N. Garcia Acosta, P.N. Silvestry Padilla, A. González Mederos**
- CHED 1831.** Withdrawn
- CHED 1832.** Successful ACS student chapter at Wilkes University: Community outreach events that apply green chemistry principles and science education. **A. Black, N. Fitzpatrick, J. Larsen, H. Arcure, M. Youmans, C. Henkels**
- CHED 1833.** Chemistry is central at UCO. **C.B. Frech, D.R. Rundle, G. Rodriguez, E. Cline, K. Bennett, E. Welander, L. Brown, M. Raischel**
- CHED 1834.** Grizzlies get their growl on: Georgia Gwinnett College chemistry outreach. **A. Ko, M. Roark, K. Coscia, D. Munna, R.K. Kalman, G.E. Rudd**
- CHED 1835.** Saint Francis University Chemistry Club: Creating unbreakable bonds. **P.T. Kasunic, M.E. Hogue, K.S. Patterson, H. Schorr, E.P. Zovinka**
- CHED 1836.** IVCC finds the perfect solution. **R. Schulz, J. Hall, M.E. Jhll, P.K. Yong**
- CHED 1837.** KU Chemistry Club: Strength through recruitment, engagement, and professional development. **E. Lorenzo, C.D. Clay, R.M. Walsh, K. Kao, R.S. Black**
- CHED 1838.** Activities of the Southwestern Oklahoma State University Chemistry Club. **W. Hill, E. Allbritton, E. Hicks, D. Widick, K. Shoff, J.C. Henrikson, T.K. Ellis, L. Gwyn**
- CHED 1839.** Student Members of the American Chemical Society, Hofstra Chapter. **A. Sica, G. Kroening, H. Tarbox, M. Saleem, M. Currie, V. Zhang**
- CHED 1840.** Creating a community at Stony Brook University. **C. Weidner, J.A. Daly, K. Nickson, J.E. Zambito, J. Mallon, J. Zheng, K. Aubrecht**
- CHED 1841.** Chemistry Rocks at Georgia College. **M. Schellman, A. Hanna, E. Bullington, A. Stapleton, T. Oderinde, C.H. Lisse**
- CHED 1842.** Urban vegetable garden: Study of nutrients and limiting factors in plant viability. **J. Days, L. Valientes, N. Fernandez, A. Vega, T.L. Hall, K. Pierre, M. Lewis**
- CHED 1843.** Erskine Chapter ACS: A catalyst in our community. **K. Squiggins, K. Richey, A.C. Hartley, P.A. Skerratt, A. Coker, J.E. Boyd, T.R. Hayden**
- CHED 1844.** Chemistry, community, camaraderie, and career preparation: Realizing the "Four C's" through student activities at the University of New England. **K.A. Chalmers, J. White, A.E. Keirstead**
- CHED 1845.** Chemistry Fun at NSU. **A. Chung, S.B. Vazquez, B. Aukszi, M. Ballester**
- CHED 1846.** TCU Chemistry Club: Community STEM education programs in DFW and methods of organization and communication. A. Vu, M.M. Barnett, B. Niebuhr, N. Schmitt, T.M. Schwartz, K. Ji, K. Wegener, K. Chaker, C. Keller, J. Snowden, H. Conrad, J. Fry, **K.N. Green**
- CHED 1847.** Spreading interest and opportunities in chemistry from elementary schools to universities in Philadelphia. **J. Olivencia, K. Strouse, S.A. Fleming**
- CHED 1848.** American Chemical Society Student Chapter of Idaho State University. **B. Poulter, M. Mangun, S.F. Spradlin, L.J. Maxton, E.A. Morley, J.J. Pak, C.M. Evilia**
- CHED 1849.** Santa Monica College Chemistry Club promotes community involvement and environmental awareness. **D. Sulca, K. Wannemo, T. Meziab, A. Gaynes, C. Lee, A. Ignant, T. Pecorelli, J.M. Hsieh**
- CHED 1850.** DeSales University Student Affiliate of ACS. **B. Gillott, K. Alderfer**
- CHED 1851.** SIUE Chemistry Club: Promoting chemistry and science learning to the campus and community abroad. **H.K. Lupton, G. Hansen, S. Hayes, R. Bryant**
- CHED 1852.** Kent State SAACS: Rebuilding a Chapter. **S. Kempf, Y. Zheng**
- CHED 1853.** Green chemistry and outstanding chapter award winning activities of Midland College Chemistry Club. **D. Bloomgren, S. Mohiuddin, N. Adams, Z. Isa, M. Martinez, J. Anderson, P. Kesavan**
- CHED 1854.** Mad Scientist Day junior event impact on Birmingham, Alabama. **R.J. Murphy, E. Quarato, K.C. Deneen, J.A. Nikles**
- CHED 1855.** Developing into a outstanding student chapter: A student focused approach. **D. Gepford, T. Ostrom, A. Stothard, J.M. Groenevelt, R. Adams, D.J. Lecaptain**
- CHED 1856.** UCA ACS: Power in numbers. **S. Margis, S. Turner, C.L. Emmerling, E.N. Tran, J. Schneider, S. Stokes, G.R. Naumiec, F.M. Yarberr**
- CHED 1857.** Straight out of Compton... Science Center. **A. Jones, S. Marcelino, B.N. Norris**
- CHED 1858.** Activities of the Spelman College ACS Chapter. **K. Fontan, F. Fullilove**
- CHED 1859.** Park University CHEM Club 2017-2018. **J. Pham, G. Stelmacovich, A. McMullen, J. Berry, M. Klein**
- CHED 1860.** Increasing chemistry outreach in Southeast Missouri. **K. Ihns, H. Hufford, K. Jefferson, H. Huffstедler, K. Bunselmeyer, B. Miller, S.E. Shaner, C. Ragain**
- CHED 1861.** Catawba College shows chemistry rocks. **T.D. Williams, C. Saner**
- CHED 1862.** Chemistry in Boston: Northeastern University Student Chapter bonding with its communities. **D. Dang, J.Y. Chen, S. Narasimhan, D. Cehreli, L. Po**
- CHED 1863.** Otterbein Student Chapter: Moving involvement off campus. **E. Isaacs, D.H. Johnston**
- CHED 1864.** Serving with science: Outreach with the UM-Flint Chem Club. **C. Wilhelm, D. Corey, L. Harris, N.D. Alawwa, M. James, E. Kiser, M.K. Alsarraj, M.R. Wilhelm, J.L. Tischler**
- CHED 1865.** Millersville University American Chemical Society Student Chapter. **J.E. Thames, S.K. Gillis, G.H. Pearson, L. Ostpowicz**
- CHED 1866.** Tarleton Chemical Society—sharing our past, celebrating our future. **K.L. Bullard, J.D. Murphy, L.D. Schultz**
- CHED 1867.** Olivet College Gruen Chemistry Society: Student affiliate activities. **B. Sturgeon, J. Kiess, A. Gruszka, I. York, S.M. Lewis**
- CHED 1868.** Science club activities at the College of Mount Saint Vincent for 2017-2018. **T. Chin, N. DeSouza, P.K. Kerrigan**
- CHED 1869.** Southeastern Oklahoma State University ACS Student Members: 50 years of chemistry from the savage storm. **E. Landers, P.S. Whitehead, S. Goff, A. Castaneda, P. Thomas, N.L. Paiva**
- CHED 1870.** Saint Vincent College Chemistry Club. **J.A. Hungerford, K.A. Thomas, H.N. Hosack, J. Centore, D. Fish**
- CHED 1871.** Xavier University of Louisiana's ACS Student Chapter: A chemical force for good in the greater New Orleans area. **J. Adkins, A. Andre, R. Miles, J. Malone, E. Cubit, M. Crawford, A. Stephens, A. Madison, M.R. Adams, C.M. Lawrence**
- CHED 1872.** Promoting chapter growth within Nittany Chemical Society with increased collaboration and events. **E. Gogarnoiu, L.C. Velazquez Bello**
- CHED 1873.** Balancing the right campus involvement equation. **S.M. Szwedo, J. Desai, I.D. Lykens**
- CHED 1874.** Barry University Chemistry Club: Fostering an inclusive scientific community and improving science outreach every day! **L. Mesa, E. Paulus, D. Cordero, N.A. Maxi, C. Joseph, G.H. Fisher, T. Hamilton**
- CHED 1875.** ACS UPR-Aguadilla an outstanding legacy: 15 years of successful history. **C.M. López-Hernández, M.L. González-López, S.M. Escobar Avilés, R.A. Estremera-Andújar, C.A. Nieves-Marrero, B.J. Ramos-Santana**
- CHED 1876.** SMSU Chemistry Club through the years. NJ. Beyer, **V.J. Henry, E.J. Popma**

CHED 1877. Aquinas Chemistry Society: Service, leadership and education. **N. Strobel, M.P. Mata, A. Gaspar, S. Clark, S. Hicks, E.A. Jensen**

CHED 1878. Creative uses of National Chemistry Week themes throughout the years by Florida International University, Biscayne Bay Campus Science Club. **D. Read, J. Glenny, S. Castaneda, M. Michel, M. Wharton, M. Delgado, L. Valientes**

CHED 1879. Pasadena City College (PCC) Chemistry Club. **F. Castro, J. Hernandez, V.I. Jaramillo**

CHED 1880. Malloy Chemical Society. **L. Bui, E. Brutschea, I. Armento, A. Russell**

CHED 1881. Fat Tuesday: Nexus of food, energy, and water. **L. Farber, S.W. Baer, R. Russo, C. Domville, H. Jia, B. Kalach, R. Yozzo, A. Balesano, B. Yesko**

CHED 1882. Take it to the hood: Effective ways to engage the campus and surrounding community. **J. Gearhart, C. Kristoff, A. Freiburger, J. Layton, C. Gething, E.A. Baldauff**

CHED 1883. Suffolk University: Outreach, involvement, education. **K. Jenkins, L. Huoth, B. Gemechu, L. Riffert, N. Grimaud, E.J. Enyedy**

CHED 1884. On the road again: Developing our chapter through service, locally and beyond. **L. Atlas, Q. Dougherty, V. Ganss, A.H. Kjellson, S. Lareau, I.J. Levy**

CHED 1885. ACS Student Chapter at the University of Utah. A.D. Lore, S. Lee, M. Pham, R. Reynolds, A.M. DeGrauw, D. Drapeau, S. Morgan, **C. Coplan, K. Alvarez, A. Thomas, A. Borodai, H.L. Sebahar, T.G. Richmond**

CHED 1886. ACS student chapter at the University of Tennessee at Martin. **S.E. Max, S. Oliva, T. Rinehart, B. Ide, A.H. Shelton**

CHED 1887. Catalyst for a brighter future: UCSD American Chemical Society-Student Affiliates. **S. Lee, T.J. Bussey**

CHED 1888. Chemistry Club at Carthage College. **B. Bresnahan, L. Sanford, R. Geoghegan, H. Miles, L. Hall, S. Franklin, J.S. Kirk**

CHED 1889. Eastern Oregon University ACS Student Member Chapter: Promoting community outreach and professional networking. **Q.C. Durfee, J.D. Jacobs, M. Wynn, E.J. Holeman, B.L. Stavaas, A.G. Cavinato**

CHED 1890. American Chemical Society Student Chapter at the University of St. Thomas, Houston, TX. **A.V. Hernandez, C. Luong, Y. Tran, V. Hoang, A. Nguyen, E. Evans, C.A. Young, J. Hollingsworth**

CHED 1891. Lobo Chemistry Club: American Chemical Society student chapter at the University of New Mexico. **E. Hjelvik, C. Hunter, B. Villalva, K. Thompson, J.R. Terr**

CHED 1892. Inspiring scientists of the future: Encouraging diversity in the STEM fields. **M.E. Hackey, K. Letson, H. Wakidi, S.K. O'Shea, C. Murphy**

CHED 1893. Chemistry outreach with Heidelberg University's ACS Chapter. **K. Scrudders, A.F. Bauer, D. Blum, R. Webb, R. Raimondo, N. Beres**

CHED 1894. Student members of the American Chemical Society at the University of Tampa. **N. Zembol, L. Triesdale, J.A. Struss, L. Henchey**

CHED 1895. University of Minnesota-Morris ACS student chapter. **D. Schultz, E. Trieu**

CHED 1896. Western Washington University Student Chapter of the American Chemical Society. **C. Crickmore, S. Neely, S.R. Emory, E. Raymond**

CHED 1897. Highlights of the activities of the University of Szeged ACS Student Chapter. **B. Bohner, B. Csipak**

CHED 1898. Making the connection between science and crime solving with today's youth. **J. Stetzler, A. Colon**

CHED 1899. Teaching and engaging students toward the use of green chemistry approaches. **G. Uzcatogui-White**

CHED 1900. Carroll University Chemistry Club. **R. Kutzner, A. Tomczyk, D. Daujatas, K. Burke, N. Popp, A. Larsen, V. Wagner, K.E. Molter**

CHED 1901. Missouri Western State University Alchemist Club: Making science great (again). **C. Watson, R. Prest, M. Phillips, J. Moore, J.E. Wagner, D. Stasko**

CHED 1902. Tiffin University: Building a Successful Chapter. **T.N. Lewis, A. Flotteron, B. Utley, S. Hitchcock, M. Sabo**

CHED 1903. Leading a successful ACS student chapter. **L.M. Louis, S. Botha, D. Brenning, R. Wooten-Moyer, A.J. Sanders**

CHED 1904. Chemistry and community: ACS at Ouachita Baptist University. **A. Cole, J. Cook, J.E. Bradshaw, S.E. Hubbard**

CHED 1905. Student chapter events and activities done at Tennessee Tech University. **M. Dunn, W. Parker, T. Pinto, K. Lawson, S. Jones, R. Baker, K. Lyons, J. Scantland, J.G. Coonce, A.J. Carroll**

CHED 1906. Bolstering Campus-wide undergraduate interest in chemistry with a "MinesCraft" themed research fair. **D. Isaak, J.C. Larrabee, A. Bieri, A.G. Caster**

CHED 1907. Creating an engaging ACS chapter at a private university. **C. Azaldegui, J. Belmares, D. Ivan, L.A. Mayorga, D. Saldana, M. Kopecki Fjeltland**

CHED 1908. Loras College American Chemical Society Accredited Club. **L. Schroeder, S. Neuzil, A. Miller, A. Carter, D. Dahlberg, S.E. Hammer, D.J. Oostendorp**

CHED 1909. UT Tyler ACS Student Chapter. **C. Hjorth, J. King, L.A. Johnson, L.E. Boyd**

CHED 1910. Forensic chemistry division: Guiding for a safe society. **J. Negron Rodriguez, C. Cabrera Lopez, E. Ferrer Torres**

CHED 1911. Morehead State University Chapter of the American Chemical Society. **C. Sullivan, S. Little, M.T. Blankenbuehler**

CHED 1912. ChEmory: Emory University's undergraduate chapter of the American Chemical Society. **D.C. Salgueiro, A. Diaz, A. Syed, D.R. Mulford, J. Omar, S. Hwang, J. Narula, T. Kowal-Safron**

CHED 1913. Building a Successful ACS Student Affiliate through professional development, community outreach & community service. **S. Cunningham, R. McFarland, C. Gunnell, R.V. Valcarce, P.J. Iles, L.D. Giddings, N.R. Bastian, W.C. Sanders, M. Alvarez**

CHED 1914. Chemistry Rocks – Wesley College's 2017 afternoon of fun. **A. Jean-Francois, M.J. D'Souza**

CHED 1915. Florida Southern College ACS student chapter growth 2017-2018. **J. Marshall, A. Branch, K. Martinet, K. Alexander, I. Mauzy, B. Tyson, J.F. Eubank**

CHED 1916. Fostering professional development and inter-chapter relations through the Annual Florida Chemistry Conclave. **J. Kreisel, S.M. Kuebler, L. Gandy, R. Sapia, N. Takenaka**

CHED 1917. SAACS: Year one in review. **C. Beeler, S. Barnett, M. Beeler, W. Bowling, S. Greer, C.J. Leatherwood, Z. Neverstitch, A.L. Thomas**

CHED 1918. Lock Haven University Chemistry Club. **S. Shreiber, S.J. Sujansky, T.J. Adams, K. Range, K.T. Root**

CHED 1919. Ball State University Student Affiliates of the ACS: Science for everyone. **A. Waggoner, B. Watson, S. Pruitt, L. Milton, C. Barrios, D. Dooley, R. Jeske**

CHED 1920. Inspiring passion and educating others through chemistry and biochemistry. **A. Pagano, J. Maung, L. O'Connor, R.A. Riley, M.G. Paulick**

CHED 1921. Colorado State University Chemistry Club: Engaging the community through science. **N. Knostman, J.T. Brookhart, C. Henderson, L.N. Paricio, A. Rauker, I. Sitarik, J. Trowbridge, B.P. Reynolds**

CHED 1922. Stanislaus State Warriors Chemistry Club: Connecting and sharing with the community. **J.Y. Lo, J.A. Garfield, C.L. Reed, J.L. Godinez, A. Leon, P. Ayson, E.A. Aleman**

TUESDAY MORNING

Section A
New Orleans Marriott Convention Center
Blaine Kern C

GSSPC: Finding Our Place at the Bottom

Symposium in honor of Richard Feynman

Cosponsored by ANYL[†], COLL[†], ENVR[†], INOR, PMSE[†] and PRES[†]
B. Barnes, S. Locicero, B. Olson, N. Richey, Y. Zhang, Organizers, Presiding M. Sims, Presiding

8:45 Introductory Remarks.

9:00 CHED 1923. Exploring the ultimate limits of miniaturization. **P.S. Weiss**

9:45 CHED 1924. Synthesizing molecules by atom manipulation – an atomic scale look at molecular transformations. **B. Schuler, N. Pavliček, N. Moll, G. Meyer, L. Gross**

10:15 Intermission.

10:30 CHED 1925. Designing nanoparticles for sustainability. **C.L. Haynes**

11:00 CHED 1926. Surface chemistry controlled optoelectronics of small metal nanoparticles. **J. Millstone**

11:30 CHED 1927. Sunlight-driven hydrogen formation by membrane-supported photoelectrochemical water splitting. **N.S. Lewis**

Section B
New Orleans Marriott Convention Center
Blaine Kern A

George C. Pimentel Award in Chemical Education

Cosponsored by WCC
D.M. Bunce, Organizer, Presiding

8:30 Introductory Remarks.

8:40 CHED 1928. Support by the National Science Foundation for the development of peer-led team learning. **S.H. Hixson**

9:00 CHED 1929. PLTL: A multidisciplinary intervention to ensure success in STEM gatekeeper courses at morehouse college. **L.S. Young**

9:20 CHED 1930. Three Big P's: POGIL, PLTL, and PratiBha. **R.S. Moog**

9:40 CHED 1931. Oh, the places you'll go: The dissemination and implementation of the peer led team learning project, a unique student-faculty partnership. **I. Druwe**

10:00 CHED 1932. Implementation and evolution of PLTL in introductory computer science courses. **S. Rodger**

10:20 Intermission.

10:30 CHED 1933. Peer led team learning applied to laboratory instruction. **J.P. Dinnocenzo**

10:50 CHED 1934. PLTL: Experience from both sides of the desk. **J. Kinsella**

11:10 CHED 1935. From face-to-face to online: Collaboration in design and implementation of cPLTL. **K. Mauser, J. Sours, L. Zhu, P. Varma-Nelson**

11:30 CHED 1936. Peer-led team learning in science and engineering at IUPUI. **S.J. Rhodes, E. Adams, S. James, C. Krull, S. Lahlé, D. Malik, R.E. Minto, S. Mukhopadhyay**

11:50 Concluding Remarks.

Section C
New Orleans Marriott Convention Center
Tchoupitoulas

Active Learning in the General Chemistry Curriculum

J.K. Robinson, Organizer
R.M. Henry, Presiding

8:30 CHED 1937. Case study of case studies: Writing choose-your-own-experiment cases and avoiding common

[†]Cooperative Cosponsorship

pitfalls that decrease case study use. **J.K. Hines**

8:50 CHED 1938. Active learning with clickers and small groups in general chemistry. **D.J. Weiss**, P. McGuire

9:10 CHED 1939. Overcoming barriers and obstacles to casually implement student-centered active learning activities incorporating computer simulations in a large lecture setting for students enrolled in a general chemistry course sequence. **T.J. Greenbowe**, D.B. Exton, J.I. Gelder, M.R. Abraham, D.R. Sullivan

9:30 CHED 1940. Bridging the gap: Enhancing engagement in a large gen chem class with differentiated activities & formative assessment. **A.G. Caster**, R.L. Falconer, A. Sower

9:50 Intermission.

10:05 CHED 1941. A progression of active learning integration in general chemistry courses. **K.J. Linenberger Cortes**, M.L. Head

10:25 CHED 1942. Overcoming student resistance to active learning through interventions that advocate a growth mindset. **T.D. Shepherd**

10:45 CHED 1943. Active learning in large general chemistry classes through flipped peer led team learning: Implementation and evaluation. **S.E. Lewis**, J. Robert

11:05 CHED 1944. Flipped Fridays in a large general chemistry course. **D. Meyer**

Section D

New Orleans Marriott Convention Center
Blaine Kern B

Green Chemistry Theory & Practice: Food, Energy & Water Sustainability

Cosponsored by CEI
Financially supported by ACS Green Chemistry Institute; I&EC Green Chemistry Subdivision

E.J. Brush, *Organizer*
J.E. Wissinger, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 CHED 1945. The green chemistry commitment: Progress and future plans. **A.S. Cannon**, D. Ward

8:55 CHED 1946. Developing a multidisciplinary bachelor of science degree in green chemistry at the University of Michigan-Flint. **N.B. Kingsley**, **J.L. Tischler**

9:15 CHED 1947. Painting more homes green in the chemistry curriculum. **E.A. Jarvis**

9:35 Intermission.

9:50 CHED 1948. Green chemistry education roadmap: Systems thinking in the chemistry curriculum. **J. MacKellar**

10:10 CHED 1949. Research experience for undergraduates: Food, energy and water security at Mississippi State University. **D. Mlsna**, **T. Mlsna**

10:30 CHED 1950. Development of a green chemistry protocol for planning and

conducting undergraduate research. **K.M. Halligan**

10:50 CHED 1951. Using place to integrate environmental justice, sustainability and green chemistry into the curriculum. **L. Bastin**

11:10 CHED 1952. Exploring connections between green chemistry, equity, and environmental justice. **E.J. Brush**

11:30 Discussion.

Section E

New Orleans Marriott Convention Center
Fulton

Research in Chemistry Education

M. Anzovino, J.H. Carmel, *Organizers*
J. Harshman, *Presiding*

8:30 Introductory Remarks.

8:35 CHED 1953. Utilization of a modified gradual release of responsibility model in a large enrollment chemistry course. **N. Lapeyrouse**, C. Yestrebky

8:55 CHED 1954. Peer-supported learning in undergraduate chemistry: A comparison of learning assistants and a tutoring center. **R.M. Jones**

9:15 CHED 1955. Investigating the impact of using transformed curriculum materials on structure-property relationships in a traditional general chemistry course. **A.T. Kararo**, G. Gadi, S.M. Underwood

9:35 CHED 1956. High school science teachers' understandings of the practices of science and engineering. **M. Orgill**, J. Adams, S. Nealy, C. Kardash

9:55 Intermission.

10:30 CHED 1957. Characterization of complexity of general chemistry students' reasoning in argumentative writing about ocean acidification. **A.C. Moon**, R. Moeller, A. Gere, G.V. Szymczak

10:50 CHED 1958. Investigating the impact of an alternative general chemistry curriculum among diverse classroom environments. **S.M. Underwood**, A. Pollock, M. Cooper

11:10 Concluding Remarks.

Section F

New Orleans Marriott Convention Center
Blaine Kern E

Chemistry Learning & Math Learning: Which is the Cart & Which is the Horse?

M.H. Towns, *Organizer*
K. Bain, *Organizer, Presiding*

8:30 CHED 1959. The structure of mathematical reasoning with proportions and implications for chemistry teaching. **D.J. Wink**

8:50 CHED 1960. Rigor in general chemistry doesn't equal math: The role of systems thinking. **T. Holme**

9:10 CHED 1961. Chemistry problem solving: an investigation of mathematical reasoning skills. **D.A. Canelas**, B. Cooke

9:30 CHED 1962. Characterizing cognitive processes involved in chemical

kinetics: Using a blended processing framework to describe students' chemistry and mathematics knowledge interactions.

K. Bain, J.G. Rodriguez, A. Moon, M.H. Towns

9:50 CHED 1963. Exploring the interrelations between affective and cognitive dimensions of mathematics and chemistry learning. **M. Mack**, L. Goldman, C. Stanich, S. Freeman

10:10 Intermission.

10:25 CHED 1964. Helping students transfer math knowledge into general chemistry using online, adaptive modules. **C. Richardson**

10:45 CHED 1965. Early mathematics intervention to improve success in survey chemistry courses. **M.J. Castaldi**, **B. Monari**, M.A. Bailey, B. Gallager, P. Jameson, J.K. Murray

11:05 CHED 1966. Trying to predict success in general chemistry: Lessons learned from a systematic study of our admissions data. **J.R. Williams**

11:25 CHED 1967. Influence of chemistry and mathematics placement exam scores on PTL success. **D. Malik**, L. Zhu, M. Nguyen

11:45 CHED 1968. Math and chemistry research as tools to encourage and foster urban high school students in STEM fields. **B. Kunnath**, G. Bonomo, M.M. Gillett-Kunnath, K. Ruhlandt-Senge

12:05 CHED 1969. Learning to read spectra: Teaching deconvolution with Excel in a Scientific Writing course. **R. Glaser**, A. Muelleman

Section G

New Orleans Marriott Convention Center
Magnolia

Advancing Undergraduate Research in Chemistry: Best Practices & New Innovations

Early Course Integration

R.M. Jones, *Organizer*
B.L. Gourley, *Organizer, Presiding*
A.G. Cavinato, *Presiding*

8:30 Introductory Remarks.

8:40 CHED 1970. A redesign of the first general chemistry lab session: Introducing the research process. **D.A. King**, **B.B. Magers**, P.L. Stan

9:00 CHED 1971. Implementation of a course-based crystallography research project in the general chemistry laboratory. **R. Morgan Theall**, **S.E. Shaner**, **M. Bond**

9:20 CHED 1972. First year undergraduate research experience. **J. Wallach**

9:40 CHED 1973. Engaging early-career undergraduate students in research enhances the Gustavus Adolphus College chemistry program. **B. Russell**, **S. Bur**

10:00 Intermission.

10:10 CHED 1974. Green organic chemistry research with undergraduate students. **M. Hunsen**

10:30 CHED 1975. CRSP: Formalizing undergraduate research at Kingsborough

Community College. **H.S. Barcena**, D. Berhanu

10:50 CHED 1976. An undergraduate peer-mentoring research model as a for-credit course during the academic year. **S.G. Tadj**

11:10 CHED 1977. Development of an undergraduate research methods course to satisfy the ACS CPT guidelines and the Quality Enhancement Plan at Tennessee Technological University. **A.J. Carroll**, M.N. Halwani

Chemical Information Literacy: Innovation, Collaboration & Assessment

Sponsored by CINF, Cosponsored by CHED

Undergraduate Research in Polymer Science

Sponsored by POLY, Cosponsored by CHED and PMSE

TUESDAY AFTERNOON

Section A

New Orleans Marriott Convention Center
Blaine Kern C

GSSPC: Finding Our Place at the Bottom

Symposium in honor of Richard Feynman

Cosponsored by ANYL[†], COLL[†], INOR, PHYS[†], PMSE[†] and PRES[†]
B. Barnes, S. Locicero, B. Olson, N. Richey, M. Sims, Y. Zhang, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 CHED 1978. Evolutionary and concurrent design of photonic nanostructures. **T.W. Odum**

2:05 CHED 1979. Nanoscale engineering of efficient oxygen reduction electrocatalysts by tailoring the local chemical environment of Pt surface sites. **S. Linic**

2:35 CHED 1980. There's even room to expand at the bottom: A story of "giant" nanocrystals. **J.A. Hollingsworth**

3:05 Intermission.

3:20 CHED 1981. Polymerizations with elemental sulfur: Making weird polymers in weird times. **J. Pyun**

3:50 CHED 1982. Metallo-supramolecular polymers: From stimuli-responsive materials to poly[n]catenanes. **S.J. Rowan**

4:20 CHED 1983. The art of building small, from molecular switches to motors. **B. Feringa**

4:50 Concluding Remarks.

Section B

New Orleans Marriott Convention Center
Blaine Kern A

George C. Pimentel Award in Chemical Education

Cosponsored by WCC
D.M. Bunce, *Organizer, Presiding*

1:30 Introductory Remarks.

1:40 CHED 1984. Theoretical cognitive foundations for peer-led team learning.

[†]Cooperative Cosponsorship

M.S. Cracolice

2:00 CHED 1985. Assessing the development of curved-arrow formalism mastery among first-semester organic chemistry PTLT and cPLTL students. **S.B. Wilson**, P. Varma-Nelson

2:20 CHED 1986. Peer-led team learning and Pratibha Varma-Nelson – irrepressible and resilient. **J.E. Lewis**

2:40 CHED 1987. Attending to the subject. **B.P. Coppola**, J.R. Boothe, R. Barnard, L.J. Peterson

3:00 Intermission.

3:10 CHED 1988. Transferrable skills gained from experience as a peer-leader in a PTLT program: Reflections, applications, and long-term impacts on professional lives. **A. Chase**, A.S. Rao, P. Lakamala, P. Varma-Nelson

3:30 CHED 1989. Course-based undergraduate research via the CASPIE project: From idea inception to cross-institutional networks. **G.C. Weaver**

3:50 CHED 1990. Bringing peer learning into the laboratory and research setting. **D.J. Wink**

4:10 CHED 1991. Award Address (George C. Pimentel Award in Chemical Education Sponsored by Cengage Learning and the ACS Division of Chemical Education). Reflections on a non-traditional academic career: Lessons for the future. **P. Varma-Nelson**

Section C
New Orleans Marriott Convention Center
Tchoupitoulas

Active Learning in the General Chemistry Curriculum

J.K. Robinson, *Organizer, Presiding*

1:30 CHED 1992. Modified, clicker-based peer-Instruction in an active, flipped classroom. **D.M. McGregor**, M.A. Deri, P. Mills

1:50 CHED 1993. Active learning in large courses: Challenges and solutions. **R.D. Link**

2:10 CHED 1994. Active learning in general chemistry at Marquette: From flipped to studio courses. **S.A. Reid**, M.D. Ryan, A.T. Fiedler

2:30 CHED 1995. Engaging participation and promoting active learning through student usage of the internet to create notes for general chemistry in class. **R.M. Henry**

2:50 Intermission.

3:05 CHED 1996. Implementing retrieval practice with Moodle to enhance student learning in chemistry. **G. Lo**

3:25 CHED 1997. Analysis of active learning recitation program for Chemistry I at Mississippi State University. **V.L. Perera**, D. Mlna

3:45 CHED 1998. Breaking the mold of a “weed out” course: The development of an applying critical thinking in various elements (ACTIVE) learning program to help struggling students with deficiencies in prerequisite STEM education. **C. Kelleher**, B. Turnpenny, A.S. Silva

4:05 CHED 1999. Flipped classrooms, peer assistants, and tutoring: The winning combination at USM. **L. Benedict**, P. Dexter

Section D
New Orleans Marriott Convention Center
Blaine Kern B

Green Chemistry Theory & Practice: Food, Energy & Water Sustainability

Cosponsored by CEI
Financially supported by ACS Green Chemistry Institute; I&EC Green Chemistry Subdivision
J.E. Wissinger, *Organizer*
E.J. Brush, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 2000. Green context-based electrochemistry lab for general chemistry. **S. Couture**, N. Abd El Meseh, H. Sevan

1:55 CHED 2001. Investigation of phenylsemicarbazone and phenylthiosemicarbazone synthesis in green solvent systems. **W. Evans**, J. Bennett

2:15 CHED 2002. Life cycle inventory assessment as a sustainable chemistry and engineering education tool. **M. Sabahi**, E. Reichmanis

2:35 Intermission.

2:50 CHED 2003. Green chemistry as a theme: Development of green inquiry labs and students impressions. **D.C. Bromfield-Lee**

3:10 CHED 2004. Definition and evaluation of sustainability indicators for biodiesel production. **V. Gude**, E. Martinez-Guerra

3:30 CHED 2005. Starting with vanillin: Two-step synthetic sequence illustrating green chemistry principles. **J.E. Wissinger**, J. Palesch, B.C. Gilles

3:50 Intermission.

4:05 CHED 2006. Green chemistry: Preparing students to meet the grand challenges of sustainability. **K. Aubrecht**, **M. Bourgeois**, **E.J. Brush**, **J. MacKellar**, **J.E. Wissinger**

4:25 Panel Discussion.

Section E
New Orleans Marriott Convention Center
Fulton

General Papers

S.A. Fleming, *Organizer*
R. Broyer, *Presiding*

1:30 Introductory Remarks.

1:35 CHED 2007. Using cognitive load theory (CLT) based problem sets to improve problem solving skills in general chemistry courses. **D. Behmke**, T. Gluick, B. Shepler, J. Sloop, C. Woodbridge, J. Mielke

1:55 CHED 2008. Development of a concept inventory to bridge the gap between general and organic chemistry. **R. Broyer**

2:15 CHED 2009. Chemistry unbound: A complete curriculum redesign at Emory University focusing on blended learning. **D.R. Mulford**, T.L. McGill, R.J. Harris, L.

Williams

2:35 CHED 2010. Gender differences and the learning outcomes in chemistry outreach. **A.M. Samani**, **P. Kamath**, **M. Rosqvist**, R.V. Valcarce, M. Alvarez, P.J. Iles, L.D. Giddings, N.R. Bastian, R. Holcomb

2:55 Intermission.

3:10 CHED 2011. New simulations for undergraduate chemistry majors. **A. Cannon**, A. Patrick

3:30 CHED 2012. Using Chem101 to enhance learning of Lewis structures and molecular shape prediction in first-year chemistry. **L. Vuocolo**, J.B. Weinberg, C. Hershock, S. Gadgil-Sharma

3:50 CHED 2013. Teaching molecular modeling at a liberal arts college before physical chemistry. **M. Paul**

4:10 Intermission.

4:25 CHED 2014. An account of continuing education in chemistry. **A. Rahman**

4:45 CHED 2015. Sleuthing through chemistry: Finding the cheapest route to a multi-step problem. **E.L. Atieh**, D.M. York

5:05 CHED 2016. Development of a non-majors chemistry course including an international travel component. **N. Beres**, **A.R. Roerdink**

Section F
New Orleans Marriott Convention Center
Blaine Kern E

Statistics & Data Management in the Chemistry Curriculum

P. Doolittle, D.G. Sykes, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 CHED 2017. Key concepts in handling big data; suggested goals for undergraduate curricula. **R. Kramer**

1:55 CHED 2018. Embedding data management into the undergraduate chemistry curriculum at James Madison University. **B.A. Reisner**, A.H. Valcourt, Y.L. Shorish

2:15 CHED 2019. Challenges to embedding statistics in the undergraduate chemistry curriculum. **N.E. Schlotter**

2:35 CHED 2020. Meeting the challenge of cloud computing: Laboratory data storage and processing. **G. Saxena**

2:55 CHED 2021. Introducing big data, statistics, R programming, and QA/QC in the analytical chemistry curriculum. **D.G. Sykes**

3:15 CHED 2022. Following phosphorus in Lake Mendota: A five year undergraduate analytical chemistry project. **P. Doolittle**

Section G
New Orleans Marriott Convention Center
Magnolia

Advancing Undergraduate Research in Chemistry: Best Practices & New Innovations

Advanced Course Integration

B.L. Gourley, *Organizer*
R.M. Jones, *Organizer, Presiding*
S. Lee, *Presiding*

1:30 CHED 2023. From procedure to practice: An organic chemistry storyboard for developing empowered undergraduate research assistants. **N.N. Shaw**, S.B. Sigmann

1:50 CHED 2024. Incorporating research training into an advanced laboratory course. **S.M. Kennedy**

2:10 CHED 2025. Implementation of a course-based undergraduate research experience (CURE) as an organic chemistry II laboratory section. **S.K. Goforth**, H.D. Cole, E.D. Blue

2:30 CHED 2026. Reimagining biochemistry education with blended next-generation virtual laboratories. K. Hamadani, **L.A. Wirpsza**

2:50 Intermission.

3:00 CHED 2027. Engaging and training undergraduates in modern electrochemistry. **P.J. Smith**, J.C. Goeltz

3:20 CHED 2028. Integrating research-like experiences into undergraduate laboratory courses at all levels. **W. Hall**

3:40 CHED 2029. Escaping the commercial instrument paradigm in chemical education. **S. Abbott**

4:00 CHED 2030. Integration of research projects into the undergraduate chemistry curriculum. **D. Kosenkov**, Y. Kholod

Chemistry Students at the Nexus: REU Award Winners

Sponsored by PROF, Cosponsored by CHED

WCC Rising Star Award Symposium

Sponsored by WCC, Cosponsored by BIOT, CHED, COLL, INOR and PROF

Chemical Information Literacy: Innovation, Collaboration & Assessment

Sponsored by CINF, Cosponsored by CHED

Undergraduate Research in Polymer Science

Sponsored by POLY, Cosponsored by CHED and PMSE

TUESDAY EVENING

Integrating Polymer Science in the Curriculum

Sponsored by POLY, Cosponsored by CHED and PMSE

Undergraduate Research in Polymer Science

Sponsored by POLY, Cosponsored by CHED and PMSE

WEDNESDAY MORNING

Section A
New Orleans Marriott Convention Center
Blaine Kern C

Persistence in STEM: What Can we do to Support Students?

B.L. Gonzalez, *Organizer*

†Cooperative Cosponsorship

S. Villafane-Garcia, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 CHED 2031. Implementation of a seminar course at a regional comprehensive institution to improve academic progress and retention. **E. Taylor**, K.S. Molek

8:55 CHED 2032. Underrepresented minority STEM organizations and science identity. **S. Nealy**, M. Orgill

9:15 CHED 2033. The Chi-Sci Scholars Program: Developing community at a minority serving institution. **K. Mardis**, M. Sabella

9:35 CHED 2034. Siena College's Tech Valley Scholars program: STEM student retention through community engaged learning. **J.L. O'Donnell**, M.W. McColgan, R.E. Kassel, S. Kellogg

9:55 Intermission.

10:10 CHED 2035. Four-year student retention and success in the Chatham University (NSF S-STEM) scholarship program. **J. MacNeil**, L. Lambert, R.B. Lettan

10:30 CHED 2036. Impact of curricular and noncurricular research involvement on STEM persistence in a primarily undergraduate institution. **B.L. Gonzalez**, A.M. Ruiz, M. Bolanos, S.R. Kdeiss

10:50 CHED 2037. Four year research engagement (FYRE) program at the University of Oklahoma: Integrating research in undergraduate curriculum. A. Burris, R.L. Halterman, A. Burgett, **N. Kothapalli**

11:10 CHED 2038. "Enhancing" general chemistry for students predicted to be at-risk. **J.R. Williams**

11:30 CHED 2039. Promoting retention in STEM by building a cohort in a summer bridge program. **J.K. Schwartz**, **C.T. Cox**, L. Andrade

11:50 CHED 2040. Impact of an alternate starting point chemistry course on success and persistence of at-risk students. **B.A. Davis**, M.A. Fisher, J.K. Vohs

12:10 CHED 2041. Students' use of online resources in preparation for general chemistry. **K.C. Smith**

Section B

New Orleans Marriott Convention Center
Blaine Kern A

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Cosponsored by CCA, LSAC, SOCED and YCC
E.J. Brush, S. Nellutla, *Organizers*
E.S. Garcia Segal, *Organizer, Presiding*

8:30 Introductory Remarks.

8:40 CHED 2042. Development of the Dow Science and Sustainability Education Center summer research experience, a STEM education and outreach program at Saginaw Valley State University. **J. Chaytor**, D.S. Karpovich, A. Cole

9:00 CHED 2043. Why did the crystal cross the road? **J.A. Parr**

9:20 CHED 2044. The challenges and

successes of designing experiments for CHEM CAMP and BIOCAMP, summer programs for youths 9-14. **J.B. Nielson**

9:40 CHED 2045. Counselor training model for summer chemistry camps.

R. Sansom, D. Ess, J.B. Nielson, K.J. Stowers, J. Andersen

10:00 Intermission.

10:15 CHED 2046. Saint Francis University Rural Outreach Chemistry for Kids (R.O.C.K.) Program: Over twenty years in the making! G.C. McKernan, B. Onkst, P.T. Kasunic, R.A. Clark, **E.P. Zovinka**

10:35 CHED 2047. Closing the loop in elementary school outreach activities. **H.G. Leppert**, **Z. Crandall**, J. Swanson, J. Meyer

10:55 CHED 2048. Chemistry Ambassadors at Stanislaus State: Outreach activities and leadership skills development. **C. Reed**, **J.A. Garfield**, J. Lo, J. Godinez, P. Ayson, M. Ureño-Moreno, E.A. Aleman

11:15 CHED 2049. Beyond Benign's green chemistry outreach fellows: A multi-chapter approach to community engagement. **M.C. Enright**, D. Ward

11:35 Discussion.

Section C

New Orleans Marriott Convention Center
Tchoupitoulas

Research on Learning in the Laboratory

S. Sandi-Urena, *Organizer*
M.J. Chrzanowski, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 CHED 2050. Student perspectives on general chemistry pre-laboratory activities. C. Tomson, **K.C. Smith**

8:55 CHED 2051. Evaluating the cognitive and affective impacts of a synthesis research project in a second-semester organic chemistry laboratory. **M. Anzovino**, M. Tsoi, A.V. Mallia, S. Park, R. Pennington, J. Sloop

9:15 CHED 2052. Development of an instrument to measure students' motivation to learn laboratory techniques. **S. Hensiek**, T.J. McCord, C.J. Harwood, M.H. Towns

9:35 CHED 2053. Analysis of diverse and independent laboratory learning environments using Langer's mindfulness theory. **M.J. Chrzanowski**, S. Sandi-Urena

9:55 Intermission.

10:10 CHED 2054. Nature of science and the general chemistry laboratory. **G. Kerstiens**, A.M. Baranger, M.C. Douskey, M. Robak, L.B. Armstrong

10:30 CHED 2055. Facilitating productive argumentation in the laboratory. **J.P. Walker**, A.G. Van Duzor, M.A. Lower

10:50 CHED 2056. Improving scientific dialogue through the evaluation of process skills. **R. Sansom**

11:10 CHED 2057. Phenomenological characterization of learning in the college chemistry laboratory. **S. Sandi-Urena**

11:30 Concluding Remarks.

Section D

New Orleans Marriott Convention Center
Blaine Kern B

Science Communication: Engaging Science Students, Scientists & Nonscientists through Modern Communication Modes

J.J. Meyers, R.H. Singiser, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 CHED 2058. Encouraging bridges: Connecting scientists and the public in the classroom, laboratory, and beyond. **L. Wysocki**, S. Mehlretter Drury

8:55 CHED 2059. Increasing science literacy in Georgia: The what, when and how of integrating literacy strategies in the STEM classroom. **C.H. Lisse**

9:15 CHED 2060. Balancing chemical equations with an interactive physical model made by 3D printing. **J.D. Mendez**

9:35 CHED 2061. What is the Venn diagram of the chemistry curriculum and the chemistry most often in the news? **T. Holme**, A. Lolinco, C. Kindle

9:55 CHED 2062. Measuring outreach: Does reading a science blog increase public engagement with science? **M. Krause**, **N.V. Hudson-Smith**, C. Allen, J.T. Buchman, E. Tollefson

10:15 CHED 2063. Developing scientific identity through a Mythbusters! style video and interaction with a local science center. **C. Lovitt**, C. Seager, J. Leibowitz

10:35 Intermission.

10:45 CHED 2064. Using YouTube videos and infographics to teach a non-majors chemistry course (Life, universe and everything: Chemistry of our daily lives). **S.P. Hickey**

11:05 CHED 2065. Impact of dynamic electronic texts on student achievement in general and organic chemistry. **J. Ross**

11:25 CHED 2066. The future of science communication is digital: Overcoming the hesitations for online engagement. **S. Mojarad**

11:45 CHED 2067. Chemical communications at Siena College: A course in essential science communication skills. **J.L. O'Donnell**

12:05 CHED 2068. Communicating science—reactions in action and chemical etymology. **A. Basu**

12:25 Concluding Remarks.

Section E

New Orleans Marriott Convention Center
Fulton

Research in Chemistry Education

J.H. Carmel, *Organizer*
M. Anzovino, *Organizer, Presiding*
J. Carmel, *Presiding*

8:30 Introductory Remarks.

8:35 CHED 2069. Resources to assess critical thinking, information processing, and written communication skills in

undergraduate STEM courses. **G.J. Reynders**, R.S. Cole, J. Lantz, S.M. Ruder, C.L. Stanford

8:55 CHED 2070. The effect of a week-long authentic research experience on high school students' views on the nature of science. **J. Donnelly**, F. Hernandez

9:15 CHED 2071. Career selection in pre-health students at an all-male orthodox Jewish college. **J.M. Newman**, C. Sporer

9:35 Intermission.

9:50 CHED 2072. Activating potentials in chemistry education: Assessing the impact on critical thinking through active learning. **K.L. Hayden**, M. Styers, P. Van Zandt

10:10 CHED 2073.

10:30 CHED 2074. Comparing discipline-independent and discipline-focused metacognition in general chemistry. **K. Schnitzenbaumer**

10:50 CHED 2075. Evaluating students' retention and transfer of knowledge within a transformed chemistry curriculum for undergraduate life science majors. **C. Schnoebelen**, J.A. Chmielewski, C. Hrycyna, G.M. Bodner

11:10 Concluding Remarks.

Section F

New Orleans Marriott Convention Center
Blaine Kern E

Engaging Students in Physical Chemistry

C.M. Teague, *Organizer*
A. Grushow, *Presiding*

8:30 Introductory Remarks.

8:35 CHED 2076. Exaltation of physical chemistry: Reversing the stigma. **A.S. Frantzen**

8:55 CHED 2077. Guiding students to develop more robust knowledge structures about quantum chemical models: Translating research to practice. **M.N. Muniz**, J. Beck

9:15 CHED 2078. Using Excel VBA to promote computational thinking in physical chemistry. **G. Lo**

9:35 Intermission.

9:45 CHED 2079. Virtual reality environment to visualize and manipulate chemical interactions. J. McGraw, W. Zhang, A. Luginbuhl, G. Takahashi, R. Tasker, **G. Chopra**

10:05 CHED 2080. Molecular visualization as motivation for learning computer programming basics. **M.A. Kubasik**

10:25 CHED 2081. Computational software: Can it help increase student engagement in physical chemistry courses? **S. Nellutla**, L. Gross

10:45 CHED 2082. Development of inquiry-based physical chemistry experiments by a community of practitioners. **A. Grushow**, S.S. Hunnicutt, R.M. Whinnell, M.N. Muniz

11:05 Concluding Remarks.

Section G

New Orleans Marriott Convention

[†]Cooperative Cosponsorship

Center
Magnolia

Advancing Undergraduate Research in Chemistry: Best Practices & New Innovations

Capstone & Community Innovations

R.M. Jones, *Organizer*
B.L. Gourley, *Organizer, Presiding*
M. Konkle, *Presiding*

8:30 CHED 2083. Undergraduate students and their role in a state certified water and soil lab. **G. Geme**

8:50 CHED 2084. Using phytoremediation to spur student interest in chemical research. **J.F. Fuller**, B.S. Arbaugh, M.A. Martin, M.E. Railing

9:10 CHED 2085. DNA-based sensors: A semester long research project as an upper-division biochemistry lab. **C.H. Battle**

9:30 CHED 2086. Conducting rigorous undergraduate student research at a small, liberal arts university: Recent progress in the investigation of the bonding and electronic structure of metal chalcogenide complexes. **J.L. Brown-McDonald**

9:50 Intermission.

10:00 CHED 2087. Training undergraduates to design research projects: Innovations and activities in a senior capstone course. **J.M. Wiester**

10:20 CHED 2088. Design and implementation of a research-based laboratory capstone course built around discovery, collaboration, and the integration of the chemistry sub-disciplines. **J.A. MacKay**

10:40 CHED 2089. Designing a chemistry laboratory program for a research-focused ACS-approved curriculum. **A.O. Sezer**

11:00 CHED 2090. Developing an integrated research and learning model that aid students and faculty. **R.E. Bachman**

WEDNESDAY AFTERNOON

Section A
New Orleans Marriott Convention Center
Blaine Kern C

Persistence in STEM: What Can we do to Support Students?

S. Villafane-Garcia, *Organizer*
B.L. Gonzalez, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 2091. Arithmetic skills and algebraic competency for STEM advancement. **D.S. Mason**

1:55 CHED 2092. Impacting retention of STEM freshmen and transfer students through research communities within the LEARN Consortium. **D. Chamely Wiik, W.R. Kwochka**

2:15 CHED 2093. Designing and implementing a dashboard to monitor mentor performance for a STEM persistence program. **A. Ma, K. Gerald, W. Colon**

2:35 CHED 2094. Cyber mentoring to increase persistence for students in STEM. **G.M. Korenowski, A. Ma, W. Colon**

2:55 CHED 2095. Early college exposure to non-tenure track and part-time faculty – Examining effects on socialization and student success in science, technology, engineering, and mathematics. **K. Van Kirk, R. Franke**

3:15 Intermission.

3:30 CHED 2096. Foundational mathematics knowledge and persistence in general chemistry. **R.J. Weber**

3:50 CHED 2097. Withdrawn

4:10 CHED 2098. VOICES: Voluntary options in chemical education schedules. R.L. Ford, S. Broadway, **D.S. Mason**

4:30 CHED 2099. Impact of an emerging gateway course model at the University of Southern Maine. **L. Benedict, P. Dexter**

4:50 CHED 2100. Contextualizing STEM with first year transdisciplinary laboratories. **R.N. Dansby-Sparks, S. Formica, M. Smith**

Section B
New Orleans Marriott Convention Center
Blaine Kern A

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Cosponsored by CCA, LSAC, SOCED and YCC
E.J. Brush, E.S. Garcia Segal, S. Nellutla, *Organizers*
S. Nellutla, *Presiding*

1:30 Introductory Remarks.

1:40 CHED 2101. Syracuse University's summer chemistry enrichment experience – development of an outreach pilot program. **G. Bonomo, B. Kunnath, M.M. Gillett-Kunnath, K. Ruhlandt-Senge**

2:00 CHED 2102. Leveraging teacher partnerships to facilitate effective high school visits and mentorship. **S. Iyer, J.K. Schwartz**

2:20 CHED 2103. Sustainability education and outreach to promote diversity in the STEM workforce. **J. Blatti**

2:40 CHED 2104. Fighting with food, battling chemical toxicity with good nutrition: Outreach to teachers and students and student outreach to their peers. **S.A. Hershberger**

3:00 Intermission.

3:15 CHED 2105. Chemistry in the community: Service learning for Tulane students in New Orleans. **R. Vik, E. Schmidt, C.H. Battle, J. Jayawickramarajah**

3:35 CHED 2106. Chemistry in the community: Developing community partners in New Orleans. **C.H. Battle, R. Vik, E. Schmidt, J. Jayawickramarajah**

3:55 CHED 2107. Service learning in the chemical sciences: A few insights. **S.M. Grayson, H. Ashbaugh**

4:15 CHED 2108. Service-learning programs for chemistry majors and general education students. **T.D. Hamilton**

4:35 Discussion.

4:45 CHED 2109. CHEM – STEM with exploring, learning, and mentoring. **M. Rustagi**

Section C
New Orleans Marriott Convention Center
Tchoupitoulas

Eye Tracking Research in Chemistry Education

S.J. Hansen, *Organizer*
J.R. Vandenplas, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 2110. Measuring student visual attention to conceptual and algorithmic information in general chemistry worked examples. **E. Day, L.K. Kendhammer, N.J. Pienta**

1:55 CHED 2111. Use of eye tracking and verbal articulation to understand students' decision-making processes when solving high-stakes assessment items. J.J. Reed, J.M. Trate, D. Schreurs, J.R. Raker, **K.L. Murphy**

2:15 CHED 2112. Visual feedback and animation critique. **S.J. Hansen, B. Hu, D. Riedlva**

2:35 CHED 2113. Modeling split attention during simulation use. **J.R. Vandenplas, D.G. Herrington, R.D. Sweeder**

2:55 Intermission.

3:00 CHED 2114. Optimizing STEM skills: Understanding the allocation of attention during mental rotation. **M. Beck, K. Moen, S. Greening, L.G. Butler, J. Ramanujam, A. Cohen**

3:20 CHED 2115. Measuring the cognitive load of modeling activities in chemistry. **K.J. Linenberger Cortes, A. Randolph, C. Terrell, X. Prat-Resina, K. Kammerdiener, J. Calvert, L. Aleuy, J. Farmer**

3:40 CHED 2116. Eye tracking with organic chemistry reaction mechanisms. **M. Weinrich**

4:00 Concluding Remarks.

Section D
New Orleans Marriott Convention Center
Blaine Kern B

There's an App for That!

E.A. Aleman, K. Stone, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 CHED 2117. ARiEL: Augmented reality in the educational laboratory. **T. Holme, P. Laila-Parvin**

1:55 CHED 2118. iPad technology in the organic chemistry classroom. **J.L. Marshall**

2:15 CHED 2119. Developing and implementing Tap OChem, an organic chemistry app, for small and large classroom use. **N.T. Allison**

2:35 CHED 2120. Role of chemistry apps in teaching general chemistry at Bridgewater State University. **S. Nellutla**

2:55 Intermission.

3:10 CHED 2121. Going paper-free and facilitating collaboration through the use of iPads as electronic laboratory notebooks in an advanced chemistry laboratory course. **J. Fishovitz, K.L. Haas**

3:30 CHED 2122. Creating a digital laboratory notebook for mobile devices. **A.R. Van Dyke, J.E. Smith-Carpenter**

3:50 CHED 2123. A paperless physical chemistry laboratory. **E.A. Aleman**

4:10 CHED 2124. Less grading time for you: More writing and learning for your students. **K. Stone**

4:30 Concluding remarks.

Section E
New Orleans Marriott Convention Center
Fulton

General Papers

S.A. Fleming, *Organizer*
J. Statler, *Presiding*

1:30 Introductory Remarks.

1:35 CHED 2125. Innovative project design with microwave technology in undergraduate teaching labs. **G. Dusharm, M.J. Karney**

1:55 CHED 2126. Expanding the tool box in undergraduate laboratory sessions via continuous flow synthesis. **V. Kairouz, J. Santandrea, S.K. Collins**

2:15 CHED 2127. Laboratory-based project in a lecture-only inorganic chemistry course. **K.M. Krise**

2:35 CHED 2128. Microscale extraction of liquid oxygen from a cryogenic mixture formed through condensation of ambient air. **J. Statler**

2:55 Intermission.

3:10 CHED 2129. A 3-D nanoscience lesson based on NGSS standards implemented at Towson University. **M. Devadas, D. Menon**

3:30 CHED 2130. New demonstration with BZ chemical oscillator. **G.A. Ferichs, G. Ali**

3:50 CHED 2131. Withdrawn

4:10 Intermission.

4:25 CHED 2132. Revising a classic general chemistry lab to introduce green chemistry principles. **S.J. Bachofer, M.D. Lingwood**

4:45 CHED 2133. History of science, a transcultural student experience: Design, implementation, evaluation and future directions. **R. Morgan Theall, C. Ragain, J. Kessler, C. McGowan**

5:05 CHED 2134. Hands-on 3D printed models of atomic and hybrid orbitals. **R. De Cataldo, K. Griffith, K.H. Fogarty**

Section F
New Orleans Marriott Convention Center
Blaine Kern E

Engaging Students in Physical Chemistry

C.M. Teague, *Organizer*
A. Grushow, *Presiding*

1:30 Introductory Remarks.

†Cooperative Cosponsorship

1:35 CHED 2135. Introducing the chemistry of molten salts in the nuclear engineering curriculum. **R.O. Scarlat**

1:55 CHED 2136. Building tomorrow's scientists: A guided research project to build the research and soft skills every scientist needs for a successful career. **A. Bills**

2:15 CHED 2137. Short introductory activities for physical chemistry laboratory. **G. Lo, D. Wayment, C. Dong**

2:35 Intermission.

2:45 CHED 2138. Enhancing meaningful learning opportunities in the physical chemistry laboratory despite limited resources. **A.L. Smalley**

3:05 CHED 2139. Toward the characterization of student learning outcomes in POGIL-PCL laboratory environments. **M.N. Muniz, B. Tyler, S.S. Hunnicutt, R.M. Whitnell, A. Grushow**

3:25 CHED 2140. Updating a classic: Using absorption spectroscopy of diatomic molecules to highlight the similarities and differences of diatomic potential energy curves. **K.S. Dooley**

3:45 Concluding Remarks.

Section G

New Orleans Marriott Convention Center

Magnolia

Advancing Undergraduate Research in Chemistry: Best Practices & New Innovations

Department & Institutional Innovations

B.L. Gourley, *Organizer*
R.M. Jones, *Organizer, Presiding*
R.E. Bachman, *Presiding*

1:30 CHED 2141. Bringing undergraduate research to a crescendo: Project Symphony at Iona College. **S. Lee**

1:50 CHED 2142. "Opportunities": Pace University approach in innovating undergraduate research program. **E.E. Mojica**

2:10 CHED 2143. Undergraduate research as a transformative student experience and a tool to increase student retention. **M.R. Harris**

2:30 CHED 2144. Knowing your colleagues: The importance of vertical and horizontal cohorts to the success of undergraduate research. **D.F. Moriarty, L.J. Tucker**

2:50 CHED 2145. Successful research models for undergraduates at a small public institution. **A.G. Cavinato**

3:10 Intermission.

3:20 CHED 2146. From chemistry specific to institution wide: Establishing an Office of Undergraduate Research. **M. Richards-Babb**

3:40 CHED 2147. Best practices at the West Virginia University Department of Chemistry Research Experiences for Undergraduates site. **B.V. Popp, M. Richards-Babb**

4:00 CHED 2148. DIVAS: A common challenge approach to interdisciplinary research. **R.M. Burks, T. Durham-Brooks, M. Meysenburg**

4:20 CHED 2149. Using undergraduate research to enhance STEM education at the departmental and institutional level. **M.R. Malachowski, K.K. Karukstis**

4:40 CHED 2150. Investigating impacts of authentic environmental research experiences in the college classroom: A multi-institution collaboration to incorporate research throughout the curriculum and across disciplines. **J.H. Tomasik, D.J. Lecaptain, A. Mueller, T. Sivy, D.S. Karpovich, K. Cissell, B.S. Harkness, J. VanHouten**

5:00 Concluding Remarks.

THURSDAY MORNING

Section A

New Orleans Marriott Convention Center

Blaine Kern C

Persistence in STEM: What Can we do to Support Students?

S. Villafane-Garcia, *Organizer*
B.L. Gonzalez, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 CHED 2151. Students' chemistry self-efficacy: Exploring its relationship with their sources, teaching and learning in a general chemistry course. **S. Villafane-Garcia**

8:25 CHED 2152. Targeting and preparing at-risk students: Increasing success in 1st semester general chemistry. **K.L. Stone, S.E. Shaner, C.M. Fendrick**

8:45 CHED 2153. Partial least squares structural equation modeling of chemistry attitudes in introductory college chemistry. **J. Ross, L. Nuñez, C. Lai**

9:05 CHED 2154. What is the relationship between a students' profile and their success on common questions in first-semester general chemistry? **V.M. Williamson**

9:25 CHED 2155. The impact of a group-testing protocol on student test anxiety and test performance in a general chemistry course at the University of Washington. **M. Mack, C. Craig, S. Freeman**

9:45 Intermission.

10:00 CHED 2156. A survey instrument for measuring the persistence and quality of life of chemistry graduate students. **E.T. Novelli, L.J. Webb**

10:20 CHED 2157. Persisting without calculators. **D.R. Walker**

10:40 CHED 2158. Developmental coursework as a needed path to STEM success. **B. Mamiya, A. Chen, D.S. Mason, C. Zajac**

11:00 CHED 2159. A fifteen-year retrospective analysis of achievement gaps in chemistry education at the University of Washington. **M. Mack, R. Harris, S. Freeman, E. Theobald, J. Bryant**

11:20 CHED 2160. Mathematics competency of males and females in general chemistry and STEM retention. **G.R. Shelton**

Section B

New Orleans Marriott Convention Center

Blaine Kern A

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Cosponsored by CCA, LSAC, SOCED and YCC
E.S. Garcia Segá, S. Nellutla, *Organizers*
E.J. Brush, *Organizer, Presiding*

8:00 Introductory Remarks.

8:10 CHED 2161. Enhancing MRSEC education outreach with STEM on Stage video. **D. Steinberg, C.B. Monroe, S. Rodriguez Martinez, J. Myronuk**

8:30 CHED 2162. End of an era: Lessons learned from 10 years of outreach at a NSF-funded center. **J.D. Schuttefeld Christus, M. DeBoever**

8:50 CHED 2163. West Virginia Brigade of the Solar Army: Renewable energy outreach through Fairmont State University. **A.R. Moore, S. Starcovic, E.L. Harvey**

9:10 CHED 2164. Combining sustainability and polymers: Physical science curriculum for informal K-8 science audiences. **J. Henderson, A. Stevenson, A. Maille, C. Malone, M. Smith, S. Worker**

9:30 CHED 2165. *Caminos a la Ciencia/Pathways to Science: An innovative NSF-INCLUDES program designed to attract and engage Hispanic girls in STEM inquiry in the central Virginia region.* **A. Marchetti**

9:50 Intermission.

10:05 CHED 2166. ChemAttitudes: Developing and disseminating strategies and materials to support chemistry interest, relevance, and self-efficacy. **D.F. Sittenfeld, M.M. Kirchoff, L. Bell, E. Kollmann, R. Ostman**

10:25 CHED 2167. Using design-based research to learn about strategies that increase feelings of interest, relevance, and self-efficacy in chemistry. **M. Beyer, E. Kollmann, M. Bequette, S. Pfeifle, K.T. Pavis, G. Haupt**

10:45 CHED 2168. Symposium workshop on the fundamentals of chemistry outreach education: II. Finding Resources. **E.J. Brush, E.S. Garcia Segá, S. Nellutla**

11:25 Concluding Remarks.

Section C

New Orleans Marriott Convention Center

Tchoupitoulas

Chemistry Safety in the Classroom: Best Practices & Learning Experience

S.D. Wiediger, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 CHED 2169. PubChem's health and safety information for laboratory chemicals. **S. Kim, J. Zhang, A. Gindulyte, P. Thiessen, L. McEwen, R. Stuart, E. Bolton**

8:25 CHED 2170. Risk analysis is not a guessing game especially for classroom demonstrations. **D.J. Leggett**

8:45 CHED 2171. Withdrawn

9:05 Intermission.

9:20 CHED 2172. Drawing your way to safety: Diagramming the laboratory's

layout and safety equipment. **J.M. Newman, A.E. Shinnar**

9:40 CHED 2173. Undergraduate and TA knowledge and implementation of safety guidelines in the general chemistry laboratory. **H. Broussard, N.J. Pienta**

10:00 CHED 2174. Incorporating active learning into safety training. **C.T. Cox**

10:20 CHED 2175. Adding safety to the curriculum one research project after another. **S.D. Wiediger**

10:40 Concluding Remarks.

Section D

New Orleans Marriott Convention Center

Blaine Kern B

Using Videos in Teaching

J.A. Parr, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 CHED 2176. Integration of digital videos into student learning experiences. **R.E. Belford**

8:20 CHED 2177. Creating custom course videos as the content backbone for general chemistry courses. **M.A. Deri, D.M. McGregor, P. Mills**

8:35 CHED 2178. Withdrawn

8:50 CHED 2179. Preparing students for class using videos. **J.A. Parr**

9:05 CHED 2180. YouTube as an open educational resource (OER) hosting general and organic chemistry course videos: Creating an online footprint while evaluating locally enrolled student engagement. **D. Jackson**

9:20 Intermission.

9:30 CHED 2181. Exploring the use of SMART Boards: Creating a blended learning environment for organic chemistry courses by producing multimedia lessons and videos using an interactive white board. **M. Chatterjee**

9:45 CHED 2182. Putting it all together: Creation of a YouTube channel for organic chemistry screencasts and videos. **M.G. Donahue**

10:00 CHED 2183. Use of multi-media tools in the chemistry classroom to foster student participation. **R. Broyer**

10:15 CHED 2184. The impact of student-created mechanism videos in organic chemistry-2 labs. **N. Gupta, J.A. Nikles**

10:30 CHED 2185. Creating videos and animations to enhance organic chemistry lecture and laboratory instruction. **L. Starkey**

10:45 Intermission.

10:55 CHED 2186. Using videos in teaching nmr processing. **C.M. Bump, G.C. Nwokogu, E.N. Ndip, M.K. Waddell, M. Malik**

11:10 CHED 2187. Flipped quantitative analysis. **R.L. Sanders**

11:25 CHED 2188. Use of videos in enhancing the teaching and learning of chemistry in lecture and laboratory classes. **E.E. Mojica, R.K. Upmacis**

[†]Cooperative Cosponsorship

11:40 CHED 2189. Using Game of Thrones, Nicolas Cage and Harry Potter (amongst others) to teach biochemistry to non-science majors. **S.P. Hickey**

11:55 Concluding Remarks.

Section E
New Orleans Marriott Convention Center
Fulton

Research in Chemistry Education

M. Anzovino, J.H. Carmel, *Organizers*
D. Behmke, S. Srinivasan, *Presiding*

8:00 Introductory Remarks.

8:05 CHED 2190. Response process validity evidence of an immediate feedback assessment. **J.M. Trate**, S. Srinivasan, T.S. Thomas, C.J. Lufford, M.A. Teichert, J.L. Schneider, K.L. Murphy

8:25 CHED 2191. Investigation of general chemistry assessment item stability: Same items, different form – what changes? **T.C. Pentecost**, J.R. Raker, K.L. Murphy

8:45 CHED 2192. When is the optimum time to measure affect?: The impact of examination performance and feedback on affect in organic chemistry courses. **J.R. Raker**, R. Gibbons

9:05 CHED 2193. Withdrawn

9:25 Intermission.

9:40 CHED 2194. Assessment in postsecondary chemistry education: Results from a national survey. R. Gibbons, K.L. Murphy, **J.R. Raker**

10:00 CHED 2195. Faculty conceptions and use of writing as a pedagogical tool in chemistry. **S.A. Finkenstaedt-Quinn**, A. Moon, J. Dowd, A. Gere, G.V. Szymczak

10:20 CHED 2196. Peer-led team learning (PLTL) use in postsecondary chemistry education: Results from a national survey. **S. Srinivasan**, R. Gibbons, J.J. Reed, K.L. Murphy, J.R. Raker

10:40 Concluding Remarks.

Section F
New Orleans Marriott Convention Center
Blaine Kern E

General Papers

S.A. Fleming, *Organizer*
R. Indralingam, *Presiding*

8:00 Introductory Remarks.

8:05 CHED 2197. Development of green multistep synthesis for undergraduate organic laboratory. **A.N. Lamm**

8:25 CHED 2198. Experimental determination of activation energy of nucleophilic aromatic substitution on porphyrins. **C.M. Drain**, W. Rizvi, E. Khwaja, S. Siddiqui, N.K. Bhupathiraju

8:45 CHED 2199. Withdrawn

9:05 CHED 2200. Developing a viable organic chemistry research project for ACS SEED. T. Davis, H. Allen, J. Hood, M.G. Donahue, **J.A. Pigza**

9:25 Intermission.

9:40 CHED 2201. Teaching students to apply core biochemical concepts to

practical goals by completing authentic course-based research projects organized online. **B.J. McFarland**

10:00 CHED 2202. Putting the carbonyl cart before the substitution horse: A new approach to teaching sophomore organic chemistry. **J.K. Murray**, M.J. Castaldi

10:20 CHED 2203. Fluorometric monitoring of the photodegradation of riboflavin. **R. Indralingam**, S.O. Ali

10:40 CHED 2204. Adapting cell-free protein synthesis as a platform technology of biochemical education. **J.P. Oza**, N.E. Gregorio, W.Y. Kao, M.C. Jewett

Section G
New Orleans Marriott Convention Center
Magnolia

Online & Upward: Improving Online Education to Increase Chemistry's Global Reach

M.A. Erdmann, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 CHED 2205. Experiences with online chemistry education: Understanding the challenges. **E. Pearsall**

8:25 CHED 2206. Growing up online: Building a general chemistry course with lab from experiences collected over seven years of delivering a non-majors chemistry course with lab online. **S. Burchett, J.L. Hayes**

8:45 Intermission.

9:00 CHED 2207. A new interactive, 3D chemistry learning and teaching platform. **A. Cannon**, A. Patrick

9:20 CHED 2208. WileyPLUS an online chemistry homework system powered by Marvin JS a state of the art web based chemical drawing tool. **A.D. Costache**, E.A. Hoffmann, S. Bruno, S.P. Hickey

9:40 CHED 2209. Three approaches to supporting online learners in lab-based chemistry courses. **K.L. Kostka**

CHAS

Division of Chemical Health and Safety

D. Decker and J. Pickel, *Program Chairs*

OTHER SYMPOSIA AND WORKSHOPS OF INTEREST:

CHAS Workshop: Lab Safety, 8:30 AM: Fri

CHAS Workshop: Laboratory Waste Management, 8:30 AM: Fri

CHAS and CANN Workshop: How to be a More Effective Chemical Hygiene Officer, 8:30 AM: Sat

CHAS and CANN Workshop: Reactive Chemical Management for Laboratories & Pilot Plants, 8:30 AM: Sat

CHAS and CANN Workshop: Cannabis Extraction & Analysis, 8:30 AM: Sat

CHAS/CCS Workshop: Developing

Graduate Student Leadership Skills in Laboratory Safety, 3:00 PM: Sun

BUSINESS MEETINGS:

CHAS Board Meeting, 8:00 AM: Sun

SUNDAY MORNING

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

SUNDAY AFTERNOON

Section A
Hilton New Orleans Riverside
Grand Salon D Sec 21

Ask Dr. Safety: Integrating Research & Safety
Cosponsored by CCS
N.R. Langerman, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHAS 1. The psychology of developing a positive chemical safety culture in academic research labs. **K.A. Serrano**

2:00 CHAS 2. Survey of chemist exposure to VOCs from solvent cabinets. **A.E. Norton**, W.B. Connick, K. Brown

2:25 CHAS 3. Study of safer storage and handling of graphene oxide. **P. Lakhe**, D. Kulhanek, W. Sun, B. Zhang, M.J. Green, S. Mannan

2:50 CHAS 4. Effectiveness of laser safety eyewear under real-world conditions. **C.J. Stromberg**, E.J. Heilweil, J.A. Hadler

3:15 CHAS 5. Safety at the bench: Promoting positive safety culture in academic laboratories. **C.N. Situma**

3:40 CHAS 6. Ask Dr. Safety: Integrating research and safety. **N.R. Langerman**, H.J. Elston

Science Cafes & Engaging the Public: Techniques for Hosting Successful Events

Sponsored by PRES, Cosponsored by CATL, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, I&EC, INOR, MPPG, SCHB and YCC

MONDAY MORNING

Section A
Hilton New Orleans Riverside
Grand Salon D Sec 21

Women in Cannabis: Shaping an Emerging Industry
Cosponsored by SCHB[†] and WCC
Financially supported by CANN
M.J. Wilcox, *Organizer*
M. Wilcox, *Presiding*

8:30 Introductory Remarks.

8:35 CHAS 7. Moving an industry forward: How women are shaping the future of cannabis. **M.J. Wilcox**

9:00 CHAS 8. Evolution of the cannabis

industry: an outside view from the inside.

A. Rigdon

9:25 CHAS 9. Movement toward consensus analytical test methods and standards for the cannabis community to ensure consistent product characterization. **S.A. Audino**

9:50 CHAS 10. Withdrawn

10:15 Intermission.

10:30 CHAS 11. Cleaning up cannabinoids and chlorophyll: Optimization of sample preparation for pesticide analysis in cannabis flower. **J. Kowalski**, D. Laine, S. Minier, C. Johnson

10:55 CHAS 12. Sex differences in clinical pharmacology and gender differences in society: How to give an emerging industry a head start. **L. Klumpers**

11:20 CHAS 13. Roadblocks, guardrails & opportunities. **T. Wahl**

11:45 CHAS 14. Transitioning from academia to cannabis: Why chemists and their influence are important contributors to a growing industry. **A.R. Wise**

12:10 Panel Discussion.
12:30 Concluding Remarks.

Community Sharing of Chemical Safety Data: Yes, No, Maybe?
Sponsored by CINF, Cosponsored by CHAS, CA and PRES[†]

MONDAY AFTERNOON

Section A
Hilton New Orleans Riverside
Grand Salon D Sec 21

Implementing ACS Safety Education Guidelines
Cosponsored by CCS and CHED
Financially supported by AACT
E.M. Howson, *Organizer*
S.B. Sigmann, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHAS 15. The ACS safety culture journey: What next? **M.U. Gmurczyk**, **M.M. Kirchoff**

2:05 CHAS 16. Building the safety learning spiral. **R. Stuart**, S.B. Sigmann

2:25 CHAS 17. One slice at a time: Do what you can whenever you can. **K.P. Fivizzani**

2:45 CHAS 18. Developing a culture of safety in chemistry and biochemistry at Texas Woman's University. **R.D. Sheardy**

3:05 Intermission.

3:25 CHAS 19. Importance of laboratory safety in chemistry curriculum. **K. Jefferson**

3:45 CHAS 20. Impact of implementing the RAMP concept for chemical safety training in undergraduate teaching. **O. Oluwaniyi**

4:05 CHAS 21. RAMPing up the organic chemistry lab at a PUI: Developing a culture of safety and success. **R.S. Majerle**, M. Gorina

MONDAY EVENING

Section A
Ernest N. Morial Convention Center

[†]Cooperative Cosponsorship

Halls D/E

Sci-Mix

J.M. Pickel, *Organizer*
8:00–10:00

CHAS 22. Division of Chemical Health and Safety information poster. **J.M. Pickel**

CHAS 23. Rapid chemical risk assessments for research labs. **D.J. Leggett**

CHAS 24. Femtosecond laser eyewear protection: Measurements and precautions. **M. Riedel-Topper, S. Wirick, J.A. Hadler, E.J. Heilweil, C.J. Stromberg**

CHAS 25. Workshop for high school chemistry teachers on case studies of K-12 lab accidents and safety resources. **C. Lilly**

CHAS 26. A flexible web-interface for integrating multiple data streams in support of risk prioritization of environmental chemicals. **R. Judson, A.J. Williams, C. Grulke, R. Thomas**

CHAS 27. Evaluation of cannabinoid and terpene interference in HPLC-UV cannabis potency testing. **A. Rigdon, C. Sweeney, C. King, B. Cassidy, J. Kowalski, F.L. Dorman**

CHAS 28. Health risk of oral and inhalation exposure to toxic chemicals. **A. Fontenot, H. Hwang**

TUESDAY MORNING

Section A

Hilton New Orleans Riverside
 Grand Salon D Sec 21

Water Supply Safety

Cosponsored by CCS, CTA and ENVR
 M.R. Wilhelm, *Organizer, Presiding*

9:00 Introductory Remarks.

9:05 CHAS 29. Waukesha water: Bridging the divide. **D. Duchniak, J. Piatt**

9:30 CHAS 30. Laboratory safety is impacted by changes in water quality. **C. Wilhelm**

9:55 CHAS 31. Iron as an indicator of water system corrosion and compromised disinfection: Argument for regulating iron and small system corrosion control. **A. Katner, K. Pieper, M. Edwards**

10:20 CHAS 32. Lessons learned from the Elk and Dan River disasters: Enhancing science support for water resource protection and crisis communication in spill-incident response. **W.A. Alexander**

10:45 CHAS 33. Computational chemistry support for water resource protection: Developing rapid and accurate computational methods to predict physical properties for environmental fate and toxicity modelling. **K. Charbonnet, N.J. Deyonker, W.A. Alexander**

11:10 Panel Discussion.

Biobased Water Purification System Approaches

Sponsored by CELL, Cosponsored by AGFD, CHAS and ENVR

TUESDAY AFTERNOON

Section A

Hilton New Orleans Riverside
 Grand Salon D Sec 21

Formulation of Cannabis Products: More than just THC & CBD

Financially supported by CANN
 M. Roggen, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHAS 34. At-line to on-line cannabis extraction and isolation. **J. MacKay**

2:05 CHAS 35. Analytical procedures and specifications for a Cannabis based prescription drug. **P. Gibson, A. Sutton, A. Silcock**

2:35 CHAS 36. Controlling terpenes and cannabinoids in flower and extract. **M. Roggen**

3:05 Panel Discussion.
3:25 Intermission.

3:45 CHAS 37. Does 1+1=3? What science really knows about cannabinoid and terpene effects in humans. **L. Klumpers, K. Franson**

4:15 CHAS 38. In search of efficacy: A self-reported patient study identifying effective THC:CBD ratios for sleep, pain and arousal based on dose-controlled delivery of vaporized cannabis oil. **S.J. Miller**

4:45 CHAS 39. Potential health risks of cannabis extracts. **T. Lewandowski, J. Rice**

5:15 Panel Discussion.
5:25 Concluding Remarks.

Science & Ethics: The Path Toward Global Security in Chemicals, Energy, Food & Water
 Sponsored by SCHB, Cosponsored by CHAS, COMSCI, MPPG and PROF

Evolving Chemical Hazard Evaluation Strategies to Address Compliance under the New Toxic Substances Control Act (TSCA)
 Sponsored by ENVR, Cosponsored by CHAL and CHAS

WEDNESDAY MORNING

Section A

Hilton New Orleans Riverside
 Grand Salon D Sec 21

Heidolph North America's Cannabis Chemistry Subdivision Scholarship Symposium
 Cosponsored by AGFD, CHAL and SCHB
 Financially supported by CANN
 E.M. Pryor, *Organizer, Presiding*
 A. Pham, *Presiding*

9:00 Introductory Remarks.

9:05 CHAS 40. Shaping the bright future of the cannabis industry: Because we can. **L. Klumpers, D.L. Thacker, K. Franson**

9:40 CHAS 41. The identification of Δ -8 tetrahydrocannabinolic acid (Δ -8-THCA) by NMR and LCMS techniques. **M. Scialdone, C. Barone, C. Rithner, K. Deneff, C. Boot**

10:15 CHAS 42. Chemistry of Canadian medical cannabis. **M.M. Lewis, Y.W. Yang, E. Wasilewski, H. Clarke, L.P. Kotra**

10:50 CHAS 43. Heidolph North America's Cannabis Chemistry Scholarship in it's first of many years: What to

expect for the future of CANN and "CANNCHASHNA" scholarship. **E.M. Pryor, J. Marcu, A. Pham, M.J. Wilcox, E.L. Oltmann**

11:25 Panel Discussion.

WEDNESDAY AFTERNOON

Section A

Hilton New Orleans Riverside
 Grand Salon D Sec 21

Heidolph North America's Cannabis Chemistry Subdivision Scholarship Symposium

Cosponsored by AGFD, CHAL and SCHB
 Financially supported by CANN
 E.M. Pryor, *Organizer, Presiding*
 A. Pham, *Presiding*

1:30 Introductory Remarks.

1:45 CHAS 44. Analysis of regulatory improvements and setbacks for medical cannabis programs and product safety standards. **J. Marcu, S. Sherer**

2:20 CHAS 45. Adventures in the Cannabis field: Surprises and discoveries with natural and synthetic cannabinoids. **M.A. Schafroth, R. Sarott, E. Carreira**

2:55 CHAS 46. THC and its metabolites in blood: Legal, regulatory, and scientific challenges in the context of cannabis DUI. **A. Pham, E.M. Pryor**

3:30 CHAS 47. Rapid metabolic phenotyping of a medicinal plant: Applications for C. Sativa. **J. de la Parra, E. Anemone, F. Jackson, W. Hancock, J. Auclair**

4:05 Panel Discussion.

THURSDAY MORNING

Separation Science & Technology in the Medical Cannabis & Hemp Industry

Sponsored by I&EC, Cosponsored by CHAS

Separation Science & Technology in the Medical Cannabis & Hemp Industry

Sponsored by I&EC, Cosponsored by CHAS

CINF

Division of Chemical Information

E. Alvaro and R. Bienstock, Program Chairs

OTHER SYMPOSIA OF INTEREST:

ACS Award for Computers in Chemical & Pharmaceutical Research: Symposium in honor of Jürgen Bajorath (see COMP, Tue)

Marriage of Machine Learning, Knowledge Representation & Chemical Sciences (see COMP, Sun, Mon)

Open Resources for Automated Structure Verification & Elucidation (see ANYL, Sun)

Structure-Based Drug Design for GPCRs (see COMP, Wed)

BUSINESS MEETINGS:

Business Meetings, 12:30 PM &

3:00 PM: Sat

SUNDAY MORNING

Section A

New Orleans Marriott Convention Center
 River Bend 1

Enhance Discovery: Share Chemical Structures

Financially supported by Chemical Structure Association Trust
 Y. Li, V.F. Scalfani, *Organizers*
 L. McEwen, *Organizer, Presiding*

8:30 Introductory Remarks.

8:40 CINF 1. Sharing chemical structures from university theses and dissertations on Institutional Repositories and PubChem. **V.F. Scalfani, P. Rupar, M.S. Alexander, D.G. Williams**

9:05 CINF 2. Impact of Stereochemistry on Sharing Chemical Structures. **G.M. Banik, M. Karthikeyan, K. Nedwed, K. Kunitsky, M. D'Souza, T. Abshear**

9:30 CINF 3. Sharing chemical data through a structural database. **S. Ward, A. Sarjeant, I. Bruno, M.P. Lightfoot**

9:55 Intermission.

10:10 CINF 4. Deposit chemical structures into PubChem—a public data repository. **J. Zhang, A. Gindulyte, B. Shoemaker, P. Thiessen, E. Bolton**

10:35 CINF 5. Supporting the community to share chemical structures. **G. Jones, R. Kidd**

11:00 CINF 6. Chemical structures: More than just meta-data? **M.G. Hicks**

11:25 Discussion.

Section B

New Orleans Marriott Convention Center
 Natzhez

Drug Discovery: Cheminformatic Approaches

Cosponsored by COMP
 E. Davis, *Organizer, Presiding*

9:00 CINF 7. Synthetically Accessible Virtual Inventory (SAVI) – Next version: Toward more needles and less haystack. **H. Patel, Y. Pevzner, W. Ihlenfeldt, M.C. Nicklaus**

9:25 CINF 8. BioTransformer: An accurate, freely available tool for predicting small molecule metabolism—Applications in drug discovery. **Y. Djoumbou Feunang, D. Wishart**

9:50 CINF 9. CCCTK (Compute Cure for Cancer ToolKit): An open source drug discovery platform for design of novel anti-cancer agents. **M. Karthikeyan, R. Vyas**

10:15 Intermission.

10:30 CINF 10. Practical machine learning methods for QSPR and QSAR predictions. **V. Tkachenko, A. Korotkov, R. Zakharov, B. Sattarov, A. Mitrofanov**

10:55 CINF 11. Making virtual REAL: synthetically feasible compounds and their exploration in docking screens. **Y. Moroz**

[†]Cooperative Cosponsorship

11:20 CINF 12. Deep learning approaches for detecting high-throughput screening false positives. **M. Matlock**, T. Hughes, S. Swamidass

11:45 CINF 13. Virtual screening and fast resynthesis of hits: Anchor.Query. **A. Doemling**, D. Koes, C.J. Camacho

Drug Design

Structure & Ligand-Based Design

Sponsored by COMP, Cosponsored by CINF

Machine Learning for Catalysis Research

Sponsored by CATL, Cosponsored by CINF and COMP

Marriage of Machine Learning, Knowledge Representation & Chemical Sciences

Data Mining & Frameworks for Chemical Discovery

Sponsored by COMP, Cosponsored by CINF and PHYS

Large-Scale Applied Molecular Modeling

Sponsored by COMP, Cosponsored by CINF and MEDI

SUNDAY AFTERNOON

Section A

New Orleans Marriott Convention Center
River Bend 1

Enhance Discovery: Share Chemical Structures

Financially supported by Chemical Structure Association Trust
L. McEwen, *Organizer*
Y. Li, V.F. Scalfani, *Organizers, Presiding*

1:15 Introductory Remarks.

1:20 CINF 14. Sharing chemical structures with peer-reviewed publications. Are we there yet? **A.J. Williams**

1:35 CINF 15. Integration of Markush structures into EPA's DSSTox database to represent and enumerate UVCB substances. **C. Grulke**, A.J. Williams, A. Richard

1:55 CINF 16. Curating and sharing structures and spectra for the environmental community. **E. Schymanski**, A.J. Williams

2:15 CINF 17. ChemAxon's chemical structure file formats for better data storage and search. **A.D. Costache**, E.A. Hoffmann, A. Volford

2:40 CINF 18. NCI/CADD CACTUS web server: Tool for connecting chemical structures. **M.C. Nicklaus**

3:05 Intermission.

3:20 CINF 19. Sharing chemical structures: Workflows, demonstrations, and discussion. **V.F. Scalfani**, L. McEwen, Y. Li, E. Schymanski, A. Costache, E.A. Hoffmann, A. Volford, A.J. Williams, C. Grulke, J. Zhang, S.

Ward, G. Jones, G.M. Banik

Section B

New Orleans Marriott Convention Center
Natzhez

Fragrances, Food & Cheminformatics

R.J. Bienstock, J.A. Bikker, *Organizers, Presiding*

1:15 Introductory Remarks.

1:20 CINF 20. Global structure diversity and chemical space of food chemicals. N.N. Trujillo-Minero, **J.L. Medina-Franco**

1:40 CINF 21. Food additives data integration in PubChem. **J. Zhang**, P. Thiessen, A. Gindulyte, E. Bolton

2:00 CINF 22. Using structural data in the food and fragrance industries. **S. Ward**, A. Sarjeant, S. Vyas, P.I. Andrews

2:20 Intermission.

2:30 CINF 23. Predicting human olfactory perception from molecular structure. **J. Mainland**

2:50 CINF 24. Using molecular fields to understand molecular determinants of the olfaction process. **M. Slater**

3:10 CINF 25.

3:30 CINF 26. QSAR/QSPR models to support fragrance ingredient molecular design. D. Chekmarev, J. Kattas, **J.A. Bikker**

3:50 Intermission.

4:00 CINF 27. Translating methods from pharma to fragrances and flavors. **T. Mansley**, E. Champness, P. Hunt, N. Foster, **M.D. Segall**

4:20 CINF 28. Predicting color stability of fragrance ingredients in consumer products based on molecular structure. D.T. Stanton, **P.J. Madhav**

4:40 CINF 29. Computational analysis towards understanding food dye and coloring agent genotoxicity. **R.J. Bienstock**, L. Perera, M.A. Pasquinelli

Machine Learning for Catalysis Research

Sponsored by CATL, Cosponsored by CINF and COMP

Marriage of Machine Learning, Knowledge Representation & Chemical Sciences

Artificial Intelligent Searching of Chemical Space

Sponsored by COMP, Cosponsored by CINF and PHYS

Large-Scale Applied Molecular Modeling

Sponsored by COMP, Cosponsored by CINF and MEDI

MONDAY MORNING

Section A

New Orleans Marriott Convention

Center

River Bend 1

Community Sharing of Chemical Safety Data: Yes, No, Maybe?

Cosponsored by CHAS, CA and PRES[†]
C.I. Nitsche, *Organizer, Presiding*

8:20 CINF 30. What's all this fuss about data sharing? In search of improved laboratory safety. **C.I. Nitsche**

8:30 CINF 31. Promoting safety culture through sharing—a Dow perspective. **M.E. Jones**, L. Seiler, C. Mapes

8:55 CINF 32. Chemical and laboratory safety – the role of scholarly publishers. **C. Toro**, S.B. Tegen

9:20 CINF 33. Chemical safety data in the Handbook of Chemistry and Physics. **J. Rumble**, D.R. Lide, F. Macdonald

9:45 CINF 34. Safety sharing culture: Learning from the aviation industry. **T. Zoeller**

10:10 Intermission.

10:25 CINF 35. Information/practice sharing forums among American Chemistry Council member companies. **I. McGee**, D. Sandidge

10:50 CINF 36. Experiences with learning experience reports. **W.B. Tolman**

11:15 CINF 37. Balancing act: Protecting all interests. **S. Addestone**, S. Christman

11:40 CINF 38. Parsing the "lessons learned" space: Layers of opportunities and challenges. **R. Stuart**

11:50 Panel Discussion.

Section B
New Orleans Marriott Convention Center
Natzhez
Workflows & Cheminformatics

R.J. Bienstock, G. Landrum, *Organizers, Presiding*

8:30 CINF 39. Open-source web tools for modeling and design tracking: Workflows facilitating collaborative drug discovery. **K.W. Lexa**, J.A. Feng

8:50 CINF 40. Building upon chemical similarity—methods to extend instance-based learning in cheminformatics. **T.H. Luechtefeld**

9:10 CINF 41. Chemical workflows supporting automated research data collection. **V. Tkachenko**, R. Zakharov, F. Prior, A.V. Kabanov, A. Tropsha

9:30 Intermission.

9:40 CINF 42. Diamond, XChem and CCP-CompMedChem: Creating user-focused tools and workflows for structure-based drug design. **A. Bradley**, R. Skyner, F. von Delft

10:00 CINF 43. How can you access PubChem programmatically? **S. Kim**, P. Thiessen, T. Cheng, E. Bolton

10:20 CINF 44. Interactive and reproducible data analysis with the open-source KNIME Analytics Platform. **G. Landrum**

10:40 Intermission.

10:50 CINF 45. Using Python to streamline access to the Cambridge Structural Database through new workflows. **P. Sanschagrin**, S. Vyas

11:10 CINF 46. Floe: Parallel, heterogeneous workflows on the cloud. **P.C. Hawkins**, A.G. Shewmaker, J.W. LaFon, A.G. Skillman, R.W. Tolbert

11:30 CINF 47. LiveDesign: Integrative molecular modeling and cheminformatics for collaborative drug design. **E. Davis**, T. Garland

Computational Catalyst Design for Energy Conversion & Storage

Advances in Theory, Computational Models & Approaches

Sponsored by COMP, Cosponsored by CATL and CINF

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

Sponsored by COMP, Cosponsored by CINF, MEDI and PHYS

Drug Design

QSAR & Docking

Sponsored by COMP, Cosponsored by CINF

Machine Learning for Catalysis Research

Sponsored by CATL, Cosponsored by CINF and COMP

Marriage of Machine Learning, Knowledge Representation & Chemical Sciences

Applied Machine Learning: Molecular Dynamics, Materials & Virtual Screening

Sponsored by COMP, Cosponsored by CINF and PHYS

Large-Scale Applied Molecular Modeling

Sponsored by COMP, Cosponsored by CINF and MEDI

MONDAY AFTERNOON

Section A

New Orleans Marriott Convention Center
River Bend 1

Information Legacy of Eugene Garfield: From the Chicken Coop to the World Wide Web

Cosponsored by HIST and PRES
Financially supported by Clarivate Analytics
H.A. Lawlor, W.A. Warr, *Organizers*
M. Qiu, *Organizer, Presiding*

1:15 Introductory Remarks.

1:20 CINF 48. Eugene Garfield: The man and his legacy. **H.A. Lawlor**

1:50 CINF 49. From the Index Chemicus Registry System to SciFinder and beyond. **W.A. Warr**

[†]Cooperative Cosponsorship

2:20 CINF 50. Eugene Garfield: The father of chemical text mining and artificial intelligence (AI) in cheminformatics. **R.A. Sayle**

2:50 Intermission.

3:00 CINF 51. Eugene Garfield's legacy and its impact on the culture of research. **S. Baykoucheva**

3:30 CINF 52. Beyond citations: What are new ways to assess content that will extend the assessment toolbox? **T.A. Carpenter**

4:00 CINF 53. Novel research and its scientific and technological impact. **J. Wang**

4:30 CINF 54. Clarivate Analytics: Building on the Garfield Legacy with web of science. **J. Testa**

5:00 Concluding Remarks.

Section B

New Orleans Marriott Convention Center
Natzhez

Workflows & Cheminformatics

R.J. Bienstock, G. Landrum, *Organizers, Presiding*

1:30 CINF 55. Quality data to quality models. **T. Hesketh**, P. Hunt, M.D. Segall, E. Champness, T. Mansley

1:50 CINF 56. Development and implementation of Amgen Small Molecule Projects Spofire Report (ASMPSR) to streamline Hit2Lead and lead optimization process. **L. Jia**, S. Geuns-Meyer, H. Gao, T.G. Hopper, M. Southern, B. Lanman, Y. Sun

2:10 Intermission.

2:20 CINF 57. Automating matched molecular pair analysis of bioactivity and solubility data. **F. van den Broek**, M. Clark

2:40 CINF 58. Reaction and chemistry data blending. **M. Fischer**, J. Buckley, **F. van den Broek**

3:00 CINF 59. Integrated life science data and the power of workflows. J. Gurinova, D. Digles, **G.F. Ecker**

3:20 Intermission.

3:30 CINF 60. Automated workflows for data curation and standardization of chemical structures for QSAR modeling. **K. Mansouri**, A. McEachran, C. Grulke, A. Richard, R. Judson, A.J. Williams

3:50 CINF 61. Integrated visualization of the research landscape of proteins. **J. Gurinova**, G.F. Ecker

Computational Catalyst Design for Energy Conversion & Storage

Development of Electro- & Photocatalysts

Sponsored by COMP, Cosponsored by CATL and CINF

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

Sponsored by COMP, Cosponsored by CINF, MEDI and PHYS

Drug Design

Molecular Property

Sponsored by COMP, Cosponsored by CINF

Machine Learning for Catalysis Research

Sponsored by CATL, Cosponsored by CINF and COMP

Marriage of Machine Learning, Knowledge Representation & Chemical Sciences

Deep Learning for Deep Chemical Understanding

Sponsored by COMP, Cosponsored by CINF and PHYS

Large-Scale Applied Molecular Modeling

Sponsored by COMP, Cosponsored by CINF and MEDI

MONDAY EVENING

Section A

Ernest N. Morial Convention Center
Halls D/E

Sci-Mix

E. Alvaro, *Organizer*

8:00–10:00

CINF 62. Analysis of food pairings based on food metabolites. **R. Reed**, T. Neumann

CINF 63. Interaction between organic phosphate ester and p53: An integrated experimental and *in silico* approach. **F. Li**

CINF 64. Teaching chemical information literacy: A 21st-century skill using 21st-century tools. **C. Hoffner**

CINF 65. Structure-based drug design for the zinc-dependent deubiquitinase STAMBPL1. S. Wussow, **C. Jaeger**, M. Buchholz

CINF 66. Triangulation of repurposing candidates for orphan diseases. **J. Gurinova**, D. Digles, G.F. Ecker

CINF 67. BioTransformer: A tool for metabolism prediction of small molecules. **Y. Djoumbou Feunang**, D. Wishart

CINF 68. Organizing the pathways and products of nerolidyl diphosphate into a searchable database. **R. Patnayakuni**, C. Hamann

CINF 69. Designing CDK2 inhibitors using the molecular chimera approach. **B. Cook**, D. Fouches

CINF 70. D-Peptide Builder: A web-based application to enumerate the chemical space of peptides. **B. Díaz Eufrazio**, J.L. Medina-Franco, O. Palomino-Hernández

CINF 71. *De-novo* drug design with deep reinforcement learning. **M. Popova**, O. Isayev, A. Tropsha

CINF 72. One-click QSAR: A universal approach for developing accurate models. **V.M. Alves**, A. Golbraikh, E. Muratov, S. Capuzzi, K. Liu, W. Lam, D. Pozefsky, C.H.

Andrade, A. Tropsha

TUESDAY MORNING

Section A

New Orleans Marriott Convention Center
River Bend 1

Chemical Information Literacy: Innovation, Collaboration & Assessment

Cosponsored by CHED
Y. Li, C. Lovitt, G.V. Szymczak, T.M. Vogel, *Organizers, Presiding*

8:30 Introductory Remarks.

8:40 CINF 73. Strategic outreach into chemistry and chemical engineering research groups at UC Berkeley. **K.K. Rupp**

9:00 CINF 74. Catalyzing chemical information literacy through ChemOnCampus. **D. Christe**

9:20 CINF 75. Creating bonds across campus: A general chemistry information literacy initiative. **D. Behmke**, A. Harmer

9:40 CINF 76. Helping users RAMP up by learning about chemical safety information resources. **G. Baysinger**

10:00 Intermission.

10:20 CINF 77. Using SurveyMonkey and Qualtrics to assess student learning in information literacy programs for undergraduate and graduate chemistry courses. **S. Baykoucheva**, A.J. Schech, E.C. Griffith

10:40 CINF 78. Building new information literacy collaborations at MTSU between library faculty and chemistry faculty. J.M. Iriarte-Gross, **M. Sloane**, D. Fitzgerald-Quintel, H. Lishartke, C. Groves

11:00 CINF 79. Continuous evolution of delivering chemical information literacy through the stepping stone approach. **A.A. Yeagley**, M.C. Rhoten, S.E. Porter, B. Topham

11:20 CINF 80. Building competency: Scaffolding information literacy skills throughout the chemistry curriculum. **C. Cowden**

11:40 Concluding Remarks.

Section B

New Orleans Marriott Convention Center
Natzhez

Cheminformatics Resources & Software Tools Supporting Environmental Chemistry

Cosponsored by COMP and ENVR
G. Patlewicz, A.J. Williams, *Organizers, Presiding*

8:30 CINF 81. Predictive computational techniques for chemical risk assessment. **D. Fouches**

8:50 CINF 82. Identifying and prioritizing chemicals for evaluation of potential endocrine bioactivity and exposure. **A. Frame**, K. Markey, A.S. Kamel, S. Watford, K. Paul-Friedman, R. Judson, A.J. Williams

9:10 CINF 83. OPERA: A free and open source QSAR tool for predicting physicochemical properties and environmental fate endpoints. **K. Mansouri**, C. Grulke, R. Judson, A.J. Williams

9:30 CINF 84. WebTEST (Web-services Toxicity Estimation Software Tool). **T. Martin**, V. Tkachenko, A.J. Williams

9:50 CINF 85. Literature-based cheminformatics for research in chemical toxicity. **N. Baker**, T. Knudsen, A.J. Williams

10:10 Intermission.

10:30 CINF 86. Chemotype-enrichment workflow: A univariate analysis workflow for exploring chemical feature enrichments across EPA's ToxCast chemical-assay landscape. **R. Lougee**, A. Richard, C. Grulke

10:50 CINF 87. New developments in delivering public access to data from the National Center for Computational Toxicology at the EPA. **A.J. Williams**, C. Grulke, A. McEachran, G. Patlewicz, I. Shah, J. Wambacher, R. Judson, A. Richard, J. Edwards

11:10 CINF 88. Actualizing research into practical tools: A case study of GenRA, a new read-across tool. **G. Helman**, G. Patlewicz, I. Shah

11:30 CINF 89. Use of 2D chemical structure and bioactivity profiles to generate chemical categories within an Adverse Outcome Pathway network. **M. Nelms**, S.W. Edwards

11:50 CINF 90. COSMOS DB and ChemoTyper: Public resources for managing, sharing and exploring toxicity data and chemical space. **J.F. Rathman**, C. Yang, C. Schwab, O. Sacher, A. Tarkhov, J. Marusczyk, T. Kleinoeder, A. Mostrag, B. Bienfait

Computational Catalyst Design for Energy Conversion & Storage

Development of Homogeneous & Heterogeneous Catalysts

Sponsored by COMP, Cosponsored by CATL and CINF

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

Sponsored by COMP, Cosponsored by CINF, MEDI and PHYS

ACS Award for Computers in Chemical & Pharmaceutical Research: Symposium in honor of Jürgen Bajorath

Sponsored by COMP, Cosponsored by CINF and MEDI

TUESDAY AFTERNOON

Section A

New Orleans Marriott Convention Center
River Bend 1

Chemical Information Literacy: Innovation, Collaboration & Assessment

Cosponsored by CHED
Y. Li, C. Lovitt, G.V. Szymczak, T.M. Vogel,

[†]Cooperative Cosponsorship

1:30 Introductory Remarks.

1:35 CINF 91. Importance of synthetic speech mark-up language in the teaching of chemistry concepts in a multi-sensory way. **C.A. Supalo**, A.E. Neybert

1:55 CINF 92. Introducing cheminformatics early—prepares your students for success. **M. Pozenel**

2:15 CINF 93. What can you teach using PubChem? **S. Kim**, E. Bolton

2:35 CINF 94. Reaxys and you: Working together to prepare future chemists. **N. Xiao**, J. Swienty-Busch

2:55 Intermission.

3:15 CINF 95. Innovative instruction program for materials science and engineering undergraduate students. **S.J. Redalje**

3:35 CINF 96. Evolution of natural product total synthesis: Mapping pathways through literature searching. **L. McEwen**

3:55 CINF 97. Instructional scaffolding of information literacy skills in a problem-based learning context. **Y. Li**, **G.V. Szymczak**

4:15 CINF 98. Teaching information literacy through the chemistry laboratory. **C.E. Flener-Lovitt**, B. Finley, **A. Berger**

4:35 Discussion.

4:55 Concluding Remarks.

Section B

New Orleans Marriott Convention Center
Natzhez

Cheminformatics Resources & Software Tools Supporting Environmental Chemistry

Cosponsored by COMP and ENVR
G. Patlewicz, A.J. Williams, *Organizers, Presiding*

1:30 CINF 99. Machine learning methods for chemical properties and toxicity-based endpoints prediction using open-source libraries. **V. Tkachenko**, A. Korotcov, R. Zakharov, B. Sattarov, A. Mitrofanov

1:50 CINF 100. Exploring chemical space using ChemMaps.com. **A. Borrel**, N. Kleinstreuer, D. Fourches

2:10 CINF 101. Enhancing exchange of environmental data between EPA and FDA. **Y. Borodina**, S. Winfield, B. Pruitt

2:30 CINF 102. Prediction of pKa from chemical structure using free and open-source tools. **V. Tkachenko**, N. Cariello, A. Korotcov, K. Mansouri, A.J. Williams

2:50 CINF 103. Cheminformatics tools for supporting environmental chemistry. **Y. Djoumbou Feunang**, D. Wishart

3:10 Intermission.

3:30 CINF 104. Investigating ligand and structure-based modeling followed by mixture toxicity prediction of per- and polyfluoroalkyl substances: A virtual screening approach. **S. Kar**, S. Ghosh, J.R. Leszczynski

3:50 CINF 105. Chemoinformatic approach to identification of antiviral

components in humic substances. **A. Orlov**, A.Y. Zherebker, A.A. Eletskaia, V.S. Chernikov, L.I. Kozlovskaya, Y.V. Zhernov, V.A. Palyulin, D.I. Osolodkin, I.V. Perminova

4:10 CINF 106. Adding complex expert knowledge into chemical databases: Transforming surfactants in wastewater. **E. Schymanski**, C. Grulke, J. Hollender, A.J. Williams

4:30 CINF 107. Prioritizing anthropogenic chemicals in drinking water sources through combined use of mass spectrometry based exposure data and ToxCast toxicity data. **A.M. Brunner**, M.M. Dingemans, K.A. Baken, A.P. van Wezel

Computational Catalyst Design for Energy Conversion & Storage

Development of Homogeneous & Heterogeneous Catalysts

Sponsored by COMP, Cosponsored by CATL and CINF

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

Sponsored by COMP, Cosponsored by CINF, MEDI and PHYS

ACS Award for Computers in Chemical & Pharmaceutical Research: Symposium in honor of Jürgen Bajorath

Sponsored by COMP, Cosponsored by CINF and MEDI

WEDNESDAY MORNING

Section A

New Orleans Marriott Convention Center
River Bend 1

General Papers

E. Alvaro, *Organizer, Presiding*

8:30 CINF 108. Units of Measure Interoperability Service (UMIS): FAIR units for FAIR data. **S.J. Chalk**, R.J. Hanisch

8:55 CINF 109. RA21: Improving access to scholarly resources, from anywhere, on any device. **R. Youngen**

9:20 CINF 110. Rapid collection of experimental physicochemical property data to inform various models and testing methods. **C.I. Nicolas**, K. Mansouri, K. Phillips, C. Grulke, A. Richard, A. Williams, J. Rabinowitz, K. Isaacs, A. Yau, J. Wambaugh

9:45 Intermission.

10:00 CINF 111. Prediction of emission and absorption spectra for Eu²⁺-doped inorganic phosphors based on stoichiometric information. **H. Nakano**, K. Tanaka, T. Miyao, K. Funatsu, R. Shirasawa, S. Tomiya

10:25 CINF 112. Deep learning approach to computational chemistry of lanthanides. **V. Tkachenko**, A. Mitrofanov, P. Matveev, A. Korotcov, R. Zakharov

10:50 CINF 113. Mapping of antiviral chemical space with ViralChEMBL: Use cases and new findings. **D.I. Osolodkin**, A. Orlov, A. Nikitina, L.I. Kozlovskaya, V.A. Palyulin, D. Horvath, A. Varnek

Drug Design

Algorithm, Tool & Web Service

Sponsored by COMP, Cosponsored by CINF

Structure-Based Drug Design for GPCRs

Sponsored by COMP, Cosponsored by CINF and MEDI

WEDNESDAY AFTERNOON

Drug Design

Molecular Dynamics

Sponsored by COMP, Cosponsored by CINF

Structure-Based Drug Design for GPCRs

Sponsored by COMP, Cosponsored by CINF and MEDI

THURSDAY MORNING

Drug Design

Agonist, Antagonist & Macrocyclic

Sponsored by COMP, Cosponsored by CINF

CHAL

Division of Chemistry and the Law

K. Bianco and **J. Kennedy**, *Program Chairs*

SOCIAL EVENTS:

Reception, 6:30 PM: Mon

SUNDAY AFTERNOON

Section A

Ernest N. Morial Convention Center
Room 213

Strengthening Your Patent Rights in Light of Recent Federal Circuit Court Decisions

A.H. Berks, *Organizer*
X. Pillai, *Organizer, Presiding*

2:00 CHAL 1. Review of recent Federal Circuit decisions relevant to what scientists need to know about patent filing and prosecution. **X. Pillai**, **A. Berks**

Legal Issues for Chemical Companies in the Food, Energy & Water Industries

Sponsored by SCHB, Cosponsored by CHAL and PROF

MONDAY MORNING

Section A

Ernest N. Morial Convention Center
Room 213

Issues in Chemical Commercialization

Cosponsored by BMGT
K.E. Bianco, *Organizer*
I. Hantman, *Organizer, Presiding*

9:30 CHAL 2. Issues in chemical commercialization. **K.E. Bianco**, **I. Hantman**, **G. Sower**

MONDAY AFTERNOON

Section A

Ernest N. Morial Convention Center
Room 213

Update on Patent Eligibility: Are Things Getting Better for Patent Applicants?

J.L. Kennedy, *Organizer, Presiding*

1:30 CHAL 3. Mayo, Alice, Prometheus, Enfish? What is the current test for determining if an invention is eligible for patent filing? **R. Bone**, **J.L. Kennedy**

1:45 CHAL 4. How to patent medical diagnostics and genetics related inventions – What have recent cases taught us? **J.L. Kennedy**

2:30 CHAL 5. How to patent systems, software, and business method inventions – What have recent cases taught us? **R. Bone**

3:15 Discussion.

MONDAY EVENING

Section A

Ernest N. Morial Convention Center
Halls D/E

Sci-Mix

K.E. Bianco, *Organizer*

8:00–10:00

CHAL 6. Chocolate: Food of the gods. **H.M. Peters**, **S.B. Peters**

CHAL 7. National Inventors Hall of Fame. **H.M. Peters**, **S.B. Peters**

TUESDAY AFTERNOON

Evolving Chemical Hazard Evaluation Strategies to Address Compliance under the New Toxic Substances Control Act (TSCA)

Sponsored by ENVR, Cosponsored by CHAL and CHAS

WEDNESDAY MORNING

Heidolph North America's Cannabis Chemistry Subdivision Scholarship Symposium

Sponsored by CHAS, Cosponsored by AGFD, CHAL and SCHB

†Cooperative Cosponsorship

WEDNESDAY AFTERNOON

Heidolph North America's Cannabis Chemistry Subdivision Scholarship Symposium

Sponsored by CHAS, Cosponsored by AGFD, CHAL and SCHB

COLL

Division of Colloid and Surface Chemistry

R. Nagarajan, Program Chair

OTHER SYMPOSIA OF INTEREST:

Assembly & Colloidal Interactions of Cellulose Nanocrystals (see CELL, Sun, Mon)

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski (see GEOC, Sun, Mon, Wed)

Nano in Food, Energy, & Water (see MPPG, Mon)

Polymer Colloids: Synthesis, Analysis, Modeling & Applications (see POLY, Sun, Mon, Tue, Wed)

Polymers with Complex Architecture: From Synthesis to Self-Assembly (see PMSE, Sun, Mon, Tue, Wed)

Understanding the Complexity of the Nano/Bio Interface with Experiments & Computations (see PHYS, Wed, Thu)

SOCIAL EVENTS:

Social Hour with Poster Session, 6:00 PM: Sun

COLL Luncheon, 12:15 PM: Tue

BUSINESS MEETINGS:

COLL Business Meeting (Open), 5:30 PM: Sun

COLL Program & Executive Committee Meeting, 4:00 PM: Sat

M.A. Ilies, U. Satyal, J.A. Shif, V.D. Sharma

9:45 COLL 4. Dynamic remodeling of synthetic lipoproteins in blood serum solutions. **S.F. Gilmore**, S. Peters, P.T. Henderson, C. Blanchette, N. Fischer

10:05 Intermission.

10:25 COLL 5. Mechanisms of binding and assembly of complement factors on nanoparticles. **D. Simberg**, F. Chen, G. Wang, S.M. Moghimi, V.P. Vu

10:55 COLL 6. Gold nanoparticles and proteins: Quid pro quo. **L. Liz Marzan**

11:25 COLL 7. Protein interactions with stealth-coated gold nanoparticles. **N.T. Flynn**, A.W. Cheema, A.L. Code, M.T. Phan, A. Uchitelle, A. Webb

11:45 COLL 8. Structure and orientation of a small protein on a gold nanoparticle surface. **Y.R. Perera**, A. Huges, N. Fitzkee

Section B

Ernest N. Morial Convention Center Room 245

Biomaterials & Biointerfaces

Bacteria at Interfaces in the Environment

A.P. Goodwin, Organizer
V. Gordon, Organizer, Presiding

8:30 Introductory Remarks.

8:40 COLL 9. Using an environmentally-relevant panel of Gram-negative bacteria to assess the toxicity of polyelectrolyte-wrapped gold nanoparticles. **J.T. Buchman**, A. Rahnamou, K.M. Landy, X. Zhang, A. Vartanian, L. Jacob, C.J. Murphy, R. Hernandez, C.L. Haynes

9:00 COLL 10. Force-modulated multivalent binding of fibrillated bacteria. **E. Reimhult**, A. Lundgren, P. van Oostrum

9:20 COLL 11. Clay-based microstructures as alternatives to chemical dispersants in bioremediation of crude oil: Studies with model marine organisms. **L.T. Swientoniewski**, M. Omarova, R. Blake, T. Yu, S. Zhang, A. Panchal, Y.M. Lvov, D. Zhang, V.T. John, D.A. Blake

9:40 COLL 12. Remodeling of fluid interfaces by bacteria. **D. Lee**, T.H. Niepa, L. Vaccari, R. Leheny, M. Goulian, K.J. Stebe

10:10 COLL 13. Structure and mechanics of microbial biofilms. **J. Wilking**

10:40 Intermission.

11:00 COLL 14. Programmable bacterial biofilms via growth microenvironments. **A. Hochbaum**

11:30 COLL 15. Bacterial interactions with immobilized liquid surfaces. **C. Howell**, J. Aizenberg

12:00 COLL 16. Understanding heterogeneous populations of *P. aeruginosa* at the single-cell level. **C. Chang**

Section C

Ernest N. Morial Convention Center R07

Biomembrane Synthesis, Structure, Mechanics & Dynamics

J. Katsaras, M. Nieh, A.N. Parikh, Organizers
S. Muralidharan, Organizer, Presiding
C. Naumann, Presiding

8:30 COLL 17. Molecular dynamics simulation study of alpha-tocopherol interaction with lipid bilayers. **S. Kavousi**, B. Novak, D. Moldovan

8:50 COLL 18. Amphiphilic polypeptoids connect nanoparticle containing lipid rafts onto lipid membranes through self-assembly. **V.T. John**, Y. Zhang, T. Yu, M. Omarova, D. Zhang

9:20 COLL 19. Systematic study of structure-function relationships in synthetic, archaea-inspired tetraether lipids. G. Leriche, T. Koyanagi, Y. Kim, K. Gao, D. Onofrei, O. Eggenberger, N.C. Gianneschi, G.P. Holland, M.K. Gilson, D. Sept, M. Mayer, **J.C. Yang**

9:50 COLL 20. Interplay between passive and active membrane mechanisms regulates the formation of the immunological synapse. **O. Farago**

10:20 COLL 21. Ultra coarse-grained molecular dynamics simulations of lipid bilayers. J. Carrillo, J. Katsaras, **B. Sumpter**, R. Ashkar

10:50 COLL 22. Phonon-mediated biological functions of a cell membrane. **M. Zhernenkov**

11:20 COLL 23. Melting and exchange kinetics of nano-crystalline micelles: Implications for lipid dynamics. **R. Lund**, N. Koenig, T. Zinn, L. Willner

11:50 COLL 24. Withdrawn

Section D

Ernest N. Morial Convention Center R06

Chemistry of Molecular Electronics Theory

Cosponsored by PHYS
M.S. Inkpén, G.C. Solomon, L. Venkataraman, Organizers, Presiding

8:30 COLL 25. Two-dimensional pi-conjugated covalent organic networks: Establishing chemical structure – electronic properties relationships. **J.E. Bredas**

9:00 COLL 26. Computational tools for chemical insight in molecular electronics. **G.C. Solomon**

9:20 COLL 27. Charge transport mechanisms in molecular junctions. **D. Segal**

9:50 COLL 28. First-principles calculations of charge transport: Weakly coupled and strongly coupled molecular junctions. **Z. Liu**, S. Refaely-Abramson, F. Bruneval, J. Neaton

10:10 COLL 29. In search of structure-activity relationships in transition metal-based molecular conductors. **J. McGrady**, V. Arcisauskaitė, J. Lamb

10:40 Intermission.

10:50 COLL 30. Quantum-interference-enhanced thermoelectricity in single-molecule junctions. **C.J. Lambert**

11:20 COLL 31. Utilizing the helical frontier orbitals of cumulenes in molecular electronics. **M.H. Garner**, R. Hoffmann, A. Jensen, L. Hyllested, S. Rettrup, G.C. Solomon

11:40 COLL 32. Spin-polarized transport through molecular junctions from first principles. **C. Herrmann**

12:00 COLL 33. Moving electrons: Quantum transport, time dependence, phonons, interference and probes. **M.A. Rafter**

Section E

Ernest N. Morial Convention Center R08

Colloidal Nanoparticle Synthesis & Assembly

Financially supported by Henan University and King Abdullah University of Science and Technology
M. Cai, H. Fan, Y. Han, Organizers
F. Bai, Organizer, Presiding
H. Fan, Presiding

8:30 COLL 34. Bimetallic Janus nanocrystals. **Y. Xia**

9:00 COLL 35. Crystal phase-engineering of novel nanomaterials. **H. Zhang**

9:30 COLL 36. Understanding the removal pathways of dislocations in imperfectly attached nanocrystals using *in-situ* HRTEM. **J. Ondry**, M.R. Hawwiler, P. Alivisatos

9:50 COLL 37. Controlled syntheses of gold nanostars for stronger surface enhanced Raman scattering. **C. Jiang**

10:10 Intermission.

10:30 COLL 38. Fluorescence kidney functional imaging enabled by renal clearable gold nanoparticles. **J. Zheng**, M. Yu

11:00 COLL 39. Do nucleation and growth have to be twin events in nanoparticle formation? **Y. Sun**

11:30 COLL 40. One-pot synthesis of heterostructured RuCu alloyed nanotubes. **H. Cheng**, H. Zhang

11:50 COLL 41. Understanding the mechanism of non-equilibrium etching of gold nanocrystals through graphene liquid cell TEM. **M.R. Hawwiler**, L.B. Frechette, M.R. Jones, J. Ondry, P.L. Geissler, P. Alivisatos

12:10 COLL 42. Chemical soldering of nanoparticle assemblies for photovoltaic applications. **N.N. Kholmicheva**, M. Zamkov

Section F

Ernest N. Morial Convention Center R09

Fundamental Studies of Mechanochemical & Tribochemical Processes at Interfaces

R.M. Espinosa-Marzal, W.T. Tysoe, Organizers
J.D. Batteas, Organizer, Presiding

8:30 Introductory Remarks.

SUNDAY MORNING

Section A

Ernest N. Morial Convention Center Room 242

Nanoparticle Biomolecule Corona: From Fundamentals to Applications

W. Chan, M. Hadjidemetriou, K. Kostarelou, Organizers, Presiding

8:30 Introductory Remarks.

8:35 COLL 1. Relevance of the biomolecule corona for nanomaterial-microbe cross-talk. **R. Stauber**, S. Knauer, D. Westmeier

9:05 COLL 2. Spontaneous lipid corona formation at lipid bilayers. **F. Geiger**

9:25 COLL 3. Interfacially-stabilized polymeric nanosystems for drug delivery.

[†]Cooperative Cosponsorship

8:35 COLL 43. Stress-assisted thermal activation in tribology: from friction and rheology to wear and tribo/mechanochemistry. **W.T. Tysoe**

9:05 COLL 44. First-principles modeling of the joint influences of catalysis and mechanical stress in tribopolymer formation. **A.M. Rappe**

9:35 COLL 45. Constituents of tribochemistry – molecule and surface at shearing interface: how would their chemical structure affect the critical activation volume of mechanochemical reaction? **S.H. Kim**

10:05 Intermission.

10:20 COLL 46. Mechanochemical synthesis, structure and properties of solid solutions of alkaline earth metal fluorides $M_xM_{1-x}F_2$ ($M = Ca, Sr, Ba, Pb$). **G. Scholz**

10:50 COLL 47. Emergence and applications of techniques for real-time monitoring of mechanochemical reactions. **T. Friscic**

11:20 COLL 48. Exploring pharmaceutical cocystal diversity using liquid-assisted mechanochemical reactions. **W. Jones**

11:50 COLL 49. Dissipation pathways upon sliding a tip along the calcite-brine interface: Connection between nanotribology and mineral reactivity. **Y. Diao, R.M. Espinosa-Marzal**

Section G

Ernest N. Morial Convention Center Room 203

Nanomaterials

Nanoscience in Industry & Manufacturing

J.A. Hollingsworth, *Organizer*
R. Nagarajan, *Organizer, Presiding*

8:30 COLL 50. Improving mechanical properties in glassy polymer nanocomposites: Effect of molecular weight. **V. Bocharova, A. Genix, A. Kisliuk, S. Zhao, A.P. Sokolov**

8:50 COLL 51. Functional nanomaterials: Towards magnetically activated adhesives. **G. Davies**

9:10 COLL 52. Developing quantum-dot nanocomposites for high-performance luminescent solar concentrators. **A. Jackson, M. Bergren, N. Markarov, K. Ramasamy, H. McDaniel**

9:30 COLL 53. Real-time, *in situ* observation of aqueous corrosion initiation in nanostructured steel. **S.C. Hayden, C. Chisholm, R.O. Grudt, W. Mook, A. Ilgen, D. Bufford, K. Hattar, T.J. Kucharski, I. Taie, K. Jungjohann, M. Ostraat**

9:50 COLL 54. Light, but strong SiC foam for thermal insulation and electromagnetic interference shielding at elevated temperatures. **Z. Wang**

10:10 COLL 55. Volumetric, percolating metallic structures templated by laser-deposited carbon nanofoams: Applications in humidity sensing. **S. Nufer, J.P. Salvage, A. Shmeliov, A. Brunton, A. Dalton**

10:30 COLL 56. Unusual ion-exchange

behavior of nanoparticulate oxides: Applications in food, energy, and water sectors. **A.W. Apblett, C.K. Perkins, T. Reed**

10:50 COLL 57. Nanoaptasensors based on gold nanotriangles for the efficient and selective detection of ochratoxin A via LSPR and SERS. **Y. Hernandez, L. Lagos, B.C. Galarreta**

11:10 COLL 58. Preparation and toughening performance investigation of epoxy resins containing carbon nanotubes modified with hyperbranched polyester. **L. Lu, X. Liao**

Section H

Ernest N. Morial Convention Center Room 204

Basic Research in Colloids, Surfactants & Nanomaterials

Nanoparticle Synthesis & Assembly

R. Nagarajan, *Organizer*
F. Bai, *Presiding*

8:30 COLL 59. Precursor ion-ion aggregation in the Brust-Schiffrin synthesis of alkanethiol nanoparticles. **T. Graham, R. Renslow, N. Govind, S.R. Saunders**

8:50 COLL 60. Synthesis and characterization anisotropic rod-like colloids with thermoreversible short-range attractions: Towards a universal phase diagram for adhesive hard rod suspensions. **N.J. Wagner, R.P. Murphy**

9:10 COLL 61. Understanding self-assembly and ionic strength interactions of cellulose nanocrystals using isothermal titration calorimetry and rheology. **E. Fachine, S. Jin, R.J. Spontak, O.J. Rojas, S. Khan**

9:30 COLL 62. Every which way but loose: A single thermoresponsive diblock copolymer can form spheres, worms or vesicles in aqueous solution. **S.P. Armes**

9:50 COLL 63. Synthesis of anisotropic nanostructures through controlled symmetry breaking. **A.E. Kossak, B. Stephens, Y. Tian, P. Liu, M. Chen, T.J. Kempa**

10:10 COLL 64. Controlled self-assembly of porphyrin and catalytic applications. **F. Bai**

10:30 COLL 65. Tuning local nanoparticle arrangements and dynamical properties in polymer nanocomposites by grafting of small molecules. **A. Genix, D. Musino, V. Bocharova, A.P. Sokolov, J. Oberdisse**

10:50 COLL 66. Spectroscopy nanosensors based on Zika virus Sn1 antibodies linked to gold nanoparticles: A system optimization study. **R.L. Silveira, J. Santos, J. Rubim, P. Corio**

11:10 COLL 67. Three-dimensional assemblies of Fe_xNi_xP ($0 \leq x \leq 2$) and $Co_{2-y}Fe_yP$ ($0 \leq y \leq 2$) nanoparticles and their magnetic properties: Towards effective magnetic refrigerant materials. **M.A. Hettiarachchi, S. Brock, E. Abdelhamid, B. Nadgorny**

11:30 COLL 68. Concentric Nd(III)-sensitized core-shell upconversion nanoparticles for excitation with biobeneficial wavelength. **C. Arboleda, S. He, A.**

Stubelius, N. Johnson, A. Almutairi

Section I

Ernest N. Morial Convention Center Room 205

ACS Award in Surface Chemistry: Symposium in honor of Stacey F. Bent

Atomic-Level Precision in Deposition & Etching

Cosponsored by WCC
A.V. Teplyakov, *Organizer*
H. Lee, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 COLL 69. Withdrawn

9:05 COLL 70. Topographically selective atomic layer deposition on 3D nanostructures for novel nanopatterning processes. **W. Kim, S.F. Bent**

9:35 COLL 71. Surface reactions for area-selective atomic layer deposition and thermal atomic layer etching of metals and dielectrics. **G. Parsons**

10:05 COLL 72. Surface chemistry of metal atomic layer deposition (ALD) precursors. **F. Zaera**

10:35 Intermission.

10:50 COLL 73. A tale of two coordination modes: Diaminoalkylsilane adsorption on dielectric and silicon substrates. **J. Kachian**

11:20 COLL 74. Surface chemistry of thermal atomic layer etching. **S.M. George**

11:50 COLL 75. Withdrawn

Section J

Ernest N. Morial Convention Center Room 225

Basic Research in Colloids, Surfactants & Nanomaterials

Surfactants

R. Nagarajan, *Organizer*
K. Sakurai, *Presiding*

8:30 COLL 76. Effect of micelle structure and inter-micellar interactions on multicomponent diffusion in nonionic micellar solutions. **N.P. Alexander, S.R. Dungan, R. Phillips**

8:50 COLL 77. Molecular dynamics investigation of ionic interfacial partitioning in reverse micelles. **A.K. Sharma**

9:10 COLL 78. Transitions between non-equilibrium micelles. **F. Plamper, N. Warren, A. Steinschulte**

9:30 COLL 79. Platonic micelles part 1: Monodispersity and discreteness of the aggregation number of calix[4] arene-based micelles bearing non-ionic hydrophilic groups. **S. Fujii, R. Takahashi, K. Sakurai**

9:50 COLL 80. Platonic micelles part 2: Thermodynamic and kinetic consideration of the micelles with the discrete aggregation numbers and monodispersity. **K. Sakurai, R. Takahashi, S. Fujii**

10:10 COLL 81. Structural and thermodynamic impact of dipropylene glycol (DPG) on mixed surfactant system. **H. Jiang, K. Voglt, G. Beaucage, M.R. Weaver**

10:30 COLL 82. Intermolecular headgroup interaction and hydration as driving forces for lipid transmembrane asymmetry. **N. Smolentsev, C. Luetgebaucks, H. Okur, S. Roke**

10:50 COLL 83. Force mapping and characterization of surfactant adsorbed on flat and patterned surfaces. **J. Hamon, B.P. Grady, R. Tabor, A. Striolo**

11:10 COLL 84. Electrochemical diffusion coefficients for cationic surfactants using ferrocene probes. **S.J. Bachofer, B. Schepergerdes, M.D. Lingwood**

11:30 COLL 85. Transport properties in micelle nanoreactors: Molecular modeling approach. **C. Callaway, S. Jang, K.R. Hendrickson, N. Bond, S. Lee**

11:50 COLL 86. Studying the Interaction of Hydrophobically modified Ethoxylated Urethane (HEUR) polymers with Sodium Dodecylsulfate (SDS) in aqueous solution. **M. Ibrahim, P. Griffiths, M.W. Murray, A. Szczygiel**

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

Elucidation of Mechanisms & Kinetics on Surfaces

Mechanisms & Selectivity

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Physical Chemistry of Ionic Liquids

Functional Ionic Liquids & Applications

Sponsored by PHYS, Cosponsored by COLL[†]

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

[†]Cooperative Cosponsorship

Section A

Ernest N. Morial Convention Center
Room 242

**Nanoparticle Biomolecule Corona:
From Fundamentals to Applications**

W. Chan, M. Hadjidemetriou, K.
Kostarelou, *Organizers, Presiding*

2:00 COLL 87. Engineering protein coronas for applications in nanomedicine. **K. Hamad-Schifferli**

2:30 COLL 88. Biomolecular corona of gold nanoparticles formed in blood: Application for detection and diagnosis of infectious diseases and cancer. T. Zheng, **Q. Huo**

3:00 COLL 89. Nanoscale tools for biomarker discovery: The emerging role of biomolecule corona. **M. Hadjidemetriou**, K. Kostarelou

3:30 COLL 90. Protein coronas enhance polystyrene interactions with a model human erythrocyte membrane outer leaflet. **N. Ganji**, G.D. Bothun

3:40 Intermission.

4:00 COLL 91. Interaction of proteins with nanoparticles probed with non-optical methods. **W. Parak**

4:30 COLL 92. Selective blood vessel deletion using nanoparticle-mediated drug delivery in zebrafish embryos. **A. Kros**

5:00 COLL 93. Protein, lipid membrane and cell interactions of PEGylated and POZylated superparamagnetic iron oxide nanoparticles. **E. Reimhult**, A. Lassenberger, N. Gal, S. Kurzhals, E. Benetti, R. Zirbs

5:20 COLL 94. Suppressing nanoparticle-mono-nuclear phagocyte system interactions of two-dimensional gold nanorings for improved tumor accumulation and photothermal ablation of tumor. **Y. Liu**, Z. Nie, X. Chen

5:40 Concluding Remarks.

Section B

Ernest N. Morial Convention Center
Room 245

Biomaterials & Biointerfaces**Bacteria at Interfaces in Healthcare**

A.P. Goodwin, *Organizer*
V. Gordon, *Organizer, Presiding*

2:00 COLL 95. Glycan engineering at nanoparticle surfaces to understand and detect infection. B. Martyn, S. Won, S. Richards, **M.I. Gibson**

2:20 COLL 96. Bacterial display of peptides for control of bacteria-gold interfaces. **D.A. Sarkes**, J.J. Rice, H. Dong, J. Terrell, J.P. Jahnke, M.C. Small, M. Hurley, D.N. Stratis-Cullum

2:40 COLL 97. Biological colloids: Bacterial outer membrane vesicles. E.S. Rastfi, J.B. Nice, **A.C. Brown**

3:00 COLL 98. Adhesion and viscoelasticity of living tissues: The Live Cell Monolayer Rheometer (LCMR). **G.G. Fuller**, J. Pokki, M. Merola, A. Undieh, E.

Hollenbeck, L. Ceglanski

3:30 COLL 99. Shake it off: Dynamics of bacterial adhesion at interfaces. S. Sharma, Y.A. Jaimes-Lizcano, V. Yadav, R.B. McLay, P. Cirino, M.L. Robertson, **J. Conrad**

4:00 Intermission.

4:20 COLL 100. Mechanical and chemical properties of polymer hydrogels influence bacterial adhesion. K.W. Kolewe, **J.D. Schiffman**

4:50 COLL 101. How bacteria sense surfaces to begin biofilm development, and how we might thwart surface sensing to prevent biofilm development. **V. Gordon**

5:10 COLL 102. Transparent copper-containing coatings for inhibiting bacterial transmission. **K. Neoh**, D. Mitra, E. Kang

5:30 COLL 103. Interaction of bacterial cells with model graphene oxide surfaces: Insights from single-cell force spectroscopy. **S. Romero-Vargas Castrillon**

Section C

Ernest N. Morial Convention Center
R07

**Biomembrane Synthesis, Structure,
Mechanics & Dynamics**

J. Katsaras, S. Muralidharan, M. Nieh, A.N. Parikh, *Organizers*
M.L. Longo, A.B. Subramaniam, *Presiding*

2:00 COLL 104. Preparation and characterization of nanopore supported phospholipid bilayers for Raman microscopy detection and quantification of membrane-associated signaling peptides. **D. Bryce**, J.P. Kitt, J.M. Harris

2:20 COLL 105. Quantifying the electrostatics of polycation-lipid bilayer interactions. **F. Geiger**

2:50 COLL 106. Exploring cellular mechanosensitivity using cell surface-mimicking substrates. **C. Naumann**, K. Shilts

3:20 COLL 107. Charge switch regulating structures and dynamics of lipid membrane. **M. Choi**

3:50 COLL 108. Smart polymersomes as structural analogues of eukaryotic cells: From membrane asymmetry to compartmentalization. A. Peyret, L. Beaute, E. Ibarboure, O. Sandre, J. Le Meins, N.D. McClenaghan, **S. Lecommandoux**

4:20 COLL 109. Coupling of lipid membrane elasticity and dynamics. **Y. Chen**

4:50 COLL 110. Antioxidant implication of the physical presence of vitamin E in lipid membranes. M. DiPasquale, M. Nguyen, **D. Marquardt**

Section D

Ernest N. Morial Convention Center
R06

Chemistry of Molecular Electronics**Molecular-Scale Electronics**

Cosponsored by PHYS
M.S. Inkpen, G.C. Solomon, L. Venkataraman, *Organizers, Presiding*

2:00 COLL 111. Enhancing the thermoelectric properties of molecular junctions. **N. Agrait**

2:30 COLL 112. Gating of junction conductance by charge transfer complex formation in single molecule devices. A. Vezzoli, K. Wang, I. Grace, R. Nichols, C.J. Lambert, B. Xu, **S.J. Higgins**

2:50 COLL 113. Quantum interference effects in the charge transport through single-molecule junctions. **W. Hong**

3:20 Intermission.

3:30 COLL 114. Metal complexes for molecular electronics and Moore. **P.J. Low**

4:00 COLL 115. Reduced length-dependent conductance decay in polymethylene molecular wires. **S. Gunasekaran**, I. Davydenko, D. Hernangomez-Perez, F. Evers, S.R. Marder, L. Venkataraman

4:20 COLL 116. Room-temperature current blockade in atomically defined single-cluster junctions. **X. Roy**, L. Venkataraman, B. Choi, G. Lovat

4:50 COLL 117. Dual control of chemical equilibria through pH and potential in single-molecule devices. R. Brooke, D. Szumski, A. Vezzoli, S.J. Higgins, R. Nichols, **W. Schwarzacher**

5:10 COLL 118. Mechanical stretching-induced electron transfer reactions and conductance switching in single molecules. **N. Tao**, Y. Li, N. Haworth, L. Xiang, S. Ciampi, M. Coote

Section E

Ernest N. Morial Convention Center
R08

**Colloidal Nanoparticle Synthesis &
Assembly**

Financially supported by Henan University and King Abdullah University of Science and Technology

M. Cai, H. Fan, Y. Han, *Organizers*
F. Bai, *Organizer, Presiding*
H. Fan, *Presiding*

2:00 COLL 119. Design and assembly of coupled multicomponent nanocrystal superlattices and quasicrystalline assemblies and superparticles. **C.B. Murray**, Y. Wu, Z. Li, K. Elbert, D. Jishkariani, M. Zhang, C.R. Kagan, S. Najmr, D. Wang

2:30 COLL 120. Large-scale assembly of 2-D honeycomb semiconductor superlattices and their incorporation in opto-electronic devices. **D. Vanmaekelbergh**, J. Peters, S. Buhbut-Sinai, M. Alimoradi Jazi, G. Soligno, J. Geuchies

3:00 COLL 121. *In situ* space- and time-resolved small angle x-ray scattering to probe electric field-driven assembly of nanocrystal superlattices. **Y. Yu**, C. Orme

3:20 Intermission.

3:30 COLL 122. Nanomanufacturing by self-assembly. **N. Kotov**

4:00 COLL 123. *In-situ* scattering techniques to study synthesis and crystallization processes of colloidal nanocrystals. **M. Cargnello**, L. Wu, J.

Qin, C. Tassone

4:30 COLL 124. Tracking micelle growth during polymerization-induced self-assembly with liquid cell transmission electron microscopy. **M.A. Touve**, C.A. Figg, D. Wright, C. Park, J. Cantlon, B.S. Sumerlin, N.C. Gianneschi

4:50 COLL 125. Improved synthetic efficiency and greener preparation of gold nanorods. **J.W. Stone**

5:10 COLL 126. Utilization of colloidal plasmonic metal nanoparticles for understanding polymer chemistry. **G. Liu**

Section F

Ernest N. Morial Convention Center
R09

**Fundamental Studies of
Mechanochemical & Tribochemical
Processes at Interfaces**

J.D. Batteas, R.M. Espinosa-Marzal, *Organizers*
W.T. Tysøe, *Organizer, Presiding*

2:00 COLL 127. Tribochemical nanolithography. **G.J. Leggett**

2:30 COLL 128. Interrogating force-induced reaction acceleration on bond-forming surface reactions. **A.B. Braunschweig**

3:00 COLL 129. Chemistry of trinuclear molybdenum compounds and impact on friction. A. Jaishankar, A. Konecck, A. Jusufi, **A.M. Schilowitz**

3:20 COLL 130. Dynamic motion and energy dissipation in graphene on rough surfaces. **M.B. Elinski**, J. Batteas

3:40 Intermission.

3:55 COLL 131. Chemistry of friction, wear, and tribofilm growth on 2D materials. S. Raghuraman, M. Elinski, J. Batteas, **J.R. Felts**

4:25 COLL 132. Probing the load/strain dependent reaction of Perfluorophenylazide (PFPA) with graphene. **J.D. Batteas**, M.B. Elinski, M. Negrito

4:45 COLL 133. High throughput and multi-scale quantum-mechanics / molecular-mechanics calculations applied to lubricants. **M. Righi**, P. Restuccia, G. Fatti

5:15 COLL 134. Thermodynamic basis of friction in MoS₂. **M. Chandross**, A. Hinkle, T. Babuska, J. Curry, B. Krick, M. Dugger, N. Argibay

Section G

Ernest N. Morial Convention Center
Room 203

Nanomaterials**Surface Chemistry & Modification**

J.A. Hollingsworth, R. Nagarajan, *Organizers*
M.A. Firestone, *Presiding*

2:00 COLL 135. Facile surface exchanges in CdSe quantum belts. **W.E. Buhro**, Y. Yao, Y. Zhou

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2:30 COLL 136. Quantum dot-ligand equilibrium in purified samples. **A.B. Greytak**

3:00 COLL 137. Consequences of InP quantum dot modification using fluoride. **E.J. McLaurin**, R. Siramdas, M. Yazdanparast, S. Lee, C. Aparicio, J.M. Rosado

3:30 COLL 138. Orthogonal chemical modification of template-synthesized nanostructures with oligonucleotides. **T. Oh**, J. Park, J.C. Ku, T. Ozel, C.A. Mirkin

3:50 COLL 139. Modeling nanomaterial properties: Effects of surface chemistry and interfacial couplings. P.A. Brown, E.I. Calixte, O.N. Samoylova, **K.L. Shuford**

4:10 COLL 140. Approach to retard oxidation during processing of colloidal Ti_2C_2 MXenes. **T. Habib**, S. Shah, W. Sun, E. Prehn, Z. Tan, M.J. Green, M. Radovic

4:30 COLL 141. Investigation of charge-based chromatographic methods for sorting carbon nanotube chiral forms. **P. Rezaei**, D. Frey, L.D. Pfefferle

4:50 COLL 142. nano-FTIR: Infrared imaging and spectroscopy with 20nm spatial resolution. **T. Gokus**, P. Schäfer

5:10 COLL 143. Binding of hydrogen and phenol at a Pt_{50} nanoparticle supported on graphene: *Ab initio* molecular dynamics simulations. **M. Nguyen**, D.C. Cantu, V. Glezakou, R. Rousseau

Section H

Ernest N. Morial Convention Center Room 204

Surface Chemistry

Nanoparticle & Liquid Surfaces

S.L. Tait, *Organizer*
A.L. Mifflin, L. Seballos, *Presiding*

2:00 COLL 144. Ligand ordering phase transitions in mixed ligand shells of CdSe/CdS quantum dots. **A. Balan**, J.H. Olshansky, P. Alivisatos

2:20 COLL 145. Role of ligand interactions in CdSe quantum dot ligand exchange dynamics. **E. O'Brien**, P. Alivisatos

2:40 COLL 146. Investigating molecular interactions on silver nanostructures using density functional theory and surface-enhanced Raman scattering. **L. Seballos**

3:10 COLL 147. Absolute, complex spectral measurement: Turning SFG (sum frequency generation) into an analytical technique. **M.J. Shultz**, P.J. Bisson, J.M. Marmolejos, J. Wang

3:40 COLL 148. Fabrication of micro- and nano-sized metal structures on silicon and mica substrates: An Atomic Force Microscope (AFM) and Particle Lithography (PL) approach. **S.B. Ulapane**, A.K. Borkowski, M.K. Okoowo, J. Tolleben, C.L. Berrie

4:00 COLL 149. Direct optical lithography of functional inorganic nanomaterials. **Y. Wang**, I. Fedin, H. Zhang, D. Talapin

4:20 COLL 150. Adsorption of water

on kaolinite and montmorillonite surfaces, and its effect on CO_2 adsorption: DFT calculations. R.A. Bennick, M.D. Kilmer, **L. Tribe**

4:50 COLL 151. Surface interactions of the siderophore desferrioxamine-B with hematite/water interfaces studied using second harmonic and sum frequency generation spectroscopies. **A.L. Mifflin**

5:20 COLL 152. Jones-Ray effect reinterpreted: Surface tension minima of low ionic strength electrolyte solutions are caused by electric field induced water-water correlations. H. Okur, Y. Chen, D. Wilkins, **S. Roke**

Section I

Ernest N. Morial Convention Center Room 205

ACS Award in Surface Chemistry: Symposium in honor of Stacey F. Bent

Nanomaterials & Catalysis on the Nanoscale

Cosponsored by WCC
H. Lee, *Organizer*
A.V. Teplyakov, *Organizer, Presiding*

2:00 COLL 153. Relative stabilities of reaction intermediates on group 1B metals: Effects of van der Waals interactions and bonding structure. **R.J. Madix**

2:30 COLL 154. Infrared spectroscopy of the water gas shift reaction over the Cu(111) surface under ambient pressure conditions. C. Kruppe, **M. Trenary**

3:00 COLL 155. Accelerated discovery of materials for solar thermal water splitting using computational chemistry and machine learning. **C. Musgrave**, S. Millican, R. Trotter, C. Bartel

3:30 COLL 156. Photoelectrochemical and electrochemical fuel production using low dimensional catalytic materials. **U. Sim**

4:00 Intermission.

4:15 COLL 157. Photocatalysis at diamond surfaces: New approaches to photochemical reduction reactions. **R.J. Hamers**

4:45 COLL 158. Translation of fundamental studies of surface chemistry to catalytic function in nanoporous materials. **C.M. Friend**

5:15 COLL 159. Nanoparticle catalysis: Understanding the role of the surface and surface-passivation in creating stable, efficient and scalable devices. **S. Geyer**

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J.

Wesolowski

Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

Science Cafes & Engaging the Public: Techniques for Hosting Successful Events

Sponsored by PRES, Cosponsored by CATL, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, I&EC, INOR, MPPG, SCHB and YCC

Elucidation of Mechanisms & Kinetics on Surfaces

Mechanisms at the Atomic Scale

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Assembly & Colloidal Interactions of Cellulose Nanocrystals

Sponsored by CELL, Cosponsored by COLL

Physical Chemistry of Ionic Liquids

Functional Ionic Liquids & Applications

Sponsored by PHYS, Cosponsored by COLL[†]

Magnetically Recoverable Catalysts

Sponsored by CATL, Cosponsored by COLL, ENFL and INOR

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

SUNDAY EVENING

Section A

Ernest N. Morial Convention Center Halls B2/C

Fundamental Research in Colloids, Surfaces & Nanomaterials

R. Nagarajan, *Organizer*

6:00-8:00

COLL 160. Interparticle hydrogen bonding influences the shear jamming of dense colloidal suspensions. **N. James**, E. Han, R. Lopez de la Cruz, H. Jaeger

COLL 161. Sensor made of graphene oxide and upconversion nanoparticles to sense mRNA biomarkers. D. Giust, M. Lucio-Benito, O. Muskens, **A. Kanaras**

COLL 162. Determination of interfacial amorphicity in functional powders. M. Badal Tejedor, **N. Nordgren**, M. Schuleit, S. Pazesh, G. Alderborn, A. Millqvist-Fureby, M.W. Rutland

COLL 163. Understanding the galinstan oxide interface through interfacial tension and interfacial rheology for use in stretchable applications. **A. Koh**, R. Mrozek, G. Slipper

COLL 164. Quantitative analysis of temperature programmed desorption from complex surfaces: A machine learning approach to surface science. **A.C. Elder**, T.M. Orlando

COLL 165. Adsorption of water and

gaseous species on calcite surfaces at different relative humidity and temperature. **N.A. Wojas**, A. Swerin, P. Claesson, V. Wallqvist, M. Järn, P. Gane, J. Schoelkopf, M. Adam

COLL 166. Morphological transformations from supramolecular nanofibers to nanoribbons in self-assembly of conjugated block copolymers. **M. Wang**, L. Han, F. He

COLL 167. Super liquid repellent surfaces – non-wetting forces, cavity growth and coatings on biobased materials. **A. Swerin**

COLL 168. Eliminating intracellular *S. aureus* with its nanoparticle mimetic. F. Gao, L. Xu, **L. Yang**

COLL 169. High efficacious nanoemulsion (NE) formulation of polyunsaturated fatty acid-taxoid conjugates. **Y. Zhang**, C. Wang, G. Ahmad, M. Amiji, J. Rooney, T. Zimmerman, I. Ojima

COLL 170. Single-molecule fluorescence sheds light on coupled dye-nanoparticle systems. **T. Zuo**

COLL 171. Electrochemically enhanced dissolution of silica and alumina in alkaline environments. **H.A. Dobbs**, K. Kristiansen, A.M. Schrader, Z. Berkson, G. Degen, B. Chmelka, J.N. Israelachvili

COLL 172. Towards Polarization-Switched Solid-State Molecular (POSSM) pumps. **C. Fernandez**, E. Polikarpov, G. Coffey, A.J. Karkamkar, S.K. Nune, P. Koeh, W. Xu, P. McGrail

COLL 173. Optically transparent ultramicroelectrode for studying local electrochemical events of single Au nanoparticle using combined methods of electrochemistry and dark field scattering microscopy. **Y. Ma**, A. Highsmith, S. Pan

COLL 174. Electronic transport in supramolecular peptide nanofibers. **A. Hochbaum**, N. Ing, R.K. Spencer

COLL 175. Understanding the anticorrosive protective mechanisms of modified epoxy coatings with combined improved barrier, active feedback, self-healing and antimicrobial functionalities using advanced electrochemical and spectroscopic techniques. **D.I. Njoku**, M.M. Cui, H. Xiao, B. Shang, Y. Li

COLL 176. Withdrawn

COLL 177. 2D materials grafted colloidal microparticles. **A.T. Liu**, P. Liu, M. Strano

COLL 178. Controllable hydrophobicity and transition temperatures of gold nanoparticles coated in 18-crown-6-C-SH moieties by taking advantage of the hole-side cation-diameter relationship. **A.P. Hill**

COLL 179. Temporally decoupled growth and loading of a protein cargo into polymersomes using cellulose paper. **A. Li**, A.B. Subramaniam

COLL 180. *In-situ* spectroscopic ellipsometry as a tool to characterize ligated mercaptoalkanoic acid multilayers. **A. Patron**, T.J. Mullen, C. Causey

COLL 181. Nanoparticle-templated synthesis of porous carbon for the removal

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- of organic pollutants from water. **A.C. Escobosa**, L. Barrera, J. Noveron
- COLL 182.** Comparison of charge storage properties of prussian blue analogues containing copper and cobalt. **A. Rensmo**, J.R. Hampton
- COLL 183.** Synthesis of periodic mesoporous organosilicas and related hollow nanostructures. **A.S. Manchanda**, M. Kruk
- COLL 184.** Chiral recognition of single amino acid surfactants leucine, isoleucine, and norleucine in the presence of diamine counterion with different chain lengths. **A. Benson**, F.H. Billiot, E. Billiot, K.F. Morris
- COLL 185.** Adsorption on rutile TiO₂ surfaces: Orbital, zero-point energy, and finite-size effects in theoretical models. **A.N. Carlson**, E.S. Gawalt, J.D. Evanseck
- COLL 186.** Partitioning of limonene into short-chain lecithin dispersions. **A. Karman**, S.R. Dungan, N. Niitn, S.E. Ebeler
- COLL 187.** Functionalization of CdSe nanoparticles for use in solar nanocomposites. **A. McReynolds**, J.D. Kehlbeck, M.E. Hagerman
- COLL 188.** Synthetic control over structural and optical properties of Cu(Zn) InS₂/ZnS quantum dots studied at the single particle level. **A. Nguyen**, C.D. Heyes
- COLL 189.** Coverage ratio of amyloidogenic peptides over nano-gold colloidal particles. **A. Islam**, M. Pujols, E. Okungbowa, P. Shevlin, K. Brown, K. Yokoyama
- COLL 190.** Brightness optimization of NIR-to-NIR upconversion nanocrystals. **A.M. Chov**, S. May, A. Baride
- COLL 191.** Exploring interaction between thiolated liposomes and gold/gold coated magnetic nanoparticles. **B. Acharya**, V. Chikan
- COLL 192.** Spatial distribution of mixtures of electrolytes at the air-water interface for varying temperatures. **B.L. Eggimann**, J.J. Siepmann
- COLL 193.** Introducing a molecular model system for 5-7 defects in graphene. **B.P. Klein**, N.J. van der Heijden, M. Franke, C.K. Krug, S.R. Kachel, P. Rosenow, F. Posseik, M. Schmid, R. Tonner, I. Swart, C. Kumpf, J. Gottfried
- COLL 194.** Synthesis, aggregation behavior and enhanced oil recovery performance of an oligomeric nonionic surfactant. **B. Qin**
- COLL 195.** Extraction of lemon essential oils from lemon peels with food-grade surfactants and its antibacterial applications. L. Huang, **B. Chen**
- COLL 196.** Density functional theory study of cation adsorption at the capping sites of Keggin-type Al nanooclusters. **B. Hudson**, J.L. Bjorklund, J.W. Bennett, S.E. Mason
- COLL 197.** G-DNA cancer therapy: Intracellular trafficking in HeLa cells. **B.J. Foster**, K. Fichter
- COLL 198.** Plasmonic properties and applications of tunable aluminum nanocrescents. **C. Coplan**, M.M. Swartz, J.S. Shumaker-Parry
- COLL 199.** Systematic study on the gelation properties of simple alkanolic acid metal salts as low molecular mass gelators. **C. Dill**, S. Mathew, A.V. Mallia
- COLL 200.** Bioconjugation of CuInS₂/ZnS quantum dots to FGF and bioimaging their interactions with FGFR. **C. Robinson**, M. Mohale, D. Baucom, A. Nguyen, R.K. Gundampati, M.H. Al-Ameer, S.K. Thallapuranam, C.D. Heyes
- COLL 201.** Measuring energy transfer efficiency between Au and CdSe nanoparticles. **D. Lara**
- COLL 202.** Sum frequency generation spectroscopy of partially fluorinated methyl-terminated self-assembled monolayers on gold and UPD-silver surfaces. **D. Rodriguez**, M.D. Marquez, O. Zenasni, S. Baldelli, T. Lee
- COLL 203.** Study of perfluorophosphonic acid surface modifications on zinc oxide nanoparticles. **D.N. Shoup**, R. Quinones
- COLL 204.** Degradable cellulose wet adhesives using reductant-responsive microgels. **D. Yang**, R.H. Pelton
- COLL 205.** Membrane expression of 5-HT_{1B} receptors in N2a cells in response to SSRIs. **E.B. Nowak**, G.K. Illy, K. Fichter
- COLL 206.** Effect of hydroxide ion concentrations on the binding of montmorillonite to RNA surrogates. **E.P. Gordon**, L. Tribe
- COLL 207.** Application of electrochromic thin films for electrophysiology. **F. Alfonso**, A.F. McGuire, T. Li, F. Santoro, B. Cui
- COLL 208.** Single-molecule imaging of serotonin receptor trafficking using quantum dots. **G. Illy**, K. Fichter
- COLL 209.** New class of nanocatalysts created by coupling of carbon nanotubes, functionalized silica and truncated silver nanoparticle. B.P. Chauhan, **G. Longia**, Q. Johnson, N. Eldabagh
- COLL 210.** Mild, reproducible and efficient strategy to halogenated sol-gel materials. **G. Longia**, N. Eldabagh, Q.R. Johnson, J. Domena, Y. Xing, **B.P. Chauhan**
- COLL 211.** Poly(vinyl alcohol) thin film dewetting on polydimethylsiloxane surfaces by directional drying. **H. Nguyen**, Y. Qi, K. Lim, W. Chen
- COLL 212.** Structure and thermodynamics of worm-like micelles with addition of salt and co-solvent. **H. Jiang**, K. Vogt, G. Beaucage, M.R. Weaver
- COLL 213.** Molecular oligonucleotide brushes via ring-opening metathesis polymerization. **H. Lu**, X. Tan, Y. Sun, X. Chen, D. Wang, K. Zhang
- COLL 214.** Gene expression in a synthetic eukaryotic cell-mimic. **H. Niederholtmeyer**, N.K. Devaraj
- COLL 215.** Superhydrophobic and hygroscopic surface as an effective anti-icing coating. **H. Nakamura**, T. Yamazaki, M. Tenjimbayashi, S. Shiratori
- COLL 216.** Silicon-containing dendritic dyes with aggregation-induced emission as fluorescent probes. **H. Wang**, S. Feng, W. Yu
- COLL 217.** Surface chemistry of carbon nanoparticles functionally select their uptake in various stages of cancer cells. **I. Srivastava**, S.K. Misra, F. Ostadhossein, E. Daza, J. Singh, D. Pan
- COLL 218.** N-methylmorpholine-N-oxide acts as a 'sacrificial catalyst' to permit imaging of carbon nanodots at the single-particle level. **I. Srivastava**, S.K. Misra, J. Khamo, V. Krishnamurthy, D. Sar, A.S. Schwartz-Duval, K. Zhang, D. Pan
- COLL 219.** Increasing Zr(IV) ligand binding sites in hetero-metal substituted Well-Dawson polyoxometalates for CWA simuland decomposition. S.L. Giles, J. Lundin, P. Pehrsson, R. Balow, **J.H. Wynne**
- COLL 220.** Delafossite CuBO₂ nanoparticles as an efficient electrocatalyst for water splitting. **J. Pena**, S. Mohan, Y. Mao
- COLL 221.** Dynamic behavior of thermotropic liquid crystals in coaxial electrospun polyurethane nanofibers. **J. Lundin**, D. Ratchford, Z. Mobley, G.C. Daniels, N. Weise, R. Ananth, R. Casalini, J.H. Wynne
- COLL 222.** Nanoparticle supercluster formation within crosslinked nanoparticle films: The impact of embedded, coordinating functional groups in crosslinking ligands. **J.A. Dahl**, A.J. Dickenson, M.R. Hammick, A.L. Aakhus
- COLL 223.** Interparticle spacing in 2-d arrays of covalently-crosslinked, thiol-capped gold nanoparticle films: A function of native ligand shell rigidity, length of crosslinking ligands, and deposition orientation. **J.A. Dahl**, M.M. Metko, Z.S. Walbrun
- COLL 224.** Characterizing interactions between novel amphiphilic cellulose derivatives and bile salts using quartz crystal microbalance with dissipation monitoring (QCM-D) and surface plasmon resonance (SPR). **J. Zornjak**, D. Novo, K.J. Edgar, C. Fernandez Fraguas
- COLL 225.** Preparation of crystal-phase-heterostructured 4H/fcc Au@Pd core-shell nanorods for electrocatalytic ethanol oxidation. **J. Liu**, H. Zhang
- COLL 226.** Surface functionalization of silicone films using click chemistry: Synthetic strategies for designing mechanically tunable surfaces. **J.M. Bradley**, J.M. Taylor, S.A. Morin
- COLL 227.** Programming the microdynamics of an active particle: From linear to helical trajectories. **J. Lee**, B. Bharti
- COLL 228.** Investigating the effects of controlled lateral confinement width and surface chemistry on surfactant adsorption onto silica using AFM. **J. Hamon**, B.P. Grady, A. Striolo, R. Tabor
- COLL 229.** Transfection of unmodified microRNA via ammonium-terminated gold nanoparticles as a platform. **J. Hoang**, S. Patil, T. Liu, A. Palat, P. Gunaratne, T. Lee
- COLL 230.** Surface plasmons to Zika virus detection: Detection of NS1 protein utilizing localized surface plasmon resonance and surface plasmon resonance spectroscopy. **J.J. Santos**, R.L. Silveira, S.H. Toma, K. Araki, A.G. Brolo, P. Corio
- COLL 231.** Effects of analyte-induced DNA aptamer conformational changes in aptasensors response. **J.L. Chavez**, P.A. Mirau, J.N. Yoho, J.E. Smith, A. Wissel, J.A. Hagen, N. Kelley-Loughnane
- COLL 232.** Indolicidin as a model antimicrobial peptide: Investigating their interactions with lipid vesicles and supported bilayers. **J.E. Nielsen**, V. Bjørnstad, T. Lind, H. Jenssen, M. Cardenas, R. Lund
- COLL 233.** Formation of tethered lipid nanotubes on cellulose paper. **J. Pazzi**, A.B. Subramaniam
- COLL 234.** Facilitating targeted drug screening: A nanosensor quantifies metabolite-enzyme interactions at the single molecule level. **J. Cheung**, R. Frederiksen, D. Heller
- COLL 235.** Design and synthesis of multifunctional tungsten sulfide quantum dots for cellular imaging of targeted triple negative breast cancer cells. **K. Gates**, A. Pramanik, P.C. Ray
- COLL 236.** Hybrid lipid-coated gold nanoparticles for studying axonal transport mechanisms in the retina. **K. Kinnison**, L.J. Wilsey, B.B. Fortune, M.R. Mackiewicz
- COLL 237.** Self-assembly, gelation studies and mechanotropic properties of molecular gels based on N-phenylacetamide derivatives as gelators. **K. Galinat**, E. Begovic, A.V. Mallia
- COLL 238.** Machine learning dataset and model applied to calculating the Flory-Huggins β parameter. **K.R. Hendrickson**, C. Callaway, S. Venkatram, P. Sood, S. Jang
- COLL 239.** STEP: Revolutionizing FRET measurement. **K. Akers**
- COLL 240.** Unidirectional wetting phenomenon on the snake scales. **K. Kawamura**, M. Tenjimbayashi, D. Watanabe, D. Citterio, S. Shiratori
- COLL 241.** Preparation of monodisperse, supported nanoparticles with switchable surfactants. **K. Bryant**
- COLL 242.** Investigating organonitrogen pesticides on mineral surfaces via sum frequency generation vibrational spectroscopy. **L. Bromley III**, J. Cartagena, P. Videla, A. Fernando, V.S. Batista, L.A. Velarde
- COLL 243.** Reliable synthesis of block copolymer templated bimetallic nanoparticles. **L. Knight**
- COLL 244.** Studies of single-site catalysts on powdered oxide support through self-assembly. **L. Chen**, J. McCann, S.L. Tait
- COLL 245.** Synthesis and Surface Activity of Gemini Surfactant N,N-bis(octadecyl)-1,4-benzene dimethylpropanoate acid. **L. Zhao**, H. Gong, J. Wang

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- COLL 246.** Fluorescence detection of aggregation of chromonic dyes in the isotropic phase. **L. Zhu**, K.K. Karukutis
- COLL 247.** Anti-biofouling studies of unsymmetrical oligo(ethylene glycol) spiroalkanedithiol self-assembled monolayer surfaces. **L. St**, J. Craft, P. Chinwangso, H. Lee, M.D. Marquez, T. Lee
- COLL 248.** Comparing full-wave optical modeling of plasmonic coupling within Au nanoparticle nanoring arrays to structures fabricated via particle lithography. **M. Negrito**, M. Sheldon, J. Batteas
- COLL 249.** Toward greener synthesis of microcrystalline ZSM-5 Zeolite catalyst and its application in biomass conversion. **M.H. Nada**, S.C. Larsen, E.G. Gillan
- COLL 250.** Salt mediated synthesis and catalytic activity of para-mercaptobenzoic acid capped monolayer protected gold clusters. R.E. Dufour, **M.G. Rodriguez**, C.L. Heinecke
- COLL 251.** Designing immobilized radicals to improve dynamic nuclear polarization-enhanced MRI at 6.5 mT. **M.D. Lingwood**, K.E. Maurey, G.A. Shaw, A.K. Sherman, M.S. Rosen
- COLL 252.** Aggregation of poly-(3-hexylthiophene) at solvent-solvent interfaces. **M. Sapolsky**, D.S. Boucher
- COLL 253.** Temperature-controlled nano-mite growth on fabricated plasmonic nanostructures. **M.A. Ticknor**, C.A. Lancaster, J.S. Shumaker-Parry
- COLL 254.** Loading of functional enzymes into giant liposomes using cellulose paper. A.B. Subramaniam, **M. Xu**
- COLL 255.** Developing the sapphire (0001) surface as a transparent substitute for mica for DNA nanostructure imaging. **M.L. Norton**, M. Rahman, D.P. Neff, Z.T. Boggs
- COLL 256.** Design of new FMOC and pyrazole-derived nanoparticles for targeting tumorigenic cells. I.A. Banerjee, **M. Hugo**
- COLL 257.** Synthesis and characterization of Gd:InP/ZnS quantum dots for magnetic resonance imaging. **M. Duszynski**, M. Ellis, K. Fichter
- COLL 258.** Synthesis and characterization of poly(methacrylic acid) hydrogel fabricated with Ni nanoparticles and investigation of their adsorption and catalytic properties. **M. Ajmal**
- COLL 259.** Evaluation of spin-casting as a coating method to study dopamine adhesion. **M. Le**, W. Chen
- COLL 260.** Colloid Chemical Approach to Cracking Formation in Fuel Cell Catalyst Layers. **N. Kumano**, K. Kudo, Y. Akimoto, M. Ishii, H. Nakamura
- COLL 261.** Nanocomposites of plastic, Silicon polymer and noble metal nanoparticles. **N. Ampomah**, K. Moran, Q. Johnson, **B.P. Chauhan**
- COLL 262.** Electroless deposition of Nickel on organosilane nanostructures prepared with particle lithography: Characterization with atomic force microscopy combined with magnetic sample modulation. **N. Kuruppu Arachchige**, P.C. Chambers, A.M. Taylor, J.C. Garno
- COLL 263.** Effect of diamine counterion chain length and pH on the physical properties and chiral recognition ability of amino acid based macromolecular assemblies. **N. Nguyen**, F.H. Billiot, E. Billiot, K.F. Morris
- COLL 264.** Titania containing thin films for the detection of TATP and peroxide vapors. **N.F. Materer**, A.W. Applett
- COLL 265.** P(NiPAM) microgels embedded in p(AAm) hydrogels as sensor. S. Demirci, D. Rees, **N. Sahiner**
- COLL 266.** Surface ion induced water adsorption on Muscovite mica. **N.N. Lata**, J. Zhou, B. Glatz, S. Sarupria, W.H. Cantrell
- COLL 267.** Effect of silica interlayer on the plasmonic enhancement of photocatalytic activity. **P. Srinoi**, T. Lee, T. Lee
- COLL 268.** Synthesis and characterization of gold nanostar particles. **P. Ansari**, T. Lee, R.C. Willson
- COLL 269.** CdS quantum dot growth dependence on oleylamine concentration. **P.L. Garrett**, N. Razgoniaeva, D. Khon, M. Zamkov
- COLL 270.** Colloidal synthesis of Fe, Mn and Fe-Mn alloy nanoparticles by rapid inductive heating technique. **P. Sharma**, N. Holliger, V. Chikan
- COLL 271.** Correlation between hybridization and electrochemical signal in stem-loop E-DNA sensors using single-molecule AFM. **Q. Gu**
- COLL 272.** Exploring the optical properties of gold nanomites on gold nanotriangles. **R.C. Cocke**, W. Scholl, J.S. Shumaker-Parry
- COLL 273.** Titanium dioxide-coated plasmonic gold-silver nanoshells. **R. Medhi**, T. Lee, T. Lee
- COLL 274.** Spectroscopic studies of starvation in *Vibrio cholerae*. **R.D. George**, P. Mosier-Boss, K. Sorensen, A. O'braztsova
- COLL 275.** Molecular interaction between b-PEI-functionalized gold nanoparticles and *Bacillus subtilis* strains varying in wall teichoic acid composition. **R. Tapia Hernandez**, K.P. Johnson, E.R. Caudill, C.L. Haynes, J.A. Pedersen, V. Feng
- COLL 276.** Effect of water adsorption on clay mineral interfaces for enhanced gas recovery and CO₂ sequestration: First principles calculations. **R.A. Bennick**, L. Tribe
- COLL 277.** Design of Development Agent (DA) in latent fingerprint identification. P. Villarreal, I. Villavicencio, **S. Liu**, J. Liu
- COLL 278.** Selective detection of Pb(II) ion by using a nano material attached aryl-azo-histadine dye. **S. Alamgir**, A. Pramanik, P.C. Ray
- COLL 279.** Self-assembly of microscale objects using large, double-stranded DNA molecules. **S. Krerowicz**, D.C. Schwartz
- COLL 280.** Surface adsorption of Nordic aquatic fulvic acid on amine functionalized and non-functionalized mesoporous silica nanoparticles. **S. Jayalath**, V.H. Grassian, S.C. Larsen
- COLL 281.** Interfacial water structure next to zwitterionic lipids: A vibrational sum frequency spectroscopic study. **S. Pullanchery**, T. Yang, P.S. Cremer
- COLL 282.** Titania stabilized cuprous oxide photocatalyst for the reduction of carbon dioxide. **S. Alden**, D.A. Rider
- COLL 283.** Investigation of chiral recognition of dipeptide based micellar systems. **S. Tubbs**, E. Billiot, K.F. Morris, F.H. Billiot
- COLL 284.** Comparing electrochemical calculations and particle induced x-ray emission measurements of Prussian blue analogue deposits. **S.D. Joffre**, J.R. Hampton
- COLL 285.** Synthesis and physicochemical properties of a novel carboxylbetaine-type surfactants containing benzene ring. **S. Gao**, Q. Jiang, Z. Song, F. Lan
- COLL 286.** Structural investigation on the mechanism of the endosomal escape by pH-sensitive Gemini surfactants. **S. Chang**, Y. Chen
- COLL 287.** Probing the interactions between small molecules and phospholipids at the biointerface. **S. Sun**, A. Sendeci, S. Pullanchery, D. Huang, T. Yang, P.S. Cremer
- COLL 288.** Self-assembled monolayers derived from symmetric olefin-bridged bidentate adsorbates on gold. **S. Sakunkaewkasem**, T. Lee, M.D. Marquez, O. Zenasni
- COLL 289.** Study of the excited state processes of 1,3,6,8-Tetrakis(trimethylsilyl)ethynyl)pyrene in monomer and aggregated state. **S. S**, S. Sankararaman, P. Edamana
- COLL 290.** Probing the interaction of enzyme and gold nanoparticles with various coatings. **S. Neupane**, Y. Pan, Z. Yang
- COLL 291.** Programmable preparation of three-dimensional assembly of gold triangular nanoprisms for biosensing applications. **T. Habarakada Liyanage**, S. Shaffer, H. Nguyen, R. Sardar
- COLL 292.** Elucidating the time-dependent photoluminescence properties of colloidal carbon dots. **T. Chu**, D. Gerrity, S. Chatterjee
- COLL 293.** Surface functionalization with glycopolymers for selective adherence of the bacteria *Shewanella oneidensis*. **T.D. Young**, W. Liao, C. Lee, G. Wong, A. Kasko, P.S. Weiss
- COLL 294.** Liquid-phase epitaxial growth of triangular Au nanoplates on MoS₂ nanosheet for electrocatalytic hydrogen evolution. **T. Tran**, **H. Zhang**
- COLL 295.** Self-assembled monolayers derived from the adsorption of phenyl- and perfluorophenyl-terminated alkanethiols on gold. **T. Yu**, T. Lee, M.D. Marquez, O. Zenasni
- COLL 296.** Towards continuous *in situ* sensing of marine pollutants using surface enhanced Raman spectroscopy (SERS). **T. Küster**, G.D. Bothun
- COLL 297.** Sulfur@Gold@Titanium dioxide yolk-shell nanoparticles for lithium-sulfur battery applications. **T. Liu**, T. Lee
- COLL 298.** Promotion effect of alkyamine functionalized silica on embedded gold nanoparticle hydroaminations. **T. Graham**, A. Rosul, D. Wu, S.R. Saunders
- COLL 299.** Single particle fluorescence studies of semiconductor nanoparticles alloyed by kinetic control. **T. Hull**, J.S. Owen
- COLL 300.** Magnetron sputtering of gold thin films under ambient conditions and manipulation of deposition. **T.J. Adams**, B. Evans, C. Miller, I. Senevirathne
- COLL 301.** Synthesis and characterization of organosoluble Au₃₆(SPhCH₃)₂₄ nanomolecules. **V. Ganeshraj**
- COLL 302.** Nanomite-decorated nanoparticles as surface-enhanced spectroscopy substrates. **W.E. Scholl**, C.A. Lancaster, M.A. Ticknor, J.S. Shumaker-Parry
- COLL 303.** Multicolor carbon dots based on solvatochromism. H. Wang, P. Haydel, L. Earb, S. Wang, **W. Yu**
- COLL 304.** Construction of hybrid alginate nanogels loaded with manganese oxide nanoparticles for enhanced tumor MR imaging. W. Sun, J. Zhang, C. Zhang, P. Wang, C. Peng, M. Shen, **X. Shi**
- COLL 305.** Withdrawn
- COLL 306.** Organize gold nanoparticles by DNA origami cage. **Y. Zhang**
- COLL 307.** Charge-reversal amphiphiles induced by pH: Distinctive interaction with normal and cancer cells. **Y. Chang**, Z. Huang, J. Xu, X. Zhang
- COLL 308.** Effect of oil droplet size on stability of concentrated oil-in-water emulsion with unsaturated fat. M. Shinada, **Y. Watanabe**
- COLL 309.** Preparation of angle-independent color materials by applying Mie resonances. **Y. Naoi**, Y. Takeoka, T. Seki
- COLL 310.** Self-assembled polydopamine coatings via drop casting. **Y. Zhou**, W. Chen
- COLL 311.** Novel synthesis of bispectral obscuring smoke. **Z. Zander**, D. Kuhn, A. Polk
- COLL 312.** Pentamer substrate for reproducible surface enhanced raman spectroscopy. **Z. Petrek**, U. Paez, T. Ye
- COLL 313.** Withdrawn
- COLL 314.** Developing a technique to determine the packing density of a lipid bilayer and exploring the effect of packing density on membrane fusion. **Z. Liu**, Y. Chen
- COLL 315.** Influences of surface chemistry and nanoscopic roughness on the frictional

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properties of MoS₂ nanosheets. **Z. Liu**, J. Batteas

COLL 316. Applications of nanotechnology in bone tissue regeneration. **J. Santillan**

MONDAY MORNING

Section A

Ernest N. Morial Convention Center Room 242

ACS Award in Colloid Chemistry: Symposium in honor of Håkan Wennerström

U. Olsson, N.J. Wagner, Organizers, Presiding

8:30 COLL 317. Controlling water evaporation through self-assembly. **E. Sparr**, K. Roger, D. Topgaard, H. Wennerström, D. Pham, S. Björklund

9:00 COLL 318. Self-assembly of block copolymers in ionic liquids: Mixed pluronic- structure, rheology and use as wearable electronics. **N.J. Wagner**, R. Chen, C. Lopez-Barron

9:30 COLL 319. Lowering of surface tension of water by surfactants: principles of molecular design. **A. Kabalnov**

10:00 Intermission.

10:10 COLL 320. Kinetic stability of non-ionic surfactant vesicles. A.P. Schroder, J. Crassous, C.M. Marques, **U. Olsson**

10:40 COLL 321. Lipid materials processing: The emergence of super-swelled membrane single-crystals. **C. Leal**

11:10 COLL 322. Physicochemical code for protein interactions in live cells. **M. Oliveberg**

11:40 COLL 323. Protein aggregation and gelation – insight from combining scattering, rheology and computer simulations. **A. Stradner**

Section B

Ernest N. Morial Convention Center Room 245

2018 Priestley Medalist: Symposium in honor of Geraldine Richmond

R.A. Walker, Organizer
S. Wren, Presiding

8:30 Introductory Remarks.

8:35 COLL 324. Flipping out (or in) over lipids. **J.C. Conboy**

9:05 COLL 325. In your face: Adventures in computational vibrational sum-frequency spectroscopy. **N.A. Valley**

9:35 Intermission.

9:55 COLL 326. Oh, the places you'll go: Chemical structure, organizations and reactivity in asymmetric environments. **R.A. Walker**

10:25 COLL 327. Science, serendipity and sustainability. **B. Chase**, I. Noda, J.F. Rabolt

10:55 COLL 328. Making the rounds: Molecular characterization of surfactant stabilized nanoemulsion surfaces. **G.L. Richmond**

Section C

Ernest N. Morial Convention Center R07

Biomembrane Synthesis, Structure, Mechanics & Dynamics

J. Katsaras, S. Muralidharan, M. Nieh, A.N. Parikh, Organizers
D.L. Daleke, D.Y. Sasaki, Presiding

8:30 COLL 329. Photo-induced pinocytosis for artificial cell feeding. **D. Konetski**, D. Zhang, C. Bowman

8:50 COLL 330. *In situ* determination of membrane protein orientation. **Z. Chen**

9:20 COLL 331. Cellulose paper assembles vesicles from fatty acids and amphiphilic block copolymers. **A.B. Subramaniam**, A. Li, J. Pazzi, M. Xu

9:50 COLL 332. Bacteriorhodopsin membrane entrapped within photocatalytic amorphous titania. K.E. Johnson, S. Gakhar, S.H. Risbud, **M.L. Longo**

10:20 COLL 333. Designing size-controllable bicelles. C. Mandelkern, Y. Liu, I. Alahmadi, K. Chih, J. Fang, **M. Nieh**

10:50 COLL 334. Assessing the structure and stability of transmembrane oligomeric intermediates of an alpha-helical toxin. R. Desikan, P.K. Maiti, **G.K. Ayappa**

11:20 COLL 335. *Bacillus subtilis* lipid extract, a branched-chain fatty acid model membrane. **J. Nickels**, S. Chatterjee, B. Mostofian, C.B. Stanley, M. Ohl, P. Zolnierczuk, R. Schulz, D.A. Myles, R.F. Standaert, X. Cheng, J. Katsaras

11:50 COLL 336. Monitoring and modulating ion traffic in hybrid lipid/polymer vesicles. **W. Paxton**, P. McAninch, K. Achyuthan, S. Shin, H. Monteith

Section D

Ernest N. Morial Convention Center R06

Chemistry of Molecular Electronics

Molecular-Scale Electronics

Cosponsored by PHYS
M.S. Inkpen, G.C. Solomon, L. Venkataraman, Organizers, Presiding

8:30 COLL 337. New molecules for single-molecule electronics in break junction devices. **M.R. Bryce**

9:00 COLL 338. Photovoltaic response observed in thin molecular bilayer rectifiers with symmetric carbon contacts. **S.R. Smith**, R.L. McCreery

9:20 COLL 339. Molecular silicon electronics. **R.S. Klausen**

9:50 COLL 340. Insulated molecular wires: Inhibiting orthogonal contacts in metal complex. **D. Costa Milan**, O.A. Al-Owaedi, S. Bock, M.C. Oerthel, M.S. Inkpen, D.S. Yufit, A.N. Sobolev, N.J. Long, T. Albrecht, S.J. Higgins, M.R. Bryce, R. Nichols, C.J. Lambert, P.J. Low

10:10 COLL 341. Quantum interference based single-molecule insulators. **L. Venkataraman**

10:30 Intermission.

10:40 COLL 342. Single-molecule electronic components based on molecular design. **H. van der Zant**

11:10 COLL 343. Resonant tunneling transport in single-molecule junctions. **Y. Zang**, S. Ray, A. Borges, E. Fung, G.C. Solomon, S.A. Patil, L. Venkataraman

11:30 COLL 344. Solution processable nanocarbon hybrids for single-molecule investigations. **M. Palma**

11:50 COLL 345. Two-terminal single-molecule functional devices. **E. Scheer**, S.G. Bahoosh, J.C. Cuevas, A. Erbe, S. Hamsch, R. Hayakawa, C. Herrmann, T. Huhn, M.A. Karimi, Y. Kim, M. Matt, P. Nielaba, F. Pauly, C. Schirm, T. Sendler, D. Sysoiev, D. Weber, J. Wolf, M.S. Zöllner

Section E

Ernest N. Morial Convention Center R08

Colloidal Nanoparticle Synthesis & Assembly

Financially supported by Henan University and King Abdullah University of Science and Technology
M. Cai, H. Fan, Y. Han, Organizers
F. Bai, Organizer, Presiding
H. Fan, Presiding

8:30 COLL 346. Colloidal synthesis of nanomaterials: challenges and opportunities. A. Hazarika, V. Srivastava, H. Zhang, **D. Talapin**

9:00 COLL 347. Programmable nanoparticle systems: designed architectures, controlled processes and regulated functions. **O. Gang**

9:30 COLL 348. Self-assemblies of graphene quantum dots: From hollow nanoshells to the origin of life. **Z. Qu**, N. Kotov

9:50 COLL 349. Perspectives in nanoscale chemistry. **A. Vartanian**

10:10 Intermission.

10:30 COLL 350. Synthesis and assembly of plasmonic metal oxide nanocrystals. **D.J. Milliron**

11:00 COLL 351. Synthesis and optical interaction in janus au-silica-quantum dot hybrid nanostructures. Y. Luo, **J. Zhao**

11:30 COLL 352. Geometric influence on photoelectrocatalytic properties of assembled ZnO nanonetwork. **Y. Mao**

11:50 COLL 353. Computational survey of counterions and capping groups in Al nanoclusters. **S.E. Mason**, B. Hudson, J.L. Bjorklund, J.W. Bennett

12:10 COLL 354. Adsorption of small cationic nanoparticles onto large anionic particles from aqueous solution: A model system for understanding pigment dispersion and the problem of effective particle density. **S. North**, E. Jones, G. Smith, O. Mykhaylyk, T. Annable, S.P. Armes

Section F

Ernest N. Morial Convention Center

R09

Fundamental Studies of Mechanochemical & Tribochemical Processes at Interfaces

J.D. Batteas, W.T. Tysoe, Organizers
R.M. Espinosa-Marzal, Organizer, Presiding

8:30 COLL 355. Force transduction at cell-to-cell adhesive contacts. **D.E. Leckband**, S. Barrick, X. Kong, E. Tajkhorshid

9:00 COLL 356. Tribology of biomimetic patterned polymer textures as skin coating models. R. Jin, X. Xu, C. Cazeneuve, J.C. Chang, **M. Ruths**, G.S. Luengo

9:20 COLL 357. Anomalous potential dependent friction on Au (111) measured by AFM. **L. Pashazanusi**, N. Pesika

9:40 COLL 358. Nanofriction and surface nanomechanical properties of cotton (*Gossypium hirsutum* L.) fibers as studied with contact mode and force-distance curve-based AFM. **F. Hosseinali**, J.A. Thomasson, J.D. Batteas

10:00 COLL 359. What does mucin do for the cornea? *In vitro* measurements of mucin structure on an epithelial monolayer. **T. Angelini**

10:30 Intermission.

10:45 COLL 360. Promise of stable nanocrystalline metals: Ultra-low wear and diamond-like carbon from thin air. **N. Argibay**, M. Chandross, P. Lu, D. Adams, M. Dugger, T. Babuska, J. Curry, A. Kustas, T. Furnish, B. Boyce, B. Clark

11:15 COLL 361. Structural superlubricity of platinum and gold under ambient conditions: The effects of chemistry and geometry. A. Özoğul, E. Cihan, S. Ipek, E. Durgun, **M.Z. Baykara**

11:35 COLL 362. Size-dependent pseudo-elasticity in gold nanocrystals. **L. Hanson**, X. Gu, C. Eisler, M. Koc, P. Alivisatos

11:55 COLL 363. Wear-induced chemical nanolayering and its beneficial impact on wear resistance. **P. Bellon**

Section G

Ernest N. Morial Convention Center Room 203

Nanomaterials

Novel Synthesis & Nanostructures

J.A. Hollingsworth, R. Nagarajan, Organizers
J. Macdonald, Presiding

8:30 COLL 364. Indium phosphide quantum shells tunable through visible and near infrared. **A.M. Dennis**

9:00 COLL 365. Indium phosphide clusters as precursors to novel nanoscale phases. **B.M. Cossairt**, M. Friedfeld, J. Stein, A. Ritchhart

9:30 COLL 366. Nanosheets and emulsion systems. **H.V. Kumar**, C.D. Liyanage, T. Francis, D.H. Adamson

9:50 COLL 367. Purification and *in situ* ligand exchange of metal-carboxylate-

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treated fluorescent InP quantum dots via gel permeation chromatography. **A. Roberge**, J. Stein, Y. Shen, B.M. Cossairt, A.B. Greytak

10:10 COLL 368. Development of sequence-dependent structure/function relationships for peptide-enabled nanomaterials. **N. Bedford**

10:30 COLL 369. Nanoparticle chemistry in solution observed by time-resolved 3D TEM. B. Kim, J. Heo, J. Kim, **J. Park**

10:50 COLL 370. Crystal structure of Faradaurate-279: Au₂₇₉(SPh-*t*Bu)₈₄ nanomolecules. **N. Sakthivel**, S. Theivendran, V. Ganeshraj, A.G. Oliver, A. Antonysamy

11:10 COLL 371. Core size interconversions of gold nanomolecules: Au₃₀(S-*t*Bu)₁₈ and Au₃₆(SPhX)₂₄. **T.C. Jones**, A. Antonysamy, S. Theivendran, L. Sementa, A. Fortunelli

11:30 COLL 372. Imidazolium ionic liquids as multifunctional solvents, ligands, and reducing agents for noble metal deposition onto well-defined heterostructures, and the effect of synthetic history on catalytic performance. **M.D. Ballentine**, M. Garcia, L.J. Hill

Section H
Ernest N. Morial Convention Center
Room 204

Surface Chemistry
Molecules on Surfaces

S.L. Tait, *Organizer*
J.R. Hampton, B. Schuler, *Presiding*

8:30 COLL 373. Molecular coupling between organic molecules and metal. **H. Pengcheng**, X. Lu, Z. Chen

8:50 COLL 374. Ullmann coupling of helical polycyclic aromatic hydrocarbons on metal surfaces. **A. Mairena**, M. Parschau, J. Seibel, M. Wienke, L. Zoppi, C. Wackerlin, J. Li, K. Martin, N. Avarvari, A. Terfort, K. Ernst

9:10 COLL 375. Redox-active ligand controlled selectivity of vanadium oxidation on Au{100}. **S.L. Tait**, C. Tempas, T.W. Morris, D. Wisman, N. Din, D. Le, C.G. Williams, M. Wang, A.V. Polezhaev, T.S. Rahman, K.G. Caulton

9:40 COLL 376. Electrical and optical studies of porphyrin-based two-dimensional metal-organic frameworks. **K. Ishihara**, F. Tian

10:00 COLL 377. Molecular topology and surface chemical bond: Alternant vs. non-alternant aromatic molecules. **B.P. Klein**, N.J. van der Heijden, M. Franke, C.K. Krug, S.R. Kachel, P. Rosenow, F. Posseik, M. Schmid, R. Tonner, I. Swart, C. Kumpf, J. Gottfried

10:20 Intermission.

10:40 COLL 378. Characterization of electrogenerated hexacyanoferrate thin films for battery applications. S.D. Joffre, A. Rensmo, **J.R. Hampton**

11:10 COLL 379. Measuring individual point defects in monolayer WS₂ using scanning probe microscopy. **B. Schuler**, C. Kastl, C. Chen, S. Refaely-Abramson, S.

Yuan, R. Roldan, N.J. Borys, T. Kuykendall, F. Ogletree, J. Neaton, S. Aloni, A. Schwartzberg, A. Weber-Bargioni

11:30 COLL 380. Structure and defects in the TiN-TiO₂ rutile interface. J. Gutierrez, **M. Nolan**

12:00 COLL 381. Fundamental surface modification and synchrotron-based spectroscopy of nanoscale diamond with amines, boranes and silica. G. Jean-Pierre, P. Tran, P.J. Sandoval, J. Hnatek, A. Arreola, A. Len, C. Melendrez, D. Barrera, R. Robinson, P. Yamaguchi, K. Lopez, A. Hernandez, E. Favre, D. Nordlund, V. Altoe, **A. Wolcott**

Section I
Ernest N. Morial Convention Center
Room 205

ACS Award in Surface Chemistry: Symposium in honor of Stacey F. Bent

Surface Modification & Function

Cosponsored by WCC
A.V. Teplyakov, *Organizer*
H. Lee, *Organizer, Presiding*

8:30 COLL 382. Electrochemical sensor of CO₂ based on surface modified halloysite nanotubes. **C. Prasitthichai**

9:00 COLL 383. Functionalizing silicon surfaces: mechanistic connections between molecules and interfaces. **J.M. Buriak**, M. Hu, T. Hauger

9:30 COLL 384. Probing organic reactions at surfaces using DART-MS. **H. Zuilhof**

10:00 Intermission.

10:15 COLL 385. Fe-based modification of graphite felt surfaces for electrochemical treatment of aqueous contaminants. **M. Kong**

10:45 COLL 386. Metal contacts in silicon solar cells: Role of surface science. **K. Roelofs**

11:15 COLL 387. Nanoparticles via vapor phase condensation for energy applications. **B.M. Clemens**, B. Gibbons, M. Wette, D. Higgins, T.F. Jaramillo, J. Baker, S.F. Bent, A. Mehta, R. Davis

Elucidation of Mechanisms & Kinetics on Surfaces

Theory

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

Assembly & Colloidal Interactions of Cellulose Nanocrystals
Sponsored by CELL, Cosponsored by COLL

Physical Chemistry of Ionic Liquids Electrochemistry and Electrochemical Interfaces

Sponsored by PHYS, Cosponsored by COLL[†]

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

MONDAY AFTERNOON

Section A
Ernest N. Morial Convention Center
Room 242

ACS Award in Colloid Chemistry: Symposium in honor of Hakan Wennerstrom

U. Olsson, N.J. Wagner, *Organizers*
C. Leal, A. Stadner, *Presiding*

2:00 COLL 388. Thermosensitive colloidal molecules with tunable directional interactions. **P. Schurtenberger**

2:30 COLL 389. Colloidal and macromolecular complexes at fluid-fluid interfaces and impact on mechanical properties. M.L. Davidson, S.M. Kirby, **L. Walker**

3:00 COLL 390. Stratification in colloidal films: Experimental evidence from atomic force microscopy and small-angle x-ray scattering. A. Carr, W. Liu, X. Liu, K. Yager, A.F. Routh, **S. Bhatia**

3:30 Intermission.

4:00 COLL 391. Structure and dynamics of nanoparticles in polymeric fluids. R. Poling-Skutvik, R. Krishnamoorti, **J. Conrad**

4:30 COLL 392. Cascade processes in "artificial cells" triggered by light, chemicals, or enzymes. **S.R. Raghavan**, K.C. DeMella

5:00 COLL 393. Herpesvirus infectivity facilitated by internal DNA pressure and capsid stability. **A. Evilevitch**

Section B
Ernest N. Morial Convention Center
Room 245

2018 Priestley Medalist: Symposium in honor of Geraldine Richmond

R.A. Walker, *Organizer*
N.A. Valley, *Presiding*

2:00 COLL 394. Impact of atmospheric aerosols and clouds on hydrocarbon chemistry. **J.S. Francisco**

2:30 COLL 395. From the field to the lab: Atmospheric organics in urban air and at the air-water interface. **S. Wren**, G.L. Richmond, J. Brook, B. Gordon, K. Hayden, J. Liggio, G. Lu, C. Mihele, R. Mittermeir, N.A. Valley, J. Wentzell

3:00 COLL 396. Towards predictive separations using 4D super-resolution microscopy. **C.F. Landes**

3:30 Intermission.

3:50 COLL 397. Solvent isotope effect on biomolecular adsorption at hydrophobic surfaces. T. Jarisz, K. Jena, M. Dixon, **D.K. Hore**

4:20 COLL 398. Maximizing efficiency – practical approaches to linking titration (and other methods) with NIR spectroscopy. **A. Hopkins**

4:50 COLL 399. Unraveling chemical processes from a metrology perspective. **P. Chu**

Section C
Ernest N. Morial Convention Center
R07

Biomembrane Synthesis, Structure, Mechanics & Dynamics

J. Katsaras, S. Muralidharan, M. Nieh, *Organizers*
A.N. Parikh, *Organizer, Presiding*
K. Morigaki, *Presiding*

2:00 COLL 400. Interactions between charged nanoparticles and giant vesicles fabricated from inverted-headgroup lipids. **L. Wang**, N. Malmstadt

2:20 COLL 401. Adenosine receptor 2A phase segregation behavior depends on its ligand binding state. **N. Malmstadt**

2:50 COLL 402. Measurement of flippase activity in individual red blood cells. M. Hosek, **D.L. Daleke**

3:20 COLL 403. Interaction of G protein transducin with GPCR rhodopsin studied by SANS. O. Soubias, J. Nickels, A. Yeliseev, K.G. Hines, W.E. Teague, J.K. Northup, J. Katsaras, **K. Gawrisch**

3:50 COLL 404. Imaging membrane-interacting peptides via a fluorescent amino acid. **F. Gai**

4:20 COLL 405. Time-resolved imaging of molecular transport through living cell membrane. **H. Dai**

4:50 COLL 406. Ytterbium ions strongly inhibit lipid flip-flop. V. Cheng, D. Wang, **J.C. Conboy**

Section D
Ernest N. Morial Convention Center
R06

Chemistry of Molecular Electronics
Molecular-Scale Electronics

Cosponsored by PHYS
M.S. Inkpen, G.C. Solomon, L. Venkataraman, *Organizers, Presiding*

2:00 COLL 407. Towards self-assembled single-molecule electronic devices. **K. Moth-Poulsen**

2:30 COLL 408. Tuning the polarity of charge carriers using electron deficient thiophenes. **J. Low**, B. Capozzi, J. Cui, S. Wei, L. Venkataraman, L.M. Campos

2:50 COLL 409. All-carbon molecular electronics for the real world. **R.L. McCreery**, A. Bergren, A.M. Najarian, M. Supur, S.R. Smith, U. Tefashe

3:20 COLL 410. Organometallic self-assembled monolayer films of linear azulenic and biazulenic p-linkers featuring asymmetric anchoring. **M.k. Okeowo**, C.L. Berrie, M.V. Barybin

3:40 COLL 411. Large-area molecular electronic devices employing graphene materials as soft top-contacts. **K.**

[†]Cooperative Cosponsorship

Room 242

ACS Award in Colloid Chemistry: Symposium in honor of Håkan Wennerström

U. Olsson, N.J. Wagner, *Organizers*
S. Bhatia, E. Sparr, *Presiding*

8:30 COLL 453. Hydration repulsion between polar surfaces and lipid membranes: Insights from solvent-explicit molecular dynamics simulations. **E. Schneck**, M. Kanduc, B. Kowalik, A. Schlaich, R. Netz

9:00 COLL 454. Molecular thermodynamic modeling of interactions between alpha-helical peptides and lipid bilayer membranes. **R. Nagarajan**

9:30 COLL 455. Double layer forces and the dielectric approximation. **L. Pegado**, B. Jönsson, H. Wennerström

10:00 COLL 456. Self-regulation and amplification of ion permeation. **H. Moehwald**, J. Duhamet, M. Pleines, T. Zemb

10:30 Intermission.

10:40 COLL 457. Surface forces measurement for materials science. **K. Kurihara**

11:10 COLL 458. From polymeric to oligomeric stabilization of colloidal spheres. **J. Bergenholz**

11:40 COLL 459. Nanoporous polymer sponges. **R. Strey**

Section B

Ernest N. Morial Convention Center
Room 245

Biomaterials & Biointerfaces

DNA at Materials Interfaces

V. Gordon, *Organizer*
A.P. Goodwin, *Organizer, Presiding*

8:30 COLL 460. Molecular simulation of single nucleotides moving through nanoslits composed of self-assembled monolayers terminated with various chemical groups. X. Tong, **B. Novak**, D. Moldovan

8:50 COLL 461. Charge-reversal nanocarriers for cancer gene delivery. **Y. Shen**

9:10 COLL 462. Self-assembled spherical nucleic acids from oligonucleotide-polymer conjugates for drug delivery and immunotherapy. **K. Zhang**

9:30 COLL 463. Carbonano-tweezers for twisting DNA duplex in cancer cells. **I. Tripathi**, S.K. Misra, F. Ostadhossein, I. Srivastava, D. Pan

9:50 Intermission.

10:10 COLL 464. Combining peptide arrays and mass spectrometry for high throughput experiments. **M. Mrksich**

10:40 COLL 465. Bio-nano interfaces for renewable energy. **J. Cha**

11:10 COLL 466. Reagentless DNA bioconjugation to metal surfaces. **A.L. Furst**, M.B. Francis

11:30 COLL 467. Evidence for DNA as a biomimetic template in calcium phosphate mineralization. **A.E. Gerdon**

Section C

Ernest N. Morial Convention Center
R07

Biomembrane Synthesis, Structure, Mechanics & Dynamics

J. Katsaras, S. Muralidharan, M. Nieh, A.N. Parikh, *Organizers*
K. Gawrisch, N. Malmstadt, *Presiding*

8:30 COLL 468. Cargo release mechanics of lipid bilayer coated mesoporous silica nanoparticles. **D.Y. Sasaki**, C. Dolstra, A. Noureddine, J. Brinker

9:00 COLL 469. Nanometric gap structure for selective biosensing created with patterned lipid bilayer, silicone elastomer, and silica nanoparticles. **K. Morigaki**, M. Tanabe, R. Komatsu, K. Ando

9:30 COLL 470. Probing ion and small molecule drug interactions with lipid membranes. **P.S. Cremer**, S. Sun, S. Pullanchery

10:00 COLL 471. Compressible simulation model for lipid bilayer membranes: Faithful treatment of surface tension at the continuum level. **F.L. Brown**

10:30 COLL 472. Recent advances in the *in situ* synthesis of phospholipid membranes. **N.K. Devaraj**

11:00 COLL 473. Membrane fusion mediated intracellular delivery of lipid bilayer coated mesoporous silica nanoparticles. **A. Kros**

11:30 COLL 474. Mechanisms of broad-spectrum antiviral activities of membrane-active molecules targeting enveloped viruses. **A.N. Parikh**

Section D

Ernest N. Morial Convention Center
R06

Chemistry of Molecular Electronics Monolayers: Tunneling & Function

Cosponsored by PHYS
M.S. Inkpen, G.C. Solomon, L. Venkataraman, *Organizers, Presiding*

8:30 COLL 475. Extracting quantitative information from molecular junction *i-v* characteristics using a compact analytical model. **C. Frisbie**

9:00 COLL 476. Impact of fluorinated alkanethiols with embedded dipoles on transport properties of EGaIn top contact devices and organic transistors. **R.C. Bruce**, L. You, L.A. Fredin, A. Förster, E. Bittle, D. Vang, S. Pookpanratana, O. Pomeroy, C.A. Hacker

9:20 COLL 477. Single-molecule conductance measurements in solutions and self-assembled monolayers. **M.S. Inkpen**, Z. Liu, H. Li, L.M. Campos, J. Neaton, L. Venkataraman

9:40 COLL 478. Electrostatic vs. quantum-mechanical coupling in self-assembled monolayers and its impact on

ballistic transport through self-assembled monolayers. **E. Zojer**

10:10 Intermission.

10:20 COLL 479. Synthesis and self-assembly in tunneling junctions comprising molecular switches. **R.C. Chiechi**, S. Kumar, J. van Herp, R. Gengler, B. Feringa, P. Rudolf

10:50 COLL 480. Superexchange tunneling: A lesson from nature. **M. Baghbanzadeh**, C.M. Bowers, D. Rappoport, L. Yuan, T. Zaba, P. Cyganik, A. Aspuru-Guzik, G.M. Whitesides

11:10 COLL 481. Effect of heteroatom substitution on transport in alkane dithiol based molecular tunnel junctions: Evidence for universal behavior. **Z. Xie**, I. Baldea, C. Frisbie

11:30 COLL 482. Transition from direct to inverted charge transport Marcus regions in molecular junctions via molecular orbital gating. **E. del Barco**, Y. Li, L. Wang, A. Rodriguez, M. Anguera Antonana, H. Venkata Annadata, C.A. Nijhuis

11:50 COLL 483. Directional plasmon launching from large-area molecular tunnelling junctions. **C.A. Nijhuis**

Section E

Ernest N. Morial Convention Center
R08

Colloidal Nanoparticle Synthesis & Assembly

Financially supported by Henan University and King Abdullah University of Science and Technology
F. Bai, H. Fan, Y. Han, *Organizers*
M. Cai, *Organizer, Presiding*
H. Fan, *Presiding*

8:30 COLL 484. Engineering colloidal semiconducting heteronanorods for solar energy conversion. **S. Yu**

9:00 COLL 485. Direct imaging of single nanoparticle reaction dynamics using *in-situ* liquid cell electron microscopy. **X. Ye**

9:30 COLL 486. Shape-changing and motile colloidal assemblies: Sequence-encoded microrobots and colloidal origami from patchy magnetic cubes. **O.D. Velev**, K. Han, C. Shields, G.P. López

9:50 COLL 487. Self-organization of silica colloidal particles confined in water-in-oil droplets. **W. Sun**, S. Chen, M. Xu, Y. Wei, T. Fan, G. Yuan

10:10 Intermission.

10:30 COLL 488. Silicon nanocrystals. **B.A. Korgel**

11:00 COLL 489. Ultra-photostable lead chalcogenide giant quantum dots: A case study in materials-by-design. **J.A. Hollingsworth**, H. Hoon, C. Hanson, A. Singh, S. Krishnamurthy, Z. Hu, A.E. King, A. Piryatinski

11:30 COLL 490. Tunable amorphous photonic materials with pigmentary colloidal nanostructures. **Y. Han**, J. Han, E. Lee, A. Pascall, J. Kuntz, M.A. Worsley

11:50 COLL 491. Withdrawn

12:10 COLL 492. Direct assembly of nanoparticle arrays by electrophoretic deposition. **P. Mulvaney**

Section F

Ernest N. Morial Convention Center
R09

Solubility of Colloids in Different Solvents

N. Feliu, *Organizer*
L. Liz Marzan, W. Parak, *Organizers, Presiding*

8:30 COLL 493. Designing nanoparticles for ultrasensitive biosensing. **M. Stevens**

8:55 COLL 494. Sedimentation of nanocrystals in different solvents studied by analytical ultracentrifugation. **P. Mulvaney**

9:20 COLL 495. Gold nanorods: Can we still do better? **L. Liz Marzan**

9:45 COLL 496. Tableting nanoparticle reagents to simplify diagnostic processes. **W. Chan**

10:10 COLL 497. Synergizing nanoproperties for effective cancer nanomedicine. **Y. Shen**

10:35 COLL 498. Scanning probe block copolymer lithography as a route to combinatorial nanoscience. **C.A. Mirkin**

11:00 COLL 499. Hedgehog particles. **N. Kotov**

11:25 COLL 500. Solvent-induced reversible self-organization of plasmonic nanoparticles in confined spaces. **M. Grzelczak**, A. Sanchez-Iglesias, N. Claes, S. Bals, L. Liz Marzan

11:50 COLL 501. Multiplex functions of DNA functionalized gold nanoparticles. M. Kyriazi, A. El-Sagheer, T. Brown, O. Muskens, **A. Kanaras**

12:15 COLL 502. Controllable hydrophobicity of gold nanoparticles coated with 18-CROWN-6-C-SH. **A.P. Hill**, M. Brust

Section G

Ernest N. Morial Convention Center
Room 203

Nanomaterials

Novel Synthesis & Nanostructures

J.A. Hollingsworth, R. Nagarajan, *Organizers*
A.B. Greytak, *Presiding*

8:30 COLL 503. Experimental and computational development of single source precursors to Sn-Ge nanocrystals. **J. Vela**, M.A. White, H. Andaraarachchi

9:00 COLL 504. Phase control in the synthesis of metal sulfide nanocrystals. **J. Macdonald**, J. Rhodes, A.D. Leach

9:30 COLL 505. Multicomponent hollow transition metal oxide nanoparticles: Structure-property correlation. **E. Shevchenko**

10:00 COLL 506. Hierarchical chirality in inorganic nanocrystals and their superstructures. **P. Wang**, S. Yu, M. Ouyang

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vaporization of fluorocarbon droplets for ultrasound imaging. R. Chattaraj, **A.P. Goodwin**

10:10 Intermission.

10:30 COLL 546. Janus particles induce defects in supported lipid bilayers. **K. Lee, Y. Yu**

10:50 COLL 547. Integration of bio-membrane in synthetic nanoparticle for diagnosis and therapy. **S. Aryal, T. Nguyen, A. Pitchaimani**

11:20 COLL 548. Characterization of the binding of vesicles, viruses and cells to biomimetic lipid bilayers. **M. Verheijden, D. Di Iorio, G. Koçer, J. Huskens, P. Jonkheijm**

11:40 COLL 549. Nanoscopic rotational tracking reveals binding dynamics of cell membrane-camouflaged nanoparticles on lipid membranes. **Y. Yu, Y. Gao, Y. Yu**

12:00 COLL 550. Attachment of *Alcanivorax borkumensis* to oil-in-water emulsion droplets stabilized by different dispersants. **A. Abbasi, G.D. Bothun, A. Bose**

Section C

Ernest N. Morial Convention Center R07

Biomembrane Synthesis, Structure, Mechanics & Dynamics

J. Katsaras, S. Muralidharan, A.N. Parikh, *Organizers*
M. Nieh, *Organizer, Presiding*
J. Nickels, A. Vaish, *Presiding*

8:30 COLL 551. GPCR ligand residence times obtained by all-atom simulation. **L. Chen, E. Lyman**

8:50 COLL 552. Multi-component lipid bilayer membranes on GO: Domain distribution and fluidity evaluation. **R. Tero, Y. Okamoto, S. Saito**

9:20 COLL 553. *In-vivo* structure of the Gram-positive bacterial plasma membrane. **R.F. Standaert**

9:50 COLL 554. Molecular modeling of nanoparticle permeation in lipid membranes for drug delivery applications. P. Oroskar, C. Jameson, **S. Murad**

10:20 COLL 555. Effects of incorporating channel forming peptides on the thermal fluctuations in lipid bilayers. **M. Nagao, E.G. Kelley, P. Butler**

10:50 COLL 556. GPCR-cholesterol interactions: Predictions from all-atom and coarse-grained simulations. **E. Lyman, L. Yang, E. Rouvriere, C. McGraw, A.S. Robinson**

11:20 COLL 557. Composition and physical properties of living membranes. **I. Levental, J. Lorent, K. Levental**

11:50 COLL 558. Structural basis of hydrophilic-polymer-modified lipid domains in supported lipid bilayer and their physical properties. **Y. Kakimoto, R. Tero**

12:10 COLL 559. QCM-D study of formation of five-component supported lipid bilayer incorporating cholesterol, sphingomyelin, and ganglioside. **E. Kamaloo, R. Nagarajan, T.A. Camesano**

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Section D

Ernest N. Morial Convention Center R06

Fundamentals & Applications of Emulsions at Nonstandard Conditions

L. Chen, H. Katepalli, R. Moglia, *Organizers, Presiding*

8:30 COLL 560. Coalescence and spontaneous emulsification in the presence of asphaltenes. **G.G. Fuller, S. Bochner, M. Merola, D. Vlassopoulos**

9:10 COLL 561. Non-aqueous emulsion as a versatile tool for new types of nanoparticles. **M. Klapper, F. Karagoz, D. Vidakovic, K. Muellen**

9:35 COLL 562. Microtensiometer platform for characterization of fluid-fluid interfaces through sudden changes in environment. **L. Walker**

10:00 COLL 563. Hollow microspheres using interfacial trapping of pristine graphene sheets. **C.D. Liyanage, D.H. Adamson**

10:25 COLL 564. Exopolymer produced in the marine environment enhances the stability of oil in water emulsions under saline conditions. **M. Omarova, L.T. Swientoniewski, I. Mkam Tsengam, D.A. Blake, A. Panchal, Y.M. Lvov, T. Yu, D. Zhang, V.T. John**

10:50 COLL 565. Development, characterization, and application of novel high temperature thermoplastic and thermoset dispersions. **D. Dermody, D. Malotky, R. Lundgard, R. Moglia, M. Sekharan, M. Kalinowski, T. Young, J. Romick, D. Himmelberger, J. Mecca**

11:15 COLL 566. High pressure CO₂-in-mineral oil emulsions and N₂-in-mineral oil foams stabilized by polydimethylsiloxane-based surfactants as a waterless hydraulic fracturing fluid. **S. Alzobaidi, J. Lee, C. Da, G. Rodriguez, J. Harris, R.J. Perry, K.P. Johnston, R.M. Enick**

11:40 COLL 567. Schizophrenic diblock copolymer functionalized nanoparticles as temperature responsive Pickering emulsifiers. **H. Katepalli, M. Ranka, D. Blankschein, T. Hatton**

Section E

Ernest N. Morial Convention Center R08

Colloidal Nanoparticle Synthesis & Assembly

Financially supported by Henan University and King Abdullah University of Science and Technology
M. Cai, H. Fan, Y. Han, *Organizers*
F. Bai, *Organizer, Presiding*
Y. Jiang, *Presiding*

8:30 COLL 568. Structure influence on the mechanical properties of self-assembled nanoparticle systems. **X. Lin**

9:00 COLL 569. Novel approaches to nanoparticle size control through continuous growth. **D. Huber**

9:30 COLL 570. Epitaxially grown particle superlattices via DNA-programmed assembly on lithographic

templates. **R. Macfarlane**

9:50 COLL 571. Pd-decorated Au nanorods via biomimetic techniques for use as plasmonic catalysts in Suzuki coupling of aryl chlorides. **B. Briggs, M. Smith, J. Wagner**

10:10 Intermission.

10:30 COLL 572. Developing hierarchical hybrid polymer-enzyme structures for biomass conversions. **T. Li, G. Babnigg, J. Johnson**

11:00 COLL 573. Liquid evaporation-driven assembly of 3-D architected structures by low-dimensional deformable nanomaterials. **B. Xu**

11:30 COLL 574. Atomistic modeling of nanoparticle self-assembly: dynamics, interactions and structures. **P. Kral**

11:50 COLL 575. Kinetic treatment of the metal-ligand binding for predictive synthesis of colloidal nanoparticles. **S. Mozaffari, W. Li, C. Thompson, S. Ivanov, A.M. Karim**

12:10 COLL 576. Investigation of conduction electrons wave function delocalization at the metal nanoparticle-organic ligand interface in solid state. **T. Habarakada Liyanage, R. Sardar**

Section F

Ernest N. Morial Convention Center R09

Solubility of Colloids in Different Solvents

L. Liz Marzan, *Organizer*
N. Felieu, W. Parak, *Organizers, Presiding*

8:30 COLL 577. Solubility adjustment of nanocrystals for their use in nanocomposites and in biological environment. **H. Weller**

8:55 COLL 578. Optimized multifunctional polymer coating for tuning nanocrystal solubility. W. Wang, Z. Ji, A. Kapur, **H.M. Mattoussi**

9:20 COLL 579. Directing gold nanoparticles into biological membranes by fine tuning their dispersibility. **M. Brust**

9:45 COLL 580. Surface-Enhanced Raman Scattering (SERS) classification of K-Ras point mutations. **L. Guerrini**

10:10 COLL 581. Understanding the interaction of nanoparticles and cells: Potential cytotoxicity associated with the uptake of nanoparticles by cells. **N. Felieu, W. Parak**

10:35 COLL 582. Degradation of particles effects their colloidal properties. **W. Parak**

11:00 COLL 583. Microfluidics and metabolic dying in liquid biopsy. **R.A. Alvarez-Puebla**

11:25 COLL 584. Molybdenum disulfide (MoS₂)/graphene oxide (GO) nanocomposites show favorable lung targeting and enhanced drug loading/tumor-killing efficacy with desirable biocompatibility. **S. Liu**

11:50 COLL 585. Beauty of metal-organic framework bulk chemistry combined with the fascinating world of

nanoparticles. **S. Wuttke**

12:15 COLL 586. Coordinating polymer with multiple phosphonic acid anchors for surface-functionalizing metal and metal-oxide nanoparticles. **L. Du, W. Wang, G. Palui, H.M. Mattoussi**

12:35 COLL 587. Photo-promoted ligand exchange of gold colloids with lipic acid-based polymers. **Z. Jin, Y. Sugiyama, C. Zhang, G. Palui, L. Du, H.M. Mattoussi**

Section G

Ernest N. Morial Convention Center Room 203

Nanomaterials

Nanocomposite Applications: From Plasmonics & Electronics to Biology

J.A. Hollingsworth, R. Nagarajan, *Organizers*
G. Davies, *Presiding*

8:30 COLL 588. Nanostructured plasmonic surfaces for diagnostics and chemistry. **H. Moehwald, G. Zhang**

8:50 COLL 589. Monitoring plasmonic photocatalysis at the single molecule level with surface-enhanced Raman spectroscopy. **J.L. Brooks, R.R. Frontiera**

9:10 COLL 590. Colloidal, nanoelectronic state machines based on 2D materials for aerosolizable electronics. **V. Koman, P. Liu, D. Kozawa, A. Liu, A. Cottrill, M. Strano**

9:30 COLL 591. Effect of particle distance in magnetic properties of superparamagnetic iron oxide nanoparticle and its application in contrast enhance magnetic resonance imaging. **T. Nguyen, A. Pitchaimani, C. Ferrel, S. Aryal**

9:50 COLL 592. Electrical conductivity and Seebeck coefficient of air-stable n-type polymer composite films. **T. Sutch, J. Allred, G. Szulczewski**

10:10 COLL 593. Highly tunable platform for biomimetic catalysts from nanocrystal-polymer composites. **A. Riscoe, C. Wrasman, A. Menon, M. Hubert, A. Dai, M. Vargas, E. Goodman, A. Yang, A. Beck, L. Wu, M. Cargnello**

10:30 COLL 594. Local-mapping and photothermal tumor treatment using galectin-1 targeting nanomaterials. **S.V. Jenkins, R.P. Dings, J. Chen, R.J. Griffin**

10:50 COLL 595. Selenium-containing polymer@metal-organic frameworks nanocomposites as an efficient multi-responsive drug delivery system. **W. Zhou, W. Zhang, W. Huang, F. Huo**

11:10 COLL 596. Macromolecularly "caged" carbon nanoparticles for intracellular trafficking via switchable photoluminescence. **I. Srivastava, S.K. Misra, I. Tripathi, E. Daza, F. Ostadhossein, D. Pan**

11:30 COLL 597. Ultrasound and enzymes for surface functionalization of medical textiles and devices with antimicrobial nanoparticles. **T. Tzanov, K. Ivanova**

Section H

Ernest N. Morial Convention Center

Adaptive Nanogels

Sponsored by POLY, Cosponsored by COLL

THURSDAY AFTERNOON**Elucidation of Mechanisms & Kinetics on Surfaces**

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Functional Structures from Wood-Based Materials**Designed Structures & Processing**

Sponsored by CELL, Cosponsored by COLL

Physical Chemistry of Ionic Liquids**Ionic Liquid-Solute-Solvent Interactions**Sponsored by PHYS, Cosponsored by COLL[†]**Adaptive Nanogels**

Sponsored by POLY, Cosponsored by COLL

Biobased Gels & Porous Materials**Polysaccharide Foams, Cryogels & Aerogels**

Sponsored by CELL, Cosponsored by COLL and PMSE

COMP**Division of Computers in Chemistry**

H. Woodcock, J. Shen and M. Feig, Program Chairs

SUNDAY MORNING**Section A**New Orleans Marriott Convention Center
New Levee**Molecular Mechanics****Force Fields**M. Feig, Organizer
H. Bruce Macdonald, Presiding**8:30 COMP 1.** Rapid estimation of atomic charges for the first 96 elements. **C.W. Earley****9:00 COMP 2.** Molecular dynamics simulations of ammonia synthesis process on ruthenium nanoparticle catalyst. **S. Kim**, S. Han**9:30 COMP 3.** Non-covalent force field expressed in terms of spherical density functions. **T. Verstraelen**, S. Vandenbrande, F. Heidar-Zadeh, L. Vanduythuys, M.E. Waroquier, V. Van Speybroeck, P. Ayers**10:00 Intermission.****10:15 COMP 4.** Atom in molecules atomic charges based on different partitioning schemes validated forbiomolecular free energy calculations. **E. Voehringer-Martinez**, M. Riquelme, A. Lara**10:45 COMP 5.** Influence of protein-solvent interactions on the molecular dynamics of reduced point charge models of proteins. **L. Leherste**, D. Vercauteren**11:15 COMP 6.** Residue based contributions to the thermodynamic properties of ubiquitin. **N.K. Kariyawasam Manachchige**, E.A. Ploetz, P.E. Smith**Section B**New Orleans Marriott Convention Center
Mississippi Queen**Computational Studies of Water Models & Biological Applications**D.J. Sindhikara, Organizer
H. Torabifard, Presiding**8:30 COMP 7.** Solvation by single-site multipole water. **T. Ichiye****9:00 COMP 8.** Accurate modeling of water clusters with density-functional theory using atom-centered potentials. **G.A. DiLabio****9:30 COMP 9.** Path integral approach to a strong coupling solution of a coarse grained electronic structure describes water's properties from ice to the supercritical regime. **G.J. Martyna****10:00 Intermission.****10:15 COMP 10.** Computationally efficient approach to estimating the mean solvent density around polar solutes. **M. McCullagh****10:45 COMP 11.** Predicting water networks and ligand binding free energies in proteins using grand canonical Monte Carlo. **H. Bruce Macdonald**, C. Cave-Ayland, J.W. Essex**11:05 COMP 12.** Water-multimodal ligand interactions: The effect of ligand chemistry and architecture on ligand hydration and conformation in solution and at interfaces. **C. Bilodeau**, S.M. Cramer, S. Garde**11:25 COMP 13.** Characterizing hydration properties based on the orientational structure of interfacial water molecules. **S. Shin**, A.P. Willard**Section C**New Orleans Marriott Convention Center
Julia**Drug Design****Structure & Ligand-Based Design**Cosponsored by CINF
M.R. Landon, Y. Tseng, Organizers
P. Buteler, Presiding**8:30 COMP 14.** *In silico* enzyme engineering: Computational methodology for improving both the catalytic activity and stability. **J. Park**, T. Kim, Y. Choi, Y. Jung, M. Shim, H. Lee**9:00 COMP 15.** Dynamic structural differences between human and mouse STING lead to differing sensitivity to DMXAA. **A. Shih**, K. Damm-Ganamet, T.

Mirzadegan

9:30 COMP 16. Structure-based optimization of JAK1 ATP-binding pocket inhibitors in the aminopyrazole class.**P.A. Gibbons**, K. Barrett, D. Brown, G. Buckley, G. Hamilton, A. Johnson, T. Kellar, P. Kohli, M. Liimatta, J. Lloyd, A. Romero, G. Salmon, M. Zak, G. Zhao**10:00 Intermission.****10:15 COMP 17.** Structural basis of unprecedented potency of GRL-142 against multi-drug resistant HIV-1 protease. **D. Das**, M. Aoki, H. Hayashi, Y. Takamatsu, H. Bulut, R. Yedidi, K.V. Rao, A.K. Ghosh, H. Mitsuya**10:45 COMP 18.** Ligand based drug discovery of novel dengue-2 NS2B-NS3 protease inhibitors. **H.A. Wahab**, M. Nawj, S.A. Hamid, R. Yusuf, N.A. Rahman, R. Othman, S. Othman**11:15 COMP 19.** Computational study of 3-aryl-quinoxaline-2-carbonitrile 1,4-di-N-oxide derivatives with anti-tumor properties. **E.M. Miller**, A. Nennering, M.N. Mruzik, K.A. Brillos-Monia, P.W. Crawford, C. Ragain**Section D**New Orleans Marriott Convention Center
River Bend 2**Marriage of Machine Learning, Knowledge Representation & Chemical Sciences****Data Mining & Frameworks for Chemical Discovery**Cosponsored by CINF and PHYS
D. Koes, E. Pyzer-Knapp, Organizers,
Presiding**8:30 Introductory Remarks.****8:45 COMP 20.** Pathway analysis and mode-of-action prediction based on computational modeling of high-throughput toxicogenomics. S. Haider, **K. Mansouri**, M.B. Black, P.D. McMullen**9:10 COMP 21.** Automation approaches of large-scale systematic literature reviews to support performance-based validation of high throughput assays and biological pathway elucidation. **K. Markey**, A. Frame, C. Strobe, S.R. Matten**9:35 COMP 22.** Application of machine learning and computer vision techniques in information extraction and property predictions. **Y. Han****10:00 COMP 23.** "Lost in translation": Treating organic chemistry as a natural language. T. Gaudin, P. Schwaller, D. Lanyi, C. Bekas, **T. Laino****10:25 Intermission.****10:40 COMP 24.** Capturing and applying knowledge to guide compound optimisation. **M.D. Segall**, E. Champness, P. Hunt, T. Mansley**11:05 COMP 25.** LiveDesign as a machine-learning platform for collaborative drug discovery. E. Davis, **C. Murphy****11:30 COMP 26.** Cognitive computing and machine learning for chemical & materials discovery. **J.W. Pitera**, D. Zubarev, C. Dai, S. Swaminathan**11:55 COMP 27.** Development ofa machine learning toolkit for drug discovery. **V. Tkachenko**, A. Korotcov, B. Sattarov, A. Mitrofanov, R. Zakharov**Section E**New Orleans Marriott Convention Center
Blaine Kern F**Large-Scale Applied Molecular Modeling**Cosponsored by CINF and MEDI
R. Alvarez, E. Metwally, Organizers
J.C. Alvarez, J. Duca, Organizers,
Presiding**8:30 Introductory Remarks.****8:35 COMP 28.** Molecular simulation and machine learning for the design of finely tuned drugs. **R.O. Dror****9:05 COMP 29.** *In silico* prediction of diffusion interaction parameter (kD), a key determinant of antibody solution behaviors. **D. Tomar****9:35 COMP 30.** Protein mutagenesis and property optimization with MOE. **E. Metwally****10:05 Intermission.****10:30 COMP 31.** Using large-scale electronic structure modeling to understand unexpected interactions in the structurally characterized proteome. **H. Qi**, H.J. Kulik**11:00 COMP 32.** Predicting allosteric back pocket tractability among protein kinases. **K.K. Brown****Adventures in Density Functional Theory****Fundamental Properties of the Exact Density Functional**Sponsored by PHYS, Cosponsored by COMP[†]**LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium****Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis**Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC**Drug Discovery: Cheminformatic Approaches**

Sponsored by CINF, Cosponsored by COMP

Machine Learning for Catalysis Research

Sponsored by CATL, Cosponsored by CINF and COMP

Electrochemical Double Layer: Modeling, Characterization & Catalysis

Sponsored by CATL, Cosponsored by COMP, ENFL and PHYS

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Sponsored by PHYS, Cosponsored by

[†]Cooperative Cosponsorship

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

SUNDAY AFTERNOON

Section A
New Orleans Marriott Convention Center
New Levee

Molecular Mechanics Sampling & Kinetics

M. Feig, *Organizer*
M. Niesen, *Presiding*

1:30 COMP 33. Tinker-HP: A massively parallel molecular dynamics package for multiscale simulations of large complex systems with advanced polarizable force fields. **J.A. Piquemal**

2:00 COMP 34. Microscopic derivation of particle-based coarse-grained dynamics: Exact expressions for dissipative interactions. **S. Izvekov**

2:30 COMP 35. Convergence of (multi-scale) free energy simulations. **G. Koenig**, D.M. York

3:00 Intermission.

3:15 COMP 36. Simulation study of long-timescale protein dynamics. **K. Corbett**, D. Wu, L. Zheng, W. Yang

3:45 COMP 37. Efficient phase space exploration by employing a local roundtrip-time optimisation for replica-exchange simulations. **D. Sidler**, M. Cristofol Clough, S. Riniker

4:15 COMP 38. Kinetic folding and binding networks from REMD trajectories. B. Narayan, C. Herbert, S. McCartan, B. Tywniuk, Y. Yuan, A. Kells, E. Rosta, **N. Buchete**

4:45 COMP 39. Dimerization interfaces of the GPCR TGR5 revealed by integrative modeling. **C. Gertzen**, L. Waeschenbach, H. Gohlke

Section B
New Orleans Marriott Convention Center
Mississippi Queen

Computational Studies of Water Phenomena

D.J. Sindhikara, *Organizer*
K.D. Ranasinghe, *Presiding*

1:30 COMP 40. Benchmark structures, energetics and harmonic vibrational frequencies of solvated halide and alkali metal ions. **G.S. Tschumper**

2:00 COMP 41. Connections between the anomalous volumetric properties of alcohols in aqueous solution and the volume of hydrophobic association. **H. Ashbaugh**

2:30 COMP 42. Nucleation tracking in aqueous environments. C. Williamson, **C.J. Fennell**

3:00 Intermission.

3:15 COMP 43. Coexistence of multilayered phases of confined water: The importance of flexible confining surfaces. **L.A. Ruiz Pestana**, L. Felberg, T.L. Head-Gordon

3:35 COMP 44. ReaxFF molecular dynamics simulations of electrolyte diffusion and polymer hydrolysis in ambient and supercritical water. **N. Dasgupta**, Y. Shin, A.C. Van Duin

3:55 COMP 45. Membrane desalination through silicon-passivated nanoporous graphene: A polarizable study. **Y. Qiu**, L. Wang

Section C
New Orleans Marriott Convention Center
Julia

Undergraduate Research & COMP Career Roundtable

M.C. Nagan, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 COMP 46. Introduction to molecular dynamics simulations. **J. Shen**

2:25 COMP 47. Introduction to quantum chemistry and QM simulations. **G.A. Cisneros**

3:15 Discussion.

4:05 Intermission.

4:20 Panel Discussion.

5:10 Concluding Remarks.

Section D
New Orleans Marriott Convention Center
River Bend 2

Marriage of Machine Learning, Knowledge Representation & Chemical Sciences

Artificial Intelligent Searching of Chemical Space

Cosponsored by CINF and PHYS
D. Koes, E. Pyzer-Knapp, *Organizers, Presiding*

1:30 COMP 48. Molecular graph encoding convolutional neural networks for automatic chemical feature extraction. Y. Xu, **J. Pei**, L. Lai

1:55 COMP 49. Can androids dream of electric molecules? Generative models for chemistry and molecular properties. **A. Aspuru-Guzik**

2:20 COMP 50. Active search for computer-aided drug design. **J.D. Hirst**, S. Oatley, D. Oglic, T. Gaertner

2:45 COMP 51. Withdrawn

3:10 Intermission.

3:25 COMP 52. Coupling generative models to virtual screening: Application to organic redox flow batteries. **D.P. Tabor**, C. Outeiral, B. Sanchez-Lengeling, A. Aspuru-Guzik

3:50 COMP 53. Using machine learning to seed starting populations for evolutionary algorithm searches of organic structures. N. Kellas, **M. Groves**

4:15 COMP 54. Active learning in chemical space for the automatic improvement of the ANI deep learned potential with an application to reaction profiles. J.S. Smith, K.D. Ranasinghe, C. Devreux, O. Isayev, **A.E. Roitberg**

4:40 Panel Discussion.

Section E
New Orleans Marriott Convention Center
Blaine Kern F

Large-Scale Applied Molecular Modeling

Cosponsored by CINF and MEDI
R. Alvarez, J. Duca, *Organizers*
J.C. Alvarez, E. Metwally, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 COMP 55. Organic crystal structure prediction for industrial applications by a convergence-controlled blend of DFT-D with tailor-made force fields. **M.A. Neumann**

2:05 COMP 56. Molecular crystal structure prediction from large-scale first-principles calculations. **J. Hoja**, H. Ko, M.A. Neumann, R. Car, R.A. Distasio, A. Tkatchenko

2:35 COMP 57. Leveraging a large scale HPC environment for computational studies in catalyst design. **E.C. Sherer**

3:05 Intermission.

3:30 COMP 58. Studying nanoparticle-membrane interactions using MD simulations. **Z. Cournia**

4:00 COMP 59. Nonlinear modeling of organic compounds structures, simulation, and optimization of tandem mass spectrometer (MS) data. **F. Ochieng**, B.A. Logue, P. Hinker

4:30 COMP 60. Understanding passive membrane permeation with microsecond molecular dynamics. **C. Dickson**, V. Hornak, R.A. Pearlstein, J. Duca

Adventures in Density Functional Theory
Sponsored by PHYS, Cosponsored by COMP[†]

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Carbon Dioxide Conversion & Artificial Photosynthesis

Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Machine Learning for Catalysis Research
Sponsored by CATL, Cosponsored by CINF and COMP

Electrochemical Double Layer: Modeling, Characterization &

Catalysis

Sponsored by CATL, Cosponsored by COMP, ENFL[†] and PHYS

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Sponsored by PHYS, Cosponsored by COMP[†]

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

MONDAY MORNING

Section A
New Orleans Marriott Convention Center
New Levee

Computational Catalyst Design for Energy Conversion & Storage

Advances in Theory, Computational Models & Approaches

Cosponsored by CATL and CINF
C.M. Aikens, *Organizer*
C. Liu, *Organizer, Presiding*

8:00 COMP 61. Design of metal-organic framework catalysts beyond the active site. D. Gomez Gualdrón, C.L. Whitford, P. Deria, P.C. Stair, R.B. Gelman, J.T. Hupp, O.K. Farha, **R. Snurr**

8:40 COMP 62. Quantum mechanical description of excited-state catalysis on metals for nanoplasmonics. **J. Martirez**, E.A. Carter

9:10 COMP 63. Modeling catalytic reactions with multireference quantum chemical methods. **L. Agliardi**

9:50 Intermission.

10:10 COMP 64. Theoretical design of molecular electrocatalysts with proton relays for energy conversion processes. **S. Hammes-Schiffer**

10:50 COMP 65. Predictive description of photo-induced electron transfer or transport through molecular-resolved interfaces. **B.D. Dunietz**

11:30 COMP 66. Design principles of materials for transformation and storage of energy. **J. Mendoza-Cortes**

Section B
New Orleans Marriott Convention Center
River Bend 2

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

Cosponsored by CINF, MEDI and PHYS
Financially supported by Gaussian Inc. and OpenEye

G.A. Cisneros, *Organizer*
P. Tao, *Organizer, Presiding*
R. Swett, *Presiding*

8:30 Introductory Remarks.

8:40 COMP 67. Proton-coupled electron

transfer in soybean lipoxygenase: Hydrogen tunneling, electrostatics, and conformational motions. **S. Hammes-Schiffer**

9:10 COMP 68. Insights on ALKB family native and cancer variant enzymes. **G.A. Cisneros**

9:40 COMP 69. Importance of electrostatic interactions in natural enzymes: What can we learn for enzyme design? T.A. Coulther, L. Ngu, P.J. Beuning, **M.J. Ondrechen**

10:10 Intermission.

10:25 COMP 70. Capturing and designing for electrostatic preorganization in enzymes. **A. Alexandrova**

10:55 COMP 71. Modeling the absorption spectrum of the chromophores of photoactive yellow protein (PYP) and green fluorescent protein (GFP) in water: Ensemble sampling, vibronic transitions, and nuclear quantum effects. **C. Isborn, T. Zuehlsdorff**

11:25 COMP 72. Comparison of catalytic mechanisms of multiple β -lactamases: Seeking chemical driving force behind antibiotic resistance. **P. Tao, L. Shen**

Section C

New Orleans Marriott Convention Center
Julia

Drug Design

QSAR & Docking

Cosponsored by CINF
M.R. Landon, Y. Tseng, *Organizers*
D. Ghoreishi, *Presiding*

8:30 COMP 73. MD-QSAR modeling of dynamic kinase-inhibitor interactions using machine learning and molecular dynamics trajectories. **D. Fourches**

9:00 COMP 74. Hydrophobic similarity between molecules: Application to three-dimensional molecular overlays with PharmScreen. J. Vazquez, A. Deplano, A. Herrero, E. Gibert, T. Ginex, O. Rabal, J. Oyarzabal, E. Herrero, **F. Luque**

9:30 COMP 75. ProBiSdock: Flexible docking using existing knowledge from the Protein Data Bank. **J. Konc, D. Janezic**

10:00 Intermission.

10:15 COMP 76. 'Middle-way' flexible docking: Combining mixed-resolution and non-equilibrium candidate Monte Carlo for improved pose prediction in estrogen receptor β . **J.M. Spiriti, D.M. Zuckerman**

10:45 COMP 77. Identifying drug binding sites on proteins from surface conservation and fragment docking. A.R. Vidad, S. Macaspac, **H. Ng**

11:15 COMP 78. Allosteric inhibition of the Zika virus NS3 helicase. **B. Raubenolt, K. Wong, S. Rick**

Section D

New Orleans Marriott Convention Center
Blaine Kern D

Marriage of Machine Learning, Knowledge Representation & Chemical Sciences

Applied Machine Learning:

Molecular Dynamics, Materials & Virtual Screening

Cosponsored by CINF and PHYS
D. Koes, E. Pyzer-Knapp, *Organizers*,
Presiding

8:30 Introductory Remarks.

8:35 COMP 79. Simultaneous learning and exploring potential energy surfaces.

A. Shapeev, E.V. Podryabinkin, K. Gubaev, I.S. Novikov

9:00 COMP 80. Unsupervised clustering of molecules using minimum variance yields interpretable dynamical and structural groups. **B.E. Husic, V.S. Pande**

9:25 COMP 81. Using machine learning to automate calculations of conformational kinetics in molecular simulations. **G. Grazioli, I. Andricioaei, C.T. Butts**

9:50 Intermission.

10:05 COMP 82. Systematically identifying the best chemical representation for machine learning with applications in crystal structure prediction. **D. McDonagh, C. Skylaris, G.M. Day**

10:30 COMP 83. Prediction of scintillator light yield from composition using machine learning methods. **J. Garnett, A. Burger**

10:55 COMP 84. Data set expansion in consensus scoring for protein-ligand docking. S.S. Ericksen, F.M. Hoffmann, **S.A. Wildman**

Section E

New Orleans Marriott Convention Center
Blaine Kern F

Large-Scale Applied Molecular Modeling

Cosponsored by CINF and MEDI
J.C. Alvarez, R. Alvarez, *Organizers*
J. Duca, E. Metwally, *Organizers*,
Presiding

8:30 Introductory Remarks.

8:35 COMP 85. Molecular modeling in the cloud: From billions to hundreds to one. **G.L. Warren, A.G. Skillman, C.I. Bayly, T.A. Darden, A. Nicholls**

9:05 COMP 86. Characterization of long-range interaction networks in proteins using key network principles. **Z. Haratipour, H. Aldabagh, Y. Li, L.H. Greene**

9:35 COMP 87. Leveraging cloud computing for large-scale QM calculations: Application to virtual screening and structure-based design. **B.K. Rai, V. Sresht, Q. Yang, R. Unwalla, M. Tu, A. Mathiowetz, G.A. Bakken**

10:05 Intermission.

10:30 COMP 88. Using MELD in flexible protein-protein docking. **E. Brini, K. Dill**

11:00 COMP 89. Macro-pKa calculations for complex tautomeric equilibria. **A. Bochevarov, M.A. Watson, H.S. Yu**

Adventures in Density Functional Theory

Conceptual Aspects

Sponsored by PHYS, Cosponsored by COMP[†]

Carbon Dioxide Conversion & Artificial Photosynthesis

Theoretical Studies, Policy & Catalytic Conversion

Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Machine Learning for Catalysis Research

Sponsored by CATL, Cosponsored by CINF and COMP

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Sponsored by PHYS, Cosponsored by COMP[†]

Electrochemical Double Layer: Modeling, Characterization & Catalysis

Sponsored by CATL, Cosponsored by COMP, ENFL and PHYS

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

MONDAY AFTERNOON

Section A

New Orleans Marriott Convention Center
New Levee

Computational Catalyst Design for Energy Conversion & Storage

Development of Electro- & Photocatalysts

Cosponsored by CATL and CINF
C.M. Aikens, *Organizer*
C. Liu, *Organizer, Presiding*

1:30 COMP 90. Computational studies of reaction pathways for electrocatalytic CO₂ reduction to hydrocarbons on Cu-based catalysts. A.J. Garza, A.T. Bell, **M.P. Head-Gordon**

2:10 COMP 91. Characterization of NiFe oxyhydroxide electrocatalysts by integrated electronic structure calculations and spectroelectrochemistry. **G.A. Galli**

2:50 COMP 92. Computational design of non-precious transition metal/nitrogen doped carbon catalysts as fuel cell electrocatalysts. **G. Wang**

3:30 Intermission.

3:50 COMP 93. Theoretical investigations for CO₂ reduction. **K. Chan**

4:30 COMP 94. Water oxidation in photosystem II characterized by a combined computational and experimental study of ¹⁶O/¹⁸O and H/D kinetic isotope effects. K.R. Yang, S. Khan, G.W. Brudvig, **V.S. Batista**

5:10 COMP 95. Orbitalwise coordination numbers as new descriptors for oxygen reduction catalyst design. **S. Wang, H. Xin**

Section B

New Orleans Marriott Convention

Center

River Bend 2

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

Cosponsored by CINF, MEDI and PHYS
Financially supported by Gaussian Inc. and OpenEye

P. Tao, *Organizer*
G.A. Cisneros, *Organizer, Presiding*
G. Cui, *Presiding*

1:30 COMP 96. Hierarchical energy landscapes dictate protein functional motions. **W. Yang**

2:00 COMP 97. Free energy reservoirs: Short disordered protein regions. J. Drake, **B.M. Pettitt**

2:30 COMP 98. New approaches for overcoming ensemble mismatches in QM/MM free energy simulations. P. Hudson, F. Kearns, S. Boresch, **H.L. Woodcock**

3:00 Intermission.

3:15 COMP 99. Multiscale approaches combining quantum chemistry and polarizable classical models: Applications to biological systems. **B. Mennucci**

3:45 COMP 100. Hybrid QM/MM molecular dynamics with AMOEBA polarizable embedding for enzyme studies. **J.A. Piquemal**

4:15 COMP 101. Uncovering the quantum mechanical origins of enzymatic catalysis with systematic QM/MM methods and accelerated, large-scale electronic structure. **H.J. Kulik**

Section C

New Orleans Marriott Convention Center
Julia

Drug Design

Molecular Property

Cosponsored by CINF
M.R. Landon, Y. Tseng, *Organizers*
A. Aderibigbe, *Presiding*

1:30 COMP 102. Halide bonds in drug discovery: Really that important? **C. Detering, M. Gastreich**

2:00 COMP 103. Quantum chemical pKa prediction for conformationally flexible drug molecules. **A. Bochevarov, D.M. Philipp, T.B. Steinbrecher, M.A. Watson, H.S. Yu**

2:30 COMP 104. Critical assessment of the performance of automated pharmacophore hypotheses derived from series of ligands and protein-ligand complexes. E. Mack, **M.R. Landon, S.L. Dixon, M.P. Repasky**

3:00 Intermission.

3:15 COMP 105. High-throughput prediction of fraction absorbed and bioavailability *in silico*. **R. Fraczkiwicz, P.R. Daga, R.D. Clark**

3:45 COMP 106. Unique hydrophobic binding sites dominate substrate specificity: A significant discovery for developing phospholipase inhibitors. **V. Mouchlis, J. McCammon, E.A. Dennis**

[†]Cooperative Cosponsorship

4:15 COMP 107. Intramolecular hydrogen bond impact on permeability via matched molecular pair analysis. **F. Ruggiu**, J.E. Prescott-Roy, J.M. Jansen

Section D
New Orleans Marriott Convention Center
Blaine Kern D

Marriage of Machine Learning, Knowledge Representation & Chemical Sciences

Deep Learning for Deep Chemical Understanding

Cosponsored by CINF and PHYS
D. Koes, E. Pyzer-Knapp, *Organizers, Presiding*

1:30 COMP 108. Deep learning for molecular docking. **D. Koes**

1:55 COMP 109. ChemNet: A transferable and generalizable deep neural network for small-molecule property prediction. C. Siegel, A. Vishnu, N. Hodas, **G. Goh**

2:20 COMP 110. Applications of convolutional neural networks for computational chemistry. **V. Tkachenko**, B. Sattarov, A. Korotcov, A. Mitrofanov, R. Zakharov

2:45 COMP 111. DLScore: New deep learning based scoring function for reliable protein-ligand scoring. **S. Sirimulla**, G. Muela, O. Fuentes

3:10 Intermission.

3:25 COMP 112. Molecular machine learning with DeepChem. **B. Ramsundar**

3:50 COMP 113. Machine learning for inorganic molecular design: Descriptors and similarity in transition metal chemical space. **J. Janet**, H.J. Kulik

4:15 COMP 114. AIMNet: Accurate universal neural network potential for atomic energies, charges and polarizabilities. **R. Zubatyuk**, J.R. Leszczynski, O. Isayev

4:40 COMP 115. Distilling chemical knowledge from neural network potentials. **O. Isayev**

5:05 Panel Discussion.

Section E
New Orleans Marriott Convention Center
Blaine Kern F

Large-Scale Applied Molecular Modeling

Cosponsored by CINF and MEDI
R. Alvarez, *Organizer*
J.C. Alvarez, J. Duca, E. Metwally, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 COMP 116. Molecular dynamics with machine learning potentials. From gas phase to solution chemistry, at low cost and high accuracy. **A.E. Roitberg**

2:05 COMP 117. Multilayer divide-expand-consolidate methods applied to the study of gas adsorption in Mg-based metal-organic frameworks (MOF-74). **A.L. Barnes**, D. Bykov, D. Liakh, T. Straatma

2:35 COMP 118. How GPUs are driving large-scale molecule modeling and machine learning (ML). **M.E. Berger**

3:05 Intermission.

3:35 COMP 119. Interpretation of structure-activity relationship in congeneric series using the linear response approximation and free energy decomposition. **N.V. Plotnikov**

4:05 COMP 120. Biosignature-based drug design: A new drug design paradigm. **J. Wegner**

Adventures in Density Functional Theory

Weak Interactions

Sponsored by PHYS, Cosponsored by COMP[†]

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

Carbon Dioxide Conversion & Artificial Photosynthesis

Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Machine Learning for Catalysis Research

Sponsored by CATL, Cosponsored by CINF and COMP

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Sponsored by PHYS, Cosponsored by COMP[†]

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

Undergraduate Research Posters

Computational Chemistry

Sponsored by CHED, Cosponsored by COMP and SOCED

MONDAY EVENING

Section A
Ernest N. Morial Convention Center
Halls D/E

Sci-Mix
H.L. Woodcock, *Organizer*

8:00–10:00

172, 174–176, 179, 184, 190, 192, 195, 203, 205, 212, 217–219, 227, 231, 245, 249, 256–257, 264, 272, 276, 281, 285, 291, 295, 298, 302, 307, 311, 316, 320–324, 327, 329.
See subsequent listings.

TUESDAY MORNING

Section A
New Orleans Marriott Convention Center

Blaine Kern F

Computational Catalyst Design for Energy Conversion & Storage

Development of Homogeneous & Heterogeneous Catalysts

Cosponsored by CATL and CINF
C.M. Aikens, *Organizer*
C. Liu, *Organizer, Presiding*

8:00 COMP 121. Adventures in redox non-innocent ligands & earth-abundant transition metal catalysts. **T.R. Cundari**

8:40 COMP 122. Understand the role of solvent effects in the thermal and electrochemical hydrogenation of carbonyls. **R. Rousseau**, V. Glezakou, M. Lee, D.C. Cantu, S. Akhade, M. Nguyen

9:20 COMP 123. Molecular simulations for calculating the free energies of adsorption and reaction in aqueous phase heterogeneous catalysis. X. Zhang, **R.B. Getman**

10:00 Intermission.

10:20 COMP 124. Tuning activity and selectivity of Cu-based catalysts toward CO₂ reduction. S. Kattel, J.G. Chen, J. Rodriguez, **P. Liu**

11:00 COMP 125. S₂ reaction for non-carbon system: Ammonia borane dehydrogenation by homogeneous catalysts. **S. Pai**, S. Han

Section B
New Orleans Marriott Convention Center
River Bend 2

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

Cosponsored by CINF, MEDI and PHYS
Financially supported by Gaussian Inc. and OpenEye

G.A. Cisneros, P. Tao, *Organizers*
C. Isborn, J.A. Piquemal, *Presiding*

8:30 COMP 126. Allosteric along the ATP hydrolysis cycle of dengue viral NS3 helicase. **M. McCullagh**

9:00 COMP 127. Flexible-body interaction of farnesylated HVR with calmodulin enables K-Ras4B membrane extraction. **R. Nussinov**, H. Jang

9:30 COMP 128. Application of parallel continuous simulated tempering (PCST) to cryo-EM structural refinement at near-atomic resolution. **J. Ma**

10:00 Intermission.

10:15 COMP 129. Exploring the flexibility of extremophile enzymes by molecular dynamics simulations. **T. Ichiye**

10:45 COMP 130. Chemical and conformational transformations in enzymes. **Q. Cui**

11:15 COMP 131. Effects of a single point mutation and mismatched base on DNA polymerase III holoenzyme proofreading. **A. Walker**, H. Gahlon, D. Rueda, G.A. Cisneros

Section C
New Orleans Marriott Convention Center

Julia

Molecular Mechanics: Computational Studies of Transmembrane Proteins

M. Feig, J. Shen, *Organizers*
J.V. Vermaas, *Presiding*

8:30 COMP 132. Complexity of gating dynamics in biological nanopores: Case of voltage-dependent anion channel (VDAC1). V. Ngo, T. Rostovtseva, S. Bezrukov, **S. Noskov**

9:00 COMP 133. Influence of pore-lining residues on ion transport through channelrhodopsins. **M. VanGordon**, S.W. Rick, C. Rempe, M. Chaudhari, S.L. Rempe

9:30 COMP 134. Refining amino acid hydrophobicity for dynamics simulation of membrane proteins. **R.D. Hills**

10:00 COMP 135. Cholesterol condensation using ELBA coarse graining. **S. Wheeler**, J. Essex

10:20 Intermission.

10:35 COMP 136. Modeling of the pH-dependent process in the integral membrane influenza A proton channel (AM2) using constant pH molecular dynamics simulations. **H. Torabifard**, A. Panahi, C.L. Brooks

11:05 COMP 137. Detailed mechanism of proton-driven sodium transport across the membrane. **O. Beckstein**

11:35 COMP 138. Signaling pathways in transmembrane receptors deduced from network rigidity. **C. Pfeifer**, H. Gohlke

11:55 COMP 139. Membrane allostery and hydrophobic binding sites control substrate specificity of lipolytic enzymes. **V. Mouchlis**, E.A. Dennis, J. McCammon

Section D
New Orleans Marriott Convention Center
Blaine Kern D

ACS Award for Computers in Chemical & Pharmaceutical Research: Symposium in honor of Jürgen Bajorath

Cosponsored by CINF and MEDI
J. Bajorath, *Organizer*
V. Shanmugasundaram, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 COMP 140. Exploring latent information in drug-target databases and networks. **G.M. Maggiora**, V. Gokhale

9:05 COMP 141. Development of a knowledge-generating platform driven by big data in drug discovery through production processes. **K. Funatsu**

9:35 COMP 142. Cleansing drug discovery data for data science predictive modeling. **T.R. Stouch**

10:05 Intermission.

10:20 COMP 143. D-Tools: Open resources for chemical space and global diversity analysis of compound databases. **J.L. Medina-Franco**, M. González-

[†]Cooperative Cosponsorship

Medina

10:50 COMP 144. From activity cliffs to promiscuity cliffs. **D. Dimova**

11:20 COMP 145. Molecular design and informatics for all. **C. Kretsoulas**

Adventures in Density Functional Theory

Strong Correlation

Sponsored by PHYS, Cosponsored by COMP[†]

Dreyfus Prize Symposium

Theory & Computation

Sponsored by MPPG, Cosponsored by COMP[†], PHYS[‡] and PRES

Carbon Dioxide Conversion & Artificial Photosynthesis

Photocatalytic Conversion

Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Cheminformatics Resources & Software Tools Supporting Environmental Chemistry

Sponsored by CINF, Cosponsored by COMP and ENVR

Towards Comprehension of Scale-Up & Multiscale Modeling of Catalysts

Sponsored by CATL, Cosponsored by COMP and ENFL

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Sponsored by PHYS, Cosponsored by COMP[†]

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

TUESDAY AFTERNOON

Section A

New Orleans Marriott Convention Center

Blaine Kern F

Computational Catalyst Design for Energy Conversion & Storage

Development of Homogeneous & Heterogeneous Catalysts

Cosponsored by CATL and CINF

C.M. Aikens, *Organizer*
C. Liu, *Organizer, Presiding*

1:30 COMP 146. Tuning 2D materials MoS₂ and h-BN for hydrogenation reactions. D. Le, T.B. Rawal, T. Jiang, **T.S. Rahman**

2:10 COMP 147. Plasma-assisted catalysis: Understanding the effect of excitations on rates and optimal catalysts. P. Mehta, P. Barboun, F. Herrera, J. Kim, D. Go, J.C. Hicks, **W.F. Schneider**

2:50 COMP 148. Designing

functionalized metal organic frameworks for carbon dioxide capture and hydrogenation. **K. Johnson**, J. Ye, L. Li

3:30 Intermission.

3:50 COMP 149. Revealing biomass catalytic fast pyrolysis upgrading: from diffusion to reaction classes. L. Bu, B. Knott, M.R. Nimlos, D. Robichaud, **S. Kim**

4:30 COMP 150. Atomistic scale modeling for catalytic vapor phase upgrading of bio oil components. **R. Surendran Assary**, L.A. Curtiss, D. Pahl, B. Narayanan

Section B

New Orleans Marriott Convention Center

River Bend 2

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

Cosponsored by CINF, MEDI and PHYS
Financially supported by Gaussian Inc. and OpenEye

G.A. Cisneros, P. Tao, *Organizers*
M. McCullagh, *Presiding*

1:30 COMP 151. Profiling cathepsin D and BACE2: Flap dynamics and interaction with a BACE1 inhibitor. **J. Shen**, J. Henderson, C. Tsai

2:00 COMP 152. Decomposing cooperativity into stabilizing and destabilizing effects upon site directed mutations. **D.J. Jacobs**

2:30 COMP 153. Multiscale modeling and network-based systems biology analysis of protein kinase regulation by the Hsp90-Cdc37 chaperone system: Towards discovery of synergistic allosteric modulators targeting Hsp90-kinase interactions and evading drug resistance. **G. Verkhivker**

3:00 Intermission.

3:15 COMP 154. Application of biomolecular simulation to industrial drug design. **R. Swett**

3:45 COMP 155. Structural modeling and thermodynamic characterization of a D-Pro-Pro-Glu-NH₂ catalytic peptide / reactant emulsion: A comparison to modern enzymes. L. Wang, **B.N. Dominy**

4:15 COMP 156. Allosteric effects in a catalytically impaired variant of cyclophilin A are unrelated to millisecond time scale motions. **J. Michel**, P. Wapeesittipan, A. Mey, M. Walkinshaw

4:45 Concluding Remarks.

Section C

New Orleans Marriott Convention Center

Julia

Quantum Mechanics

A.E. DePrince, *Organizer*
H.P. Hratchian, *Presiding*

1:30 COMP 157. NOF-MP2: Global method for electron correlation. **M. Piris**

2:00 COMP 158. Weak and strong correlation contributions to the Coulomb Hole. **E. Matito**

2:30 COMP 159. Hybrid cumulant-density functional for chemistry. **J.W. Hollett**, N. Pegoretti

3:00 COMP 160. Dynamical correlation models for variational two-electron reduced-density-matrix driven complete active space self-consistent field methods. **A.E. DePrince**

3:30 Intermission.

3:45 COMP 161. Large-scale wavefunctions for electronics and biology. **T.R. Clark**

4:15 COMP 162. Modeling ground and excited-state electron dynamics in large chemical systems using real-time propagation of semiempirical effective Hamiltonian. **S. Ghosh**, J.C. Asher, L. Gagliardi, C.J. Cramer, N. Govind

4:35 COMP 163. Capturing plasmon/polariton dynamics of molecular dye monolayers on metallic core-shell nanoparticles using classical electrodynamics with quantum embedding. **H.T. Smith**, T.E. Karam, L.H. Haber, K. Lopata

4:55 COMP 164. Wavelength and intensity dependence of recollision-enhanced multielectron effects in high-harmonic generation. **P. Abanador**, F. Mauger, K. Lopata, M. Gaarde, K. Schafer

Section D

New Orleans Marriott Convention Center

Blaine Kern D

ACS Award for Computers in Chemical & Pharmaceutical Research: Symposium in honor of Jürgen Bajorath

Cosponsored by CINF and MEDI
J. Bajorath, *Organizer*
V. Shanmugasundaram, *Organizer, Presiding*

1:30 COMP 165. Forward-looking strategy on how can chemistry and informatics enable biology. **M. Glick**

2:00 COMP 166. Data-driven design: From matched pairs to multiobjective modeling. **S. Posy**, M. Pokross

2:30 COMP 167. All problems solved? On the quest for algorithms in cheminformatics and structure-based design. **M. Rarey**

3:00 Intermission.

3:15 COMP 168. Show me; don't tell me: Data visualization in computational chemistry. **G. McGaughey**

3:45 COMP 169. More numerous than the stars in the sky: Breadth of chemical claims in pharmaceutical patents. **P. Walters**, M. Murcko

4:15 COMP 170. Protein degradation: Hijacking the ubiquitin-proteasome system. **V. Shanmugasundaram**

4:45 COMP 171. Award Address (ACS Award for Computers in Chemical and Pharmaceutical Research Sponsored by the ACS Division of Computers in Chemistry). Revisiting the scaffold concept: An oldie, but goodie. **J. Bajorath**

Dreyfus Prize Symposium Theory & Computation

Sponsored by MPPG, Cosponsored by COMP[†], PHYS[‡] and PRES

Cheminformatics Resources & Software Tools Supporting Environmental Chemistry

Sponsored by CINF, Cosponsored by COMP and ENVR

Carbon Dioxide Conversion & Artificial Photosynthesis

Electro-Photo Catalytic Conversion

Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

TUESDAY EVENING

Section A

Ernest N. Morial Convention Center Hall E

Chemical Computing Group Graduate Student Travel Awards

K.N. Kirschner, C.L. Simmerling, *Organizers*

6:00–8:00

COMP 172. Pummerer-like rearrangement: Effects of solvent on a post-transition state bifurcation. **S.R. Hare**, D.J. Tantillo

COMP 173. Mixing oil and water: The thermodynamics and mechanism of water transferring into oil. **J.J. Karnes**, I. Benjamin

COMP 174. Forces on nascent polypeptides during membrane insertion and translocation via the Sec translocon. **M. Niesen**, T.F. Miller

COMP 175. Unfolding pathways of hen egg white lysozyme in ethanol; insights from IMS-MS and molecular dynamics. **A. Walker**, D.W. Woodall, E. Inutan, N. Boddam, P. Stemmer, S. Trimpin, G.A. Cisneros

COMP 176. Enabling and accelerating Hessian calculations with numerical nuclear second derivatives on computing grid. **T. Yang**, J.F. Berry

Section A

Ernest N. Morial Convention Center Hall E

COMP Poster Session

H.L. Woodcock, *Organizer*

6:00–8:00

COMP 177. Docking study of DDT and analogues in the androgen and estrogen receptor BF-3 surface binding site. **A.R. Cruz**, M.D. Rosales, F. Dean, E. Kotsikorou

COMP 178. Mapping ligand binding landscapes with WExplore. **A. Dickson**

COMP 179. Functional assignment of structural genomics proteins through computed chemical properties, graph representation of active sites, and

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biochemical validation. **C.L. Mills**, R. Garg, J. Lee, R. Parasarum, L. Tian, A. Suci, G. Cooperman, P.J. Beuning, M.J. Ondrechen

COMP 180. Design of novel inhibitors for the aldehyde dehydrogenases. **C. Magee**, L.W. Peterson, M.L. Cafiero

COMP 181. Modeling molecular flux in nano-particle assisted drug deliver. **C. Leehy**, S. Poh, E. Sherer

COMP 182. Molecular dynamics simulation of biased agonists at the dopamine D2 receptor suggests the mechanism of receptor functional selectivity. **C. Wu**

COMP 183. Simulating the binding pathways of sialic acid and oseltamivir to h274y neuraminidase with molecular dynamics simulations. **D. Dacres**, E. Lewis, R. Wenner, A.W. Van Wynsberghe

COMP 184. @CompChemBot: Exploring the textual landscape of computational chemistry. **E.X. Esposito**

COMP 185. Analysis of MM/GBSA free energy calculations to investigate the binding pathways of neuraminidase. **E. Lewis**, P. Marris, L.M. Krause, A.W. Van Wynsberghe

COMP 186. Weighted averaging scheme for pKa prediction based on density functional theory. **H. Yu**, M.A. Watson, A. Bochevarov

COMP 187. Efficient approach for finding fragment-binding poses. **H. Sato**, Y. Tanida, A. Matsuura

COMP 188. ProBiS tools on GPU accelerators. **J. Konc**

COMP 189. Exploration of the binding kinetics of Zanamivir to WT neuraminidase via computational analysis of molecular dynamics simulations. **K.L. Nash**, R. Wenner, A.W. Van Wynsberghe

COMP 190. Extending an automated transition state search to locate low energy conformers of the transition state ensemble and application to the determination of intrinsic reactivity of covalent inhibitors. **L.D. Jacobson**, A. Bochevarov

COMP 191. Alternative network architectures for protein-ligand scoring. **L. Turner**, P. Mittal, M. Ragoza, D. Koes

COMP 192. Adding pharmacophores to shape and electrostatics—too much of a good thing? **M. Slater**, M.D. Mackey, T. Cheeseright, S. Tomasio

COMP 193. Computational analysis of non-nucleoside containing molecules as potential inhibitors of lpxC. **R. Roldan**, C. Dishuck, L.W. Peterson, M.L. Cafiero

COMP 194. Advancing drug discovery with free energy calculations. **R. Abel**, L. Wang, S. Bhat, S. Mondal, J. Knight, K. Konze, A. Clark

COMP 195. Phantom PAINS: Problems with the utility of alerts for Pan-Assay INterference Compounds. **S. Capuzzi**

COMP 196. Predicting drug–drug interactions through drug structural similarities and interaction networks incorporating pharmacokinetics and pharmacodynamics knowledge. **T.**

Takeda, M. Hao, T. Cheng, S.H. Bryant, Y. Wang

COMP 197. Novel drug design for Chagas disease via targeting *T. cruzi* tubulin: Pharmacophore studies to enhance the selectivity of naphthoquinone based inhibitors. **C. Ogindo**, O. Bakare, M. George, JR, C. Lee, W.M. Southerland, **Y. Fang**

COMP 198. Conformational flexibility in solution: Benchmarking conformer generators against a new ROESY NMR dataset. **F. Ruggiu**, M. Pillong, J.M. Jansen

COMP 199. Identifying unique HIV-1 entry inhibitor leads using virtual screening and docking techniques. **N. Gupta**, C.F. Abrams

COMP 200. Integrated screening for arginase inhibitors. **J.H. Audie**, T. Sullivan, B.J. Alper

COMP 201. Computational design of novel insulin degrading enzyme inhibitors. **T. Sullivan**, B.J. Alper, J.H. Audie

COMP 202. Drug designing for hormone therapy resistant breast and prostate cancers. **P.K. Biswas**, **R. Williams**

COMP 203. Predicting protein-protein binding sites and epitope mapping. **A. Ajamian**

COMP 204. Protocol for the analysis of vibrational circular dichroism spectra of small molecules using Gaussian and MOE. **A. Ajamian**

COMP 205. Catalysis in the Varkud satellite ribozyme. **A. Ganguly**, D.M. York

COMP 206. Computational study of magnesium ion coordination in the mechanism of HIVRT Polymerase. **A. Chang**, S. Kirmizialtin

COMP 207. Investigation of various computational methods for computing solvation energetics of phosphorus based extractants. **A.T. Ta**, B.D. Etz, G.A. Hegde, S. Vyas

COMP 208. Double-stranded protonated Poly(rA) RNA complex – computational studies. **A. Golius**, L. Gorb, M. Zarudnaya, A. Potyahaylo, J.R. Leszczynski

COMP 209. Molecular dynamics study of cyclopentane-modified peptide nucleic acids. **A. Manukyan**

COMP 210. Development of coarse-grained model for carboxylic acid. **A. Sharma**, G. Gyawali, S.W. Rick

COMP 211. Effect of mutations in osteogenesis imperfecta on structural stability of collagen. **A. Mekkat**, H. Yu, B. Brodsky, Y. Lin

COMP 212. Reaction path-force matching in collective variables: Determining *ab initio* QM/MM free energy profiles for solution-phase reactions. **B. Kim**, M. Nagaraju, Y. Zhou, P. Ojeda-May, S. Keeton, M. Hege, J. Pu

COMP 213. Multiple-time-step molecular dynamics in fragment-based calculations. **B. Westheimer**, M.S. Gordon

COMP 214. MMPBSA calculations of small RNA molecules containing 3' overhangs. **C. Velez**, M.C. Nagan

COMP 215. Computational RNA enzymology: New tools to unravelling the catalytic mechanism of nucleolytic ribozymes. **C.S. Gaines**, D.M. York

COMP 216. Accelerating nudged elastic band method for finding minimum energy paths. **D. Ghoreishi**, D.S. Cerutti, A.E. Roitberg

COMP 217. Anisotropic reaction field correction for long-range electrostatic interactions in molecular dynamics simulations. **D. Sidler**, S. Frasch, M. Cristofol Clough, S. Riniker

COMP 218. Exploration of protein electrostatics through the interpretation of pH dependent NMR chemical shift perturbations. **E. Artikis**, C.L. Brooks

COMP 219. Using information to reduce the phase space of molecular dynamic simulations of biologically relevant problems. **E. Brini**, A. Perez, J.C. Robertson, C. Liu, R. Nassar, K. Dill

COMP 220. Interfacial ionic partitioning and its impact on small reverse micelles. **G. Prelvukaj**, **E. Tale**, A.K. Sharma

COMP 221. Using topology of molecular solvation for biomolecular structural refinement. **G.M. Giambasu**

COMP 222. Anion effects on oligomer formation of cytochrome c with MD simulation and 3D-RISM theory. **H. Motoki**, N. Yoshida, S. Hirota, M. Higashi

COMP 223. Functionally relevant intrinsic dynamics in prolyl-tRNA synthetase. **H. Hu**, S. Hati, **S. Bhattacharyay**

COMP 224. CgProt parameters for the simulation of ion-membrane interactions. **J. White**, K.A. Chalmers, R.D. Hills

COMP 225. Binary pressure-composition phase behavior of supercritical carbon dioxide + organic compounds from Monte Carlo molecular simulation. **M. Huber**, **J.M. Stubbs**

COMP 226. Visualizing convolutional neural network scoring of protein-ligand binding. **J. Hochuli**, **A. Helbling**, M. Ragoza, D. Koes

COMP 227. Understanding long-timescale ionization coupled dynamics of thioredoxin. **K. Corbett**, L. Zheng, D. Wu, W. Yang

COMP 228. Investigating the impact of metal binding modes on ribozyme catalysis through the use of GPU-accelerated simulations. **K. Kostenbader**, D.M. York

COMP 229. Investigating the interactions of the pilin Comp with DNA using molecular dynamics simulations. **K. Patel**, M. Fairfield, J.L. Baker

COMP 230. Investigating the effect of ionic liquids on drug transport in lipid bilayers. **K. Vogt**, A.J. Heyert, G.E. Lindberg, J.L. Baker

COMP 231. Movable type method: A fast, free energy method for scoring, docking, and conformational search. **L.**

Westerhoff, Z. Zheng, K.M. Merz

COMP 232. Free energy calculations of membrane translocation: Finding, overcoming, and learning from convergence bottlenecks. **L. Maibaum**

COMP 233. Quantitative evaluation of site energies and their fluctuations of pigments in the light-harvesting complex with an efficient method for generating a potential energy surface. **M. Higashi**, S. Saito

COMP 234. MD and 3D-RISM approach to the ion transport of channel rhodopsin. **N. Yoshida**, C. Cheng, S. Hayashi

COMP 235. Improved catalytic mechanism of *E. coli* glycinamide ribonucleotide transformylase: A computational study. **P. Gupta**, A.E. Roitberg

COMP 236. Novel computational methods to explore protein allostery: Rigid residue scan and machine-learning methods. **P. Tao**

COMP 237. Understanding allosteric regulation of human ribonucleotide reductase through computational studies. **P. Buteler**, A.E. Roitberg, M. Harris

COMP 238. Revealing substrate positioning dynamics in aliphatic halogenase SyrB2 through spectroscopically-guided simulation. **R. Mehmood**, H.J. Kulik, H. Qi

COMP 239. Molecular dynamics studies of *Vibrio cholerae* protein H-NOX. **R. Mukhopadhyay**

COMP 240. Computational investigation of cancer-related mutations on DNA polymerase β . **S. Maier**, P. Silvestrov, G. Cisneros

COMP 241. Dielectric balancing of molecules improves liquid-state and molecular transfer properties. **S. Paranehewage**, C. Gierhart, C. Fennell

COMP 242. Effect of the distributed partial wave expansion on the solvation free energy in the 3D-RISM theory. **S. Tanimoto**, N. Yoshida, H. Nakano

COMP 243. All-atom molecular dynamics of an ion-channel formed by viral protein U in lipid bilayers. **S. Wang**, I.R. Gould

COMP 244. Simulating nucleic acids in their crystal environment: A test for gauging accuracy of modern force fields. **S. Ekesan**, D.M. York

COMP 245. Molecular dynamics study of gearing and slippage motions in molecular spur gears. **S. Yang**, T. Liu, X. Jiang, P. Yu, M.J. Jellen, M.A. Garcia-Garibay, K.N. Houk

COMP 246. Computational study of alkene reduction in old yellow enzymes. **S. Lenka**, P. Buteler, R. Powell, J.D. Stewart, A.E. Roitberg

COMP 247. Membranes allosterically regulate substrate specificity of lipolytic enzymes. **V. Mouchlis**, J. McCammon, E.A. Dennis

COMP 248. Withdrawn

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- COMP 249.** High-performance multidimensional replica exchange molecular dynamics along pH, redox potential and temperature dimensions using AMBER. **V.D. Cruzeiro**, A.E. Roitberg
- COMP 250.** Characterizing the folding and misfolding of the *Aquifex* *Aeolicus* tmRNA frameshifting pseudoknot via massively parallel molecular dynamics simulations. **X. Martinez**, K. Nguyen, M. Bakhom, E.J. Sorin
- COMP 251.** Evolutionarily conserved and divergent residue-residue contact dynamics provide insights into the allosteric regulation of cyclophilins. **P.J. Vu**, **X. Yao**, M. Momin, D. Hamelberg
- COMP 252.** Computational studies of membrane interaction of hIAPP aggregates: Implication of different membrane-disruption mechanisms. **Y. Liu**, B. Ren, M. Zhang, Y. Zhang, F. Yang, J. Zheng
- COMP 253.** Alchemical free energy calculation via metadynamics. **Y. Tanida**, A. Matsuura
- COMP 254.** Withdrawn
- COMP 255.** Basis set convergence of harmonic vibrational frequencies for simple hydrogen bonded systems with atomic natural orbital basis sets. **A.O. Denette**, T.M. Sexton, G.S. Tschumper
- COMP 256.** Elucidation of CID fragment identities and properties for mass spectrometric studies of peptides. **A.S. McNeill**, C. Cui, S. Miller, M. Stover, C.J. Cassady, **D.A. Dixon**
- COMP 257.** Finding stable and metastable uranium oxides: Predicting UO_x crystal structures with genetic algorithms and DFT. **A. Shields**, A. Miskowicz, B. Anderson
- COMP 258.** Retention of conjugation in monomacrocyclic dendrimers with ether and amine bridges. **A.R. Smyly**, B. Nash, T.D. Selby, D.H. Magers, S.A. Smith
- COMP 259.** DFT study of the selectivity of mutated monoamine oxidase B (MAOB) for novel ligands. **A. Woody**, S.N. Jelinek, L.W. Peterson, M.L. Cafiero
- COMP 260.** Relative energies and conventional strain energies of the oxaphosphetanes and the oxadiphosphetanes. **B. Nash**, M. Westrope, D.H. Magers, S.A. Smith
- COMP 261.** Computational examination of the reaction channels of non-heme iron(IV)-oxo species. **B. Casale**, K.D. Vogiatzis
- COMP 262.** Solvation of isoelectronic atomic ions by noble gas atoms. **C.A. Rock**, G.S. Tschumper
- COMP 263.** Analysis of the relative energies of isomers of diphosphetane in terms of attractive versus repulsive forces. **C.R. Noel**, S.A. Smith, D.H. Magers
- COMP 264.** Determining molecular normal modes and geometry optimization using the deep learning method ANAKIN-ME. **C. Devereux**, J.S. Smith, O. Isayev, A.E. Roitberg
- COMP 265.** Characterization of azirine (C_2H_3N) and its isomers. **C. Dickerson**, P. Bera, T.J. Lee
- COMP 266.** New metrics for the reactivity and stability of antioxidant fullereneols found using the Born-Haber cycle. **D. Mulvey**, K. Lewis
- COMP 267.** Impact of molecular vibrations on exciton energy transfer in the phycoerythrin protein complex. **D. Kosenkov**
- COMP 268.** DFT study of the selectivity of DOPA-decarboxylase. **E. Harrison**, A.R. Ritter, M.L. Cafiero, L.W. Peterson
- COMP 269.** DFT analysis of water clusters, dopaminergic derivatives, and their desolvation energies. **E. Sanders**, M. Morris, L.W. Peterson, M.L. Cafiero
- COMP 270.** Toward QM/MM simulations using the Gaussian electrostatic model. **H. Gokcan**, E.G. Kratz, T.A. Darden, J.A. Piquemal, G. Cisneros
- COMP 271.** Applicability of effective fragment potential version 2—molecular dynamics (EFP2-MD) simulations for predicting excess properties of mixed solvents. **N. Kuroki**, **H. Mori**
- COMP 272.** Hybrid quantum-classical model of electrostatics in multiply charged quantum dots. **H. Liu**, D.R. Gamelin, X. Li
- COMP 273.** Enthalpies of formation of methyl derivatives of furan, pyrrole, oxazole, isoxazole, and imidazole by homodesmotic reactions. **J. Bethea**, C.D. Lewis, E.Q. Chong, S.A. Smith, D.H. Magers
- COMP 274.** Conventional strain energies of thiaziridine and the thiazetidines. **J.D. Gramm**, S.A. Smith, D.H. Magers
- COMP 275.** Predictions of brominated halocarbon bond dissociation energies via *ab initio* methods. **K.R. Jorgensen**
- COMP 276.** ANAKIN-ME: Using deep learning to develop a chemically accurate and universal potential for the prediction of organic reactions. **K.D. Ranasinghe**, J.S. Smith, O. Isayev, A.E. Roitberg
- COMP 277.** DFT analysis of the selectivity of phenylalanine hydroxylase. **M.C. Perchik**, R.M. Giampapa, L.W. Peterson, M.L. Cafiero
- COMP 278.** Engineering an automatic workflow for a DFT-based macro-pKa predictor including conformational and tautomeric effects. **M.A. Watson**, D.M. Philipp, H.S. Yu, A. Bochevarov
- COMP 279.** Photochemical properties of vitamin B₁₂ derivatives: Implications from TD-DFT calculations. **M.J. Toda**, P. Lodowski, K. Ciura, M. Jaworska, P.M. Kozlowski
- COMP 280.** Many-body dispersion. **M. Alkan**, P. Xu, M.S. Gordon
- COMP 281.** New adventures in gas phase iron diatomic electronic spectroscopy. **N.J. Deyonker**, M.K. Bassett, Q. Cheng
- COMP 282.** Quantifying metal-nitrosyl coordination modes and oxidation states through X-ray emission spectroscopy and density functional theory. **P. Phu**, S. Kundu, S.E. Stieber, T.H. Warren
- COMP 283.** Effect of mutations on the binding of ligands in phenylalanine hydroxylase. **R.M. Giampapa**, L.W. Peterson, M.L. Cafiero
- COMP 284.** Evaluation of hybrid and pure DFT methods for the binding of novel ligands in the tyrosine hydroxylase enzyme. **R. Evans**, L.W. Peterson, M.L. Cafiero
- COMP 285.** Enhanced ionization of peptides using trivalent metals: Developing the basis for proteomics studies. **R.R. Persaud**, C. Rogers, E. Hartmann, S.N. Lambert, C.J. Cassady, **D.A. Dixon**
- COMP 286.** Energetics and vibrational signatures of nucleobase argyrophilic interactions. **S. Lee**, G.S. Tschumper
- COMP 287.** DFT study of the selectivity of monoamine oxidase B. **S.N. Jelinek**, A. Woody, L.W. Peterson, M.L. Cafiero
- COMP 288.** Noncovalent interactions between trimethylamine *N*-oxide (TMAO), urea, and water. **S. Travis**, J. Bethea, L. Boutwell, N. Hammer, S.A. Smith, D.H. Magers
- COMP 289.** Conventional strain energies of thirane, thietane, borylthiirane, 2-borylthietane, and 3-borylthietane. **S.L. Nash**, M.M. Mohamed, S.A. Smith, D.H. Magers
- COMP 290.** Two-dimensional DFT potential energy surface scans for formamide and related derivatives: Studying the degree of nitrogen inversion during C-N bond rotation. **M. Ma**, **W.T. Grubbs**
- COMP 291.** Theoretical study on the selectivity of post-transition state bifurcation reactions. **X. Dong**, Z. Yang, K.N. Houk
- COMP 292.** Withdrawn
- COMP 293.** Conformational analysis of 1,2-dialkyl-2,3-epoxy cyclopentanol diastereomers. **Y.A. Abdo**, J.W. Weeks, J.M. Carr, G.S. Tschumper
- COMP 294.** Density functional theory and *ab initio* investigation of the detection properties of cyromazine. **Y. Tu**, Y. Tseng, M. Appell
- COMP 295.** Aromaticity-modulated hydrogen bonding (AMHB). **C. Wu**, **Y. Zhang**, J. Wu
- COMP 296.** Visualizing the origin of kinetic isotope effects with Python. **Z. Liu**, O. Ogba, D.J. O'Leary
- COMP 297.** TDDFT modeling of Ni-doped TiO₂ using bulk-mimicking finite clusters. **A. Meyer**, P. Darapaneni, J.A. Dorman, K. Lopata
- COMP 298.** Predicting the converged limit of titania surface energies, geometries, and adsorption energies from a three-point exponential fit. **A.N. Carlson**, A.L. Gagliardi, J.C. Kern, E.S. Gawalt, J.D. Evanseck
- COMP 299.** Molecular simulations of bubble formation in metastable liquids. **B. Gonzalez**, C. Desgranges, J. Delhommelle
- COMP 300.** Computational study of copper-catalyzed atom transfer radical polymerization (Cu-ATRP) and catalyst discovery via virtual screening. **C. Fang**, K.D. Fiebre, X. Pan, K. Matyjaszewski, P. Liu
- COMP 301.** Molecular structures and energetics of palladium nanoclusters. **E. Lakner**, Z. Fang, R. Craciun, D.A. Dixon
- COMP 302.** Computational investigation of intermolecular interactions between functionalized single-walled carbon nanotubes and polyethylene terephthalate. **E.A. Vazquez Montelongo**, A. Rico-Campos, D. Aztatzi-Pluma, J.J. Alvarado, E.O. Castrejon-Gonzalez, G.A. Cisneros
- COMP 303.** Electronic decomposition analysis of substituted metal alkene and alkyne complexes. **E. Isaacson**, J. Scanlon
- COMP 304.** Computing the Schlenk equilibrium for thiophene Grignard reagents. **E. Curtis**, A. Vitek, P.M. Zimmerman
- COMP 305.** Electronic structure theory calculations for the study of CO₂ separation processes in polymeric membranes. **J. Townsend**, B.K. Long, T. Saito, K.D. Vogiatzis
- COMP 306.** Molecular simulation of transport of DNA grafted nanoparticle. **J. McLaughlin**, C. Desgranges, J. Delhommelle
- COMP 307.** Computational predictions of the hydrogenation catalytic activity of SSHC. **J.C. Plascencia**, C. Liu, A.K. Wilson, L.A. Curtiss
- COMP 308.** Relative energies of diastereomeric xanthenes complexes for use in developing chiral sensors. **K. Nye**, C. Stephenson, S.A. Smith, D.H. Magers
- COMP 309.** Modeling optical properties of silver-gold core-shell nanoparticles using finite-difference time-domain. **M. Fleck**, H.T. Smith, K. Lopata
- COMP 310.** Withdrawn
- COMP 311.** Self-assembly of noncanonical DNA base pairs on *h*-BN monolayer. **N. Saikia**, R. Pandey
- COMP 312.** Theoretical evaluation of diffusion constants of supercritical/liquid ammonia by means of *ab initio* Effective Fragment Potential ver.2 – MD simulation. **N. Kuroki**, H. Mori
- COMP 313.** Soft crystal force field for elucidation of crystal-crystal phase transition of gold isocyanide complexes. **N. Nakayama**, S. Obata, H. Gotoh, T. Seki, H. Ito
- COMP 314.** Complexation energetics and thermodynamics of a CMPO-based chelator for selective lanthanide extraction from acidic solution. **O. Sode**
- COMP 315.** Computer simulations of polymers designed to detect polycyclic aromatic hydrocarbons. **P. Keck**
- COMP 316.** Electron-nuclear dynamics in the $[Au_{25}(SR)_{18}]^{1-}$ ($R = H, CH_3, C_2H_5, C_3H_7, MPA$), $Au_{18}(SH)_{14}$, and $Au_{38}(SH)_{24}$ nanoclusters: Ligand effects and size dependence. **R.D. Senanayake**, A.V. Akimov, C.M. Aikens
- COMP 317.** Influence of composition on

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the nucleation process in CuNi systems. **S. Behelli**, C. Desgranges, J. Delhommelle

COMP 318. Assessing the environmental impact of energy production. **T. Komolafe**

COMP 319. Comprehensive study of the intramolecular interactions of unmethylated and methylated cyclodextrins using tight binding density functional theory and implicit solvent methods. **M. Vazquez, U. Schnupf**

Section A
Ernest N. Morial Convention Center
Hall E

VIDIA GPU Award

M.E. Berger, C.L. Simmerling, *Organizers*

6:00–8:00

COMP 320. GPU molecular docking with convolutional neural network scoring functions. **J. Sunseri**, D. Koes

COMP 321. PMEMD 18: High performance molecular dynamics made accessible to scientific programming. **D.S. Cerutti**, D. Ghoreishi, S. Le Grand, A. Roitberg, R. Walker, D.A. Case

COMP 322. GPU-accelerated alchemical free energy simulations: A new tool for accurate, affordable prediction of ligand binding potency for drug discovery, optimization, and resistance problems. **T. Lee**, D.M. York

COMP 323. Investigating the dynamics of designed ligand-binding proteins. **E. Pecora de Barros**, R.E. Amaro

COMP 324. Accurate prediction of host-guest binding affinities via the AMOEBA force field. **M.L. Laury**, J.W. Ponder

Section A
Ernest N. Morial Convention Center
Hall E

OpenEye Outstanding Junior
Faculty Award

C.L. Simmerling, *Organizer*

6:00–8:00

COMP 325. Simulating nanoscale energy and charge transport in soft molecular semiconductors. **A. Willard**

COMP 326. Curvature based lipid segregation and stability modulation in bilayers containing cardiolipin and monolysocardiolipin. **K.J. Boyd**, N.N. Alder, **E.R. May**

COMP 327. Constructing optimal structure-function relations directly from first principles. **E. Berquist**, K. Werling, **D. Lambrecht**

COMP 328. Strategies and software for accelerating inorganic molecular design. **H.J. Kulik**

Section A
Ernest N. Morial Convention Center
Hall E

Wiley Computers in Chemistry
Outstanding Postdoc Award

M. Cavalleri, C.L. Simmerling, *Organizers*

6:00–8:00

COMP 329. Nuclear quantum effects successfully incorporated into nonadiabatic molecular dynamics simulations via ring polymer surface hopping. **F.A. Shakib**, P. Huo

COMP 330. Embedded mean-field theory for high-efficiency electronic structure. **F. Ding**, F.R. Manby, T.F. Miller

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COMP and PMSE

WEDNESDAY MORNING

Section A
New Orleans Marriott Convention
Center

New Levee

Material Science

1D & 2D Materials, Electron
Transport & Opto-Electronic
Properties

C.M. Aikens, *Organizer*
C. Sutton, *Presiding*

8:30 COMP 331. Interaction of carbon and boron nitride nanotubes with metals. **C. Rohmann**, D.J. Searles, M. Zwolok

8:55 COMP 332. Theoretical study of nitrogen-doped graphene nanoflakes: Stability and spectroscopic properties depending on dopant types and flake sizes. **C. Lin**

9:20 COMP 333. Inconsistencies in the electronic properties of phosphorene nanotubes: New insights from large-scale DFT calculations. **B.M. Wong**, S.I. Allec

9:45 COMP 334. TD-DFTB investigation of electronic structure and optical properties of silver nanorods and nanorod dimers. **F. Alkan**, C.M. Aikens

10:10 COMP 335. Ionic versus metallic nature of 2D electrides: A density-functional description. **S.G. Dale**, E.R. Johnson

10:35 Intermission.

10:50 COMP 336. Criticality of symmetry and decoherence in the photovoltaic properties of chalcogenide perovskites. **A. Nijamudheen**, A.V. Akimov

11:15 COMP 337. Simulations of charge transport in covalent organic frameworks. **H. Kitoh-Nishioka**, Y. Nishimoto, D.G. Fedorov, **S. Irlé**

11:40 COMP 338. Computationally-driven development of OEO materials for nanoscale hybrid photonics. **L.E. Johnson**, A.F. Tillack, B. Robinson, L.R. Dalton, D.L. Elder

12:05 COMP 339. Towards novel organic electronics: Integrating simulation and neutron scattering. **T. Harrelson**, V. Dantanarayana, A. Santana Bonilla, A. Troisi, R. Faller, A.J. Moule

Section B
New Orleans Marriott Convention
Center

River Bend 2

Drug Design

Algorithm, Tool & Web Service

Cosponsored by CINF
M.R. Landon, Y. Tseng, *Organizers*
P. Gupta, *Presiding*

8:30 COMP 340. Deep neural nets for predicting tyrosyl-DNA phosphodiesterase (Tdp1) potencies. **H. Sun**, Y. Wang, S. Michael

9:05 COMP 341. Design of property-biased chemical libraries using artificial intelligence approaches. **M. Popova**, O. Isayev, **A. Tropsha**

9:40 Intermission.

9:55 COMP 342. ProBiS tools at the PDB scale for drug discovery. **D. Janezic**, **J. Konk**

10:30 COMP 343. ProteinsPlus: Web-based computing at the interface of crystallography and structure-based design. **S. Bietz**, R. Fahrrolfes, **M. Rarey**

11:05 COMP 344. Improving virtual screens with a new pharmacophore perception-scoring tool integrating MD of protein-ligand complexes. **K. Hauser**, M. Pierce, D.E. Watson, C.D. Von Bargen, S.L. Dixon, M.P. Repasky

Section C
New Orleans Marriott Convention
Center
Julia

Quantum Mechanics

A.E. DePrince, *Organizer*
M. Piris, *Presiding*

8:30 COMP 345. Wavefunctions for strong correlation from exactly solvable models. **P.A. Johnson**

9:00 COMP 346. Using higher-order singular value decomposition to define weakly coupled and strongly correlated clusters: the *n*-body Tucker approximation. **V. Abraham**, **N. Mayhall**

9:30 COMP 347. Relativistic *ab initio* accurate minimal basis sets: Quantitative LUMOs and oriented quasi-atomic orbitals for the heavy elements. **G. Schoendorff**, A.C. West, M.W. Schmidt, K. Ruedenberg, M.S. Gordon

10:00 COMP 348. Deriving partial atomic charge from population analysis schemes: Effects of basis set quality and quantum mechanical approach. **K.R. Jorgensen**, A.K. Wilson

10:20 Intermission.

10:35 COMP 349. Even-handed active space selection in projection-based wavefunction-in-DFT embedding. **M. Welborn**, T.F. Miller

11:05 COMP 350. Modeling the absorption spectrum of charge-transfer chromophores in solution and in disordered aggregates. **A. Kocherzhenko**, J. Wilmer, A. Tillack, L.E. Johnson, B. Robinson, **C. Isborn**

11:35 COMP 351. Simulation of realistic electronic spectra band-shapes: The role of vibrational effects. **M. Biczysko**, J. Bloino

11:55 COMP 352. Perturbational

molecular orbital approach for analyzing 3-center 2-electron bonds. **S. Bidwell**, H.P. Hratchian

Section D
New Orleans Marriott Convention
Center
Blaine Kern D

Molecular Mechanics

Protein Stability, Folding & Design

M. Feig, *Organizer*
V.D. Cruzeiro, *Presiding*

8:30 COMP 353. Computational exploration of the β -grasp fold for structure, stability, and folding. **J. Bedford**, L.H. Greene, J. Poutsma

9:00 COMP 354. Protein folding, binding and aggregation in the cell: Role of stochastic resonance. **A. Davtyan**, G. Papoian

9:30 COMP 355. Intramolecular interaction in N-terminal regulatory region of c-Src kinase: A combined study of molecular dynamic simulation and small-angle scattering. **U.R. Shrestha**, P. Juneja, S. Pingali, Q. Zhang, J. Borreguero, V. Urban, H.M. O'Neill, J. Smith, L. Petridis

10:00 COMP 356. Insights into Ebola VP35 oligomerization from molecular simulations. **F. Di Palma**, V. Ramaswamy, G. Daino, A. Frau, A. Corona, L. Zinzula, E. Tramontano, P. Ruggerone, A.V. Vargiu

10:30 Intermission.

10:45 COMP 357. Effect of nucleotide state and salt concentration on the protofilament conformation of tubulin octamers. **A. Manandhar**, M. Kang, K. Chakraborty, S. Loverde

11:15 COMP 358. Stretching or heating proteins: Unravelling the molecular details of protein resistance to external perturbations. **G. Stirnemann**, S. Garcia-Manyès, F. Sterpone

11:45 COMP 359. Dehydrated DNA in B-form: Ionic liquids in rescue. **S. Senapati**

Section E
New Orleans Marriott Convention
Center
Blaine Kern F

Structure-Based Drug Design for
GPCRs

Cosponsored by CINF and MEDI
V. Shanmugasundaram, *Organizer*
Y. Che, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 COMP 360. GPCR structures for drug discovery: The first decade and future perspectives. **X. Qiu**

9:05 COMP 361. Computational design of GPCR structure, stability and function. **P. Barth**

9:35 COMP 362. Unmasking full GPCR ligand design for potency, selectivity and kinetics from new and multiple ligand X-ray structures, water networks and GRID molecular interaction field analyses. **J.S. Mason**, F. DeFlorian, B.G. Tehan, G. Bottegoni, M. Congreve, F.H. Marshall

10:05 Intermission.

10:20 COMP 363. Structure-based

†Cooperative Cosponsorship

screening for GPCR ligands from fragment and lead-like chemical space. **J. Carlsson**

10:50 COMP 364. *In silico* searches for selective small-molecule ligands of GPCRs with highly designed libraries. **P. Kolb**, F. Chevillard, D. Schmidt

11:20 COMP 365. Targeting GPR40 for diabetes: A multipronged approach. **J. Johnston**

11:50 COMP 366. Use of modeling and crystallography to understand CCR2 antagonist SAR and receptor binding. **A. Tebben**, P.H. Carter, R.J. Cherney

Adventures in Density Functional Theory

Materials & Molecular Modelling

Sponsored by PHYS, Cosponsored by COMP[†]

Towards Comprehension of Scale-Up & Multiscale Modeling of Catalysts

Sponsored by CATL, Cosponsored by COMP and ENFL

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Sponsored by PHYS, Cosponsored by COMP[†]

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&E and PMSE

WEDNESDAY AFTERNOON

Section A

New Orleans Marriott Convention Center

New Levee

Material Science

Materials Properties & Catalysis

C.M. Aikens, *Organizer*
O. Ozcelik, *Presiding*

1:30 COMP 367. Exploring doping in bulk chromia: Effects of dopant oxidation state on composition, vacancy defects and vacancy migration. **M. Nolan**, J. Carey

1:55 COMP 368. Density-functional study of the La₂Zr₂O₇ low-index surfaces. **Y.A. Mantz**, Y. Duan

2:20 COMP 369. Li-ion battery cathode materials and their computational characterization: A DFT investigation. **A. Abbaspour Tamijani**, D. Jones, J.W. Bennett, **S.E. Mason**

2:45 COMP 370. Influence of 5d transition-metal impurities on the thermoelastic properties of TiB₂: A first principle investigation. **M. Sun**, J. Liu

3:10 Intermission.

3:25 COMP 371. Computational design of defect-engineered Ca(OH)₂ monolayer for CO₂ capture. **O. Ozcelik**, K. Gong, C. White

3:50 COMP 372. Silicon carbide surfaces for pyrolysis studied with ReaxFF MD simulations. **T. Wei**

4:15 COMP 373. Unveiling the effect of Pt-based face-centered tetragonal core in core/shell nanoparticles for oxygen reduction reactions. **M. Liu**, H. Xin, D. Wang, Q. Wu

4:40 COMP 374. Amino acids conjugated gold clusters: Interaction of alanine and tryptophan with Au₃ and Au₂₀. M.H. Abdalmonem, K. Waters, **N. Saikia**, R. Pandey

5:05 COMP 375. Molecular simulations of model bitumen compounds in solution and on clay mineral surfaces. **J. Mane**, S. Stoyanov

Section B

New Orleans Marriott Convention Center

River Bend 2

Drug Design

Molecular Dynamics

Cosponsored by CINF
M.R. Landon, Y. Tseng, *Organizers*
D. Janezic, *Presiding*

1:30 COMP 376. Understanding and designing cyclic peptides using molecular dynamics simulations and enhanced sampling methods. S. McHugh, D. Slough, H. Yu, J. Rogers, **Y. Lin**

2:00 COMP 377. Conformational insight into PRC2 mutation from molecular dynamics simulations. **T.M. Abramyan**, J.L. Suh, L.I. James, S.V. Frye, D. Kireev

2:30 COMP 378. Quantifying drug resistance at the atomic level through GPU-accelerated affinity simulations. **T. Lee**, D.M. York

3:00 Intermission.

3:15 COMP 379. Protein-ligand binding free energy calculations for challenging systems. **R. Abel**, L. Wang, H.S. Yu, W. Chen, E. Harder, Y. Deng, K. Borrelli

3:45 COMP 380. Application of free energy calculation methods to fragment-based drug discovery: Identification of new cyclophilin binders. **J. Michel**, C. Georgiou, H. Ioannidis, I. McNae, M. Wear, M. Walkinshaw

4:15 COMP 381. Towards *in silico* prediction of β -lactamase-mediated antibiotic resistance using free energy calculations. E. Selwa, E. Elisée, T. Naas, **B.I. Iorga**

4:45 COMP 382. Binding mode prediction and MD/MMPBSA-based free energy ranking for agonists of REV-ERB β /NCoR. **Y. Westermaier**, S. Ruiz-Carmona, I. Theret, F. Perron Sierra, G. Poissonnet, C. Dacquet, J.A. Boutin, P. Ducrot, X. Barril

Section C

New Orleans Marriott Convention Center

Julia

Quantum Mechanics

A.E. DePrince, *Organizer*
E. Matito, *Presiding*

1:30 COMP 383. Efficient computational

methods for studying electron detachment of metal oxide clusters. **H.P. Hratchian**

2:00 COMP 384. Performance of the Gaussian program on GPUs using the OpenACC programming model: Achieving a balanced, significant and affordable speed-up with respect to CPU-only architectures. **G. Scalmani**, R. Gomperts, M.J. Frisch, B. Leback

2:30 COMP 385. Closet-scale computing. **D. Matthews**

3:00 COMP 386. Development of a many-body carbon dioxide potential to explore the electronic and vibrational structure of gas and condensed phase CO₂. **O. Sode**

3:30 Intermission.

3:45 COMP 387. Maneuvering the challenges of QM calculations in biological contexts. **D.P. Harding**, A.N. Bootsma, S.E. Wheeler

4:05 COMP 388. Benchmarking the effective fragment potential dispersion correction to Hartree-Fock and density functional theory on the S22 test set. **S. Kim**, C. Kaliszewski, E. Guidez, M.S. Gordon

4:25 COMP 389. Modeling molecules in an interacting environment. **J. Charles**, S. Kais, T. Kubis

4:45 COMP 390. Parametrization and benchmark of the range separated LC-DFTB2 method for organic molecules. **V. Vuong**, J. Kuriappan, M. Kubillus, J. Kranz, T. Mast, T. Niehaus, S. Irle, M. Elstner

Section D

New Orleans Marriott Convention Center

Blaine Kern D

Molecular Mechanics

Binding & Recognition

M. Feig, *Organizer*
J.J. Karnes, *Presiding*

1:30 COMP 391. Deep cavity cavitand/alkane assembly state switching between monomeric and dimeric host:guest assemblies driven by guest packing. **D. Tang**, J.W. Barnett, B.C. Gibb, H. Ashbaugh

2:00 COMP 392. Molecular dynamics simulations of intracellular lipid binding proteins: Insights into ligand binding and water dynamics. N.H. Hunter, B. Bakula, E. Ellis, P. Koetting, **C.D. Bruce**

2:30 COMP 393. Binding of TMPyP4 to RNA G-quadruplex containing ALS and FTD related G4C2 repeat probed by all-atom molecular dynamics simulations with explicit solvent. **C. Wu**

3:00 COMP 394. Bidirectional allosteric modulation in *E. coli* glycinamide ribonucleotide transformylase (GAR Tfase). **P. Gupta**, A.E. Roitberg

3:30 Intermission.

3:45 COMP 395. Towards the rational design of alternative, eco-friendly herbicides targeting PSII. **H.P. Hendrickson**, H. Harrington, M. Jaladanki, V.S. Batista

4:15 COMP 396. Mechanism of

molecular recognition in chemically distinct biomolecules. **T.J. Paul**, R. Prabhakar

4:45 COMP 397. Predicting site bound ions and water to nucleic acids using molecular solvation theory. **G.M. Giambasu**

Section E

New Orleans Marriott Convention Center

Blaine Kern F

Structure-Based Drug Design for GPCRs

Cosponsored by CINF and MEDI
Y. Che, *Organizer*
V. Shanmugasundaram, *Organizer*,
Presiding

1:30 COMP 398. One receptor, many partners: How do GPCRs stimulate diverse signaling proteins? **R.O. Dror**

2:00 COMP 399. Structure-inspired design of β -arrestin-biased agonists for dopamine D2 receptor. **J. Jin**

2:30 COMP 400. Challenges and opportunities in structure-based discovery for GPCR targets and antitargets. **J. Karpik**, D. Weiss, X. Huang, M.F. Sassano, B. Shoichet, B.L. Roth

3:00 Intermission.

3:15 COMP 401. Using forward and backward allostery in GPCRs to drug design. **N. Vaidehi**

3:45 COMP 402. Towards the development of improved painkillers to combat the opioid epidemics. **M. Filizola**

4:15 COMP 403. Intrinsic flexibility of the μ opioid receptor through multiscale modeling approaches. **D.P. Vercauteren**, M. Fossépré, L. Leherter, A. Laaksonen

4:45 Concluding Remarks.

Adventures in Density Functional Theory

Excited States/Dynamics

Sponsored by PHYS, Cosponsored by COMP[†]

Towards Comprehension of Scale-Up & Multiscale Modeling of Catalysts

Sponsored by CATL, Cosponsored by COMP and ENFL

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Sponsored by PHYS, Cosponsored by COMP

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&E and PMSE

THURSDAY MORNING

Section A

New Orleans Marriott Convention Center

[†]Cooperative Cosponsorship

New Levee

Material Science

Thermodynamics, Statistical Mechanics & Dynamics

C.M. Aikens, *Organizer*
N. Saikia, *Presiding*

8:30 COMP 404. Modeling mechanisms and kinetics of phase transformations. **S. Andersson**, A. Lervik, Z. Wang, P. Xiao, I. Svanum, E. Riccardi, G.A. Henkelman, T.S. van Erp

8:55 COMP 405. Dynamical inversion of the energy landscape promotes non-equilibrium self-organization of binary particle mixtures. **L.A. Ruiz Pestana**, L.N. Lammers, T.L. Head-Gordon

9:20 COMP 406. Nucleation of capillary bridges and bubbles. C. Desgranges, **J. Delhomelle**

9:45 COMP 407. Finite size effects in simulations of molecular Joule-Thomson flow. **D. Rogers**

10:10 COMP 408. Modeling all recognized interactions of a supramolecular sensor and measurement designing to acquire genuine thermodynamic parameters. **F. Emami**

10:35 Intermission.

10:50 COMP 409. Structure and dynamics of self-assembled AAT nanotubes for siRNA-delivery. **T. Yu**

11:15 COMP 410. Influence of degree of functionalization on structural, thermodynamic and transport properties of anion exchange membrane: Insight from molecular dynamics simulations. **X. Wei**, D. Dong, D. Bedrov

11:40 COMP 411. Computer led design of functional arylamide foldamers part I: Towards selective water transport. **V. Pophristic**, Z. Liu, S. Makeneni, S. Houshyar azar

12:05 COMP 412. Molecular design of functionalized mesoporous silica nanoparticles for drug delivery applications. **A.A. Skelton**

Section B

New Orleans Marriott Convention Center

River Bend 2

Drug Design

Agonist, Antagonist & Macrocyclic

Cosponsored by CINF
M.R. Landon, Y. Tseng, *Organizers*
S. Lenka, *Presiding*

9:00 COMP 413. Exploring the structural features of peripherally-restricted CB1 receptor antagonists and inverse agonists. **A. Aderibigbe**, P. Pandey, R.J. Doerksen

9:30 COMP 414. Accurate and reliable prediction of the binding affinities of macrocycles to their protein targets. **H. Yu**, Y. Deng, Y. Wu, D. Sindhikara, A. Rask, T. Kimura, R. Abel, L. Wang

10:00 Intermission.

10:15 COMP 415. Withdrawn

10:45 COMP 416. Challenges in the discovery of macrocyclic cyclophilin

inhibitors. **U. Schmitz**, D. Shivakumar, B. Schultz, J. Paulsen, L. Wang, E. Harder, H.S. Yu, C. Higgs

11:15 COMP 417. Predicting targeted kinase inhibitor resistance to clinical Abl mutations using alchemical free-energy calculations. **K. Hauser**, C. Negron, S. Albanese, S. Ray, L. Wang, D. Lupyran, T.B. Steinbrecher, R. Abel, J.D. Chodera

Section C

New Orleans Marriott Convention Center

Julia

Quantum Mechanics

A.E. DePrince, *Organizer*
J.W. Hollett, *Presiding*

8:30 COMP 418. Extending the timescales of nonadiabatic molecular dynamics simulations. **A.V. Akimov**

9:00 COMP 419. Reaction mechanisms of benzylpenicillin acylation and deacylation with DD-peptidase. **Q. Cheng**, N.J. Deyonker

9:30 COMP 420. NAMD and VMD combined for easy and fast QM/MM simulations. **R.C. Bernardi**, M.C. Melo, K. Schulten, Z. Luthey-Schulten

9:50 COMP 421. Withdrawn

10:10 Intermission.

10:25 COMP 422. Withdrawn

10:45 COMP 423. Non-oxo complexes as oxygen transfer agents for oxidation of organic substrates. A computational study. **R. Parveen**, T.R. Cundari

11:05 COMP 424. Unraveling the nature of hydrogen bonds in pincer pyrazine Pd complexes with a quantum topological criterion. **E.A. Vazquez Montelongo**, J. Lohrman, H. Telikepalli, V. Day, M.A. Hix, K. Bowman-James, G.A. Cisneros

11:25 COMP 425. Theoretical investigations of simple carbohydrates by density-functional tight-binding: A comparative analysis to density functional theory. **K. Lee**, S. Irle, U. Schnupf

11:45 COMP 426. Diffusion Monte Carlo simulations of gas phase and adsorbed isotopically impure hydrogen clusters. **E. Curotto**, M. Mella

Section D

New Orleans Marriott Convention Center

Blaine Kern D

Molecular Mechanics

Polymers, Sugars & Foldamers

M. Feig, *Organizer*
R. Parveen, *Presiding*

8:30 COMP 427. Nonpolar solute cononsolvency in water/ethanol mixtures – Connections to solvent structure. **A. Saltzman**, H. Houser, M. Langrehr, H. Ashbaugh

9:00 COMP 428. Investigation of reverse osmosis membranes by weight-averaged anharmonic vibrational analysis. **D. Surblys**, T. Yamada, K. Yagi, Y. Sugita

9:30 COMP 429. Development progress

in constructing atomic scale models of diverse lignins. **J.V. Vermaas**, L. Petridis, G. Beckham, M.F. Crowley

10:00 Intermission.

10:15 COMP 430. Computer led design of functional arylamide foldamers part II: Recognition and encapsulation of monosaccharide and sugar alcohols. **Z. Liu**, S. Makeneni, E.C. Fluck, V. Pophristic

10:45 COMP 431. Insights on the effects of point mutations at the dimer interface of *E. coli* β clamp from computational simulations. **H. Gokcan**, B. Koleva, P.J. Beuning, G. Cisneros

11:15 COMP 432. Withdrawn

Adventures in Density Functional Theory

Sponsored by PHYS, Cosponsored by COMP[†]

THURSDAY AFTERNOON

Adventures in Density Functional Theory

Sponsored by PHYS, Cosponsored by COMP[†]

ENFL

Division of Energy and Fuels

J. Liu, *Program Chair*

SUNDAY MORNING

Section A

Ernest N. Morial Convention Center Room 231

Materials & Processes for Solar Energy Conversion & Utilization

Y.H. Hu, R.T. Koodali, *Organizers*
B. Zhou, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 1. High efficient organic pollutants degradation and simultaneous electricity production based on solar photocatalytic initiation. **B. Zhou**

8:40 ENFL 2. 3D printing of patterned hybrid aerogel membrane for broadband solar wastewater purification. **H. Zhou**, T. Fan, D. Zhang

9:00 ENFL 3. CdS as holes provider for visible light-induced urea photo-oxidation. **R. Zhao**, J. Radich

9:20 ENFL 4. Identifying the mechanism of triplet pair separation in singlet fission through TIPS-pentacene polymorphs. **G. Doucette**, C. Grieco, E. Kennehan, J.B. Asbury

9:40 Intermission.

9:55 ENFL 5. Mediating the rates of singlet fission in 6,13-diphenylpentacene aggregates with PbS quantum dots. **C. Wang**, E. Weiss

10:15 ENFL 6. Sebacate anions intercalated NiFe layered double hydroxide as a high-performance electrocatalyst for oxygen evolution

reaction. **Y. Dong**, S. Komarneni

10:35 ENFL 7. Phase change capsule with water-absorbable polymeric shell for thermal energy storage and delivery. **Y. Jung**, Y. Ko, T. Do

10:55 ENFL 8. Polarization formation mechanisms in conjugated polymers. **J. Bombile**, M.J. Janik, S. Milner

11:15 ENFL 9. Candelilla wax as renewable source for development of solar-thermal energy conversion and storage materials. L.G. Delgado-Interal, **C. Espinoza-González**, J.R. López-Muñoz, O.S. Rodríguez-Fernández, S. Fernández-Tavizón, J. Rodríguez-Hernández

11:35 Concluding Remarks.

Section B

Ernest N. Morial Convention Center Room 232

Bioenergy & Bio-Based Chemicals

Cosponsored by CELL
J. Chang, S. Fu, *Organizers*
J. Fu, T. Morgan, *Organizers, Presiding*

8:25 Introductory Remarks.

8:30 ENFL 10. Renewable fuels from biomass-derived feedstocks: Opportunities and challenges. **A. Padmaperuma**, M.V. Olarte

8:55 ENFL 11. Biohydrogen production from switchgrass via pyrolysis-microbial electrolysis pathway. **A. Borole**, A. Lewis

9:20 ENFL 12. Redox-active renewable chemical feedstocks in agricultural commodities. **S.M. Uchimiya**

9:40 ENFL 13. Parametric study for the optimization of ionic liquid pretreatment of corn stover. **B.A. Simmons**, G. Papa, T. Feldman, K. Sale

10:00 Intermission.

10:15 ENFL 14. Constant-volume carbonization of biomass. **T. Morgan**, M.L. Arizaleta, S.Q. Turn, M.J. Antal, Ø. Skreiberg, W. Liang, M. Grønli

10:45 ENFL 15. Progress towards electrochemical processes for low-temperature and low-pressure bio-oil hydrogenation. **J. Holladay**, J. Lopez-Ruiz, U. Sanyal, J. Egbert, O.Y. Gutierrez-Tinoco, A.B. Padmaperuma

11:10 ENFL 16. Comparison of pyrolysis products yields derived from three different parts of poplar trees using a novel reactor. **D. Boldor**, C. Marculescu

11:35 ENFL 17. Computational insights to fuels and chemicals extraction from microbial biorefineries. **J.V. Vermaas**, G. Beckham, M.F. Crowley

11:55 ENFL 18. Hydrothermal liquefaction for marine macroalgal biorefinery. **S. Raikova**, C. Chuck, M. McManus, M.J. Allen

12:15 Concluding Remarks.

Section C

Ernest N. Morial Convention Center Room 237

Materials & Processes for Solar Energy Conversion & Utilization

Y.H. Hu, *Organizer*
R.T. Koodali, *Organizer, Presiding*

[†]Cooperative Cosponsorship

7:55 Introductory Remarks.

8:00 ENFL 19. Organic-inorganic hybrid perovskite deposition and passivation for high efficiency solar cells. T. Zhang, G. Li, F. Xu, **Y. Zhao**

8:30 ENFL 20. Optimizing multiple energy relay GUMBOS dyes for dye-sensitized solar cells. **T. Vargas-Myers**, P.E. Kolic, R.L. Perez, K.S. McCarter, I.M. Warner

8:50 ENFL 21. Effect of molecular electrolyte additives on photocurrent and photovoltage of dye-sensitized solar cells. **H. Cheema**, J.H. Delcamp

9:10 ENFL 22. Photon management in series-sequential multifunction dye-sensitized solar cells (SSM-DSC): Solar powered CO₂ reduction coupled with water oxidation. **J.H. Delcamp**, H. Cheema, R.R. Rodrigues

9:30 ENFL 23. In-free thin-film solar cells: Cu₂ZnSn(S,Se)₄ films generated from a single molecular precursor solution. **D.J. Fermin**, D. Tiwari

9:50 Intermission.

10:05 ENFL 24. Investigation of charge carrier dynamics in organo-halide perovskites using time-resolved infrared spectroscopy. **K.T. Munson**, E.R. Kennehan, J.B. Asbury

10:25 ENFL 25. Electrochemistry and spectroelectrochemistry of lead halide perovskite films: Materials science aspects and boundary conditions. G.F. Samu, R.A. Scheidt, P.V. Kamat, **C. Janaky**

10:45 ENFL 26. Norbornadiene-quadracyclane photochromic systems for solar energy storage applications and testing in devices. **A. Dreos**, K. Jorner, K. Börjesson, Z. Wang, H. Ottosson, K. Moth-Poulsen

11:05 ENFL 27. Scatter function determination of high-temperature, inorganic oxide solar absorber coating morphology. **D. Karas**, A. Miller, J. Byun, J. Moon

11:25 ENFL 28. Interrogating exciton delocalization in films of perylene diimides using ultrafast vibrational spectroscopy. **E. Kennehan**, C. Grieco, G. Doucette

11:45 Concluding Remarks.

Section D

Ernest N. Morial Convention Center Room 239

Natural Gas Catalysis

J. Baltarusaitis, K. Ding, N. Kumar, *Organizers*
J.J. Spivey, *Organizer, Presiding*
K. Ding, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 29. *In situ* investigation of methane dry reforming on M-CeO₂ {M= Co, Ni, Cu} catalysts: Metal-support interactions and the activation of C-H bonds at room temperature. **J. Rodriguez**

8:40 ENFL 30. Stabilizing catalysts for dry reforming of methane. P. Littlewood, **P.C. Stair**

9:20 ENFL 31. Hydrotalcite-zirconia

composite as co-catalyst for the dry reforming of methane. **A.P. Tathod**, O. Gazit

9:40 Intermission.

9:55 ENFL 32. Activity and mechanism of methane oxidation over Pd/Al₂O₃ catalyst. **A.C. Banerjee**, J. McGuire

10:15 ENFL 33. Kinetic investigation of methane partial oxidation at high pressure over Ni-substituted hexaaluminate catalysts. **T.H. Gardner**

10:35 ENFL 34. Effect of temperature in methane activation using AlBr₃ supported H-ZSM-5 catalysts. **S. Kanitkar**, N. Kumar, Z. Wang, J. Carter, K. Ding, G. Hutchings, J.J. Spivey

10:55 ENFL 35. Low temperature selective methane oxidation to methanol utilizing molecular oxygen with gold palladium colloidal catalysts. N. Agarwal, S. Freakley, R.U. McVicker, S.M. Althabban, N. Dimitratos, Q. He, D.J. Morgan, D.J. Willock, S.H. Taylor, C. Kiely, **G. Hutchings**

11:35 Concluding Remarks.

Section E

Ernest N. Morial Convention Center Room 240

Advanced Analytical Techniques for Determination of Minor & Trace Elements in Petroleum Value Chain

J. Casey, C.S. Hsu, F.A. Lopez-Linares, *Organizers*
J. Nelson, *Organizer, Presiding*

7:55 Introductory Remarks.

8:00 ENFL 36. Determination of HgS nanoparticles in produced water by single particle inductively coupled plasma spectroscopy (sp-ICP-MS). **J. Nelson**

8:30 ENFL 37. Single reaction chamber microwave sample preparation for determination of 57 major, minor, trace and ultra-trace elements and V, Fe and S stable isotope ratios for unambiguous fingerprints of crude and refined oils, by-products, extractable organic material, kerogen and source rocks. **J. Casey**, Y. Gao, T. Sun, K. Bissada

8:55 ENFL 38. Analysis of distillate products per ASTM D8110-17 using the Agilent 7800 and Teledyne-Cetac MVX-7100 uL autosampler. **L. Whitecotton**

9:20 ENFL 39. Dynamic headspace analysis – Hg speciation in petroleum hydrocarbons just got cleaner. **Z. Gajdosechova**, Z. Mester, E. Pagliano

9:45 Intermission.

10:00 ENFL 40. Measurement of metal carbonyls in carbon monoxide and fuels containing carbon monoxide by GC-ICP-MS. **W. Geiger**

10:25 ENFL 41. Characterization of ultradispersed catalysts in heavy oil fractions by single particle inductively coupled plasma-triple quadrupole mass spectrometry (sp-ICP-MS/MS). J. Nelson, M. Yamanaka, V. Rodriguez-DeVecchis, L.A. Carbognani, P. Pereira-Almao, **F.A. Lopez-Linares**

10:50 ENFL 42. Heteroatom incorporation during MFI crystallization as measured by single particle inductively coupled plasma mass spectrometry. **T.**

Davis, J. Nelson

11:15 ENFL 43. Using AF4-ICP-MS, sp-ICP-MS and TEM for the characterization of Hg-containing nanoparticles in gas condensate samples. **D. Ruhland**, K. Nwoko, M. Perez, J. Feldmann, E. Krupp

11:40 Concluding Remarks.

Section F

Ernest N. Morial Convention Center Room 241

Innovative Chemistry & Materials for Electrochemical Energy Storage
Cosponsored by CATL, INOR and PMSE
H. Chen, F. Lin, K.A. See, *Organizers*
Y. Mo, *Organizer, Presiding*
Y. Yan, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 44. "Burning" lithium in CS₂: Compact Li₂S@graphene nanocapsules for Li-S batteries. **J. Lu**

8:30 ENFL 45. Crosslinked disulfide polymers suppress polysulfide shuttle in Li-S batteries. **M. Preefer**, B.D. Oschmann, C.J. Hawker, R. Seshadri, F. Wudl

8:50 ENFL 46. Dynamics structure of the buried functional interface in an advanced lithium/sulfur cell. **T. Pascal**

9:10 ENFL 47. Lock sulfur in confined nanostructures to improve the performance of Li-S batteries. Y. Pei, N. Baxter, Y. Wang, **S. Wang**

9:30 Intermission.

9:50 ENFL 48. Molecular ionic composite electrolytes to enable safer and higher energy density batteries. **L.A. Madsen**, Y. Wang, C. Zanelotti, S.E. Wollman, D. Yu, Y. He, Z. Yu, R.J. Fox, R. Kerr, M. Forsyth, R. Qiao, T.J. Dingemans

10:20 ENFL 49. Nanostructuring at the interface for efficient and high capacity-performing free standing electrodes in all solid-state Li-S batteries. H. El-Shinawi, E. Cussen, **S. Corr**

10:40 ENFL 50. *Ab initio* studies of solvation effects in sparingly solvating electrolytes for lithium-sulfur batteries. **B. Narayanan**, R. Assary, M. Shin, T.S. Watkins, H. Wu, K.A. See, L. Zhu, R.T. Haasch, S. Zhang, Z. Zhang, A.A. Gewirth, K.R. Zavadil, L.A. Curtiss

11:00 ENFL 51. Understanding the role of solvent and added water on the effectiveness of lithium iodide as a redox mediator in lithium oxygen batteries. **G. Leverick**, Y. Shao-Horn

11:20 Concluding Remarks.

Section G

Ernest N. Morial Convention Center Room 238

Remediation of Wastewater from Energy Usage

Water Remediation & Produced Water

Y. Li, J. Ren, *Organizers*
T. Atesin, *Presiding*

8:25 Introductory Remarks.

8:30 ENFL 52. Efficient removal of ultrafine coal particles from power plant effluent streams using flocculation-

sedimentation-filtration process. A. Bhagavatula, V. Rajagopalan, **B. Duncan**, P. Vimalchand, M. Nelson

8:55 ENFL 53. Degradation of model naphthenic acids and naphthenic acids in oil sands process-affected water (OSPW) by UV activated persulfate method. **F. Zhi**, R. Huang, P.C. Ayala, Q. Shi, C. Xu, M.G. El Din

9:20 ENFL 54. Theoretical comparison of DCMD and VMD for desalination of high salinity wastewaters. **O.R. Lokare**, R.D. Vidic

9:45 ENFL 55. Non-catalytically intensify continuous production of biodiesel from microalgae by extraction coupling with transesterification under supercritical conditions. **J. Yin**, B. Qiao, D. Zhou, Q. Xu

10:10 Intermission.

10:25 ENFL 56. Visible-light-driven photocatalytic degradation of organic water pollutants promoted by sulfite. **W. Deng**, Y. Li

10:50 ENFL 57. Energetic and techno-economic comparison of mechanical vapor recompression and direct contact membrane distillation for shale gas produced water desalination. **E. Shamlou**, S. Tavakkoli, O.R. Lokare, R.D. Vidic, V. Khanna

11:15 ENFL 58. Use of microbial electrolysis cells for produced water treatment. **A. Borole**, S. Satinover, C. Tsouris

11:40 Concluding Remarks.

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

Electrochemical Double Layer: Modeling, Characterization & Catalysis

Sponsored by CATL, Cosponsored by COMP, ENFL and PHYS

Wood-Based Materials for Energy & Water

Nanocellulose-Based Technologies

Sponsored by CELL, Cosponsored by ENFL, ENVR and MPPG

Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments

Sponsored by CATL, Cosponsored by ENFL, INOR and PHYS

Challenge & Opportunity in Lignin Valorization

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

SUNDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 231

Bioenergy & Bio-Based Chemicals

Cosponsored by CELL
J. Chang, S. Fu, *Organizers*
J. Fu, T. Morgan, *Organizers, Presiding*

1:25 Introductory Remarks.

1:30 ENFL 59. Biofuel and biorenewables from the *carinata* biomill. **S.A. Miller**, S. Shen

1:55 ENFL 60. Synergy between woody biomass and scrap tyre upon co-pyrolysis for the production of bio-oil. T. Jayasinha, A. Zarei, A. De Girolamo, **L. Zhang**

2:20 ENFL 61. Identification of sulfur-containing impurities in fatty acid methyl esters produced from brown grease. **V.T. Wyatt**, K. Jones, M. Hughes, M.E. Hums, R. Cairncross

2:45 ENFL 62. Oxidation stability of biodiesel derived from waste catfish oil. **J. Fu**, S.Q. Turn, B.T. Hue, P. Le

3:10 Intermission.

3:25 ENFL 63. Alternative jet fuel production from tropical biomass resources. **T. Morgan**, S.Q. Turn

3:55 ENFL 64. Future, feedstock agnostic, biorefineries for the production of lipid and higher value products through an integrated microwave and biological process. **C. Chuck**, J. Clark, A. Fan, F. Santomauro, V. Budarín

4:15 ENFL 65. Systematic analysis of cloud points and crystallization in fatty acid ethyl ester biodiesel mixtures with and without additives. P. Leggieri, **M. Senra**, L. Soh

4:35 ENFL 66. Effects of bentonite based catalyst on conversion of rapeseed oil to methyl esters via reactive separation. B. Ali, **S. Yusup**, A. Quitain, R. Kamil, T. Kida, A. Bokhari

4:55 Concluding Remarks.

Section B

Ernest N. Morial Convention Center Room 232

Carbon Dioxide Conversion & Artificial Photosynthesis

Cosponsored by CATL, COMP and GEOC
Y.H. Hu, H. Lin, C. Liu, *Organizers*
S. Kawi, *Organizer, Presiding*
H. Zhou, *Presiding*

1:25 Introductory Remarks.

1:30 ENFL 67. Preparation aspects of coke resistance nickel catalyst for CO₂ reforming of methane. **Q. Li**

1:55 ENFL 68. Nanostructured catalysts for carbon dioxide conversion. Z. Wang, Y. Guo, **Y. Fang**

2:20 ENFL 69. CO₂ reforming of methane over Ni-based catalyst. **S. Wang**, Y. Lu, Y. Zhao, X. Ma

2:45 ENFL 70. Kinetic and mechanistic insights for CO₂-H₂O reforming of methane over Ni-phyllosilicate structure derived Ni-SiO₂-MgO catalysts. **A. Jangam**, S. Kawi

3:10 Intermission.

3:25 ENFL 71. CO₂ activation and methanation on Ni-modified metal oxides: Insights from experiment and modelling. **M. Nolan**, A. Van Veen, M. Li

3:50 ENFL 72. Conversion of CO₂

into multi-products via the molybdenum alkoxide catalyst. J. Chen, **J. Ma**, P. Cheng

4:15 ENFL 73. Improving CO₂ capture performance by incorporating functionalized materials into porous polymer networks. **G.S. Day**, M.R. Bosch, J.A. Willman, E.A. Joseph, H. Drake, K. Ozdemir, H. Zhou

4:40 ENFL 74. Theoretical insights into supported metal catalysts for highly selective CO₂-to-CO conversion. **X. Su**, X. Chen, H. Su, Y. Huang, T. Zhang

5:05 Concluding Remarks.

Section C

Ernest N. Morial Convention Center Room 237

Materials & Processes for Solar Energy Conversion & Utilization

R.T. Koodali, *Organizer*
Y.H. Hu, *Organizer, Presiding*

1:25 Introductory Remarks.

1:30 ENFL 75. Synthesis and photocatalytic application of ultra-stable core/shell quantum dots. **L. Liang**, L. Kong, Z. Li

2:00 ENFL 76. Semiconductor photocatalysis of bicarbonate to solar fuels: Formate production from copper (II) oxide. **H. Pan**, S. Chowdhury, M. Heagy

2:20 ENFL 77. Charge carrier recombination in anatase and rutile TiO₂ single crystals: Role of defects and hydrogen production. **K. Katsiev**, P. Maity, H. Ghamdi, O. Mohammed, H. Idress

2:40 ENFL 78. Photocatalytic hydrogen generation activity at plasmonic Au-TiO₂ and Au-TiO₂/Pt aerogels. **J. Pietron**, P. DeSario, T.H. Brintlinger, A. Dunkelberger, O.A. Baturina, J. Owrutsky, D.R. Rolison

3:00 ENFL 79. CuO_x-TiO₂ composite photocatalysts for photocatalytic H₂ production. **W. Huang**

3:20 Intermission.

3:35 ENFL 80. Spin-dependent photoinduced electron transfer in a prototype artificial-photosynthesis molecular framework. **S. Hedstrom**, S. Chaudhuri, N.T. La Porte, M.R. Wasielewski, V.S. Batista

3:55 ENFL 81. Sprayed CZTS photoelectrode from stable precursor solution & study of charge transfer dynamics. **A. Mondal**, J. Radich

4:15 ENFL 82. Synthesis, photocatalytic properties and Langmuir-Blodgett film: Photoelectrochemical behavior of CdS and CdSe nanoparticles of hydrophilic or hydrophobic organic shell. **M. Nagamine**, M. Osial, P. Krysinski, J. Widera

4:35 ENFL 83. High efficiency luminescent solar concentrating devices using copper-indium-sulfide quantum dot nanocomposite laminated glass. **A. Jackson**, K. Ramasamy, M. Bergren, N. Markarov, H. McDaniel

4:55 ENFL 84. Chlorinated π -conjugated polymer with efficiency over 11% and enhanced stability in organic solar cells. **F. He**

5:15 Concluding Remarks.

Section D

Ernest N. Morial Convention Center Room 239

Natural Gas Catalysis

J. Baltrusaitis, K. Ding, N. Kumar, *Organizers*
J.J. Spivey, *Organizer, Presiding*
K. Ding, *Presiding*

1:25 Introductory Remarks.

1:30 ENFL 85. Transformation of lower alkanes by oxygen in the presence of HCl catalyzed by modified CeO₂ nanocrystals. Q. Xie, H. Zhang, J. Kang, Q. Zhang, **Y. Wang**

2:10 ENFL 86. Aromatization of C₂-C₃ molecules to benzene-related molecules. **F. Tao**

2:50 ENFL 87. Microwave-assisted conversion of low rank coal under methane environment. **V. Abdelsayed**, D. Shekhawat, M. Smith, S. Hammache

3:10 ENFL 88. Fischer-Tropsch synthesis: Improved conversion and selectivity with Co/silica by foregoing calcination and utilizing reduction promoters. **M. Mehrbod**, G. Jacobs, M. Martinelli, B.H. Davis, D.C. Cronauer, A.J. Kropf, C.L. Marshall

3:30 ENFL 89. Rate and mechanism of oxidative coupling of methane over hydroxyapatite-based catalysts. **D. Liu**, S. Oh

4:10 Concluding Remarks.

Section E

Ernest N. Morial Convention Center Room 240

Shale Gas Extraction, Conversion & Utilization

L. Fan, F. Li, *Organizers*
L. Neal, T. Wang, *Organizers, Presiding*

1:25 Introductory Remarks.

1:30 ENFL 90. Process intensification technologies for natural gas upgrading. **G. Vesper**

2:10 ENFL 91. Olefin production from natural gas condensates using a cyclic redox scheme. **L. Neal**, V. Haribal, F. Li

2:50 ENFL 92. Effective methods for treating and recycling produced water in unconventional oil operations. **M.A. Reynolds**, E.E. Hansen, S. Leung

3:40 Intermission.

3:55 ENFL 93. Analysis of the effectiveness of different injection fluids in Huff-and-puff method of enhanced hydrocarbon recovery in shale fracture networks using microfluidic experiments. **P. Nguyen**, B. Carey, M. Porter, H. Viswanathan, J. Sheng

4:25 ENFL 94. Novel microbial biosensor platforms for early detection and treatment of oil leakage and produced waters. **V. Gude**, H. Nandimandalam

4:55 Concluding Remarks.

Section F

Ernest N. Morial Convention Center Room 241

Advanced Analytical Techniques for Determination of Minor & Trace Elements in Petroleum Value Chain

J. Casey, C.S. Hsu, F.A. Lopez-Linares, *Organizers*
J. Nelson, *Organizer, Presiding*

1:25 Introductory Remarks.

1:30 ENFL 95. How far can we go with LIBS for the fuel industry? **C. Lienemann**, F. Trichard, P. Dufresne, P. Gallioui, W. Weiss, N. Gilon, V. Motto-Ros, F. Baco-Antoniali, L. Sorbier

2:10 ENFL 96. Trace metal analysis in fuels by MP-AES. **T. Alleman**, E. Christensen, L. Fouts

2:40 ENFL 97. Proposed ASTM method on elemental analysis of crude oil by microwave plasma atomic emission spectrometry (MP-AES). **N. Drvodelic**

3:10 Intermission.

3:25 ENFL 98. New ASTM ICNMS method in crudes. **J. Nelson**

4:05 ENFL 99. Molecular composition analysis of lubricant base oils by using RICO redox derivatization followed by ESI FT-ICR MS. M. Sutan, C.S. Hsu, **Y. Zhou**, Q. Shi

4:35 Concluding Remarks.

Section G

Ernest N. Morial Convention Center Room 238

Innovative Chemistry & Materials for Electrochemical Energy Storage

Cosponsored by CATL, INOR and PMSE
F. Lin, Y. Mo, K.A. See, *Organizers*
H. Chen, *Organizer, Presiding*

1:25 Introductory Remarks.

1:30 ENFL 100. Sodium-sulfur flow battery for low-cost electrical storage. **Z. Li**

2:00 ENFL 101. Design of stable, high energy pyridine derived molecules for applications in redox flow batteries. **M.E. Cook**, J. Ruchti, M.S. Sanford, M.S. Sigman, S.D. Minteer

2:20 ENFL 102. Surface functionalization of silica (SiO₂) nanoparticles in lithium nanocomposite membranes for vanadium redox flow batteries. **A.B. Jansto**, E. Davis

2:40 ENFL 103. Understanding the pseudocapacitive mechanism of MXene electrode in H₂SO₄ from joint density functional theory. **C. Zhan**, M. Naguib, M. Lukatskaya, P. Kent, Y. Gogotsi, D. Jiang

3:00 Intermission.

3:15 ENFL 104. Tannic acid-decorated porous graphene for flexible and high performance supercapacitors. **L. Xu**, X. Jin

3:35 ENFL 105. Bacteria promoted 3D-nanotube structure for supercapacitor applications. **S. Ozden**, I. Macwan, P. Owuor, S. Kosolwattana, C. Tiwary, P. Autreto, R. Vajtai, A. Mohite, P. Patra, P. Ajayan

3:55 ENFL 106. Hollow carbon nanotubes templated from La₂O₃ nanorods as an electric double layer capacitor. **A.T. Brown**, Z. Wang, K.J. Balkus

† Cooperative Cosponsorship

4:15 ENFL 107. Immiscible polymer blends to shepherd metal oxide precursors into carbon nanofibers. **J.A. Garcia**, S. Malekpour, K.J. Balkus, J.P. Ferraris

4:35 ENFL 108. Sputtered iridium oxide micro-supercapacitors operating in physiological environment with high energy density and cycle stability. **J. Maeng**, S.F. Cogan

4:55 ENFL 109. High yield bottom-up PECVD synthesis of graphene nanoribbons and their application in supercapacitors. **J. Bagley**, C. Hsu, W. Tseng, M.L. Teague, N. Yeh

5:15 Concluding Remarks.

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

Electrochemical Double Layer: Modeling, Characterization & Catalysis

Sponsored by CATL, Cosponsored by COMP[†], ENFL[†] and PHYS

Magnetically Recoverable Catalysts

Sponsored by CATL, Cosponsored by COLL, ENFL and INOR

Wood-Based Materials for Energy & Water

Wood-Fiber & Wood-Scaffold Based Technologies

Sponsored by CELL, Cosponsored by ENFL, ENVR and MPPG

Challenge & Opportunity in Lignin Valorization

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

MONDAY MORNING

Section A

Ernest N. Morial Convention Center
Room 231

ENFL Plenary: Reaction Mechanisms in Novel Energy & Fuel Conversion Systems

L. Fan, Organizer
R.T. Koodali, A.A. Park, Presiding

10:00 Panel Discussion.

10:00 ENFL 110. Strategies for the conversion of renewable carbon sources to fuels: Implications for catalysis. **A.T. Bell**

11:00 ENFL 111. Chemical looping technology for combustion, gasification, reforming, and chemical syntheses: Redox reaction mechanism and technology commercialization readiness. **L. Fan**

Section B

Ernest N. Morial Convention Center
Room 232

Carbon Dioxide Conversion & Artificial Photosynthesis

Theoretical Studies, Policy & Catalytic Conversion

Cosponsored by CATL, COMP and GEOC
Y.H. Hu, H. Lin, C. Liu, Organizers
S. Kawi, Organizer, Presiding
H. Zhou, Presiding

7:55 Introductory Remarks.

8:00 ENFL 112. Mechanistic insights into the synthesis of higher alcohols from syngas on CuCo-alloys. **A. Cao**, J. Schumann, F. Abild-Pedersen, Y. Liu, J.K. Narskov

8:25 ENFL 113. Activation and hydrogenation of CO₂ over iron carbide and oxide catalysts: Insight from DFT. **H. Wang**, X. Nie, X. Guo, C. Song

8:50 ENFL 114. New computational approach to determine the role of vibrational kinetics in low temperature plasmas used for CO₂ dissociation. **R. Van de Sanden**, S. Longo, P. Diomedea

9:15 ENFL 115. Theoretical insights for low-overpotential electroreduction of CO₂/CO on Cu surfaces. **L. Cao**, T. Mueller

9:35 ENFL 116. Nanocrystalline Co(II) metal-organic framework for the conversion of CO₂ into cyclic carbonates. **P. Cheng**, X. Ji, J. Ma

9:55 Intermission.

10:05 ENFL 117. CO₂ utilization: A view from China National Petroleum Corporation. **J. Hu**

10:30 ENFL 118. Withdrawn

10:50 ENFL 119. Bicarbonate hydrogenation by iron: Effects of solvent and ligand on the mechanism. **M. Ahlquist**, R. Marcos

11:10 ENFL 120. Using CO₂ and CH₄ as C1 building blocks to produce value-added product through C-C coupling. Y. Zhao, H. Wang, X. Zhu, J. Han, **Q. Ge**

11:30 ENFL 121. Advances in studies of structural effect of Ni catalysts for CO₂ conversion. **C. Liu**

Section C

Ernest N. Morial Convention Center
Room 237

Innovative Chemistry & Materials for Electrochemical Energy Storage

Cosponsored by CATL, INOR and PMSE
H. Chen, Y. Mo, K.A. See, Organizers
F. Lin, Organizer, Presiding

7:55 Introductory Remarks.

8:00 ENFL 122. Hierarchical design of a novel Cu/Ni/TiO₂ electrode for lithium-ion batteries. **Y. Yue**, H. Liang

8:20 ENFL 123. Nitrogen-deficient graphitic carbon nitride for Li-ion battery anode applications. J. Chen, Z. Mao, D. Wang, L. Bie, **B.D. Fahlman**

8:40 ENFL 124. Electrodeposition of high energy density anodes for rechargeable batteries: Unusual anode-substrate interactions. M.C. Schulze, E.D. Jackson, J. Ma, **A.L. Prieto**

9:10 ENFL 125. BIAN based conjugated polymer binder for Li-ion secondary battery anodes. **S.G. Patnaik**, R. Vedarajan, N. Matsumi

9:30 ENFL 126. Studying the rate of electron transfer at pyrolytic carbon electrodes. **J.C. Lytle**, G.E. Kamm, T. Le, E.M. Ness, J.F. Parker, D.R. Rolison, J.W. Long

9:50 Intermission.

10:05 ENFL 127. Structural engineering of two-dimensional nanomaterials for efficient energy storage. Y. Zhu, **G. Yu**

10:35 ENFL 128. Continuous synthesis of graphene oxide materials in a model Taylor-Couette flow reactor. **M. Alamer**, Y.L. Joo

10:55 ENFL 129. Holey graphene for electrochemical energy storage. **R. Kanungo**, J. Radich

11:15 ENFL 130. Highly stable two and three lithium insertion in amorphous V₂O₅ shells coaxially deposited on electrospun carbon nanofibers: A self-supported membrane for high-capacity lithium ion battery cathodes. **J.E. Brown**, J. Li

11:35 ENFL 131. Operando Bragg coherent x-ray diffraction investigation of transformations in individual alloying anode particles. **F.J. Cortes**, M.G. Boebinger, M. Xu, A. Ulvestad, M.T. McDowell

Section D

Ernest N. Morial Convention Center
Room 239

Shale Gas Extraction, Conversion & Utilization

L. Fan, F. Li, L. Neal, T. Wang, Organizers
M. Zhao, Presiding

7:55 Introductory Remarks.

8:00 ENFL 132. Bottoms-up synthesis of commodity chemicals from shale gas. A. Chakrabarti, A. Wang, L. Sharma, G. Yan, J. Baltrusaitis, **I.E. Wachs**

8:50 ENFL 133. Functional materials for hydrogen production from shale gas reforming. G. Ji, M. Memon, **M. Zhao**

9:30 ENFL 134. Alkali-promoted mixed oxide redox catalysts for chemical looping-oxidative dehydrogenation of ethane (CL-ODH). **Y. Gao**, L. Neal, F. Li

10:10 Intermission.

10:25 ENFL 135. Catalytic conversion of light hydrocarbon gases to drop-in fuels using tri-reforming and hydrocarbon synthesis. X. Zhao, D. Walker, T. Roberge, B. Joseph, **J. Kuhn**

11:05 ENFL 136. Rh promoted perovskites as effective redox catalysts for chemical looping reforming of methane. **A. Mishra**, A. Shafiefarhood, F. Li

11:30 ENFL 137. Role of oxygen vacancies in oxidative coupling of methane over Mg₂MnO₃-based catalytic oxygen carriers in a chemical looping system. **S. Nadgouda**, D. Baser, L. Qin, Z. Cheng, L. Fan

Section E

Ernest N. Morial Convention Center
Room 240

Road Map & Policy of Energy & Fuels

Reducing America's Carbon Footprint through Nuclear Energy: Policy Perspectives & Other Non-

Nuclear Technologies & Practices

Cosponsored by ENFL
S. Liu, Q. Zhen, Organizers
S. Bashir, C. Sanders, M. Sanders,
Presiding

7:55 Introductory Remarks.

8:00 ENFL 138. Reducing America's carbon footprint through nuclear energy: Framework of the debate over nuclear energy. **M. Sanders**, **C. Sanders**

8:30 ENFL 139. Reducing America's carbon footprint through nuclear energy: Historical development related to risk assessment and potential methods. **M. Sanders**, **C. Sanders**

9:00 ENFL 140. Reducing America's carbon footprint through nuclear energy: Assessment of safety and measured criteria. **M. Sanders**, **C. Sanders**

9:30 ENFL 141. Reducing America's carbon footprint through nuclear energy: Viable energy source for power generation. **M. Sanders**, **C. Sanders**

10:00 Intermission.

10:15 ENFL 142. Can parked cars and carbon taxes create a profit? The economics of vehicle-to-grid energy storage for peak reduction. G. Freeman, H. Gandhi, **A. White**

10:40 ENFL 143. Synthesis of high-density fuels from biomass derivatives. **J. Xie**, G. Nie, X. Zhang, J. Zou

11:05 ENFL 144. Study of deposition behavior of asphaltene sub-fraction with microfluidic system. **T. Cao**, Y. Lin, A. Yen, S. Biswal, J. Macias

11:30 ENFL 145. Computational and experimental study of CO₂ capture by alkylamines. **K. Yang**, J. Schell, R. Glaser

Section F

Ernest N. Morial Convention Center
Room 241

Hydrogen Energy: Production, Storage & Application

T. Autrey, V. Stavila, Organizers, Presiding

7:55 Introductory Remarks.

8:00 ENFL 146. U.S. Department of Energy activities in hydrogen production, delivery, and storage. **Z. Hulvey**, K. Randolph, N. Stetson

8:20 ENFL 147. Unravelling the mechanism of complex metal hydride reversibility by catalytic metal sites. **M. Allendorf**, H. Bluhm, F. El Gababay, J. Guo, R.D. Kolasinski, Y. Li, T. Ogitsu, A.J. Rowberg, V. Stavila, J.L. White, J.A. Whaley, B. Wood

8:40 ENFL 148. Hydrogen storage characterization and optimization research effort, HySCORE. **T. Gennett**, P. Parilla

9:00 ENFL 149. Neutron measurements of hydrogen storage materials. **C.M. Brown**, T.J. Udovic, J. Tarver

9:20 ENFL 150. Characterization, optimization and perspectives of light weight metal hydride materials and systems based thereon for hydrogen storage. **M. Dornheim**

9:40 Intermission.

[†]Cooperative Cosponsorship

9:55 ENFL 151. Synthesis and reactivity of potassium octahydrotriborate salt. **X. Chen,** X. Chen, J. Wang, X. Feng, C. Cui, Y. Liang

10:15 ENFL 152. Study of molecular hydrogen at kbar pressures using inelastic neutron scattering and the case of hydrogen in Mg(BH₄)₂. **A. Ramirez-Cuesta,** L.L. Daemen, Y. Cheng

10:35 ENFL 153. Novel tools for the characterisation of hydrogenous materials. **M. Jones**

10:55 ENFL 154. Mesoporous carbons for the nano-confinement of hydrogen storage materials. **R. Janot**

11:15 Concluding Remarks.

Section G

Ernest N. Morial Convention Center Room 238

Issues & Challenges Related to Heavy, Light & Shale Oil Production & Processing

J.J. Adams, P. Rahimi, Y. Zhang, *Organizers*
C.F. Ovalles, *Organizer, Presiding*
Y. Zhang, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 155. Asphaltenes, what art thou? **M.E. Moir**

8:25 ENFL 156. Imaging single molecules by scanning probe microscopy. **B. Schuler**

8:50 ENFL 157. Evidence for dominance of island architecture for asphaltenes. **O.C. Mullins**

9:15 ENFL 158. Non-contact atomic force microscopy (NC-AFM) imaging of asphaltene model compounds. **Y. Zhang,** M. Harper, D. Kushnerick

9:40 Intermission.

9:50 ENFL 159. Molecular structure of heavy oil revealed with non-contact atomic force microscopy. **Y. Zhang,** M. Harper, D. Kushnerick

10:15 ENFL 160. Asphaltenes are comprised of abundant island and archipelago structural motifs: A mass spec lesson in selective ionization. **R.P. Rodgers,** S. Rowland, M.L. Chacón-Patiño

10:40 ENFL 161. Heteroatom compositions and chemistry of petroleum system. **K. Qian**

11:05 ENFL 162. Ultrahigh purity vanadyl porphyrins. B.M. Rytting, **P.K. Kilpatrick,** I. Singh, M. Harper, A.S. Mennito, Y. Zhang

11:30 ENFL 163. Ultra small-angle X-ray scattering (USAXS) assessment of asphaltene precipitation and inhibitor effectiveness. **M. Hoepfner,** M. Ismail, Y. Yang, C.F. Ovalles, E. Rogel, M.E. Moir

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

Challenge & Opportunity in Lignin Valorization

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

Operando Techniques for Catalytic & Photocatalytic Fuel Conversion Studies

Sponsored by CATL, Cosponsored by ENFL

Wood-Based Materials for Energy & Water

Wood-Based & Related Materials

Sponsored by CELL, Cosponsored by ENFL, ENVR and MPPG

Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments

Sponsored by CATL, Cosponsored by ENFL, INOR and PHYS

Electrochemical Double Layer: Modeling, Characterization & Catalysis

Sponsored by CATL, Cosponsored by COMP, ENFL and PHYS

MONDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 231

Issues & Challenges Related to Heavy, Light & Shale Oil Production & Processing

C.F. Ovalles, P. Rahimi, Y. Zhang, *Organizers*
J.J. Adams, *Organizer, Presiding*
P. Rahimi, *Presiding*

1:25 Introductory Remarks.

1:30 ENFL 164. Study on wax deposition inhibitors. **J.J. Adams,** F.F. Tort, J.F. Schabron

1:55 ENFL 165. Effect of comb copolymers on flow ability of waxy oil under high pressure. **X. Guo,** T. Li, J. Xu, R. Zou, L. Li

2:20 ENFL 166. Identification of continuous chemical treatment products to manage paraffin deposition in the oilfield. **C. Russell,** E. Pohl, R. Sharpe

2:45 ENFL 167. Oilfield paraffin management: Novel test method development for the design of remediation chemical treatments. **C. Russell,** E. Pohl, R. Sharpe

3:10 Intermission.

3:25 ENFL 168. Asphaltenes wash off using terpene microemulsions. **H.W. Hernandez,** A. Perrard, P. Ashcraft, S. Trabelsi

3:50 ENFL 169. Analysis of fouling deposits. **E. Rogel,** K. Hench, G. Dickkjian

4:15 ENFL 170. Investigating the relationship between vanadium content and viscosity of Athabasca bitumen during low temperature visbreaking: Role of the VO²⁺ ion. **K. Sivaramakrishnan,** G.

Chauhan, A. De Klerk, V. Prasad

4:40 ENFL 171. Effects of self-assembly of paraffin on the transport property and viscosity of waxy crude oil. **X. Chen,** L. Hou, W. Li, D. Bedrov

5:05 Concluding Remarks.

Section B

Ernest N. Morial Convention Center Room 232

Carbon Dioxide Conversion & Artificial Photosynthesis

Cosponsored by CATL, COMP and GEOC
Y.H. Hu, S. Kawi, H. Lin, C. Liu, *Organizers*
M. Liu, *Presiding*

1:25 Introductory Remarks.

1:30 ENFL 172. Electrocatalytic CO₂ reduction with nickel complexes supported by tunable macrocyclic bipyridyl-NHC ligands. **X. Su,** J. Panetier, J.W. Jurs

1:50 ENFL 173. Copper electrocatalysts with sub-surface oxygen for CO₂ reduction: An electronic-structure perspective. **S. Hedstrom,** C. Liu, A.R. Nilsson, L.G. Pettersson

2:10 ENFL 174. Withdrawn

2:30 ENFL 175. Superoxide-derived selective reduction of CO₂ to CO at low overpotentials in ionic liquid. Z. Wang, **Z. Huang,** A. Gupta, K.E. Riley, P. Kral

2:50 Intermission.

3:05 ENFL 176. Electrocatalytic reduction of CO₂: Routes toward efficient and selective copper-based electrocatalysts. **N. Kaneza,** S. Pan

3:25 ENFL 177. Engineered electrolyte-electrocatalyst nanocomposites for enhanced CO₂ electroreduction. **R.A. Elgammal,** T. Zawodzinski

3:45 ENFL 178. Electrochemical cycling strategy for selective and sustainable C₂H₂ production from CO₂ or CH₄ at atmospheric pressure using H₂O. **J.M. McEnaney,** B.A. Rohr, A. Nielander, A.R. Singh, J.K. Norskov, T.F. Jaramillo

4:05 ENFL 179. Surface engineering of earth-abundant transition metals by boron nitride for selective reduction of CO₂. **G. Hu,** Z. Wu, S. Dai, D. Jiang

4:25 ENFL 180. Direct conversion of CO₂ to surface-microporous graphene as efficient electrodes for supercapacitors. **Y.H. Hu**

4:50 Concluding Remarks.

Section C

Ernest N. Morial Convention Center Room 237

Innovative Chemistry & Materials for Electrochemical Energy Storage

Cosponsored by CATL, INOR and PMSE
F. Lin, K.A. See, *Organizers*
H. Chen, Y. Mo, *Organizers, Presiding*

1:25 Introductory Remarks.

1:30 ENFL 181. Nucleation of dislocations and their dynamics in layered oxides cathode materials during battery charging. **A. Singer**

2:00 ENFL 182. Organic polymeric cathode materials for lithium-ion batteries. **B.P. Fors**

2:30 ENFL 183. Toward greener lithium-ion batteries: Aqueous binder-based LiNi_{0.4}Co_{0.2}Mn_{0.4}O₂ cathode material with superior electrochemical performance. **Z. Chen,** G. Kim, D. Chao, M. Copley, S. Passerini, Z. Shen

2:50 ENFL 184. Dynamics of surface metal-oxygen chemical environments in nickel-rich layered cathode materials. **J.D. Steiner,** J. Walsh, M. Rahman, B. Zydlewski, L. Mu, D. Nordlund, H. Xin, F. Lin

3:10 Intermission.

3:25 ENFL 185. Ions, electrons, and phonons: On the movement of charge through solids. **B.C. Melot**

3:55 ENFL 186. Closed loop recycling process for lithium ion batteries. **Y. Wang**

4:25 ENFL 187. Systematic evaluation of the stability and degree of dissociation of new sulfonylimide salts. M. Huang, **S. Feng,** W. Zhang, L. Giordano, Y. Shao-Horn, J.A. Johnson

4:45 ENFL 188. Degradation-enabled protection of cathode materials for alkali metal ion batteries. **L. Mu,** F. Lin

5:05 ENFL 189. Designing high-performance battery materials using materials genomics screens. **B. Helms,** A. Ward, L. Li, T. Pascal, X. Qu, D. Prendergast, K. Persson

Section D

Ernest N. Morial Convention Center Room 239

Road Map & Policy of Energy & Fuels

Climate Change & Energy

Cosponsored by ENFL
Q. Zhen, *Organizer*
S. Liu, *Organizer, Presiding*

1:25 Introductory Remarks.

1:30 ENFL 190. Energy future. **A. Janetos**

2:15 ENFL 191. Extreme events and national climate assessments. **J. Lawrimore,** D. Easterling

3:00 Intermission.

3:10 ENFL 192. Global atmospheric composition, weather, and climate. **V. Ramaswamy**

3:55 ENFL 193. Climate change mitigation: Is it too late to recover? **F. Princiotta**

4:40 ENFL 194. Panel discussion on path forward related to the energy & environmental road map. **A. Pope, H. Jeffries, V.C. Garcia, D. Easterling, A. Janetos, V. Ramaswamy, F. Princiotta, B. Stewart**

Section E

Ernest N. Morial Convention Center Room 240

Road Map & Policy of Energy & Fuels

Cosponsored by ENFL
Q. Zhen, *Organizer*
S. Liu, *Organizer, Presiding*

1:00 Panel Discussion.

1:00 ENFL 195. Road map and policy of

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8:20 ENFL 240. CO₂ activation on bismuth oxide nanocluster modified rutile and anatase TiO₂. **M. Nolan**

8:40 ENFL 241. Effect of defects in metal cluster/metal oxide photocatalysts for CO₂ photoreduction. **J. Chen**, S. Iyemperumal, N.A. Deskins

9:00 ENFL 242. Photo- and electro-chemical conversion of CO₂ into fuels by novel nanostructured catalysts. **Y. Li**, F. Pan, X. Feng

9:20 ENFL 243. Utilizing NAD⁺/NADH analogs for fuel forming photoreductions. **S. Ilic**, K. Glusac

9:40 ENFL 244. Development of solar fuels photoanodes through combinatorial integration of multifunctional Fe-Ce oxide coatings on BiVO₄ as a function of coating composition, loading, and electrolyte. **J. Haber**, D. Guevarra, A. Shinde, L. Zhou, F. Toma, J. Gregoire

10:00 Intermission.

10:10 ENFL 245. Design of photo/electrocatalysts from metal-organic precursors. **R. Xu**

10:35 ENFL 246. Activating carbon dioxide on metal oxide (CrOx, CuOx, CeOx) nanocluster modified TiO₂. **M. Nolan**, S. Rhatigan

10:55 ENFL 247. Design concepts for assembling semiconductor/nanocarbon photoelectrodes employed in solar fuel generation. E. Kecsenvity, B. Endrodi, **C. Janaky**

11:15 ENFL 248. Understanding the chemical and physical mechanisms active in elevated temperature photocatalytic synthesis of hydrocarbons. S. Poudyal, M. Parker, **S. Laursen**

11:35 ENFL 249. Controllable hierarchical assembly of hollow tubular g-C₃N₄ with radially oriented nanosheets by solvent-free vapor-solid deposition-transition strategy. **L. Luo**, K. Li, A. Zhang, C. Song, X. Guo

Section C

Ernest N. Morial Convention Center Room 237

Innovative Chemistry & Materials for Electrochemical Energy Storage
Cosponsored by CATL, INOR and PMSE
F. Lin, Y. Mo, *Organizers*
H. Chen, K.A. See, *Organizers, Presiding*

7:55 ENFL 250. Crystal/interface structure vs. properties of Li-ion batteries. **F. Pan**

8:25 ENFL 251. *In-situ* and *operando* approaches for mechanistic insight of energy storage systems. **E.S. Takeuchi**, A.C. Marschilok, K.J. Takeuchi

8:55 ENFL 252. Investigating lithium-ion solvation structure and solid electrolyte interphase using multiscale vibrational spectroscopic and imaging techniques. **J. Nanda**, G. Yang, D. Voylov, D. Hallinan, R.E. Ruther, A.P. Sokolov, R. Sacchi, I. Ivanov, G.M. Veith

9:25 ENFL 253. Probing bulk materials properties and the electrode-electrolyte interface with novel solid state NMR methodology. **M. Leskes**

9:55 Intermission.

10:05 ENFL 254. Asymmetric phase progression as the origin of hysteresis in conversion electrodes. **K.W. Chapman**, K.M. Wiaderek, P.J. Chupas, N. Pereria, G. Amatucci

10:35 ENFL 255. Simulation of lithium ion transport through the complex electrode/SEI/electrolyte interface. **Y. Qi**

11:05 ENFL 256. Visualizing electro/chemical reactions at the nanoscale by *in-situ* TEM. **H. Xin**, M. Ge, Y. Chu

11:35 ENFL 257. Physical vapor deposition of Fe-N-C catalysts for PGM-free fuel cell electrodes. **N. Leick**, S. Kabir, K. Neyerlin, T. Gennett

Section D

Ernest N. Morial Convention Center Room 239

Road Map & Policy of Energy & Fuels

Food, Energy, Water Resources & Economy: Evidence for Biophysical & Social Constraints on Society

Cosponsored by ENFL
Q. Zhen, *Organizer*
S. Liu, *Organizer, Presiding*
K.W. King, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 258. Systems thinking on the modern economy: Size and structure. **C. King**

9:00 ENFL 259. Scaling laws of biological and physical systems to inform economic growth and dynamic. **C. King**

9:45 Intermission.

10:00 ENFL 260. Money exchange model and energy over time: A general outlook. **C. King**

10:45 ENFL 261. Tales from the past: How indicators of societal structure during the Mayan collapse can inform us today. **C. King**

11:30 Concluding Remarks.

Section E

Ernest N. Morial Convention Center Room 240

ENFL Distinguished Researcher Award: Symposium in honor of Joe D. Allison

A.A. Park, M.A. Reynolds, *Organizers*
E.B. Fox, D.J. Heldebrand, *Organizers, Presiding*

8:25 Introductory Remarks.

8:30 ENFL 262. How can analytical techniques add value to shale gas & oil production? A review of current technologies. **M.A. Reynolds**

8:55 ENFL 263. How hydraulic fracturing policy has shaped the US and world energy landscape. **E.B. Fox**

9:20 ENFL 264. Influence of water on hydrocarbon conversion reactions in zeolites. A. Gumidyala, K. Teel, J.L. White, B. Wang, **S. Crossley**

9:45 ENFL 265. Enabling clean and efficient combustion with GTL fuels. **A.L. Boehman**

10:10 Intermission.

10:25 ENFL 266. Upgrade options for NGL's. **M. Sardashti**

10:50 ENFL 267. Meeting future refinery fuel demands with the fluidized catalytic cracking unit. **F. Cloosmann**

11:15 ENFL 268. Extending stability in partial oxidation and Fischer-Tropsch catalysts. **J.D. Allison**

12:05 Concluding Remarks.

Section F

Ernest N. Morial Convention Center Room 241

Hydrogen Energy: Production, Storage & Application

T. Autrey, V. Stavila, *Organizers*
M. Nath, G. Severa, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 269. Structural and electronic properties of photoabsorbers for water splitting: First principles calculations. **G.A. Galli**

8:20 ENFL 270. Electron-coupled proton buffers for water splitting. **M. Symes**

8:40 ENFL 271. Solar hydrogen production by catalytic photoelectrochemical devices for water splitting. **T. Yamada**, K. Domen

9:00 ENFL 272. Integrating *ab-initio* simulations and experimental characterization methods: Towards accelerated materials development for hydrogen production technologies. **T. Ogitsu**, J. Varley, T.A. Pham, B. Wood, S. Ptasinska, X. Zhang, K. Horsley, A. DeAngelis, N. Gaillard

9:20 ENFL 273. Visible light driven water splitting over CaTiO₃/Pr³⁺-Y₂SiO₅/RGO catalyst by upconversion visible light to UV light. **G. Lu**

9:40 Intermission.

9:55 ENFL 274. Borohydride-based solid-state electrolytes with liquid-like sodium and lithium conductivity at room temperature. **A. Remhof**, Y. Yan, R.S. Kühnel, L. Döschner, D. Rentsch, E. Cuervo Reyes, Z. Lodziana, H. Hagemann, C. Battaglia

10:15 ENFL 275. Controlled hydrogen release from metastable hydrides. **J.A. Graetz**, J. Vajo

10:35 ENFL 276. Advanced modeling of thermodynamics in complex metal hydrides for hydrogen storage. **S. Kang**, S. Bonev, T. Ogitsu, T. Heo, K.G. Ray, B. Wood

10:55 ENFL 277. Computational studies of kinetic mechanisms governing hydrogen interactions with complex hydrides. **B. Wood**, K.G. Ray, T. Heo, S. Kang, J. Lee, A. Baker, A.J. Rowberg, T. Ogitsu, R. Shi, L. Klebanoff, V. Stavila, M. Allendorf

11:15 ENFL 278. Results from a multi-laboratory comparison of hydrogen volumetric capacity measurements. **K. Hurst**, T. Gennett, P. Parilla

Section G

Ernest N. Morial Convention Center Room 238

Kathryn C. Hach Award for Entrepreneurial Success:

Symposium in honor of Javier Garcia Martinez

K. Li, J.L. Liu, A.A. Park, M.A. Reynolds, *Organizers*
V. Valtchev, *Presiding*

8:25 Introductory Remarks.

8:35 ENFL 279. Innovative mesopore technology leads to formation of Rive Technology Inc. **D. Aldous**

9:05 ENFL 280. Early history of Rive Technology: Lessons learned in commercializing new technology. **L. Evans**

9:35 ENFL 281. Development and application of FCC catalyst integrating innovative Rive's mesoporous Y zeolite. **S. Kundu**, W. Cheng

10:15 Intermission.

10:35 ENFL 282. Dual role of surfactants as structure-directing agents and mesoporegens in the preparation of zeolites. **J.D. Rimer**, A. Chawla, R. Li, J.C. Palmer, J. Garcia Martinez

11:15 ENFL 283. Identifying the champion zeolite crystals in a powdered catalyst batch. **M.B. Roeffaers**

11:55 Concluding Remarks.

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Towards Comprehension of Scale-Up & Multiscale Modeling of Catalysts

Sponsored by CATL, Cosponsored by COMP and ENFL

Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments

Sponsored by CATL, Cosponsored by ENFL, INOR and PHYS

Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus

Food, Water & Energy from Sustainable Crops

Sponsored by CELL, Cosponsored by AGFD, ENFL, ENVR and MPPG

TUESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 231

Issues & Challenges Related to Heavy, Light & Shale Oil Production & Processing

J.J. Adams, C.F. Ovalles, P. Rahimi, Y. Zhang, *Organizers*
P. Rahimi, Y. Zhang, *Presiding*

1:25 Introductory Remarks.

1:30 ENFL 284. Superior properties of oil sands derived crudes in refinery operation. **P. Rahimi**

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Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus

Biomaterials Processing

Sponsored by CELL, Cosponsored by AGFD, ENFL, ENVR and MPPG

R&D in the Chemical Catalysis for Bioenergy Consortium

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

TUESDAY EVENING

Section A

Ernest N. Morial Convention Center Hall D

Chemistry: The Heart of Food, Energy & Water

S.L. Guertin, Z. Perry, *Organizers*

6:00–8:00

ENFL 335. Synthesis of glycidol and glycerol carbonate from transesterification of DMC and glycerol over mixed oxide catalysts. **L. Yajin, D. He**

ENFL 336. Fabrication of nano-sized attapulgite-based aerogels as anode material for lithium ion batteries. **Y. Lan, D. Chen**

ENFL 337. Mussel-inspired fabrication of polydopamine-functionalized attapulgite nanofibers as eco-friendly adsorbents for uranium adsorption. **Y. Liao**

ENFL 338. Tunability in organic electronics: Determination of surfactant role in directed self-assembly. **M.D. Rollings, C. Boyle, D. Venkataraman**

ENFL 339. New perspective into the mechanism for the highly facile interconversion of (H)₂ and (β²-H)₂ in an iridium system: through an (β¹-H)₂ interaction? **H.T. Sartain, C.M. Jensen**

ENFL 340. Role of solvent on selective dehydrogenation of magnesium borohydride at moderate conditions. **P.Q. Nguyen, M. Chong, M. Bowden, S. Shrestha, J. Yang, T. Gennett, T. Autrey, C.M. Jensen**

ENFL 341. Freestanding 3D hierarchical carbon electrode enabled by poly(iaminonaphthalene) for energy storage and oxygen reduction reaction. **C. Ortuno-Quintana, M. Acerce, K. Ramirez, J. Lu**

ENFL 342. Norbornadiene–quadracyclane systems for molecular solar thermal energy storage. **M. Quant, K. Moth-Poulsen**

ENFL 343. Spherical aggregation of microalgae with acceleration of cell growth and lipid accumulation by encapsulation in hydrogels. **T. Yoshitomi, S. Kaminaga, K. Yoshimoto**

ENFL 344. Flake-like nanostructured copper oxide for pseudocapacitive energy storage. **P. Marathe, R.K. Pati, I. Mukhopadhyay, A. Ray**

ENFL 345. Stabilizing lithium metal anodes by atomic layer deposition of metal oxide on carbon network. **F. Zhang, F. Shen, X. Han**

ENFL 346. Design and economic evaluation of the TSA process for CO₂ capture from flue gas. **X. Zhang, F. Xiao, X. Wang, F. Wang, N. Zhao**

ENFL 347. Directly synthesis of dimethyl carbonate from methanol and CO₂ over Fe₂Zr_{1-x}O₂ catalysts. **A. Li, N. Zhao, F. Xiao**

ENFL 348. Soxhlet extraction for post-synthetic generation of mesoporosity in MOFs. **E.A. Joseph, M.R. Bosch, S. Banerjee, Y. Fang, K. Ozdemir, H. Zhou**

ENFL 349. Synthesis and catalytic performance of highly siliceous ZSM-22. **P. Niu, H. Xi, L. Jia, B. Hou, D. Li**

ENFL 350. Preparation of full-range simulated TATP and odors analog. **J. Han, J. Liu, Z. Hu, X. Liu, X. Ten**

ENFL 351. Synthesis and characterization of dimethyl carbonate induced by electrode activated carbon. **J. Liu, Y. Zhu, J. Qiu, Y. Li, H. Zhong**

ENFL 352. Alkylamine loaded porous polymer networks for carbon dioxide capture. **H. Drake, E.A. Joseph, G.S. Day, H. Zhou**

ENFL 353. Evaluation of ethanol production from renewable cellulose resources using process simulation tools. **D. Petrides, D. Carmichael, C.A. Siletti**

ENFL 354. Large scale algal oil production for bio-fuel use: Techno-economic analysis and evaluation. **D. Petrides, D. Carmichael, C.A. Siletti**

ENFL 355. Candy cane-like semi-interpenetrating polymer networks for enhanced fast-charging power source of electronics. **T. Wang, S.K. Smoukov, K.D. Fong**

ENFL 356. Natural polymer for a low-cost aqueous sustainable flow battery. **A. Mukhopadhyay, J. Hamel, H. Zhu**

ENFL 357. Forming pure shaped ZSM-5 zeolite bodies by steam assisted method and its application in methanol to aromatics reaction. **K. Zhang, P. Liu, N. Zhao**

ENFL 358. Confining Ni nanoparticles in honeycomb-like silica for coking and sintering resistant of partial oxidation of methane. **P. Liu, K. Zhang**

ENFL 359. Ni-containing poly-ionic liquid immobilized on solid SiO₂ as catalyst for crude oil aquathermolysis. **X. Guo, R. Zou, J. Xu, T. Li, L. Li**

ENFL 360. Enhancing performances of solution-processed inverted ternary small-molecule organic solar cells: Manipulating the host-guest donors and acceptor interaction. **W. Tan, X. Zhu, Y. Min**

ENFL 361. Designing efficient catalysts for CO₂ reduction based on porphyrinic metal-organic frameworks. **P. Zhang, S. Yuan, X. Feng, Y. Li, H. Zhou**

ENFL 362. Celstir processing of metal organic frameworks for increased gas storage. **A. Kirchon, G.S. Day**

ENFL 363. Engineering large Stokes shift heptamethine cyanine dyes for transparent luminescent solar concentrators (LSCs). **J. Zhang, C. Yang, W. Sheng, B.G. Levine,**

R.R. Lunt, B. Borhan

ENFL 364. Withdrawn

ENFL 365. Increasing efficiency of ethanol production from crude glycerol and *Enterobacter aerogenes*. **A.M. Mayes, D.L. Dillon, D.R. Caprioglio**

ENFL 366. Ni₄WO_{2.72} nanorods as an efficient electrocatalyst for oxygen evolution reaction. **Z. Xi, A. Mendoza-Garcia, S. Sun**

ENFL 367. Development of flexible solid electrolytes composed of plastic crystals (III): Effect of lithium salt species on ionic conductivity. **H. Yamada, Y. Miyachi, Y. Takeoka, M. Rikukawa, M. Fujita**

ENFL 368. Synthesis of hexagram-like ZnO photocatalysts co-doped with Ho and Yb for upconversion enhancement of dye sensitized solar cell performance. **J. Wu**

ENFL 369. Ultra-high thermal effusivity materials for ambient thermal energy harvesting. **A. Cottrill, A. Liu, Y. Kunai, V. Koman, A. Kaplan, P. Liu, M. Strano**

ENFL 370. Bimetallic nanoparticle catalysts for ammonia borane and formic acid dehydrogenation. **M. Muzzio, C. Yu, S. Sun**

ENFL 371. Surface functionalization of graphite felt electrode by N and O atomic co-doping for vanadium redox flow battery. **H. Lim, J. Kim, D. Lee**

ENFL 372. Synthesis and characterization of biodiesel fuels via transesterification of triglycerides with furfuryl alcohol. **A.L. Raley, R.J. Franks**

ENFL 373. Desulfurization of fuels using solid super acids. **M. Hurlock, Q. Zhang**

ENFL 374. Schiff base promoted hydrogenation of CO₂ to formic acid over gold nanocatalyst: A DFT calculation. **X. Yang, Y. Huang**

ENFL 375. Sulfonated copolyimides containing trifluoromethyl and phosphine oxide moieties: Studies on proton exchange membrane properties. **A.K. Mandal, S. Banerjee**

ENFL 376. Semifluorinated Poly(ether imide)s with cardo moiety: Synthesis, characterization and gas permeation studies. **R. Chatterjee, S. Banerjee**

ENFL 377. Hierarchical ZSM-5 aggregates with a compact shell synthesized in extremely dense gels. **T. Ma, L. Zhang, Y. Song, Y. Shang, Y. Zhai, Y. Gong**

ENFL 378. Withdrawn

ENFL 379. Pyrolysis of hydrolytic lignin dispersed in gas phase under IR laser irradiation. **M. Berekati-Goudarzi, L. Khachatryan, D. Boldor**

ENFL 380. Anaerobic digestion of the liquid phase from hydrothermal carbonization of municipal solid waste for evaluating and enhancing the biochemical methane potential. **K.J. Adams, S. Kumar, B. Stuart**

ENFL 381. Biodiesel production by *Jatropha curcas*. **A.N. Gondal**

ENFL 382. Synthesis of biodiesel fuels via transesterification using acorn (*Quercus sp.*) kernel oil as an alternative triglyceride source. **D. Bague, R.J. Franks**

ENFL 383. Catalytic hydrothermal liquefaction of *Chlorella* into bio-oil. **N.T. Humphries, S. Kaiser, W. Jang**

ENFL 384. Determination of the most effective asphaltene inhibitor at affecting the flocculation onset point in a medium crude oil. **H. Siegal, G.C. Klein**

ENFL 385. Investigation of novel coatings for aluminum particles for composite dielectric materials. **C. Alvarez-Sanchez, K. Cook-Chennault, U. Sundar**

ENFL 386. PAN-lignin polymer blends as carbon fiber precursors for high performance supercapacitors. **R. Jayawickramage, J.P. Ferraris**

ENFL 387. Zinc oxide nanowires in the active layer of an organic/inorganic hybrid solar cell. **K. Davis, H.P. Rathnayake**

ENFL 388. Molecular-level compositional analysis of condensates and crude oils by GC×GC MS and FT-ICR MS. **T. Yen, J. Liu, R.P. Rodgers**

ENFL 389. Determination of specific methanogenic activity and degradation rate constant of biomass samples from biodigesters of rural farms in Costa Rica. **W. Ramos, E. Sánchez, V. Chaves-Villarreal, S. Rojas, M.F. Chacón, F. Jimenez, D. Zambrano**

ENFL 390. System allowing automated thermal conductivity mapping as a function of temperature and pressure for hydrogen storage materials. **R.T. Bell, N. Leick, M. Olsen, T. Gennett, P. Parilla**

ENFL 391. Identifying hydrogen adsorption sites using *in-situ* DRIFTS. **S. Shulda, J. Blackburn, P. Parilla, T. Gennett**

ENFL 392. Photocatalytic H₂ production via a homogeneous tungsten catalyst. **H.P. Shirley**

ENFL 393. Utilization of waste fat, oil and grease (FOG) for the improvement of fermentative hydrogen production. **S. Saha, S. Chang, M. Kurade, S. Chang, B. Jeon**

ENFL 394. Two Janus faces in electrocatalysis: Activity versus stability of transition metal based electrocatalysts. **S. Barwe, C. Andronescu, J. Masa, E. Ventosa, W. Schuhmann**

ENFL 395. Atomic layer deposition used to stabilize H₂ storage materials. **N. Leick, M. Martinez, K. Gross, S. Christensen**

ENFL 396. Electronic structure calculations of hydrogen storage in Li decorated MOF built with graphyne. **D. Thogluva**

ENFL 397. *Ab-initio* modeling and experimental demonstration of metal oxides for solar thermochemical water splitting. **S. Millican, I. Androschuk, A.W. Weimer, C. Musgrave**

ENFL 398. Selenophene-substituted benzothiadiazole-based polymer solar cells with high performances without additive. **F. He, X. Zhong, H. Chen**

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ENFL 399. Synthesis and characterization of N, Nβ-bis(salicylidene) ethylenediamine Copper complex for dye sensitized solar cells. **H.F. Sobhi**, W. Ghann, J. Uddin

ENFL 400. Quantum simulation for charge distribution in graphenes. Z. Liang, **P. Villarreal**, J.L. Liu, F. Tang

WEDNESDAY MORNING

Section A

Ernest N. Morial Convention Center Room 231

Bioenergy & Bio-Based Chemicals
Cosponsored by CELL
J. Fu, T. Morgan, *Organizers*
J. Chang, S. Fu, *Organizers, Presiding*

7:55 Introductory Remarks.

8:00 ENFL 401. Soda green liquor combined with organosolv pretreatment to enhance enzymatic hydrolysis of sugarcane bagasse. **Y. You, J. Jiang**

8:50 ENFL 402. Fast hydropyrolysis of beetle killed lodge pole pine decorated with palladium nanoparticles. **H. Wise**, J. Gu, F.L. Resende, A. Dichiaro

9:15 ENFL 403. STRONG[®] ebullated bed technology. **J. Liu**, X. Fang

9:40 ENFL 404. Retrosynthetic analysis of bio-derived fuels, and the identification of commodity feedstocks critical to potential commercialization. **J. Page**, P. Koech, D. Malhotra, K.O. Albrecht, D. Gaspar, L. Whitmore, C.M. Hudson, A. George, C. Moore, R. Wu, L.A. Silks, A.D. Sutton, C. Bailey, A. Zargar, L. Katz

10:05 Intermission.

10:15 ENFL 405. Application progress of residue hydroprocessing. **W. Gang**, J. Liu, X. Fang

10:40 ENFL 406. Ni/biochar catalysts for steam reforming of toluene as the biomass tar model compound. Z. Zhang, **Z. Du**, W. Li

11:05 ENFL 407. Homogeneous gas-phase pyrolysis of hydrolytic lignin under IR CO₂ laser irradiation. **L. Khachatryan**, M. Barekati-Goudarzi, D. Boldor

11:30 ENFL 408. Conversion of glucose to 5-hydroxymethylfurfural over zirconium phosphate catalyst. Y. Guo, **H. Zhao**

Section B

Ernest N. Morial Convention Center Room 232

George A. Olah Award in Hydrocarbon or Petroleum Chemistry: Symposium in honor of Oliver C. Mullins

A.A. Park, A.E. Pomerantz, C. Reddy, M.A. Reynolds, *Organizers*
C. Reddy, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 409. Molecular structure of the heavy ends of petroleum and their evolution during petroleum generation. **A.E. Pomerantz**

8:35 ENFL 410. Studies on asphaltenes behavior at oil-water interfaces. **F. Liu**, S.

Darjani, V. Pauchard, S. Banerjee

9:10 ENFL 411. Recent advances in mass spectrometric characterization of asphaltenes and crude oil. **H.I. Kentamaa**

9:45 Intermission.

10:00 ENFL 412. Biodegradation of extended hopanes to 25-norhopanes in petroleum reservoirs: Insights from molecular mechanics. **K.E. Peters**

10:35 ENFL 413. Overview of heteroatom chemistry in fossil fuels. **S. Mitra-Kirtley**

11:10 ENFL 414. Upgrading asphaltenes by oil droplets striking a charged TiO₂-immobilized paper surface. Y. Lai, Z. Zhou, C. Basheer, **R.N. Zare**

11:45 Concluding Remarks.

Section C

Ernest N. Morial Convention Center Room 237

Innovative Chemistry & Materials for Electrochemical Energy Storage
Cosponsored by CATL, INOR and PMSE
F. Lin, Y. Mo, *Organizers*
H. Chen, K.A. See, *Organizers, Presiding*

7:55 Introductory Remarks.

8:00 ENFL 415. Rechargeable magnesium battery systems: Electrolytes from simple Mg salts and sulfur-based cathodes. **J. Guo**

8:30 ENFL 416. Aqueous zinc ion battery with MoS₂ nanosheets cathode. W. Xu, X. Cheng, S.H. Rawal, Y. Xu, **Y. Wang**

8:50 ENFL 417. Can Mg²⁺ be intercalated into crystalline oxides? An update. **J. Cabana**

9:20 ENFL 418. Comparing morphology of magnesium and kinetics of its electrodeposition from varying classes of electrolytes. **B.M. Bartlett**

9:50 Intermission.

10:05 ENFL 419. Pathway to high energy density multivalent battery cathodes. **B.J. Ingram**, B. Key, J.T. Vaughey, J. Connell, P. Papa Lopes, T. Fister, S. Kim, P. Canepa, G.S. Gautam, g. Ceder, H. Yoo, R. Bayliss, J. Cabana

10:35 ENFL 420. Differences and similarities between Li, Na and Mg intercalation in transition metal oxides and sulfides. **A. Van der Ven**, M. Radin, J. Vinckeviciute, S. Kollé

11:05 ENFL 421. *In situ* electro-chemo-mechanics of electrode degradation in rechargeable batteries. **T. Zhu**

11:35 ENFL 422. Engineering MoS₂ for high-performance electrocatalytic hydrogen evolution. **G. Li**, L. Cao

Section D

Ernest N. Morial Convention Center Room 239

Road Map & Policy of Energy & Fuels

M. King Hubbard: Is He Relevant?

Cosponsored by ENFL
S. Liu, Q. Zhen, *Organizers*
S. Bashir, C.A. Hall, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 423. Possible biophysical constraints on energy and hydrocarbon futures. **C.A. Hall**

8:40 ENFL 424. Historical usage of Hubbert analyses. **C.A. Hall**

9:10 ENFL 425. Hubbert analysis for the United States. **C.A. Hall**, J.L. Hallock

9:40 Intermission.

9:55 ENFL 426. Hubbert analyses for individual countries. **C.A. Hall**, J.L. Hallock

10:25 ENFL 427. Hubbert analysis for coal. **D. Rutledge**

10:55 ENFL 428. Historical perspective on development and application of energy return on investment (EROI). **C.A. Hall**

11:25 ENFL 429. Analysis of the energy return on investment (EROI) of existing fields. **M. Masnadi**, **A. Brandt**

Section E

Ernest N. Morial Convention Center Room 240

X-Ray & Neutron Scattering in Energy Technologies

Diffraction

R.E. Winans, *Organizer*
K. Herwig, *Organizer, Presiding*

7:55 Introductory Remarks.

8:00 ENFL 430. Magnesium and mobility: Utilizing X-rays and neutrons to investigate Mg mobility in spinel oxides. **S. Lapidus**, R. Bayliss, B. Key, G. Ceder, J.T. Vaughey, J. Cabana

8:30 ENFL 431. Neutron powder diffraction of energy storage materials. **A. Huq**

9:00 ENFL 432. Insights into high-pressure methane storage in metal-organic polyhedra via neutron powder diffraction. **E.D. Bloch**

9:30 ENFL 433. Shock induced carbon chemistry and fragment assembly revealed by static and time-resolved X-ray scattering. **M.A. Firestone**, B.S. Ringstrand, S. Seifert

10:00 Intermission.

10:10 ENFL 434. Neutron scattering studies of hydrogenous materials for next-generation energy storage. **M. Dimitrievska**, W. Tang, H. Wu, W. Zhou, T.J. Udovic

10:40 ENFL 435. *In-situ* neutron scattering studies of hydride conducting alkaline earth-metal hydrides. **G. Irvine**, J. Irvine, M. Jones

11:10 ENFL 436. Synthetic control and structural stabilization of Ni-rich layered oxides as high-energy cathodes for lithium-ion batteries. **J. Zhao**, L. Gao, W. Zhu

11:40 Concluding Remarks.

Section F

Ernest N. Morial Convention Center Room 241

Hydrogen Energy: Production, Storage & Application

T. Autrey, V. Stavila, *Organizers*
D. Chandra, S. Kang, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 437. Developing ammonia as an energy vector—optimising sub-stoichiometric amide-based cracking catalyst performance. **W.I. David**, J. Makepeace, T. Wood

8:20 ENFL 438. Highly purified hydrogen production from ammonia for PEM fuel cells. **Y. Kojima**

8:40 ENFL 439. Bifurcation mechanisms in complex hydrides. Understanding formation of highly unstable intermediates formed in hydrogen release. I. Nayyar, **T. Autrey**

9:00 ENFL 440. Chemical design of competitive hydrogen storage characteristics in nanoscale metal hydrides. **J. Urban**

9:20 ENFL 441. Synergy of alkali amide/imide with transition metals in catalytic ammonia decomposition. **J. Guo**, L. Liu, P. Wang, F. Chang, X. Ju, G. Wu, P. Chen

9:40 Intermission.

9:55 ENFL 442. Highly efficient H₂ production by a 2 nanocatalyst engineered by flame spray pyrolysis (FSP). **Y. Deligiannakis**, V. Tsikourkitoudi, P. Stathi, E. Mouzourakis, M. Louloudi

10:15 ENFL 443. Sustainable photobiological hydrogen production via protein engineering of cyanobacterial hydrogenases. **A. Magnuson**, P. Raleiras, L.S. Mézárós, N. Khanna, H. Miranda, F. Ho, P. Lindblad, S. Styring

10:35 ENFL 444. Production of hydrogen from biomass via microbial electrolysis. **A. Borole**

10:55 ENFL 445. Hydrogen production based on biological water gas shift process. **H. Kim**, S. Kim

11:15 ENFL 446. Amorphous alloy membranes for hydrogen separation from CO₂ and other gases. S. Sarker, **D. Chandra**, B. Ruta, F. Zontone, Q. An, T. Udovic, D. Isheim, D. Seidman, M. Dolan, D. Viano, G.M. King, J.R. Wermers

11:35 Concluding Remarks.

Section G

Ernest N. Morial Convention Center Room 238

Kathryn C. Hach Award for Entrepreneurial Success: Symposium in honor of Javier Garcia Martinez

K. Li, J.L. Liu, A.A. Park, M.A. Reynolds, *Organizers*
J. Gilson, *Presiding*

8:25 Introductory Remarks.

8:35 ENFL 447. Zeolite catalysis in biomass conversion: Stability, accessibility and confinement effects. **B.F. Sels**

9:15 ENFL 448. Catalytic pyrolysis of lignin with micro/mesoporous zeolites for the production of green phenolics and aromatics. **K. Triantafyllidis**

9:55 Intermission.

10:15 ENFL 449. Epoxidation of

[†]Cooperative Cosponsorship

biodiesel over hierarchical TS-1-based catalysts: Improvement of diffusion or accessibility? **R. Glaeser**

11:35 ENFL 450. Award Address (Kathryn C. Hach Award for Entrepreneurial Success Sponsored by the Kathryn C. Hach Award Fund). Discovery and commercialization of new catalysts engineered at the nanoscale. **J. Garcia Martinez**

12:15 Concluding Remarks.

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Towards Comprehension of Scale-Up & Multiscale Modeling of Catalysts

Sponsored by CATL, Cosponsored by COMP and ENFL

R&D in the Chemical Catalysis for Bioenergy Consortium

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

WEDNESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 231

Bioenergy & Bio-Based Chemicals
Cosponsored by CELL

J. Fu, T. Morgan, *Organizers*
J. Chang, S. Fu, *Organizers, Presiding*

12:55 Introductory Remarks.

1:00 ENFL 451. Enhanced power generation in microbial fuel cells using material binding peptides. **J. Jahnke**, D.A. Sarkes, J. Terrell, M. Benyamin, D. Mackie, J. Sumner, D.N. Stratis-Cullum

1:25 ENFL 452. Bioconversion of anaerobic fermentation liquid of municipal sludge into microbial lipids by *Cryptococcus curvatus* using different cultivation strategies. **T. Mu**, X. Huang, J. Liu

1:50 ENFL 453. Flow field investigation to enhance the bioenergy production of high solid anaerobic digestion by particle image velocimetry (PIV). **H. Yuying**, J. Wu, S. Poncin, Z. Cao, Z. Li, H. Li

2:15 ENFL 454. Integration of graphene hybrids and photoactive protein bacteriorhodopsin for advancement of carbon-based photovoltaics. **C.C. Villarreal**, D. Pham, D. Rangel, A.J. Martinez, S. Prasad, V. Renugopalakrishnan, A.K. Mulchandani

2:40 ENFL 455. Demonstration of fusel alcohols as a platform for a tunable suite of high performance biofuel compounds for advance combustion strategies. **E. Monroe**, F. Liu, M. Tran-Gyamfi, A. George, R.W. Davis

3:05 Intermission.

3:15 ENFL 456. Study on changes of mineral structure by Fe (III) reducing bacteria and its role in inhibiting of clay swelling in low permeability reservoirs. **K. Cui**

3:40 ENFL 457. Hydrogen transfer from methanol over Ni/CMK-3 catalysts: The effect of different promoters. **Y. Xu**, C. Wang

4:05 ENFL 458. Synthesis, characterization, and application of novel materials. **N. Siraj**, S. Macchi, T. Viswanathan

4:30 ENFL 459. Optimization of wet microalgal biocrude production under the synergistic microwave and ultrasound effect. **V. Gude**, E. Martinez-Guerra

Section B

Ernest N. Morial Convention Center Room 232

George A. Olah Award in Hydrocarbon or Petroleum Chemistry: Symposium in honor of Oliver C. Mullins

A.A. Park, C. Reddy, M.A. Reynolds, *Organizers*
A.E. Pomerantz, *Organizer, Presiding*

1:25 Introductory Remarks.

1:30 ENFL 460. Award Address (George A. Olah Award in Hydrocarbon or Petroleum Chemistry Sponsored by the George A. Olah Award Endowment). Asphaltenes: Nanometers to 100 kilometers; Nanoseconds to 50 million years. **O.C. Mullins**

2:15 ENFL 461. Production of spillplatenes following the 2010 Deepwater Horizon disaster. **C. Reddy**, C.P. Ward

2:45 Discussion.

3:15 Intermission.

3:30 ENFL 462. Imaging single molecules by scanning probe microscopy: Perspectives and examples in heavy oil characterization. **B. Schuler**, S. Fatayer, G. Meyer, L. Gross, A.E. Pomerantz, K.D. Bake, O.C. Mullins, E. Rogel, M.E. Moir, C.F. Ovalles, Y. Zhang, M. Harper, D. Kushnerick, F.G. van den Berg, M. Witt, D. Pena

4:00 ENFL 463. Theoretical studies of asphaltenes: Aromatic core analyzed by molecular orbital calculations with optical spectroscopy, and interfacial science analyzed by mesoscale simulations. **Y. Ruiz-Morales**

4:30 ENFL 464. Speciation and chemical composition of petroleum crude oil by Fourier transform ion cyclotron resonance mass spectrometry. **A.G. Marshall**, Y. Corilo, C. Hendrickson, J. Putman, L. Krajewski, D. Smith, C. Wesibrod, R.P. Rodgers

5:00 Concluding Remarks.

Section C

Ernest N. Morial Convention Center Room 237

Innovative Chemistry & Materials for Electrochemical Energy Storage
Cosponsored by CATL, INOR and PMSE
H. Chen, F. Lin, Y. Mo, *Organizers*
K.A. See, *Organizer, Presiding*

1:25 Introductory Remarks.

1:30 ENFL 465. Dendritic growth of Li metal through solid-state electrolytes: Critical challenges, potential solutions. **N.J. Dudney**, A.S. Westover, R.D.

Schmidt, R. Sacci, A. Huq

2:00 ENFL 466. Lithium-doped metal-organic thin films for battery interlayers and solid state electrolytes. **M. Young**, J. Elam

2:20 ENFL 467. Insight into fast ion conductors from solid-state NMR/MRI. **Y. Hu**, P. Chien, J. Zheng, M. Tang, X. Feng, J. Rosenberg

2:50 ENFL 468. Ambiguous influence of soft lattices on ionic transport. **W. Zeier**

3:20 ENFL 469. Mobility and stability descriptors of lithium ion conductors based on lattice dynamics. **S. Muy**, J.C. Bachman, L. Giordano, D.L. Abernathy, D. Bansal, O. Delaire, R. Kanno, F. Maglia, S. Lupart, Y. Shao-Horn

3:40 Intermission.

3:55 ENFL 470. Development of all-solid-state rechargeable batteries using amorphous materials with good ductility. **A. Hayashi**, A. Sakuda, M. Tatsumisago

4:25 ENFL 471. Fabrication of ultrathin solid electrolyte membranes of lithium thiophosphate via tiled assembly of shape-controlled building blocks. **Z. Hood**

4:45 ENFL 472. Argyroditic superionic conductors synthesized by liquid-phase techniques for all-solid-state lithium batteries. **S. Yubuchi**, M. Uematsu, A. Sakuda, A. Hayashi, M. Tatsumisago

5:05 ENFL 473. All-solid-state lithium-ion electrochemical cells based on lithium halide electrolyte. **J. Swanson**, M. Dondelinger, A. Smirnova

Section D

Ernest N. Morial Convention Center Room 239

Road Map & Policy of Energy & Fuels

Energy Return on Investment (EROI)

Cosponsored by ENFL
S. Liu, Q. Zhen, *Organizers*
S. Bashir, C.A. Hall, *Presiding*

12:55 Introductory Remarks.

1:00 ENFL 474. EROI of new technologies. **C.A. Hall**

1:25 ENFL 475. Energy return on investment: Problems and solutions. **C. King**

1:50 ENFL 476. Money return on investment. **A. Berman**

2:15 ENFL 477. EROIs of solar technologies. **C.A. Hall**

2:40 Intermission.

2:50 ENFL 478. Conventional economics vs. biophysical economics. **C.A. Hall, K. Klitgaard**

3:15 ENFL 479. Economic and implications of EROIs. **C.A. Hall**

3:40 ENFL 480. Energy and human well being. **J. Lambert**

4:05 ENFL 481. Energy and collapsing states. **N. Ahmed**

4:30 ENFL 482. Energy and future environmental costs in Louisiana and Texas. **J.W. Day**, **A. Wegmann**

Section E

Ernest N. Morial Convention Center Room 240

X-Ray & Neutron Scattering in Energy Technologies

K. Herwig, R.E. Winans, *Organizers*
A. Huq, *Presiding*

1:25 Introductory Remarks.

1:30 ENFL 483. Heteropoly acid polymer electrolyte development via small angle x-ray scattering under fuel cell relevant conditions. **A. Motz**, J. Horan, M. Kuo, A.M. Herring

2:00 ENFL 484. Thermo-responsive templates for conjugate polymer self-assemblies using block copolymers in aqueous solution. **C. Do**, Y. Han, J.Y. Carrillo, Z. Zhang, Y. Li, K. Hong, B. Sumpter, M.P. Paranthaman, G. Smith

2:30 ENFL 485. *In-situ* X-ray scattering and neutron imaging of combustion and combustion generated materials. **F. Oessler**

2:55 ENFL 486. Detecting aging in organic solar cells: An *operando* study. **P. Mueller-Buschbaum**, C. Schaffer, C. Palumbino, S. Roth

3:25 Intermission.

3:30 ENFL 487. Structural water engaged disordered vanadium oxide nanosheets for high capacity aqueous K-ion storage. D.S. Charles, K. Page, J. Neufeind, **X. Teng**

4:30 ENFL 488. Theory, experiment and predictions: Transition metal carbides (MXenes) for electrochemical capacitors. **H. Wang**, M. Naguib, W. Sun, L. Vlcek, K. Page, P. Kent, D. Wesolowski, Y. Gogotsi

4:55 ENFL 489. Functional lyotropic liquid crystal self-assembly: A well-defined platform for nanoconfined water dynamics studies. G. Jackson, S. Kim, S. Mantha, S. Diallo, K. Herwig, A. Yethiraj, **M.K. Mahanthappa**

Section F

Ernest N. Morial Convention Center Room 241

Hydrogen Energy: Production, Storage & Application

T. Autrey, V. Stavila, *Organizers*
M. Bowden, T. Heo, *Presiding*

1:25 Introductory Remarks.

1:30 ENFL 490. Photocatalytic watersplitting: What can we learn from theory. **M.A. Zwiijnenburg**

1:50 ENFL 491. Hydrogen storage in metal-organic frameworks. **H. Furukawa**, M. Kapelewski, H.Z. Jiang, T. Runcevski, Y. Lin, B.R. Barnett, K. Hou, G. Thiele, J.R. Long

2:10 ENFL 492. Understanding gravimetric and volumetric hydrogen cryo-adsorption trade-off in metal-organic frameworks (MOFs) and its link to material properties. G. Anderson, B. Schweitzer, R. Anderson, O. Farha, **D. Gomez-Gualdron**

2:30 ENFL 493. Enhanced hydrogen production using a zeolitic imidazolate

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framework membrane reactor. S. Lee, J. Kim, **D. Lee**

2:50 ENFL 494. Investigation into cationic ammonia borane dehydrogenation pathways including quantum tunneling considerations. A.D. Keith, D. Bellshaw, R. Hernandez-Lamonedá, **M. Gutowski**

3:10 Intermission.

3:25 ENFL 495. Mesoscale modeling of metal hydrides for hydrogen storage. **T. Heo**, S. Kang, R. Shi, B. Wood

3:45 ENFL 496. Activated magnesium boride based materials for hydrogen storage. **G. Severa**, C.M. Jensen, C. Sugai, S. Kim, B. Wood, S. Kang

4:05 ENFL 497. Hydride@graphene composites for hydrogen storage with improved kinetics and cyclability. L. Chong, **D. Liu**

4:25 ENFL 498. Bulk metallic system modeling using metal hydride dimer and trimer nanoclusters. **J.A. Darsey**

4:45 ENFL 499. Atomically thin interfacial suboxide key to hydrogen storage performance enhancements of magnesium nanoparticles encapsulated in reduced graphene oxide. **L. Wan**, Y. Li, E. Cho, J. Forster, S. Jeong, H. Wang, J.J. Urban, J. Guo, D. Prendergast

5:05 Concluding Remarks.

Section G

Ernest N. Morial Convention Center Room 238

Kathryn C. Hach Award for Entrepreneurial Success: Symposium in honor of Javier Garcia Martinez

K. Li, J.L. Liu, A.A. Park, M.A. Reynolds, *Organizers*
B.F. Sels, *Presiding*

1:25 Introductory Remarks.

1:35 ENFL 500. Properties and applications of metal oxide mesophases assembled from sustainable amine surfactants. C. Canlas, **T.J. Pinnavaia**

2:25 ENFL 501. Improving stability of zeolites and mesoporous materials in hot liquid water by hydrophobization with organosilanes. **D.E. Resasco**, T. Bui, D.T. Ngo

3:15 Intermission.

3:35 ENFL 502. Tuning zeolite accessibility by in-situ and post-synthesis methods. **V. Valtchev**

4:25 ENFL 503. Automated electron diffraction techniques for phase analysis and structure characterization of zeolite materials. **X. Zou**

5:15 Concluding Remarks.

Unconventional Catalysis Targeting Stable Molecules

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Towards Comprehension of Scale-Up & Multiscale Modeling of Catalysts

Sponsored by CATL, Cosponsored by COMP and ENFL

R&D in the Chemical Catalysis for Bioenergy Consortium

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

WEDNESDAY EVENING

Section A

Ernest N. Morial Convention Center Room 231

Road Map & Policy of Energy & Fuels

Policy

Cosponsored by ENFL
S. Liu, Q. Zhen, *Organizers*
S. Bashir, C.A. Hall, *Presiding*

4:55 Introductory Remarks.

5:00 ENFL 504. Coal vs. gas: Are we condemning our grandchildren to feedstock poverty? **C.A. Hall**

5:30 ENFL 505. Energy trends in agriculture. **J. Schramski**

6:00 ENFL 506. Should we be burning coal, gas or developing PV? **S. Liu**

6:30 ENFL 507. Implications for chemistry futures: Panel Discussion. **C.A. Hall**

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

THURSDAY MORNING

Section A

Ernest N. Morial Convention Center Room 231

Alternative & Traditional Energy Resources & Energy Efficiency

Alternative Energy

A. Co, J.L. Liu, *Organizers*
Q. Zhang, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 508. Adsorptive desulfurization of heavy fuels using metal-organic frameworks. **Q. Zhang**

8:35 ENFL 509. Self-powered motion sensor using flow-less CNT sheet nanogenerator. **H. Song**, Y. Kim

9:00 ENFL 510. Fundamental insights into chemical looping combustion (CLC): A materials characterization approach to understanding mechanisms and size effects in oxygen carrier performance. **H. Alalwan**, S.E. Mason, D.M. Cwientny, V.H. Grassian

9:20 ENFL 511. Structural correlations and transport mechanism of hydroxide

in hydrated anion exchange membrane: A molecular dynamics simulation study. **D. Dong**, W. Zhang, A.C. Van Duin, D. Bedrov

9:40 Intermission.

9:55 ENFL 512. Effect of synthesis temperature on properties of ZSM-5/ FDU-12 composite and its catalytic performance for the hydrodesulfurization of FCC diesel. **J. Fan**, Z. Zhao, P. Zheng, X. Wang, **A. Duan**, C. Xu, G. Jiang, J. Li

10:20 ENFL 513. Two new strategies to improve hypergolic ionic liquids as propellant fuels. **C. Sun**, **S. Tang**, X. Zhang

10:45 ENFL 514. Conservation of nitrogen in military propellant for ethanol production by algae. **P. Sanchez**, E. Cooke, P. Sheehan, K. Singer, W. Porubsky, D. Vail

11:05 ENFL 515. Novel pyrimidine-pyrene semiconductors for blue organic light-emitting devices. **J. Mathaga**, R.L. Perez, S. Ravula, I.M. Warner

11:25 ENFL 516. Low-cost and high-efficiency hierarchical catalyst for cyclic carbonate synthesis from CO₂. Y. Jian, **J. Meng**

11:50 Concluding Remarks.

Section B

Ernest N. Morial Convention Center Room 232

Alternative & Traditional Energy Resources & Energy Efficiency

A. Co, J.L. Liu, *Organizers*
M. Smith, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 517. Microwave-assisted processes for chemical and fuel conversion. **M. Smith**, D. Shekhawat, V. Abdel-Sayed, C. Wildfire, M. Spencer, A.E. Stiegman

8:35 ENFL 518. Pumpless transport for passive aerospace fuel management solutions. **J. Mates**, R. Campos, J. Morrisette, A. Ghosh, C. Megaridis

9:05 ENFL 519. Study on liquid explosive simulant. **J. Liu**, D. Wang, X. Liu, Z. Hu, X. Ten

9:30 ENFL 520. Thermochemical gasification of biomass using the biomass-to-syngas chemical looping process. **A. Tong**, D. Xu, Y. Zhang, Z. Cheng, L. Qin, T. Hsieh, M. Guo, C. Wang, E. Falascino, L. Fan

9:55 Intermission.

10:10 ENFL 521. Fabrication of fluorescent-superhydrophobic bifunctional coatings based-on reconstructed hierarchical structure with nanocellulose. **S. Fu**, C. Yu

10:40 ENFL 522. Further approach to kinetics study by combining TGA with in-situ FTIR. **J. Xiang**, Y. Cao

11:00 ENFL 523. Asphaltenes transport into hydrotreatment catalysts at high temperature. **J. Barbier**, F. Gaulier, B. Guichard, P. Levitz, D. Espinat

11:20 ENFL 524. Using electrospray ionization mass spectrometry as an ion chromatography confirmation tool for

the determination of alkylamines and alkanolamines in scrubbing solutions. **T. Christison**, J. Rohrer

Section C

Ernest N. Morial Convention Center Room 237

Alternative & Traditional Energy Resources & Energy Efficiency

A. Co, J.L. Liu, *Organizers*
A. Verma, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 525. Effects of surface ligands on the optoelectronic properties of the silicon nanowire. S. Alfalah, M. Shibl, **A. Verma**, R. Nekovei, M.M. Khader, M. Anantram

8:30 ENFL 526. Wastewater and energy nexus – evaluation of resource recovery potential through quantitative mass balance models. **V. Gude**, G. Sarpong

8:55 ENFL 527. Catalytic activities of transition metals in C-C bond cleavage and C-O bond coupling in ethanol oxidation reaction. B. Miao, Z. Wu, R. Wu, C. Zhong, **L. Wang**

9:20 ENFL 528. Featured microwave induced discharges for enhancing energy efficiency and promoting chemical reactions in a variety of fields. **J. Sun**

9:45 Intermission.

10:00 ENFL 529. Bimetallic Cu-Fe oxygen carriers for coal chemical-looping combustion. **P. Wang**, B. Howard, N. Means, D. Shekhawat

10:25 ENFL 530. Atmospheric oxidation and combustion of ketoalkoxy radicals. **M. Pan**, C. Protter, A. Davis

10:50 ENFL 531. Use of high temperature molten salts in advanced nuclear energy systems. **R.O. Scarlat**

11:15 ENFL 532. Ignition and combustion performances of high-energy-density jet fuels catalyzed by Pt and Pd nanoparticles. **X. E**, x. zhang, J. Zou

11:40 Concluding Remarks.

Section D

Ernest N. Morial Convention Center Room 239

Electrochemistry in Fuel Cells & Flexible Fuels

V.I. Birss, V. Li, *Organizers*
J.L. Liu, R.A. Walker, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 533. Improving resilience and durability of SOFC anodes with secondary phases. **R.A. Walker**

8:30 ENFL 534. Dynamics of direct hydrocarbon PEM fuel cells. **E. Kong**, P. Ronney, S.S. Prakash

8:50 ENFL 535. Pyridine functionalized Pt/C: Ligand-mediated bifunctional catalyst for the enhanced oxygen reduction and methanol oxidation tolerance in fuel cells. **L. Lu**

9:10 ENFL 536. Electrochemically tuned cobalt hydroxide carbonate with abundant grain boundaries for highly

[†]Cooperative Cosponsorship

efficient electro-oxidation of hydrazine. **X. Yan**, Y. Liu, J. Lan, Y. Yu, J. Murowchick, X. Yang, Z. Peng

9:30 ENFL 537. Electrocatalytic activities of ordered nanowire catalysts generated by self-assembled block copolymer templates. **L. Zhang**, C. Arges

9:55 Intermission.

10:10 ENFL 538. Self-supported hierarchical Ni₃S₂/Ni foam composite electrode with low onset potential and high durability for methanol oxidation. **G. Yuan**, Q. Wang, L. Wang, G. Liu, G. Li, L. Pan, J. Zou, X. Zhang

10:35 ENFL 539. Functional mesoporous carbon frameworks for efficient electrocatalytic oxygen and carbon dioxide reduction reaction. **F. Pan**, Y. Li

11:00 ENFL 540. Synthesizing intermetallic nanoparticle catalysts for fuel cell applications. Z. Qi, Y. Pei, **W. Huang**

11:25 ENFL 541. Improved oxygen reduction reaction using triple-component nanocatalysts. S. Wang, **V. Li**, Y. Wang, D. Qiao, C. Sun, **J.L. Liu**

11:50 Concluding Remarks.

Section E

**Ernest N. Morial Convention Center
Room 240**

Electrochemistry in Fuel Cells & Flexible Fuels

V.I. Birss, V. Li, *Organizers*
A. Reid, *Presiding*

7:55 Introductory Remarks.

8:00 ENFL 542. Physical approach for enhancing the electrocatalytic properties of nitrogen functionalized graphene nanosheets. **M. Jahan**, K. Li, G. Zhao

8:25 ENFL 543. Electrolytic combustion in the polyvinyl alcohol + hydroxyl ammonium nitrate solid propellant. **J. Lang**, J.K. Baird

8:50 ENFL 544. Facile synthesis of Pt-decorated mixed-phase CoCu bimetallic alloys supported on graphene oxide for applications in direct methanol fuel cells. **S.A. Alsaydeh**, A. Bin Yousaf, **S. Zaidi**, P. Kasak, M.K. Hassan

9:15 ENFL 545. Synthesis of ZIF-8 / functionalised acetylene black hybrid nanocomposites as non precious metal catalysts for ORR in fuel cells. **A. Singh**, R. Vedarajan, N. Matsumi

9:40 ENFL 546. TiO₂ nano tubes / functionalised acetylene black composites decorated with Pt nanoparticles as electrocatalyst for oxygen reduction reaction. **B. Santosh**, **R. Vedarajan**, **M. Noriyoshi**

10:05 Intermission.

10:15 ENFL 547. Clean fuel application using a tetranuclear cobalt(III) complex as a water oxidation catalyst. **A. Reid**, M.d. Hernandez, G. Kharal, R.K. Gurung, M.J. Celestine, A.A. Holder, D.A. Dixon

10:40 ENFL 548. Novel surface modification of carbon felt-supported Pd nanoparticles for ECH of oxygenates. **K. Koh**, A.J. Karkamkar, M. Derewinski

11:05 ENFL 549. Solid acid proton conductors: Insights into proton conduction

mechanisms and advances in electrode architectures. **R.A. Elgammal**, T. Zawodzinski

11:30 ENFL 550. Energy-positive advanced wastewater treatment in anammox bioelectrochemical systems. **V. Gude**, U. Ghimire

Section F

**Ernest N. Morial Convention Center
Room 241**

X-Ray & Neutron Scattering in Energy Technologies

K. Herwig, *Organizer*
R.E. Winans, *Organizer, Presiding*

7:55 Introductory Remarks.

8:00 ENFL 551. New insights into dissociation behavior of methane and carbon dioxide hydrates at ambient pressure by *in situ* wide-angle x-ray scattering. **S. Lee**, S. Lee, A.K. Sum, R.E. Winans

8:30 ENFL 552. Withdrawn

9:00 ENFL 553. Probing the surface dissolution behavior of anorthite using *in operando* X-ray reflectivity measurements for accelerated acid gas storage. M. Liu, **G. Gadikota**

9:30 ENFL 554. X-ray absorption spectroscopy and pair distribution function investigations of iodine-capture and deactivation of silver-exchanged mordenite for application in nuclear fuel reprocessing and advanced nuclear reactors. **C.W. Abney**, Y. Nan, L.L. Tavlarides

9:55 Intermission.

10:00 ENFL 555. Nafion interface structure, anisotropic ion transport, and re-entrant hydration vs. film thickness determined by *in-situ* neutron reflectometry. **J. Dura**, S. DeCaluwe

10:30 ENFL 556. Synchrotron X-ray study of metal nanoparticles synthesized via metal-in-Li solutions. **T. Xu**

11:00 ENFL 557. Bio-inspired single-atom cobalt catalysts with enhanced electrocatalytic performance. **T. Li**

11:30 ENFL 558. Thermally induced microstructural and structural changes in shales using multi-scale X-ray and neutron scattering measurements. **G. Gadikota**

Unconventional Catalysis Targeting Stable Molecules

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

THURSDAY AFTERNOON

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

ENVR

Division of Environmental Chemistry

S. Obare, *Program Chair*

SUNDAY MORNING

Section A

**Ernest N. Morial Convention Center
Room 346**

Physics & Chemistry of Water Treatment: Symposium in honor of Professor Desmond F. Lawler

Membrane & Filtration Processes in Water Treatment

J. Darby, H. Garcia, J.A. Nason, *Organizers*
L.E. Katz, N.B. Saleh, *Organizers*, *Presiding*

8:00 Introductory Remarks.

8:05 ENVR 1. Membrane-based processes at the water-energy nexus. **M. Elimelech**

8:45 ENVR 2. Point-of-use drinking water treatment with membrane filtration and desalination: A tale of two cities. **W. Walker**, I. Santiago

9:05 ENVR 3. Ion exchange membrane applications for nutrient separation in wastewater treatment. A. Alex, P. Yuan, V. Pavlovic, J. Barber, **Y. Kim**

9:25 ENVR 4. Trace organic rejection by reverse osmosis for potable reuse applications. **K. Howe**, D. Minakata, L.N. Breitner, M. Zhang

9:45 Intermission.

10:00 ENVR 5. Des Lawler: The early years. **P.C. Singer**

10:40 ENVR 6. Advancing filtration theory: Concurrent contributions of media surface roughness and ionic strength on particle deposition. **M. Emelko**, C. Jin, S. Normani

11:00 ENVR 7. Encountering the heterogeneous and evolving surfaces in the transport and transformation of aquatic nanoparticles. **B. Lau**

11:20 ENVR 8. Drinking water from the source to the tap: Ordering our priorities. **J.L. Schnoor**

Section B

**Ernest N. Morial Convention Center
Room 347**

Antibiotics & Antimicrobial Resistance: Developing Solutions to Address the Connectivity Between Air, Food, Water & Soil

Financially supported by AEEESP
D.S. Aga, X. Li, A. Pruden, *Organizers*
P.J. Vikesland, *Organizer, Presiding*

9:00 Introductory Remarks.

9:05 ENVR 9. Metagenomic and ARG shifts during composting of antibiotic treated beef and dairy cattle manure. **I. Keenum**, R. Williams, E. Garner, P. Ray, K. Knowlton, A. Pruden

9:25 ENVR 10. Dissemination and propagation of ARGs mediated by

conjugative multi-resistant plasmids. **Y. Luo**

9:45 ENVR 11. International comparison of the antibiotic "resistome" of raw sewage. **M.V. Prieto Riquelme**, J. Metch, E. Garner, A. Maile-Moskowitz, L. Angeles, D.S. Aga, I. Nambi, J. Larsson, H. Burgmann, T. Zhang, P.J. Vikesland, A. Pruden

10:05 Intermission.

10:20 ENVR 12. Differentiating ARG in non-viable sources towards improved understanding of hazard. **A. Eramo**, M. Yam, W. Morales Medina, N. Fahrenfeld

10:40 ENVR 13. Airborne bacteria and antibiotic resistance genes in PM_{2.5} of Nanjing, China: Spatial-temporal variability and human inhalation risk. J. Xie, L. Jin, X. Luo, **X. Li**

11:00 ENVR 14. Dynamics of antibiotic resistance in sewers and sewer sediments. **A. Eramo**, S. Blanc, N. Fahrenfeld

11:20 ENVR 15. Spatial trends of antibiotics, metals, and antibiotic resistance genes in sediments. J.F. Kerrigan, K. Sandberg, D.R. Engstrom, T. LaPara, **W. Arnold**

11:40 ENVR 16. Environmental fate of antibiotics—impact of manure land application methods. **H.T. Le**, P. Ray, K. Knowlton, R.O. Maguire, K. Xia

Section C

**Ernest N. Morial Convention Center
Room 348**

Advances in the Transformations, Implications & Metrology of Carbonaceous Nanomaterials in the Environment

A.S. Adeleye, D. Goodwin, *Organizers*, *Presiding*

8:15 Introductory Remarks.

8:20 ENVR 17. Photoenhanced oxidation of graphene oxide in the presence of free chlorine. **S. An**, J. Wu, J. Fortner

8:50 ENVR 18. (Photo)chlorination-induced transformation of graphene oxide: mechanism and environmental fate. **Y. Li**

9:15 ENVR 19. Colloidal stability and reduction of graphene oxide in marine waters. **A.S. Adeleye**, R.M. Burgess, K. Ho

9:40 ENVR 20. Nanoparticle interaction with isolated Gram-positive bacterial cell walls. **E.R. Caudill**, J. O'Rourke, K.P. Johnson, R. Tapia Hernandez, L. Zhu, A. Vartanian, C.J. Murphy, V. Feng, J.A. Pedersen

10:05 Intermission.

10:15 ENVR 21. Quantifying ROS reactivity of graphene oxide in aqueous media. **H. Hsieh**, **R.G. Zepf**

10:40 ENVR 22. Treatment of nitroaromatic explosives-contaminated water in aqueous phase by nano-sized carbon nanotube yarn. **S.R. Kaneh**, I.E. Pavel Sizemore, D.M. Kempisty, M.N. Goltz

11:05 ENVR 23. Chemistry of Nano-CarboScavengers allows dual method rehabilitation of petroleum contaminated water. **S.K. Misra**, E. Daza, J. Scott, I.

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Tripathi, C.M. Promisel, B. Sharma, J. Topczewski, S. Chaudhuri, D. Pan

11:30 ENVR 24. Silanization of nanocellulose and its influence on biodegradation and dispersion characteristics. **B. Frank**, D.P. Durkin, E.R. Caudill, D. White, M.L. Curry, J.A. Pedersen, H. Fairbrother

11:55 Concluding Remarks.

Section D

Ernest N. Morial Convention Center Room 349

Chemistry of Drinking Water Distribution Systems & Infrastructure

D. Giammar, Y. Hu, H. Liu, *Organizers, Presiding*

8:15 Introductory Remarks.

8:20 ENVR 25. Roles of corrosion inhibitors on simulated drinking water biofilm physical structures and responses to microplasma jet array treatment. P. Sun, G. Monroy, C. Huang, W. Chen, Y. Wang, Y. Wang, S. Boppart, **T.H. Nguyen**, J. Eden

8:50 ENVR 26. Heterogeneous lead phosphate nucleation at organic-water interfaces: Implications for lead immobilization. **Y. Hu**, C. Dai, J. Zhao, D. Giammar, J. Pasteris, X. Zuo

9:10 ENVR 27. Rates and pathways of controlling lead concentrations in lead pipes by orthophosphate addition. **Y. Bae**, L. Schattner, A. Ivarson, J. Pasteris, D. Giammar

9:30 ENVR 28. Effects of ortho- and polyphosphates on lead speciation in drinking water. **B. Trueman**, W. Krkosek, G.A. Gagnon

9:50 ENVR 29. Aggregation of lead phosphate nanoparticles: Implication for lead immobilization in pipe systems. **J. Zhao**, C. Dai, D. Giammar, J. Pasteris, Y. Hu

10:10 Intermission.

10:25 ENVR 30. Withdrawn

10:55 ENVR 31. Mineral characterizations of lead service line corrosion scale from Flint, Michigan. M. Wax, B. Ellis, **T.M. Olson**

11:15 ENVR 32. Lead levels in copper and lead service lines in Flint, Michigan. **S.J. Masten**, S. Davies, C.R. McPherson, S.W. Haider

11:35 ENVR 33. Geochemical drivers of lead exposure in Flint's drinking water distribution system. **S.P. McElmurry**, M. Dardona, M. Runho, J. Birbeck

Section E

Ernest N. Morial Convention Center Room 350

Agro-Environmental & Energy Applications of Biochar/Hydrochar

Carbonization Processes & Modifications

N.D. Berge, C. Jeong, K. Ro, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 34. Selective extraction of value-added chemicals from hydrothermal

carbonization bio-liquids. **S. Bae**, M. Choi, S. Lee, S. Park, Y. Hwang

8:30 ENVR 35. Sustainable water treatment materials via hydrothermal carbonization, secondary biofuel extraction, and activation of prickly pear cactus. L. Gao, M. Volpe, L. Fiori, **J.L. Goldfarb**

8:50 ENVR 36. Understanding the influence of feedstock properties and process conditions on products resulting from the hydrothermal carbonization of organics. L. Li, J. Flora, K. Ro, **N.D. Berge**

9:10 ENVR 37. Transformation of phosphorus during (hydro)thermal treatments of solid biowastes: Reaction mechanisms and implications for phosphorus reclamation and recycling. **R. Huang**, C. Fang, B. Zhang, Y. Tang

9:30 ENVR 38. Quantification of chemical states, dissociation constants, and oxygen functional groups on hydrochar. N. Saha, S. Mazumder, A. Saba, **M. Reza**

9:50 Intermission.

10:10 ENVR 39. Effects of ball milling on the physicochemical and adsorption properties of biochar. **B. Gao**, H. Lyu

10:30 ENVR 40. Production of magnetic hydrochars via hydrothermal carbonization (HTC) of metallic residues and wood. **B. Wirth**, M. Seiffert

10:50 ENVR 41. Turning un-hydrolyzed cellulosic lignin residue into surface-oxygenated biochar through hydrothermal carbonization and wet ozonation. O. Sacko, C. Li, G. Kharel, S. Abate, A. Sika, S. Kumar, **J.W. Lee**

11:10 ENVR 42. Ultrasound activation followed by amine functionalization: An efficient strategy for CO₂ capture by biochar. **R. Chatterjee**, B. Sajjadi, D.L. Mattern, W.W. Chen, N. Egiebor, Y. Liu

11:30 ENVR 43. Augmented photodegradation of methylene blue by titanium dioxide/biochar nanoparticles hybrid. **S. SafariMohsenabad**, K. von Gunten, M. Alam, M. Hubmann, D. Alessi

Section F

Ernest N. Morial Convention Center Room 351

Aquatic Photochemistry

K.P. McNeill, *Organizer*
W. Arnold, S.G. Pati, *Organizers, Presiding*

8:15 Introductory Remarks.

8:20 ENVR 44. Singlet oxygen quantum yields in different natural waters by various methods. **K.P. McNeill**

8:40 ENVR 45. Production of hydroxylating species from DOM model sensitizers. **K.D. Couch**, G. McKay, F.L. Rosario

9:00 ENVR 46. Kinetics studies and mechanistic considerations on the reactions of superoxide radical ions with dissolved organic matter. J. Ma, H. Zhou, S. Yan, **W. Song**

9:20 ENVR 47. ¹O₂ phosphorescence as a probe for ³DOMβ: Assessing triplet reactivity with sorbic acid. **K.J. Moor**,

P.R. Erickson, K.P. McNeill

9:40 ENVR 48. Development of quantitative structure-activity relationships for triplet-sensitized aquatic photochemistry. **M. Taggart**, **S. Herring**, D.E. Latch, M. O'Connor, W. Arnold

10:00 Intermission.

10:10 ENVR 49. Effect of pH and wavelength on reactive oxidant production during chlorine photolysis. **C.K. Remucal**, D.M. Bulman

10:30 ENVR 50. Characterization of changes in dissolved organic matter properties and disinfection byproduct formation during solar photolysis of aqueous free chlorine. **T. Young**, W. Li, A. Guo, G. Korshin, S. Canonica, U. von Gunten, M.C. Dodd

10:50 ENVR 51. Critical analysis of reactive halogen species (RHS)-mediated photochemistry in halide-containing aquatic systems. **K. Parker**, A. Mishra

11:10 ENVR 52. Sulfate radical oxidation of aromatic contaminants: A detailed assessment of density functional theory and high-level quantum chemical methods. **B.M. Wong**, S. Pari, H. Liu, I.A. Wang

11:30 ENVR 53. Mechanism of ferric oxalate photolysis from ultrafast infrared spectroscopy. **B. Gilbert**, D.M. Mangiante, R.D. Schaller, P. Zarzycki, J. Banfield

Section G

Ernest N. Morial Convention Center Room 342

Novel Membrane-Based Technology for Water Purification & Desalination

New Membrane Materials

D. Jassby, B. Mi, *Organizers, Presiding*

8:00 Introductory Remarks.

8:10 ENVR 54. Artificial water channels. **M. Barboiu**

8:30 ENVR 55. Novel graphene-based additive for membrane surface modification. **X. Zhu**, L. Zhang, B. Chen

8:50 ENVR 56. GO mediated surface modification of polyamide membrane with zwitterionic polymer brush and peptide to control the biofouling via "bacteria-defending and -attacking" strategies. **W. Ma**, S. Nanni, T. Chen, A. Tirafferi, M. Rahaman

9:10 ENVR 57. Electrospinning ultrathin reduced graphene oxide (rGO) membrane for water desalination. **Q. Huang**, S. Zheng, Z. Wang, L. Lin, X. Zhang, B. Mi

9:30 ENVR 58. Demonstration of *in situ* membrane surface cleaning and reformation with modification of crumpled graphene oxide – magnetite composites. **Q. Zeng**

9:50 Intermission.

10:00 ENVR 59. Applications of graphene oxide membranes. **R. Joshi**, B. Lian, Y. You, V. Sahajwalla, G. Leslie, V. Chen, H. Bustamante

10:30 ENVR 60. Development of

graphene frameworks membranes for separation of immiscible liquids. **C.M. Mai Van**

10:50 ENVR 61. Heterostructure membranes made from stacked-two-dimensional nanomaterials: Tuning the interlayer-spacing for aqueous phase separation. **S. Zheng**, Q. Tu, B. Mi

11:10 ENVR 62. Two-dimensional metal carbides (MXenes): New frontiers for water treatment applications. **K.A. Mahmoud**, K. Rasool, R. Pandey

11:30 ENVR 63. Size-dependent antimicrobial activities of chemically exfoliated MoS₂ nanosheets coated membrane surfaces. **Y. Zhao**, X. Zhang, S. Hermanowicz, B. Mi

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATI, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

Elucidation of Mechanisms & Kinetics on Surfaces

Mechanisms & Selectivity

Sponsored by CATI, Cosponsored by COLL, ENVR and PHYS

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDF[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Multiscale Biogeochemical Processes in Soil Ecosystems: Critical Reactions & Resilience to Climate Changes

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Biomining & Bio-Compatible Minerals

Sponsored by GEOC, Cosponsored by BIOL and ENVR

Wood-Based Materials for Energy & Water

Nanocellulose-Based Technologies

Sponsored by CELL, Cosponsored by ENFL, ENVR and MPPG

Challenge & Opportunity in Lignin Valorization

Sponsored by CATI, Cosponsored by ENFL, ENVR, INOR and PHYS

SUNDAY AFTERNOON

Section A
Ernest N. Morial Convention Center Room 346

[†]Cooperative Cosponsorship

Alternative Water Sources & Treatment Applications

L.E. Katz, J.A. Nason, N.B. Saleh, *Organizers*
J. Darby, H. Garcia, *Organizers, Presiding*

1:30 ENVR 64. Harvesting urban stormwater runoff for water supply. **R.G. Luthy**, S. Spahr, N. Ashoori, M. Teixido Planes, D.L. Seclak

2:10 ENVR 65. From drinking water to stormwater: The role of a spore's electrical double layer in surface interactions. **A. Mikelonis**, S. Youn, K. Ratliff

2:30 ENVR 66. Accurate estimation of DBP precursors using short-term and thermally accelerated protocols. **D.A. Reckhow**, C. Dozier

2:50 ENVR 67. Sustaining water availability in rural communities: Expanding use of poor quality waters. **D.D. Reible**, C. Na

3:10 Intermission.

3:30 ENVR 68. Rainwater for drinking: Science, technology, practice and case studies. **M. Han**

4:10 ENVR 69. Potential for disinfecting rainwater with nanosilver-enabled ceramic filters. **M. Kirsits**, T. Kim, L.S. Rowles III, D.F. Lawler, N.B. Saleh

4:30 ENVR 70. Investigating key indicators impacting plate health, aluminum generation, and fluoride treatment in electrocoagulation defluoridation treatment systems. **K.A. Alfredo**, M. Jain, P. Nagarnaik, P. Labhasetwar

4:50 ENVR 71. Boron removal from hydraulic fracturing flowback water by chemical and electrocoagulation: Mechanisms and limitations. **S. Chellam**

5:10 ENVR 72. Application of physical/chemical treatment processes to agricultural waste: Recovering nutrient-laden particles from poultry litter. U. Shashvati, C. Portner, S. Musa, H. Aris, **L.M. Blaney**

Section B

Ernest N. Morial Convention Center Room 347

Antibiotics & Antimicrobial Resistance: Developing Solutions to Address the Connectivity Between Air, Food, Water & Soil

Impacts of Treatment

Financially supported by AEESP
D.S. Aga, A. Pruden, P.J. Vikesland, *Organizers*
X. Li, *Organizer, Presiding*

1:30 ENVR 73. Nucleic acid reactivity and functional fate in drinking water and wastewater treatment processes. **K. Wigginton**

2:00 ENVR 74. Development and application of predictive models for antibiotic resistance gene degradation and deactivation kinetics during bench-scale and full-scale disinfection processes. **H.**

He, P. Zhou, K. Shimabuku, X. Fang, A. Anderson, M.C. Dodd

2:20 ENVR 75. Effects of metals on the relative abundance of antibiotic resistant bacteria in drinking water. **A. Kappell**, K. Harrison, P.J. McNamara

2:40 ENVR 76. Antibiotic resistance in anaerobic membrane bioreactors treating synthetic domestic wastewater and a blend of real domestic wastewater and manure. **E. Rice**

3:00 Intermission.

3:15 ENVR 77. Evaluation of integrated algae-wastewater treatment systems to remove antibiotics and reduce downstream antibiotic resistance. **K. Grimes**, L.M. Colosi

3:35 ENVR 78. Polyvalent bacteriophage therapy to suppress antibiotic-resistant bacteria in environmental systems. **P. Yu**, P.J. Alvarez

3:55 ENVR 79. Silver nanoparticles induce antibiotic resistance in *Pseudomonas aeruginosa*. **B.A. Chambers**, S.K. Smith, M.J. Kirsits

4:15 ENVR 80. Physiological response of *Shewanella oneidensis* MR-1 to spatial gradients of ciprofloxacin concentration. **R.E. Alcalde**, L. Zhou, J. Deng, R. Sanford, B. Fouke, C.J. Werth

4:35 ENVR 81. Comparison of virus concentration methods from various water matrices for detecting the viral resistome. **K. Langenfeld**, R. Cable, M. Duhaime, K. Wigginton

4:55 ENVR 82. Role of motility in *Escherichia coli* response to antibiotic gradients in microfluidics. **L. Zhou**, J. Deng, Y. Dong, R.E. Alcalde, R. Sanford, B. Fouke, C.J. Werth

5:15 Concluding Remarks.

Section C

Ernest N. Morial Convention Center Room 348

Advances in the Transformations, Implications & Metrology of Carbonaceous Nanomaterials in the Environment

A.S. Adeleye, D. Goodwin, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 83. Microbial transformation and plant uptake of multi-walled carbon nanotubes. **Y. Yang**, Y. You, K.K. Das, J. Chan, F. Barrios-Macias, P. Verburg, S. Poulson, X. Wang, B. Xing

2:05 ENVR 84. Quantification of multiwall carbon nanotubes in plant tissues using digestion-coupled programmed thermal analysis. **K.K. Das**, Y. Yang, B. Xing, X. Wang, J. Chow, L. Bancroft

2:30 ENVR 85. Single and combined effects of carbon nanotubes and surfactant on bioaccumulation and translocation of pyrene and 1-methylpyrene in maize seedlings: Multicompound exposure scenarios. **H. Zhang**, Y. Liu, X. Shen, M. Zhang, Y. Yang, S. Tao, X. Wang

2:55 ENVR 86. Microplastic exposure assessment from the perspective of nanoparticle research. **T. Hueffer**, A. Praetorius, S. Wagner, F. Von Der Kammer, T. Hofmann

3:20 Intermission.

3:30 ENVR 87. Assessment of graphene oxide/polymer nanocomposite degradation from different metrology approaches. **D.G. Goodwin**, T. Lai, A. Campos, V. Reipa, J.M. Gorham, T. Nguyen, L. Sung

3:55 ENVR 88. Characterization of engineered nanomaterial release from nanoenabled products following accelerated and natural weathering. **R. Lankone**, J. Wang, K. Challis, Y. Bi, D. Hanigan, Y. Wang, M. Garland, R. Reed, T. Zaikova, P.K. Westerhoff, L.M. Gilbertson, J.F. Ranville, H. Fairbrother

4:20 ENVR 89. Degradation of solid state C_{60} fullerene by UV irradiation under environmentally relevant conditions. A. Carboni, R. Helms, P. de Voogt, K. Kalbitz, **J. Parsons**

4:40 ENVR 90. Reactions of hematite in the presence of carbon nanoparticles. **A.M. Johansen**, H. Casique, A. Reddy, J. Rodriguez, J. Rodriguez, S. Bradford

5:00 ENVR 91. Surface oxidation and iron speciation on carbon nanoparticles for precise air pollution models. **A. Pattammattel**, V. Leppert, H.J. Forman, P.A. O'Day

5:20 Concluding Remarks.

Section D

Ernest N. Morial Convention Center Room 349

Chemistry of Drinking Water Distribution Systems & Infrastructure

D. Giammar, Y. Hu, H. Liu, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 92. Crucial chemistry at water-arsenopyrite interfaces during managed aquifer recharge. **Y. Jun**, C. Neil, J. Yang, D. Schupp

2:05 ENVR 93. Multiscale modeling of dead-ends of drinking water distribution systems: Disinfectant transport to DBP formation to lead release. A.A. Abokifa, **P. Biswas**

2:35 ENVR 94. Factoring physics into local and global assessments of nitrogen pollution. **S. Grant**

3:05 ENVR 95. Recent developments for chromium(VI) removal from groundwaters. **I. Katsogiannis**, A. Zouboulis, M. Mitrakas

3:25 Intermission.

3:40 ENVR 96. Building plumbing safety: Right sizing tomorrow's water systems for efficiency, sustainability, and public health. **A.J. Whelton**, M. Salehi, J. Mitchell, J. Rose, A. Nejadhashemi, J. Beecher, E. Dreelin, A. Shah, T. Gim Aw, M. Syal

4:10 ENVR 97. Lead release resulting from galvanic corrosion in a three-metal system consisting of lead, copper and stainless steel in drinking water. J. Lin, D. Ng, **Y. Lin**

4:30 ENVR 98. Investigating the relationship between discolored water from galvanized iron corrosion and source water conditions. **M. Tang**, V. Nystrom, K. Pieper, J. Parks, M. Edwards

Section E

Ernest N. Morial Convention Center Room 350

Agro-Environmental & Energy Applications of Biochar/Hydrochar Agricultural & Energy Applications

N.D. Berge, C. Jeong, K. Ro, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 99. Matching hydrochar characteristics with application requirements to improve agricultural nutrient use efficiency. **J. Libra**, J. Kern

2:00 ENVR 100. Impact of biochar and biochar-compost mixture application on cotton yield and nutrient runoff losses in four consecutive planting seasons. **C. Jeong**, H. Ku, K.S. Ro

2:20 ENVR 101. Influence of biochar addition on the soil microbial community responses in poultry manure applied soybean crop systems. **J. Ham**, R. Calderon, C. Jeong, K. Ro

2:40 ENVR 102. Biochar application effects on water quality in two different textured soils. **N.D. Taffi**, J.J. Wang, J. Park, M. Wang

3:00 ENVR 103. Effect of biochar on soil water content, nutrient release, greenhouse gas and ammonia emissions, and crop growth. **S. Dodla**

3:20 Intermission.

3:40 ENVR 104. New perspectives for biochar utilization under food-water-energy nexus. **M. Urgun-Demirtas**

4:00 ENVR 105. Effects of manure-derived biochar on solid state anaerobic digestions of manure. **H. Jang**, Y. Choi, E. Kan

4:20 ENVR 106. Effects of feedstock, pyrolysis conditions, and activation on removal of odorous compounds. **K. Ro**, O. Hwang, S. Lee, D. Han, S. Cho, M. Spiehs, B. Woodbury

4:40 ENVR 107. Biochar surface oxygenation through ozonization for enhanced cation exchange capacity. M. Huff, S. Marshall, H. Saeed, **J.W. Lee**

5:00 ENVR 108. Hydrochar application to adsorption of contaminant and gas and energy storage. X. Zhu, **S. Zhang**, J. Chen

Section F

Ernest N. Morial Convention Center Room 351

Aquatic Photochemistry

W. Arnold, *Organizer*
K.P. McNeill, S.G. Pati, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 109. Effects of ozone on the photophysical and photochemical properties of dissolved organic matter. **F. Leresche**, T. Kurtz, G. McKay, S. Canonica, U. von Gunten, F.L. Rosario

1:55 ENVR 110. Dissolved organic matter (DOM) characterization and enhanced photoreactivity in constructed wetlands for wastewater treatment. **A. Sardana**, B. Cottrell, T.N. Aziz

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2:15 ENVR 111. Impact of dissolved organic matter composition on the production of photochemically-produced reactive intermediates in the St. Louis River. **S. Berg**, K.H. Wammer, C.K. Remucal

2:35 ENVR 112. Impact of dissolved organic matter composition variability on indirect photolysis of contaminants in the St. Louis River. **K.H. Wammer**, Q.T. Whiting, J.A. Herli, S. Berg, C.K. Remucal

2:55 ENVR 113. Critical evaluation of models for chromophoric dissolved organic matter optical properties and photochemistry. **G. McKay**, F.L. Rosario, J.A. Korak

3:15 Intermission.

3:25 ENVR 114. Photochemistry of natural organic matter (NOM) in natural waters: Implications to reactive oxygen species generation and redox cycling of iron. **S. Garg**, D. Waite

3:45 ENVR 115. Singlet oxygenation of Domoic acid: Mechanisms and biological significance. **M. Jaramillo**, K.E. O'Shea

4:05 ENVR 116. Our dusty future: Singlet oxygen production by illuminated road sediment and winter traction material. **S.A. Styler**, P.D. Milner, J.R. Kwasny, A. Duarte de Marins Costa[†], L. Gan, S.R. Schneider

4:25 ENVR 117. Evaluating the magnitude of partial photo-oxidation of organic carbon in sunlit surface waters. **C.P. Ward**, C. Reddy, R.M. Cory

4:45 ENVR 118. Temperature dependence of the fluorescence of dissolved organic matter: Implications for DOM photophysics. **G. McKay**, J.A. Korak, F.L. Rosario

Section G

Ernest N. Morial Convention Center Room 342

Novel Membrane-Based Technology for Water Purification & Desalination

Membrane Fouling & Surface Modification

D. Jassby, B. Mi, *Organizers, Presiding*

1:30 Introductory Remarks.

1:40 ENVR 119. Withdrawn.

2:00 ENVR 120. Optimizing layer by layer approach via ultrasonic spray technique: A case study of depositing anatase titanium dioxide and polydopamine to reduce fouling while enhancing water flux. **A.J. DeStefano**, D. Li

2:20 ENVR 121. Facile deposition of photo-mobile materials on polymeric membranes achieving self-cleaning properties. **H. Lin**, S. Ramanan, N. Shahkaramipour, T. Tran

2:40 ENVR 122. Mitigation of humic acid fouling on ultrafiltration membranes in a photocatalytic system. **R. Zhu**, A. Diaz, Y. Sun, S. Solares, D. Shuai

3:00 Intermission.

3:10 ENVR 123. Membrane treatment of oil and gas wastewater: 7 years of research experience. **T.Y. Cath**

3:40 ENVR 124. Zwitterion-modified forward osmosis membrane used for

shale oil produced water treatment. **R.R. Kommalapati**, H. Du, S. Potluri, V. Botlaguduru

4:00 ENVR 125. Comparison and characterization of biofilm removal by different chemical cleaning solutions for water treatment applications. **C. Kim**, S.L. Walker, D. Jassby

4:20 ENVR 126. Backwashing of hollow fiber membranes during constant flux microfiltration of secondary wastewater effluent: Modeling and mechanisms of physically irreversible fouling. **K. Gupta**, S. Chellam

4:40 ENVR 127. Tuning the microstructure of functional layer for improved wastewater treatment performance of polymeric composite membrane. **J. Meng**

5:00 ENVR 128. Probing nanoscale hydrophobicity and chemical distribution of surface modified polyethersulfone (PES) membranes. **W. Fu**, W. Zhang

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

Science Cafes & Engaging the Public: Techniques for Hosting Successful Events

Sponsored by PRES, Cosponsored by CATL, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, I&EC, INOR, MPPG, SCHB and YCC

Elucidation of Mechanisms & Kinetics on Surfaces

Mechanisms at the Atomic Scale

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Multiscale Biogeochemical Processes in Soil Ecosystems: Critical Reactions & Resilience to Climate Changes

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Biom mineralization & Bio-Compatible Minerals

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Wood-Based Materials for Energy & Water

Wood-Fiber & Wood-Scaffold Based Technologies

Sponsored by CELL, Cosponsored by ENFL, ENVR and MPPG

Challenge & Opportunity in Lignin Valorization

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

MONDAY MORNING

Section A

Ernest N. Morial Convention Center Room 346

Physics & Chemistry of Water Treatment: Symposium in honor of Professor Desmond F. Lawler

Particles & Advanced Oxidation

H. Garcia, L.E. Katz, N.B. Saleh, *Organizers*
J. Darby, J.A. Nason, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 129. Withdrawn.

8:45 ENVR 130. Manganese and iron control: the critical role of particles and surfaces. **J.E. Tobiason**

9:05 ENVR 131. Overcoming barriers limiting widespread adoption of catalytic destruction of nitrate in drinking water. **C.J. Werth**, A. Bergquist, M. Bertoch, S. Seraj, P. Kunal, S.M. Humphrey

9:25 ENVR 132. Utilizing organophosphates to control particle properties: From antiscalants in desalination to iron-mediated persulfate oxidation. **L.F. Greenlee**

9:45 Intermission.

10:00 ENVR 133. Unexpected and potentially toxic products of advanced oxidation processes. **D.L. Sedlak**, C. Prasse, J. Van Buren

10:40 ENVR 134. Enzymatic treatment to remove pharmaceutical and personal care products (PPCPs) from municipal wastewater effluents. **K.A. Kinney**, H. Garcia, D.F. Lawler, C.P. Whitman, W.H. Johnson, O. Haugland

11:00 ENVR 135. Advancing catalysis and catalytic processes for treating oxyanion water pollutants – moving beyond palladium and developing hybrid reactor systems. **T.J. Strathmann**, X. Huo, J. Liu, Y. Wang

11:20 ENVR 136. Kinetic models for advanced oxidation-reduction processes. **B. Batchelor**

11:40 ENVR 137. Electron donating capacity as a novel tool to assess oxidation processes
. **U. von Gunten**, L. Oennby, K. Chon, E. Salhi

Section B

Ernest N. Morial Convention Center Room 347

Shaping Activity through Structural Modification: From Small Molecules to Nanoparticles: A Symposium in honor of Professor Bing Yan

D.D. Dionysiou, V.K. Sharma, H. Zhou, *Organizers*
J. Chen, J. Liu, *Presiding*

8:00 Introductory Remarks.

8:15 ENVR 138. Toxicity of black phosphorus nanosheets (BPs). **G. Qu**, **G. Jiang**

8:40 ENVR 139. Multi-pollutants emissions and health exposure assessment from the burning of major agricultural

straws in China. **J. Chen**, J. Li, Q. Li

9:05 ENVR 140. Controlled synthesis of atomically dispersed alloy shell of Au@PdAg nanoparticles by manipulating growth kinetics. **Y. Lai**, R. Liu, X. Zhou, **J. Liu**

9:30 ENVR 141. Simulating and predicting adsorption of organic pollutants on carbon nanomaterials. **J. Chen**, Y. Wang

9:55 Intermission.

10:15 ENVR 142. Clay mineral-based polymeric nanocomposites for heavy metal removal. **C. Wang**

10:40 ENVR 143. Mass spectrometry-based techniques for the investigation on toxicological mechanisms of bisphenol F in breast cancer xenografts. **Z. Cai**

11:05 ENVR 144. Transfer of antibiotic-resistance genes between different bacteria under light irradiation and at the interface of mineral. **X. Chen**, H. Yin, G. Li, **T. An**

11:30 ENVR 145. Chemical characterization of highly oxidized molecules (HOMs) in Linzhi, Tibet. **L. Yao**, **L. Wang**

Section C

Ernest N. Morial Convention Center Room 348

Innovative Chemical & Material Approaches for Sustainable Water Purification

Adsorption

Cosponsored by CEI
J. Choe, J. Liu, D. Shuai, Y. Wang, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 ENVR 146. Effective adsorbents for toxic metal ions in water body based on macroporous polyvinyl alcohol-formaldehyde sponges. **Y. Pan**, K. Shi, Z. Liu, **X. Ji**

8:55 ENVR 147. Tailored cyclodextrins for environmental remediation of emerging perfluoroalkyl substances. **M.J. Weiss-Errico**, I. Ghiviriga, K.E. O'Shea

9:15 ENVR 148. Recovery of nitrogen and phosphorus nutrients via metal-exchanged zeolites. **M.J. Manto**, M.A. Keller, T. Pu, W. Liano, P. Xie, C. Wang

9:35 ENVR 149. Removal of nitrate and fluoride anions from aqueous solution using β -FeOOH and β -Fe₂O₃ modified biochar with fast adsorption kinetics. **N.W. Bombuwala Dewage**, A.S. Liyanage, C.U. Pittman, T. Mlsna

9:55 Intermission.

10:15 ENVR 150. New type of material derived from concrete sludge and its applications to pollution prevention processes: PAdCS[®]. **A. Yamasaki**, A. Iizuka, T. Sasaki, H. Yoshida

10:35 ENVR 151. Novel carbon based smart filters for remediation of pharmaceutical contaminants. **S.K. Misra**, **I. Tripathi**, L. Dodgen, F. Ostadhossein, J. Scott, B. Sharma, W. Zheng, D. Pan

10:55 ENVR 152. Withdrawn.

11:15 ENVR 153. Composite of functionalized carbon nanotube and

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carbon nanofiber for improving water treatment. **Y. Han**, R. Li, C. Bruckner, J.R. McCutcheon, T.M. Vadas

11:35 ENVR 154. Polymeric functionalized clay composites for adsorption of trace contaminants in urban stormwater infiltration systems. **J. Ray**, M. Teixido, I. Shabtai, Y. Mishaël, D.L. Sedlak

11:55 Concluding Remarks.

Section D

Ernest N. Morial Convention Center Room 349

Environmental Chemistry Undergraduate Education in the Classroom, Laboratory & Beyond

Cosponsored by CHED
M. Berger, L.A. Welch, *Organizers, Presiding*

8:00 Introductory Remarks.

8:10 ENVR 155. Establishing a long-term monitoring program of a local contaminated hotspot using a senior analytical environmental laboratory class. **S. Joudan**, A.O. De Silva, S.R. de Solla, J.C. D'eon

8:30 ENVR 156. Citizen science and college student partnership to assess stream health in the Charles River Watershed, Boston, MA. **L. Lobel**, E. Cianciola, M. Berger

8:50 ENVR 157. Semester-long course-based undergraduate research experience (CURE) in snow chemistry in the general chemistry laboratory. **N. May**, S. McNamara, J.P. Wolfe, J. Vernon, D. Goldberg, S. Wang, K. Kolesar, K.A. Pratt

9:10 ENVR 158. Multi-project development with focus on water quality in a four year undergraduate college. **G. Geme**

9:30 ENVR 159. Integration of environmental research into the freshman chemistry laboratory. **M. Karod**, B. Boschetti, E. Robinson, J.L. Goldfarb, M. Berger

9:50 Intermission.

10:05 ENVR 160. Multifunctional magnetic nanoparticles and electrochemical membrane filtration for sustainable biomass harvesting and water purification: A case study on incorporating research and sustainability concepts into classroom and laboratory teaching. **W. Zhang**

10:25 ENVR 161. CURE for climate change: Engaging the next generation with scientific computing and climate change data analysis. **A.K. Sharma**

10:45 ENVR 162. Undergraduate inorganic/materials research at UVa-Wise: Evaluating the roles of functional groups in zirconium-based metal-organic frameworks on stability, structural defects, and trace heavy metal capture. **T.A. Makal**

11:05 ENVR 163. Undergraduate international research at the food-energy-water nexus: Influence on research skills, research confidence, and cultural enrichment. B. Casad, **N. Mladenov**, M. Palomo, B. Pietruschka, C. Buckley

11:25 ENVR 164. Synthesis of fuel range chemicals from biomass using catalytic pathways. S. Ogozaly, A. Childs, **L.A. Welch**

11:45 Concluding Remarks.

Section E

Ernest N. Morial Convention Center Room 350

Agro-Environmental & Energy Applications of Biochar/Hydrochar

Biochar/Hydrochar as Environmental Sorbents

N.D. Berge, C. Jeong, K. Ro, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 165. Biochar and its functionalization for agricultural and environmental applications. **J.J. Wang**

8:30 ENVR 166. Enhanced removal of nutrients and trace organic contaminants from urban runoff using biochar and manganese oxide-coated sand geomedia in capture, treatment, and recharge systems. **M. Teixido**, J. Charbonnet, N. Ashoori, R.G. Luthy, D.L. Sedlak

8:50 ENVR 167. Adsorption of pharmaceutical active compounds using activated carbons synthesized from herbaceous biomass. O. Oginni, **K. Singh**, L. McDonald

9:10 ENVR 168. Development of sustainable biochars for the aqueous remediation of organic and inorganic contaminants. **D. Mohan**, M. Patel, P. Singh, R. Kumar

9:30 ENVR 169. Biochar effect on the sorption-desorption and dissipation of 17 β -ethinylestradiol (ee2) in sandy and clay soils. **Z. Wei**

9:50 Intermission.

10:10 ENVR 170. Effect of feed source and pyrolysis conditions on properties and metal sorption by sugarcane biochar. **I.M. Lima**

10:35 ENVR 171. Properties of animal manure-derived hydrochars and pyrochars and their sorption of antimony (III) and cadmium (II). **L. Han**, K. Sun, B. Xing

10:55 ENVR 172. Coconut shell derived hierarchical carbon adsorbent for fluoride removal from aqueous solution: Synthesis, equilibrium, kinetics and thermodynamics studies. **R. Araga**, S. Kali, C. Sharma

11:15 ENVR 173. Adsorption of methylene blue onto activated carbon prepared from KOH-treated jamun (*Syzygium cumini*) seed: Equilibrium, kinetic and thermodynamic studies. **R. Araga**, P.P., C. Sharma

11:35 ENVR 174. Oxyanion sorption onto treated biochar surfaces. **S. Bakshi**, J.J. Pignatello

11:55 Concluding Remarks.

Section F

Ernest N. Morial Convention Center Room 351

Aquatic Photochemistry

K.P. McNeill, *Organizer*
W. Arnold, S.G. Pati, *Organizers, Presiding*

8:15 Introductory Remarks.

8:20 ENVR 175. Photochemical degradation of halogenated estrogens.

R. Milstead, K. Nance, K. Tarnas, K. Egelhofer, **D.R. Griffith**

8:40 ENVR 176. Experimental and theoretical investigation of the UV/Vis absorption spectra of brominated 17 β -ethinylestradiol and the implications for environmental photodegradation. **S.N. Eustis**, P. Brown

9:00 ENVR 177. Transformation rates and product formation of reactions of ionic liquid cations with photochemically produced radicals in natural and technical aquatic environments. **S.G. Pati**, W. Arnold

9:20 ENVR 178. Probing defluorination mechanisms for perfluorocarboxylic acids by a UV-mediated reduction system. **M.J. Bentel**, T. Brantner, R. Chavarria-Vivar, V. Coria, J. Liu

9:40 ENVR 179. Destruction of per- and polyfluoroalkyl substances (PFASs) in water sources impacted by aqueous film-forming foam (AFFF) using a photoreductive UV/sulfite process. **R. Tenorio**, J. Liu, X. Xiao, A. Maydanov, A. Maizel, C. Schaefer, C.P. Higgins, T.J. Strathmann

10:00 ENVR 180. Photolysis of 3-nitro-1,2,4-triazol-5-one (NTO): Mechanisms, products, and toxicity. **H. Schroer**, C.L. Just

10:20 Intermission.

10:30 ENVR 181. Excited triplet state of antibiotic norfloxacin interactions with dissolved natural organic matter: A laser spectroscopic study. **X. Niu**, E. Moore, J. Croue

10:50 ENVR 182. Photochemical transformation of pharmaceuticals in simulated aqueous environmental matrices using a high resolution mass spectrometric approach. **S. Wang**, T. Zeng

11:10 ENVR 183. Predicting transformation products from the direct photolysis of organic compounds in aquatic systems. **C. Yuan**, C. Tebes-Stevens, E.J. Weber

11:30 ENVR 184. Assessing the role of nitrate and nitrite in the transformation of wastewater-derived organic contaminants in sunlight waters. **R. Scholes**, C. Prasse, D.L. Sedlak

Section G

Ernest N. Morial Convention Center Room 342

Novel Membrane-Based Technology for Water Purification & Desalination

Novel Thermal or Electro Membrane Processes

D. Jassby, B. Mi, *Organizers, Presiding*

8:00 Introductory Remarks.

8:10 ENVR 185. Photothermal water purification membranes containing optically-tuned polydopamine particles embedded in bacterial nanocellulose. **Y. Jun**, Q. Jiang, H.G. Derami, D. Ghim, S. Cao, S. Singamaneni

8:30 ENVR 186. Waste heat driven membrane distillation for cost-effective produced water treatment in Pennsylvania. **O.R. Lokare**, S. Tavakkoli, G. Rodriguez, V. Khanna, R.D. Vadic

8:50 ENVR 187. Withdrawn.

9:10 ENVR 188. Withdrawn.

9:30 ENVR 189. Process modeling and economic optimization of a solar driven membrane distillation system for desalination. **S.E. Moore**, S.D. Mirchandani, V. Karanikola, T.M. Nenoﬀ, R. Arnold, A.E. Saez

9:50 Intermission.

10:00 ENVR 190. Stable superhydrophobic desalination membranes using carbon nanotube networks. **Y. Dong**

10:30 ENVR 191. Combined catalytic/electrocatalytic nitrate reduction in a reactive electrochemical membrane. **B.P. Chaplin**, P. Gayen, J. Spataro, J.M. Cerrato, S. Avasara, A. Ali

10:50 ENVR 192. Comparison of Faradaic reactions in capacitive deionization (CDI) and membrane capacitive deionization (MCDI) water treatment processes. **D. He**, W. Tang, D. Waite

11:10 ENVR 193. Application of electro-membrane bioreactor (eMBR) for the removal of pharmaceuticals from wastewater. **B.B. Ensano**, V. Naddeo, L. Borea, M.G. de Luna, V. Belgiorno

11:30 ENVR 194. Novel membrane-electrode hybrid for advanced treatment of industrial wastewater effluents: Decontamination, disinfection, and anti-fouling performances. **K. Choo**, N. Mamedá, H. Park, H. Park

Elucidation of Mechanisms & Kinetics on Surfaces

Theory

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in honor of Rafael Luque

Sponsored by CELL, Cosponsored by ENVR and I&EC

Challenge & Opportunity in Lignin Valorization

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

ACS-CEI Award for Incorporating Sustainability into Chemical Education

Sponsored by CHED, Cosponsored by CEI and ENVR

Mineral-Water Interface Geochemistry & Modeling at the Laboratory- & Field-Scales: Symposium in Honor of James A Davis

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Contaminated Site Remediation through Microbial, Geological & Chemical Processes

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ENVR

Wood-Based Materials for Energy & Water**Wood-Based & Related Materials**

Sponsored by CELL, Cosponsored by ENFL, ENVR and MPPG

MONDAY AFTERNOON**Section A****Ernest N. Morial Convention Center Room 346**

Physics & Chemistry of Water Treatment: Symposium in honor of Professor Desmond F. Lawler

Water Treatment: From Small Systems to Broad IdeasJ. Darby, H. Garcia, J.A. Nason, Organizers
L.E. Katz, N.B. Saleh, Organizers, Presiding**1:30 ENVR 195.** Development and verification of a new model for competitive adsorption on multiple adsorbents. **M.M. Benjamin**, S. Modarresi**2:10 ENVR 196.** Selecting the column configuration with the lowest replacement cost: Process analysis for small systems. **B. Dvorak****2:30 ENVR 197.** Pilot-scale evaluation of bicarbonate-form anion exchange for small water systems. **T.H. Boyer**, A. Ness**2:50 ENVR 198.** Physics and chemistry of carbon dioxide as the driver for low-energy desalination and decontamination of impaired wastewater. **A.K. Sengupta****3:10 Intermission.****3:30 ENVR 199.** From water treatment to trophic transfer: Elements of particle aggregation modeling. **M. Wiesner****4:10 ENVR 200.** Looking back: Musing from an undergrad. **D. Niemeier****4:30 ENVR 201.**No particle shall remain uncoupled: Insights from the application of Coulter counter measurements to precipitative coagulation processes. **J.A. Nason**, L.E. Katz**4:50 ENVR 202.** Raw water to reuse: Reflections and renewal. **D.F. Lawler****Section B****Ernest N. Morial Convention Center Room 347****Shaping Activity through Structural Modification: From Small Molecules to Nanoparticles: A Symposium in honor of Professor Bing Yan**H. Zhou, Organizer
D.D. Dionysiou, V.K. Sharma, Organizers, Presiding**1:30 ENVR 203.** Sustainable applications of magnetic nanocatalysts and N-enriched carbonaceous materials. **R.S. Varma****1:55 ENVR 204.** Exposed facets determine surface reactivity of metal-based nanomaterials towards environmental and biological receptors.**W. Chen**, T. Zhang, L. Liu, P.J. Alvarez**2:20 ENVR 205.** Formation, fate and toxicity of natural silver nanoparticles in the environment. **V.K. Sharma****2:45 ENVR 206.** Impact of advanced materials on the formation and toxicity of disinfection byproducts during drinking water chlorination. **C.M. Sayes**, V.K. Sharma**3:10 Intermission.****3:30 ENVR 207.** Base modification of Bi_2WO_6 for enhanced photocatalytic activity under visible light. B. Ren, M. Nadagouda, **D.D. Dionysiou****3:55 ENVR 208.** Engineered Nano- TiO_2 in natural aquatic environment and effects on transformation of organic pollutants. **L. Zhu**, W. Wu**4:20 ENVR 209.** Enhanced disinfection application of Ag-modified g-C $_3$ N $_4$ composite under visible light. **S. Zhan****4:45 ENVR 210.** Surface modification regulates bioactivities of metallic nanoparticles. **Q. Zhou**, Y. Long, X. Zhao, G. Jiang**Section C****Ernest N. Morial Convention Center Room 348****Innovative Chemical & Material Approaches for Sustainable Water Purification****Electrochemistry & Membrane Technology**Cosponsored by CEI
J. Choe, J. Liu, D. Shuai, Y. Wang, Organizers, Presiding**1:30 Introductory Remarks.****1:35 ENVR 211.** Electrochemical activation of nitrate: Simultaneous removal of nitrate and organic pollutants. **K. Lee**, H. Lee, M. Kim, C. Lee**1:55 ENVR 212.** Simultaneous coagulation and inactivation during iron electrochemical treatment for virus control. **K. Kim**, S. Chellam**2:15 ENVR 213.** Electrochemically mediated regeneration of ionic liquids (EMRIL) for heavy metal removal and water disinfection. **S. Voskian**, P. Brown, C. De La Fuente-Nunez, T. Hatton**2:35 ENVR 214.** Redox-responsive gels in asymmetric Faradaic systems for electrochemically mediated separations organic pollutants from water. **Y. Ren**, T. Hatton**2:55 Intermission.****3:15 ENVR 215.** Electrochemical reactions and processes in membrane-based water treatment: Challenges and opportunities. **D. Jassby****4:15 ENVR 216.** Enhancing counterion adsorption efficiency in capacitive deionization with charged polysaccharide binders. **M. del Cerro**, M. Kim, S. Hand, R.D. Cusick**4:35 ENVR 217.** Development of a novel separation and recycle process of boron in waste water with bipolar membrane electrodialysis. **A. Yamasaki**, M. Noguchi, Y. Nakamura, T. Shoji**4:55 Concluding Remarks.****Section D****Ernest N. Morial Convention Center Room 349****Redox & Interfacial Dynamics Among Coupled Biogeochemical Cycles of Fe, S, Minerals & Organic Matter: Implications to Multiscale Behaviors of Contaminants, Carbon & Nutrients**Cosponsored by GEOC
Y. Hu, T. Zeng, Organizers
J.M. Cerrato, Z. Wang, Organizer, Presiding**1:30 Introductory Remarks.****1:35 ENVR 218.** Electron transfer between microorganisms and Fe(III) minerals mediated by redox-active biochar and natural organic matter. **A. Kappler**, Z. Yang, Y. Bai, R. Kretzschmar, T. Borch**2:10 ENVR 219.** Mechanistic characterization of iron-organic matter interactions. **T. Borch**, E. Daugherty, B. Gilbert, C. Pallud, R. Young, G. Lobo, P.S. Nico, A. Kappler**2:45 ENVR 220.** Effect of sulfide on the structure and stability of NOM-Fe(III) colloids under anoxic conditions. **P. Liao**, S. Yuan, C. Liu**3:05 ENVR 221.** Nature and magnitude of strong oxidant formation during oxygen-mediated iron(II) monosulfide oxidation. **C.J. Miller**, J. He, Y. Chen, R. Collins, D. Waite**3:25 Intermission.****3:40 ENVR 222.** Redox dynamic iron mineralogy and its effect on uranium transformations. **K.M. Kemner**, M. Boyanov, D. Latta, B. Mishra, E.J. O'Loughlin, M. Scherer, S. Yan**4:15 ENVR 223.** Metastable sulphur species at iron mineral surfaces. **S. Peiffer**, C. McCammon, M. Wan, C. Schroeder**4:50 ENVR 224.** Sequestration of phosphate by Fe(II)-Fe(III) green rust in anoxic sediments: Implication for eutrophication control. **L. Fang****5:10 ENVR 225.** Withdrawn.**Section E****Ernest N. Morial Convention Center Room 350****Ongoing Challenges in the Treatment of Contaminants of Emerging Concern**Cosponsored by ANYL and CEI
Y. Men, Organizer
L.M. Blaney, A.J. Hernandez, A. Heyden, Organizers, Presiding**1:30 Introductory Remarks.****1:35 ENVR 226.** Developing pre-concentration methods to address the challenge of treating CECs at extremely low concentration: Using synthetic estrogen 17 β -ethinylestradiol as an example. C. Ng, L. Lu, R. Wang, **B. Cao****1:55 ENVR 227.** Quantification and comparison of free, conjugated, and halogenated estrogens in effluent from several wastewater treatment plants in northwestern Oregon. **C.P. Hutchinson**, L. Vine, L. Olson, D.R. Griffith**2:15 ENVR 228.** Occurrence and distribution of a wide range of hormonesand UV-filters in water, sediment, and coral (*Porites* spp.) from Hawaii. **K. He**, E. Hain, C. Mitchellmore, A. Heyes, M. Gonsior, L.M. Blaney**2:35 ENVR 229.** Using high resolution mass spectrometry for identification and treatment assessment of novel organic contaminants in urban stormwater runoff. **E.P. Kolodziej**, K. Peter, C. Wu**3:05 Intermission.****3:25 ENVR 230.** Analytical advances for the quantification and identification of emerging per- and polyfluoroalkyl substances in water: Looking beyond EPA 537. **T. Anumol**, R. Hindle, B. Clarke**3:45 ENVR 231.** Detection and treatment of per- and polyfluorinated compounds in Cape Fear River Basin, North Carolina surface water. **Z. Hopkins**, M.J. Weiss-Errico, K.E. O'Shea, J. McCord, M. Strynar, A. Lindstrom, D. Knappe**4:05 ENVR 232.** Spatial analysis of contaminants of emerging concern in Chesapeake Bay water, sediment, and oysters. K. He, E. Hain, A. Timm, E. Woytowicz, M. Tarnowski, **L.M. Blaney****4:25 ENVR 233.** Picolinic acid attenuation and microbial community effects in Alaskan soils, biotic/abiotic treatment, and insights into plant mobility. **P.L. Tomco**, K. Duddleston, S. Seefeldt**Section F****Ernest N. Morial Convention Center Room 351****Aquatic Photochemistry**W. Arnold, Organizer
K.P. McNeill, S.G. Pati, Organizers, Presiding**1:30 Introductory Remarks.****1:35 ENVR 234.** When ROS are not ROS: The effect of salts on the degradation of protein. W. Mitch, Y. Komaki, **J. Choe****1:55 ENVR 235.** Impact of higher order nucleic acid structure on reactivity with UV $_{254}$. **Z. Qiao**, P. Chang, K. Wigginton**2:15 ENVR 236.** Food dye photosensitizers for solar disinfection and safety indication of drinking water. **E. Ryberg**, C. Chu, J. Kim**2:35 ENVR 237.** Withdrawn.**2:55 ENVR 238.** Differentiating the inhibitory effects of natural organic matter constituents on photocatalytic treatment processes. **S. Snow**, M. Maghsoodi, C. Jacquin, V. Tarabara, G. Lesage, M. Heran**3:15 Intermission.****3:25 ENVR 239.** Phototoxicity of dicloran to marine and freshwater organisms. **E.N. Vebrosky**, W. Xu, L.M. Basirico, C. Lutz, K.L. Armbrust**3:45 ENVR 240.** Night and day: Chemicals interactions between photoactive nanomaterials enhance bacterial stress under irradiation. **C. Wilke**, J. Gaillard, K.A. Gray**4:05 ENVR 241.** Quantum dots dissolution in the aqueous environment. **P. Paydary**, P. Larese-Casanova**4:25 ENVR 242.** Release and toxicity of fragments generated during the photodegradation of quantum dot[†]Cooperative Cosponsorship

polymer composites. **M.J. Gallagher**, J.T. Buchman, T.A. Qiu, B. Zhi, T. Curry, Z. Rosenzweig, C.L. Haynes, H. Fairbrother

4:45 ENVR 243. Surface property changes of cerium oxide nanoparticles in the presence of UV/H₂O₂ and natural organic matter. **X. Wu**, C. Neil, D. Kim, H. Jung, Y. Jun

Section G
Ernest N. Morial Convention Center
Room 342

Novel Membrane-Based Technology for Water Purification & Desalination

Novel Membrane & Processes

D. Jassby, B. Mi, *Organizers, Presiding*

1:30 Introductory Remarks.

1:40 ENVR 244. Comparison of liquid membranes for selectivity of rare earth elements from coal ash leachates. R. Smith, **H. Hsu-Kim**, M.R. Wiesner

2:00 ENVR 245. Novel thin-film composite nanofiltration membranes with covalent organic framework active layer. **G. Levato**, A.R. Corcos, W. Dichtel, A. Livingston, B.J. Marinas

2:20 ENVR 246. Novel polyimide membranes derived from β -cyclodextrin for environmental remediation applications. **E. Leonhardt**, K. Gupta, T. Williams, K.L. Wooley

2:40 ENVR 247. Enhanced degradation of unregulated organic micropollutants via heterogeneous photo-Fenton reactions and hybridization with ceramic membrane filtration. **W. Zhang**, G. Zhang, S. Sun, H. Yao

3:00 Intermission.

3:10 ENVR 248. Self-sustaining polymer nanofilm on a buckypaper scaffold for chemical separations. **H. Park**

3:40 ENVR 249. Potential of ceramic and polymeric nanofiltration membranes in the reuse of abandoned coal mine drainage. **S. Wadekar**, R.D. Vidic

4:00 ENVR 250. Using ion exchange membranes to recover phosphorus from wastewater. **U. Shashvatt**, H. Aris, S. Musa, C. Portner, L.M. Blaney

4:20 ENVR 251. Predicting RO removal of toxicologically relevant unique organics. **D. Minakata**, M. Zhang, L. Breiter, K. Howe

4:40 ENVR 252. IR fluorescent probe for water-based agricultural nutrients. **M. Mohammadzadeh**, H.A. Stretz, R. Mu

Microbially-Driven Geochemical Reactions: Kinetics & Communities
Sponsored by GEOC, Cosponsored by BIOL and ENVR

Elucidation of Mechanisms & Kinetics on Surfaces

Surface Science

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL,

†Cooperative Cosponsorship

TECH-224

COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

Lignin: From Fundamentals to New Materials & Applications

Fundamental Understanding of Lignin

Sponsored by CELL, Cosponsored by ENVR and POLY

Mineral-Water Interface Geochemistry & Modeling at the Laboratory- & Field-Scales: Symposium in Honor of James A Davis

Sponsored by GEOC, Cosponsored by ENVR

Nexus of Food, Energy, & Water: Adapting to Future Challenges

Sponsored by MPPG, Cosponsored by AGFD[†], ENFL[†] and ENVR[†]

Contaminated Site Remediation through Microbial, Geological & Chemical Processes

Sponsored by GEOC, Cosponsored by ENVR

Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus

Value Added from Agricultural Crops

Sponsored by CELL, Cosponsored by AGFD, ENFL, ENVR and MPPG

Undergraduate Research Posters Environmental Chemistry

Sponsored by CHED, Cosponsored by ENVR and SOCED

MONDAY EVENING

Section A
Ernest N. Morial Convention Center
Halls D/E

Sci-Mix
S.O. Obare, *Organizer*

8:00–10:00

506-507, 511-515, 519-520, 522, 524, 526, 528, 533, 536-541, 543, 546-547, 552-554, 556-561, 563-567, 572, 574, 578-579, 581-583, 595-597, 603, 607, 612, 614, 623, 627, 637-639, 643-645, 648-649, 651, 654, 658, 660-661, 664-665, 669-670, 672-675. See subsequent listings.

TUESDAY MORNING

Section A
Ernest N. Morial Convention Center
Room 346

Physics & Chemistry of Water Treatment:
Symposium in honor of Professor Desmond F. Lawler

Innovative Treatment Applications

L.E. Katz, J.A. Nason, N.B. Saleh, *Organizers*
J. Darby, H. Garcia, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 253. UV photolysis of chloramines for potable water reuse. S. Patton, K.P. Ishida, **H. Liu**

8:25 ENVR 254. Tailored graphitic carbon nitride: Smart design of visible-light-responsive photocatalyst to achieve sustainable water treatment. **D. Shuai**

8:45 ENVR 255. Enveloped virus inactivation by UV and chlorine disinfection. **Y. Ye**, K. Wigginton

9:05 ENVR 256. Assessing the impact of wildfires on source water quality and treatment. **F.L. Rosario**

9:25 ENVR 257. Effective removal of trace Tl from drinking water by conventional processes enhanced by nMnO₂. **X. Huangfu**, L. Sun, J. Song, C. Ma, R. Huang, Y. Xu, H. Wang

9:45 Intermission.

10:00 ENVR 258. Redox activity alteration of transformed CeO₂ NPs upon adsorption of ionic arsenic. **X. Bi**, P.K. Westerhoff

10:20 ENVR 259. Permanganate as a treatment strategy for algal toxins. **J.R. Laszakovits**, A. Mackay

10:40 ENVR 260. Technical feasibility of inland desalination using zero discharge desalination. **M. Cappelle**, W. Walker, T. Davis

11:00 ENVR 261. Hydrolysis of the Zika pesticide naled: Kinetics and mechanistic investigation. **A. Abdullah**, K.E. O'Shea

11:20 ENVR 262. Mapping the reactions in a single zero-valent iron nanoparticle. **L. Ling**, W. Zhang

11:40 ENVR 263. Refining the parameterization of engineered nanomaterial heteroaggregation within aquatic environments: The relative influence of surface coating functionality. **M.C. Surette**, J.A. Nason

Section B
Ernest N. Morial Convention Center
Room 347

Shaping Activity through Structural Modification: From Small Molecules to Nanoparticles: A Symposium in honor of Professor Bing Yan

D.D. Dionysiou, V.K. Sharma, *Organizers*
H. Zhou, *Organizer, Presiding*
W. Zhang, *Presiding*

8:15 ENVR 264. Pot-economic synthesis and asymmetric organocatalysis. **W. Zhang**

8:40 ENVR 265. Application of combinatorial approach for developing new methodologies in hetero-cyclic compound synthesis. X. Liu, **Y. Han**

9:05 ENVR 266. Bi- and tri-orthogonal linkers for bioconjugation. **F. Albericio**, B. de la Torre

9:30 ENVR 267. Reaction-based smart ionic liquids. **Y. Chang**, Y. Chu

9:55 Intermission.

10:15 ENVR 268. NF-κB-regulated microRNA-574-5p underlies synaptic and cognitive impairment in response to atmospheric PM_{2.5} aspiration. **N. Sang**

10:35 ENVR 269. Correlating the nanoparticles' biological effects with their physicochemical properties. X. Bai, **H. Zhou**, B. Yan

10:55 ENVR 270. Tuning cell autophagy by diversifying carbon nanotubes' surface chemistry. **L. Wu**, B. Yan, Y. Zhang

11:15 ENVR 271. Susceptibility of overweight mice to Ag NPs or ZnPs/Pb²⁺ exposures. **J. Jia**, B. Yan

11:35 ENVR 272. Polyvinylidene fluoride micropore membranes as solid phase extraction disc for preconcentration of nanoparticulate silver in environmental waters. **X. Zhou**

Section C
Ernest N. Morial Convention Center
Room 348

Innovative Chemical & Material Approaches for Sustainable Water Purification

Photocatalysis

Cosponsored by CEI
J. Choe, J. Liu, D. Shuai, Y. Wang, *Organizers, Presiding*

8:45 Introductory Remarks.

8:50 ENVR 273. UV photocatalysis of recalcitrant organics in a fluidized-bed tubular reactor. **G.J. Rincon**

9:10 ENVR 274. Study of the photochemical and adsorptive properties of NOM grafted iron oxide nanoparticles for the potential remediation of toxic arsenic from water. **M. Rashid**, K.E. O'Shea

9:30 ENVR 275. Enhanced visible light-induced photocatalytic activity of surface-modified CeO₂ with metal particles. **L. Wang**, Y. Wang

9:50 ENVR 276. Discrete buoyant photocatalysts for interfacial pollutants. **M.J. Nee**, B.R. John, K.A. Steward

10:10 Intermission.

10:30 ENVR 277. Visible-light-responsive photocatalytic graphitic carbon nitride for antimicrobial applications. **D. Shuai**

10:50 ENVR 278. Growth of UiO-66 metal-organic framework onto a cotton fabric and its use as a functional micropollutant filter. **M. Schelling**, E. Otal, J.P. Hinesstroza

11:10 ENVR 279. Photocatalytic degradation of PFAS by BiPO₄ microparticles. **E.L. Cates**, S. Sahu

11:30 ENVR 280. PEI functionalized graphene oxide for enhanced sorption and rapid photoreduction of chromium (VI). **C. Kim**, S. An, J. Fortner

11:50 Concluding Remarks.

Section D
Ernest N. Morial Convention Center
Room 349

Redox & Interfacial Dynamics Among Coupled Biogeochemical Cycles of Fe, S, Minerals & Organic Matter: Implications to Multiscale Behaviors of Contaminants, Carbon & Nutrients

Cosponsored by GEOC
J.M. Cerrato, Z. Wang, *Organizers*
Y. Hu, T. Zeng, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 281. Quantification of mercury biomethylation potential in sediments. **H. Hsu-Kim**, U. Ndu, G.A. Christensen, D. Elias

8:40 ENVR 282. Chemodiversity of dissolved organic matter in anaerobic sediments with a special focus on non-volatile dissolved organic sulfur. **M. Gonsior**, J. Luek, A. Heyes, L. Lapham, L. Powers, P. Schmitt-Kopplin

9:15 ENVR 283. Sulfur and iron cycling at the sediment-root interface of freshwater wetland plants: Life-cycle controlled redox transitions. S. Lafond-Hudson, **N.W. Johnson**, J. Pastor, B. Dewey

9:35 ENVR 284. Effect of reducing and re-oxidizing conditions on metal mobility in sediments from the Animas River. **L. Rodriguez Freire**, A. Overbey, C.M. Saup, A. Ali, M.J. Wilkins, J.M. Cerrato

9:55 Intermission.

10:10 ENVR 285. Reactions of nanoscale zero-valent iron (nZVI) with heavy metals: 3D visualization. **W. Zhang**, L. Ling

10:45 ENVR 286. Aqueous-phase reduction of nitroaromatic compounds (NACs) by sulfide mediated by carbonaceous materials. C. Wei, H. Fu, X. Qu, **D. Zhu**

11:20 ENVR 287. Sulfidation of iron-based materials for contaminant removal: The diverse effects of processes and operational variables. **D. Fan**, P.G. Tratnyek, Y. Lan, C. Xu

11:40 ENVR 288. Sulfide removal by iron-bearing minerals in mining waste streams. **J. Voelz**, J. Daire, C. Chun, N.W. Johnson, R. Penn

Section E

Ernest N. Morial Convention Center Room 350

Ongoing Challenges in the Treatment of Contaminants of Emerging Concern

Cosponsored by CEI
Y. Men, *Organizer*
L.M. Blaney, A.J. Hernandez, A. Heyden, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 ENVR 289. Determining the kinetics of oxidative radical reactions with organophosphate/brominated flame-retardants under advanced oxidation process conditions. **M. Chin**, S.P. Mezyk

8:55 ENVR 290. Advanced oxidation process removal of oxidized nitrosamines (nitramines) from treated wastewaters. **R.N. Tran**, J.J. Kiddle, S.P. Mezyk

9:15 ENVR 291. Radical-induced degradation of estrogenic steroids in treated wastewaters. **J. Gleason**, A. Lechner, E. Holland, S.P. Mezyk

9:35 ENVR 292. Can hydrogen peroxide enhance 1,4-dioxane oxidation by ozone in surface water and lower bromate formation? **N. Kollarz**, Z. Hopkins, D. Knappe

9:55 ENVR 293. Challenges of advanced wastewater treatment to abate CECs. **C. McArdell**, M. Boehler, M. Bourgin, J. Fleiner, A. Joss, A. Meier, H. Siegrist, U. von Gunten

10:25 Intermission.

10:40 ENVR 294. Bromamine species reactions under advanced oxidation process conditions. **M.V. Luong**, A.

Lechner, S.P. Mezyk

11:00 ENVR 295. Improving activity and stability of perchlorate reduction catalyst with rational ligand design for the rhenium complex reaction site. **C. Ren**, J. Liu

11:20 ENVR 296. Ferrate(VI) oxidation of pharmaceuticals in hydrolyzed urine: Enhancement effects from ammonia, bicarbonate, and creatinine. **C. Luo**, V.K. Sharma, C. Huang

11:40 ENVR 297. N-TiO₂/CdS nanocomposite: Synthesis, characterization, and photocatalytic degradation of textile dye wastes. H. Hiluf, T. Abi, **S.M. Abegaz**

Section F

Ernest N. Morial Convention Center Room 351

From Sewage to Sustainable Energy: Potential Pollution Issues from Production & Application Pathways

Financially supported by EuCheMS
S. Chae, W. Giger, R. Kallenborn, A. Torrents, *Organizers, Presiding*

8:00 Introductory Remarks.

8:10 ENVR 298. Withdrawn.

8:30 ENVR 299. Withdrawn.

8:50 ENVR 300. Simultaneous reduction of ammonia toxicity and recovery of nutrients in mixed liquor of anaerobic digester. **H. Kim**, T. Antukh, D. Lee, J. Baek

9:10 ENVR 301. Impact of solids stabilization processes on energy production and polybrominated diphenyl ethers content. **N.A. Andrade**, A. Torrents, M. Ramirez

9:30 ENVR 302. Influence of anaerobic digestion with and without thermal hydrolysis pretreatment on concentrations of endocrine disrupting compounds and their transformation products in wastewater sludge. **D.L. Armstrong**, S.J. Fischer, R.M. Lupitsky, C.P. Rice, M. Ramirez, A. Torrents

9:50 Intermission.

10:00 ENVR 303. European Association of Chemical and Molecular Sciences (EuCheMS) and its Division of Chemistry and the Environment. **W. Giger**

10:20 ENVR 304. Identification of novel chlorinated and hydrogenated polyfluoroalkyl ether sulfonates in sewage sludge by high-resolution mass spectrometry. **T. Ruan**, G. Jiang

10:40 ENVR 305. Occurrence and fate of neonicotinoid pesticides (NEOs) in wastewater treatment plants in China. **T. Zhang**

11:00 ENVR 306. Not just what but when: Stage-specific effects of emerging contaminants in the early development of marine organisms. **C. Torres**, K. Ramos-Torres, R. Rahimoff, G.N. Cherr

11:20 ENVR 307. Withdrawn.

11:40 ENVR 308. Transformation of heavy metals during (hydro)thermal treatments of sewage sludges: Implications for resource recovery. **R. Huang**, B. Zhang, E. Saad, E.D. Ingall, Y. Tang

Section G

Ernest N. Morial Convention Center Room 342

Great Achievements in Environmental Science & Technology

Financially supported by Environmental Science & Technology and Environmental Science & Technology Letters
N. Barsamian, B.E. Logan, D.L. Sedlak, *Organizers*
D. Sedlak, *Presiding*

8:30 Introductory Remarks.

8:35 ENVR 309. Engineered nanoparticles and dissolved organic matter: Are we missing the forest for the trees? **M. Scheringer**

9:00 ENVR 310. Desalinated drinking water: What chemicals are we drinking and how safe is it? **S.D. Richardson**, A.A. Cuthbertson, H.K. Liberatore, D. Westerman, M.J. Plewa, M. Gonsior, C. Mitchelmore, A. Heyes, J. Croue, W. El-Shorbagy

9:25 ENVR 311. Materials for next generation desalination and water purification membranes. **M. Elimelech**

9:50 ENVR 312. Stuck in the muck: Historical insights into emerging contaminants from sediment cores. **W. Arnold**

10:15 Intermission.

10:35 ENVR 313. Halogen radicals promote the photodegradation of microcystins in estuarine systems. **W. Mitch**, **K.M. Parker**, A. Ghadouani, E. Reichwaldt

11:00 ENVR 314. Update on occurrence and control of legacy and emerging perfluoroalkyl substances in North Carolina. **M. Sun**, E. Arevalo, M. Strynar, A. Lindstrom, D. Knappe

11:25 ENVR 315. Science on Ice: Shedding light on arctic halogen photochemistry. **K.A. Pratt**

11:50 Concluding Remarks.

Elucidation of Mechanisms & Kinetics on Surfaces

Surface Mechanisms

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

GSSPC: Finding Our Place at the Bottom Symposium in honor of Richard Feynman

Sponsored by CHED, Cosponsored by ANYL[†], COLL[†], ENVR[†], INOR, PMSE[†] and PRESt[†]

Water Supply Safety

Sponsored by CHAS, Cosponsored by CCS, CTA and ENVR

Microbially-Driven Geochemical Reactions: Kinetics & Communities

Sponsored by GEOC, Cosponsored by BIOL and ENVR

Lignin: From Fundamentals to New Materials & Applications

Advances in Lignin Characterization
Sponsored by CELL, Cosponsored by ENVR and POLY

Cheminformatics Resources & Software Tools Supporting Environmental Chemistry

Sponsored by CINF, Cosponsored by COMP and ENVR

Mineral-Water Interface Geochemistry & Modeling at the Laboratory- & Field-Scales: Symposium in Honor of James A Davis

Sponsored by GEOC, Cosponsored by ENVR

2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in honor of Ning Yan

Sponsored by CELL, Cosponsored by ENVR and I&EC

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Impacts of Mining & Hydraulic Fracturing On Crop & Livestock Production

Sponsored by GEOC, Cosponsored by AGFD, AGRO and ENVR

Biobased Water Purification System Approaches

Sponsored by CELL, Cosponsored by AGFD, CHAS and ENVR

Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus

Food, Water & Energy from Sustainable Crops

Sponsored by CELL, Cosponsored by AGFD, ENFL, ENVR and MPPP

Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in In-situ & Operando Methods

Enabling Fundamental Advances in Catalysis & Surface Science

Sponsored by CATL, Cosponsored by ENVR, INOR and PHYS

TUESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 346

Science & its Perception: Climate Change, Nicotine, Pollution & Other Emerging Topics in the Crosshair

Sponsored by CEI[†]
S.O. Obare, E. Schoffers, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 316. Withdrawn

2:00 ENVR 317. Climate disruption has created a new world: Discuss. **J.A. Bell**

2:25 ENVR 318. eCLEAR, climate science literacy tools for all. **G.P. Foy**, K.E. Peterman

2:50 ENVR 319. Lost in translation: How mass media influence climate change (in) action and why we should care about science communication. **E. Schoffers**

3:15 Intermission.

3:25 ENVR 320. The real crisis with Flint's water: It was preventable and can

[†]Cooperative Cosponsorship

happen to you! **M.R. Wilhelm**

3:45 ENVR 321. How an interdisciplinary, environmental narrative of natural history promotes communication of controversial topics: Evolution, origin of life, and climate history. **B.J. McFarland**

4:05 ENVR 322. Understanding the rationale of climate-change denial. **G.M. Bodner**

4:30 ENVR 323. Global warming is unequivocal: We must learn how to communicate the science of climate change to ourselves and also to non-science audiences. **B.Z. Shakhshiri**

4:55 Panel Discussion .

Section B

Ernest N. Morial Convention Center Room 347

Shaping Activity through Structural Modification: From Small Molecules to Nanoparticles: A Symposium in honor of Professor Bing Yan

D.D. Dionysiou, V.K. Sharma, H. Zhou, *Organizers*
S. Liu, H. Zhu, *Presiding*

1:30 ENVR 324. Knocking on placenta's door: Engineered nanoparticles at the human placental barrier. **P. Wick**, T. Buerki-Thurnher

1:55 ENVR 325. Low-dose exposure of graphene oxide compromises cellular priming state that predisposes macrophages to metal toxicity. **S. Liu**

2:20 ENVR 326. Virtual nanostructure simulation (VINAS): A toolbox to quantify nanomaterial structures for intelligent modeling and rational material design. **W. Wang**, A. Sedykh, X. Yan, B. Yan, **H. Zhu**

2:45 ENVR 327. Photochlorinated fullerene increase cytotoxicity towards macrophage J774 via acting as SOD and electron-transfer mediator. **C. Zhang**, Q. Zhang

3:10 Intermission.

3:25 ENVR 328. Toxicity of rare earth nanomaterials in macrophages. **J. Gao**, **G. Qu**

3:50 ENVR 329. Graphene oxide nanosheets elicit neurotoxicity. **X. Hu**

4:15 ENVR 330. Effects of titanium dioxide and zinc oxide nanoparticles on disinfection byproduct formation in synthetic freshwater. **C. Gray**, **V.K. Sharma**, L.H. Cizmas

4:40 ENVR 331. Systematic exploration of nano-bio interactions for water safety and human health. **B. Yan**

5:05 Concluding Remarks.

Section C

Ernest N. Morial Convention Center Room 348

Innovative Chemical & Material Approaches for Sustainable Water Purification

Oxidation & Sensor

Cosponsored by CEI
J. Choe, J. Liu, D. Shuai, Y. Wang, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 332. Effect of organic

ligands on oxidative degradation of chlorophenolic compounds (CP) with modified-Fenton process using pyrite as the catalyst. **C. Kantar**, O. Oral, N.A. Oz

1:55 ENVR 333. Selectively degradation of organic pollutants in the homogeneous or heterogeneous non-radical reactions. **M. Long**, P. Hu, H. Su

2:15 ENVR 334. Decomposition of perfluorinated chemicals by nanoscale zerovalent iron conjugated with common oxidants. **A. Parenky**, N. Souza, H. Choi

2:35 ENVR 335. Impact of chitosan and polyacrylamide on formation of carbonaceous and nitrogenous disinfection by-products. **Z. Li**, T. Chen, Y. Xie, W. Xu

2:55 Intermission.

3:15 ENVR 336. Nanocellulose based nanocomposites for environmental sensing. **P.J. Vikesland**

3:55 ENVR 337. Reactivity of trichloramine with organic species under AOP conditions. **L. Watts**, S.P. Mezyk

4:15 ENVR 338. Structure modification of nature organic matter after microwave, ferrate and their combination processes. **X. Zhang**, V. Sharma

4:35 ENVR 339. Removal of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) using two dimensional transition metal dicalcogenides. **Y. Tian**, **I. Chowdhury**

4:55 Concluding Remarks.

Section D

Ernest N. Morial Convention Center Room 349

Redox & Interfacial Dynamics Among Coupled Biogeochemical Cycles of Fe, S, Minerals & Organic Matter: Implications to Multiscale Behaviors of Contaminants, Carbon & Nutrients

Cosponsored by GEOC
Y. Hu, Z. Wang, T. Zeng, *Organizers*
J.M. Cerrato, *Organizer, Presiding*
Z. Wang, *Presiding*

1:30 Introductory Remarks.

1:35 ENVR 340. Intimate and complex coupling of carbon and iron cycles within terrestrial systems. **S.E. Fendorf**, M. Keiluweit, M.V. Schaefer, Y. Masue-Slowey, O. Chadwick

2:10 ENVR 341. Metabolomics-resolved nutrient-dependent carbon fluxes in a soil bacterium: Cellular insights on coupled iron and carbon cycles. **L. Aristilde**

2:45 ENVR 342. Formation and reactivity of ferrihydrite-organic carbon-calcium co-precipitate complexes. **D. Adhikari**, T.D. Sowers, J. Stuckey, D.L. Sparks, Y. Yang

3:05 ENVR 343. Robust spatial analysis of sequestered metals in an arid Southern California bioswale: Relating sequestration efficiency to preferential metal binding in soil. **Z. Evans**, H. Van Ryswyk, M. Los Huertos, T. Srebotnjak

3:25 Intermission.

3:40 ENVR 344. Multiscale investigation of microbial oxidation of soil organic carbon and effective integration of pore-scale mechanisms into macroscopic models. **C. Liu**

4:15 ENVR 345. Nitrate-reducing As(III) oxidizers and nitrate-reducing Fe(II) oxidizers in flooded paddy soil revealed by metagenomic binning. **F. Li**, X. Li, S. Li, M. Hu, T. Liu

4:50 ENVR 346. Enhanced biological sulfate reduction coupled to iron electrolysis in a flow-through bioelectrochemical reactor. **T. Deen**, **D.C. Takaki**, D.S. Jones, C. Chun

5:10 ENVR 347. Chemical regeneration of Mn-oxide coated sand for oxidation of organic stormwater contaminants. **J. Charbonnet**, D.L. Sedlak

Section E

Ernest N. Morial Convention Center Room 350

Ongoing Challenges in the Treatment of Contaminants of Emerging Concern

Cosponsored by CEI
Y. Men, *Organizer*
L.M. Blaney, A.J. Hernandez, A. Heyden, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 348. Maize root culture based model system for studying biotransformation of contaminants of emerging concerns. **M. Gautam**, M. Elhiti, I.S. Fomsgaard

1:55 ENVR 349. Adaptation of microbial communities to emerging pollutants in chemostat systems. **B. Poursat**, M. Braster, R. Helmus, R. van Spanning, P. de Voogt, **J. Parsons**

2:15 ENVR 350. Do the microbial communities growing on microplastics present another hazard? **K. Parrish**, **N. Fahrenfeld**

2:35 ENVR 351. Advanced transition metal based hierarchical porous materials for the equilibrium and dynamic adsorption of contaminants of emerging concern including metabolites. **A.J. Hernandez**, K. Ortiz-Martinez, B. Fernandez-Reyes, J.C. Muñoz-Senmache

2:55 Intermission.

3:15 ENVR 352. Investigating the metabolic fate of 1H-perfluoroalkanes. **S. Joudan**, S.A. Mabury

3:35 ENVR 353. Occurrence and fate of emerging organic contaminants in wastewater treatment processes with an enhanced nitrification step. **Y. Xing**, Y. Yu, Y. Men

3:55 ENVR 354. Challenges and solutions for the removal of pharmaceuticals from wastewater: The use of fungal treatment and integrated membrane systems. **D. Barcelo**, D. Lucas, M. Llorca, M. Villagrasa, **A. Jaen**, M. Stefanij, J. Mamo, H. Monclus, Q. Comas, I. Rodriguez-Roda, M. Garcia-Galán, D. Dolar, G. Caminal, M. Sarra, M. Badia, F. Castellet, J. Mir Tutusaus, T. Vicent, S. Rodriguez-Mozaz

4:15 ENVR 355. Long-term development of bacterial resistance against disinfectants: Hypochlorite vs. ferrate. **S. Daer**, K. Ikuma, J. Goodwill, H. Truong

Section F

Ernest N. Morial Convention Center Room 351

Evolving Chemical Hazard Evaluation Strategies to Address

Compliance under the New Toxic Substances Control Act (TSCA)
Cosponsored by CHAL and CHAS
T. Lewandowski, J. Rice, *Organizers, Presiding*

1:30 ENVR 356. Chemical safety evaluation challenges of the Lautenberg Chemical Safety Act. **T. Lewandowski**, J. Rice

1:50 ENVR 357. Strategies for incorporating *in silico* and *in vitro* approaches into the safety evaluation of existing and new products. **P. Spencer**

2:10 ENVR 358. Fish liver microtissues for aquatic toxicology: Integrating morphological and molecular responses for *in vitro* assessment of environmental pollutants. **A. Rodd**, A. Kane

2:30 ENVR 359. Development of a tool for systematic integration of traditional and new approach methods for prioritizing chemical lists. **A.J. Williams**, R. Judson, C. Grulke, R. Thomas

2:50 ENVR 360. Applying chemical space analysis to select compounds for targeted *in vitro* methods. **C.I. Nicolas**, K. Mansouri, S. Haider, M. Yoon, P.D. McMullen, K. Phillips, J. Wambaugh, A. Tropsha, R. Clewell, H. Clewell

3:10 Intermission.

3:30 ENVR 361. Generalised read-across GenRA, research, implementation and practical application. **G. Patlewicz**, G. Helman, I. Shah

3:50 ENVR 362. Does one size fit all? Tailoring read-across methodology based on endpoint-specific criteria. **J. Rice**, J.M. Cohen, T. Lewandowski

4:10 ENVR 363. *In silico* modeling as a tool to aid design safer preservatives for consumer products. **D. Faulkner**, H.L. Buckley, W.M. Hart-Cooper, J.H. Kim, L. Cheng, K.L. Chan, C.D. Vulpe, W.J. Orts, S. Amrose, M.J. Mulvihill

4:30 ENVR 364. Tiered risk-based safety evaluation for a 21st century TSCA. **R.A. Becker**

4:50 ENVR 365. Use of alternative methods to assess health and environmental hazards. **A. Tveit**

5:10 Discussion.

Section G

Ernest N. Morial Convention Center Room 342

ACS Award Symposium for Creative Advances in Environmental Science & Technology

Cosponsored by WCC
Financially supported by AEESEP
S.O. Obare, *Organizer*
V.F. McNeill, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 366. Aqueous atmospheric chemistry: From clouds to aerosol particles. **V.F. McNeill**

2:05 ENVR 367. Climate impact of secondary organic aerosols on cirrus clouds. **J. Penner**, C. Zhou

2:35 ENVR 368. Chemistry of atmospheric brown carbon. **A. Laskin**

3:05 Intermission.

[†]Cooperative Cosponsorship

3:20 ENVR 369. Direct measurements of aerosol acidity: Spectroscopic and colorimetric methods. **A.P. Ault**

3:50 ENVR 370. Award Address (ACS Award for Creative Advances in Environmental Science and Technology Sponsored by the ACS Division of Environmental Chemistry and the ACS Publications journals Environmental Science & Technology and Environmental Science & Technology Letters). Liquid water and secondary organic aerosol formation: Insights from diverse environments. **B. Turpin**

Microbially-Driven Geochemical Reactions: Kinetics & Communities Sponsored by GEOC, Cosponsored by BIOL and ENVR

Elucidation of Mechanisms & Kinetics on Surfaces

Surface Mechanisms

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Lignin: From Fundamentals to New Materials & Applications

Lignin Valorization in Biorefineries

Sponsored by CELL, Cosponsored by ENVR and POLY

Cheminformatics Resources & Software Tools Supporting Environmental Chemistry

Sponsored by CINP, Cosponsored by COMP and ENVR

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Silica/Alumina Surfaces & the Electrical Double Layer

Sponsored by GEOC, Cosponsored by ENVR and INOR

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Impacts of Mining & Hydraulic Fracturing On Crop & Livestock Production

Sponsored by GEOC, Cosponsored by AGFD, AGRO and ENVR

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems

Sponsored by CELL, Cosponsored by ENVR and POLY

Sustainable Production & Processing of Agricultural Crops: The Food, Energy, Water Nexus

Biomaterials Processing

Sponsored by CELL, Cosponsored by AGFD, ENFL, ENVR and MPPG

R&D in the Chemical Catalysis for Bioenergy Consortium

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in In-situ & Operando Methods

Enabling Fundamental Advances in Catalysis & Surface Science

Sponsored by CATL, Cosponsored by ENVR, INOR and PHYS

WEDNESDAY MORNING

Section A

Ernest N. Morial Convention Center Room 346

Novel Concepts in the Role of Chemistry in the Food, Energy & Water Nexus

Cosponsored by MPPG
S. Ahuja, S. Chae, *Organizers*
I. Chowdhury, D.D. Dionysiou, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 371. Role of chemistry in food-energy-water nexus research. **B.L. Schottel**

8:35 ENVR 372. Unmet challenges in developing energy efficient processes for reuse of municipal wastewater in large metropolis. **A.K. Sengupta**

9:05 ENVR 373. Withdrawn.

9:25 ENVR 374. Electrochemical reactivity of carbonaceous materials for water treatment and energy recovery. **R. Doong**, P. Chang, C. Hsu

9:45 ENVR 375. Withdrawn.

10:05 Intermission.

10:20 ENVR 376. Evaluating the potential of phosphorous recovery from corn-ethanol plants using chemical precipitation and enzymatic transformation. **N. Sharma**, V. Singh, R.D. Cusick

10:40 ENVR 377. *In situ* binding recognition of phospholipid-guanidinium interactions at the air/water interface. **J.F. Neal**, W. Zhao, A. Grooms, A.H. Flood, H.C. Allen

11:00 ENVR 378. Urea functionalization of biochar activated by ultrasound: An efficient strategy for heavy metal adsorption. **B. Sajjadi**, J. Broome, W.W. Chen

11:20 ENVR 379. Developing quantitative modeling framework for better understanding interconnected food-energy-water systems. **Y. Yao**, R. Huang

11:40 ENVR 380. Harmattan and the food,energy and water nexus. **C. Unegbu**

Section B

Ernest N. Morial Convention Center Room 347

Current State of Environmental Contamination Research: Theory & Experiment

Cosponsored by CEI
G. Jenness, H. McAlexander, *Organizers*
S. Ahuja, M.K. Shukla, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 381. Three dimensional structures of human nicotinic acetylcholine receptor $\beta 4\beta 2$ constructed through homology modelling and molecular dynamics simulation. **H. Hong**

8:30 ENVR 382. Development of chitosan wrapped CNT based 3D nanoporous membrane for separation and

inactivation of *Rotavirus* and *Shigella* waterborne pathogens. **P.C. Ray**

8:55 ENVR 383. Historical trends of polychlorinated biphenyls in Chesapeake Bay fish and the influence of ongoing sources. **T. Needham**, U. Ghosh

9:20 Intermission.

9:35 ENVR 384. Degradation of short chain chlorinated paraffins (SCCPs) mediated by intact pumpkin and soybean seedlings. **Y. Li**, J. Liu, J.L. Schnoor, G. Jiang

10:00 ENVR 385. Can β -cyclodextrin attenuate the negative health effects of perfluorooctanoic acid? **M.J. Weiss-Errico**, J. Miksovska, K.E. O'Shea

10:25 ENVR 386. Characterization of nine haloacetaldehyde formation during chlorination of bromide-containing water. **M. Yuqin**, H. Yang, Y. Xie

10:50 Intermission.

11:05 ENVR 387. Formation of dioxins from 2-chlorophenol over fly ash: Role of Fe_2O_3 . **X. Guan**, S.M. Lomnicki

11:30 ENVR 388. Kinetic of monochloramine reactions with nitrogenous compounds in aqueous solutions. **J. Wewers**, J. Gleason, K.P. Ishida, S.P. Mezyk

Section C

Ernest N. Morial Convention Center Room 348

Innovative Chemical & Material Approaches for Sustainable Water Purification

Catalysis

Cosponsored by CEI
J. Choe, J. Liu, D. Shuai, Y. Wang, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 ENVR 389. Sustainable treatment of toxic 4,4'-thiodianiline in water using an enzyme. **D. Mukherjee**, K.E. Taylor, N. Biswas

8:55 ENVR 390. Advancing biocatalytic applications in drinking water: Column treatment of the disinfection byproduct chlorite. **J.M. Hutchison**, I. Kamalanathan, C.J. Werth, J. Zilles

9:15 ENVR 391. Expanding the catalyst toolbox – low-cost ruthenium catalysts for reduction of water contaminants. **X. Huo**, J. Liu, T.J. Strathmann

9:35 ENVR 392. Nitrogen-doped graphene supported Pd-based catalysts for water decontamination. **T. Ye**, D.P. Durkin, N. Banek, M.J. Wagner, D. Shuai

9:55 Intermission.

10:15 ENVR 393. Defluorination of branched per- and polyfluoroalkyl substances with cobalt complex catalysts. **J. Liu**, D. Van Hoomissen, X. Huo, X. Xiao, Y. Fang, C.P. Higgins, S. Vyas, T.J. Strathmann

10:35 ENVR 394. Cobalt catalyzed reduction of perfluoroalkyl substances: Reactions and mechanisms. **D.J. Van Hoomissen**, J. Liu, T.J. Strathmann, S. Vyas

10:55 ENVR 395. Catalytic destruction of oxyanions by bimetallic noble metal-based materials. **X. Min**, Y. Wang

11:15 ENVR 396. Biocatalytic membranes prepared by inkjet printing functionalized yeast cells onto microfiltration substrates. **Y. Chen**, P. Gao, M. Summe, W.A. Phillip, **N. Wei**

11:35 ENVR 397. Investigation of nanostructured MoS₂ as an earth abundant catalyst for nitrite hydrogenation. **R. Marks**, K. Doudrick

11:55 Concluding Remarks.

Section D

Ernest N. Morial Convention Center Room 349

Advances & Applications in Water Sensing Technologies for Drinking Water & Agri-Tech Research

M.E. Romero-Gonzalez, P.L. Schorr, W. Zhang, *Organizers, Presiding*

8:15 Introductory Remarks.

8:20 ENVR 398. Could advances in water sensing technologies with 'near real time' monitors highlight chemical, biological and physical kinetics of complex river systems? **P.L. Schorr**, W. Zhang

8:40 ENVR 399. Development of autonomous sensing platform for in-situ nutrient analysis in marine and fresh waters. **M. McCaul**, D. Diamond

9:00 ENVR 400. Array sensing for trace detection of metal cations using optical spectroscopic techniques. **M. Ihde**, J. Tropp, A. Mallet, J.D. Azoulay, K.J. Wallace, M. Bonizzoni

9:20 ENVR 401. Assessing spatial or temporal variability in pCO₂ dynamics of estuarine and freshwater ecosystems: Case studies from North Carolina and China demonstrate trade-offs. **B.R. Van Dam**, J. Crosswell, H. Paerl

9:40 ENVR 402. Hourly changes in factors affecting algal blooms in an urban river with wastewater reuse and drinking water intakes can be evaluated using a neural network. **P.L. Schorr**, K. Li

10:00 Intermission.

10:15 ENVR 403. Detection of polycyclic aromatic hydrocarbons by chemical fingerprinting. **N. White**, J. Tropp, J.D. Azoulay, **M. Bonizzoni**

10:35 ENVR 404. Detection of nanoparticles on plant tissues using sp-ICP-MS. **Y. Huang**

10:55 ENVR 405. Charge-assembled fluorescent gold microcapsules with enhanced chromium(VI) sensitivity. **Y. Yin**, C. Coonrod, K. Heck, M.S. Wong

11:15 ENVR 406. Highly Sensitive electrically-receptive thermally-responsive analytical biosensor chip for rapid detection of *Bacterial cells*. **S.K. Misra**, M.S. Khan, Z. Wang, K. Dighe, A.S. Schwartz-Duval, D. Pan

11:35 ENVR 407. Withdrawn

Section E

Ernest N. Morial Convention Center Room 350

Accurate Mass/High Resolution Mass Spectrometry for Environmental Monitoring & Remediation

[†]Cooperative Cosponsorship

T. Anumol, R. Marfil-Vega, T.M. Young, C. Zwiener, Organizers, Presiding

8:00 Introductory Remarks.

8:05 ENVR 408. Quantification and suspect-screening of hydrophobic and hydrophilic quaternary ammonium compounds in water samples by LC-HRAM-MS/MS. **S.G. Pati**, X. Ming, W. Arnold

8:30 ENVR 409. Identification of sources, occurrence and fate of the fungicide carbendazim in water. **S. Merel**, S. Benzing, J. Yanez Heras, **C. Zwiener**

8:55 ENVR 410. High resolution-MS uncovers new chemicals of concern in drinking water: Impacts of hydraulic fracturing and wastewater reuse. **S.D. Richardson**, H.K. Liberatore, K.H. Cochran, C. Montagner, D. Westerman, M.J. Plewa, L.H. Cizmas, J.M. Vanbrienen, D.D. Dionysiou, D. Schlenk, K. Loftin, T. Anumol

9:20 ENVR 411. Workflows utilizing SWATH and MRMHR acquisitions for microcystins in drinking water. **K. Hyland**

9:45 Intermission.

10:10 ENVR 412. High resolution mass spectrometry screening of urban stormwater for identification of novel contaminants and their sources. **E.P. Kolodziej**, K. Peter, B. Du, C. Wu

10:35 ENVR 413. Withdrawn.

11:00 ENVR 414. Withdrawn.

11:25 ENVR 415. Broad-scope LC and GC-HRMS screening for organic contaminants in wastewater at the sub-sewershed scale. **M. Hattaway**, J. Teerlink, C. Alaimo, T. Anmol, **T.M. Young**

11:50 Discussion.

Section F
Ernest N. Morial Convention Center
Room 351

Approaches to Fill Data Gaps for Chemical Sources of Risk

C.I. Nicolas, Organizer
K. Philips, Organizer, Presiding
C.I. Nicolas, Presiding

8:00 Introductory Remarks.

8:05 ENVR 416. US EPA CompTox Chemistry Dashboard as a source of data to fill data gaps for chemical sources of risk. **A.J. Williams**, C. Grulke, K. Mansouri, K. Dionisio, K. Phillips, G. Patlewicz, I. Shah, K. Isaacs, J. Wambaugh, A. Richard, R. Judson

8:30 ENVR 417. Implementation of a web-based workflow for evaluation of chemical risks in the Superfund program. **A. Frame**, A.J. Williams, R. Judson, R. Sams, C. Grulke, I. Shah, G. Patlewicz, J. Lambert, S. Wesselkamper, S. Foster, K. Raffaele

8:50 ENVR 418. NICEATM's ICE Tool: An integrated chemical environment to support novel toxicological approaches. **N. Kleinstreuer**, S. Bell, J. Phillips, X. Chang, Q. Zang, D. Allen, W. Casey

9:10 ENVR 419. Rapid and accurate quantum chemical physicochemical property computational estimates for under-characterized compounds. **W.A. Alexander**

9:30 ENVR 420. Chemical toxicity prediction for major classes of industrial chemicals: Is it possible to develop universal models covering cosmetics, drugs, and pesticides? **V.M. Alves**, **E. Muratov**, A. Zakharov, N. Muratov, C.H. Andrade, A. Tropsha **9:50 Intermission.**

10:05 ENVR 421. Case studies in characterizing metabolic similarity in read-across through the use of *In vitro*, *In silico* and analytical data. **G. Patlewicz**, L. Lizarraga, E. Owens, J. Lambert, S. Wesselkamper, Q.J. Zhao, B. Hawkins, J. Dean, A.J. Williams, I. Shah, K.A. Favela, A. Yau, J. Bonzo, L.R. Moody, R. Thomas, J. Wambaugh

10:30 ENVR 422. Virtual screening of chemicals for endocrine disrupting activity: Case studies of the estrogen and androgen receptors. **K. Mansouri**, N. Kleinstreuer, C. Grulke, A. Richard, I. Shah, A.J. Williams, R. Judson

10:50 ENVR 423. Application of multiple *in silico* methods for evaluating potential liver toxicity of phytochemicals. **Y. Liu**

11:10 ENVR 424. Computational approaches to evaluate mode of action interactions and uncertainties: Thiocyanate as case study. **M. Willemin**, L. Jung, A. Lumen

11:30 ENVR 425. Rapid speciation and determination of vanadium compounds by ion-pair reversed-phase ultra-high-performance liquid chromatography inductively coupled plasma-sector field mass spectrometry: *In vitro* speciation models. **J.M. Harrington**, L.G. Haines, A.S. Essader, K.E. Levine, R.A. Fernando, V.G. Robinson, S. Waidyanatha

11:50 Concluding Remarks.

Section G
Ernest N. Morial Convention Center
Room 342

Advances in Understanding of Sorptive & Reactive Properties of Pyrogenic Carbonaceous Matter (PCM) in the Environment

W. Mitch, W. Xu, Organizers
J.J. Pignatello, Organizer, Presiding

8:15 Introductory Remarks.

8:20 ENVR 426. Factors controlling the adsorption of ionizable compounds to activated carbon. **D. Knappe**, L. Dudley, A. Rossner, M. Sun

8:55 ENVR 427. Thermodynamics of attachment: Enthalpy and free energy of adsorption of neutral and ionic micropollutants on biosolids-derived biochar. **Y. Tong**, P.J. McNamara, S.L. Singer, B. Mayer

9:15 ENVR 428. Elimination of a potentially hazardous, flame retardant chemical consisting of an organophosphorus moiety from water using biochar as an adsorbent. **A. Saha**, S.R. Akech

9:35 ENVR 429. Development of improved biochars through alkaline pretreatment and metal catalysis for the removal of organic micropollutants in source water protection scenarios. **M. Bentley**, R.S. Summers

9:55 ENVR 430. Sorption of hydrophobic organic compounds to

dissolved black carbon and impact of its release on sorption properties of bulk black carbon. **H. Fu**, B. Wang, X. Qu, H. Li, W. Zhang, **D. Zhu**

10:15 Intermission.

10:30 ENVR 431. High temperature copyrlysis/thermal air activation modifies biochar porosity and enhances capacity for uptake of herbicides from surface water. **J. Kearns**, K. Shimabuku, D. Knappe, R.S. Summers

10:50 ENVR 432. Biomass-converted graphene-like material for the ultra-high adsorption of organic pollutants. **X. Xiao**, B. Chen, L. Zhu, J.L. Schnoor

11:10 ENVR 433. Evaluating biochar in sustainable stormwater treatment of heavy metals. **S. Burch**, J.A. Nason

11:30 ENVR 434. Selective recovery of thorium by wrinkled mesoporous carbon. **Z. Wang**, **K.J. Balkus**

Elucidation of Mechanisms & Kinetics on Surfaces

Surface Kinetics

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Manganese Oxides: Their Formation, Structure, Reactivity & Applications

Sponsored by GEOC, Cosponsored by ENVR

Lignin: From Fundamentals to New Materials & Applications

Nanoscaled Materials from Lignin

Sponsored by CELL, Cosponsored by ENVR and POLY

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Confinement: Clay Mineral Geochemistry

Sponsored by GEOC, Cosponsored by ENVR and INOR

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems

Sponsored by CELL, Cosponsored by ENVR and POLY

R&D in the Chemical Catalysis for Bioenergy Consortium

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in Situ & Operando Methods

Catalysis & Surface Science Science Applied to the Destruction of Threat Agents

Sponsored by CATL, Cosponsored by ENVR, INOR and PHYS

WEDNESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center
Room 346

Novel Concepts in the Role of Chemistry in the Food, Energy & Water Nexus

Cosponsored by MPPG
S. Ahuja, D.D. Dionysiou, Organizers
S. Chae, I. Chowdhury, Organizers,
Presiding

1:30 Introductory Remarks.

1:35 ENVR 435. Chlorotyrosines versus volatile byproducts from disinfection during washing of lettuce and spinach. **W. Mitch**, Y. Komaki, A. Simpson

2:05 ENVR 436. Attachment of foodborne microbes to spinach leaf surfaces: The role of solution chemistry and growth conditions. **H. Mayton**, I. Marcus, S.L. Walker

2:25 ENVR 437. Assessing risks from pharmaceuticals and transformation products in urine-derived fertilizers. **W. Tarpeh**, D.S. Aga, K. Wigginton, N. Love

2:45 ENVR 438. Role of ferrate technology in the food, energy, and water nexus. **V.K. Sharma**

3:05 ENVR 439. Educating the community on the interconnectedness of energy, food and water sustainability as we seek to reduce exposure to environmental toxics. **R.C. Wingfield**, K. Jackson, V. Watson

3:25 Intermission.

3:40 ENVR 440. Elucidating nanoparticle-plant leaf interactions, uptake, and mobility for designing highly efficient foliar-applied agrochemicals. **A. Avellan**, J. Yun, E. Spielman-Sun, G. Lowry

4:00 ENVR 441. Toward improving agrochemical efficiency: Impact of Cu-based nanoparticle solubility on metal uptake, speciation, translocation, and distribution in *Triticum aestivum* (wheat). **E. Spielman-Sun**, E. Lombi, E. Donner, B. Etschmann, D. Howard, G. Lowry

4:20 ENVR 442. Reduction of excess biological sludge in tannery effluent treatment. **V. Sodhi**, A. Bansal, **M.K. Jha**

4:40 ENVR 443. Alberta oil sands extraction and tailings ponds emissions: Predicting the fate of thousands of oil hydrocarbon compounds simultaneously. **B. Drollette**, **D.L. Plata**

Section B
Ernest N. Morial Convention Center
Room 347

Current State of Environmental Contamination Research: Theory & Experiment

Cosponsored by CEI
S. Ahuja, G. Jenness, Organizers
H. McAlexander, M.K. Shukla,
Organizers, Presiding

1:30 Introductory Remarks.

1:35 ENVR 444. Energetics and vibrational signatures of argyrophilic interactions involving high energy density materials. **G.S. Tschumper**

2:00 ENVR 445. Kinetic Monte Carlo models to study nucleation and evolution of metal/metal oxide nanoparticles grown via aerosol route. **D. Mukherjee**

2:25 ENVR 446. Adsorption of some

†Cooperative Cosponsorship

munitions compounds on silica surfaces: A density functional theory investigation. **R.K. Chouhan**, G. Subramanian, M.K. Shukla

2:50 Intermission.

3:05 ENVR 447. Trajectory-based models and remote sensing for biomass burning assessment in Bangladesh. **F. Emami**, P. Hopke, A. Ommi

3:30 ENVR 448. Development of accurate force-fields for water clusters with acidic defects. **R. Kumar**, C. Bresnahan

3:55 ENVR 449. Synergy between palladium and indium during heterogeneously catalyzed nitrate degradation. S. Kasiraju, S. Guo, K. Heck, H. Qian, Z. Zhao, J.T. Miller, M.S. Wong, **L. Grabow**

4:20 Intermission.

4:35 ENVR 450. Theoretical investigation of ground and excited electronic states of the water splitting catalytic cycle facilitated by MoO^+ . **E. Milioridos**

5:00 ENVR 451. Mathematical modeling tools for characterizing vapor intrusion: Challenges for gaining acceptance. **E. Suuberg**, J. Ström, A. Oliveira

Section C

Ernest N. Morial Convention Center Room 348

Emerging Environmental Biotechnologies for Energy-Efficient Pollutant Control, Remediation & Resource Recovery

Cosponsored by CEI
X. Mao, Y. Men, W. Zhuang, *Organizers*
C.M. Sales, S. Yi, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 452. Examining nutrient uptake and transformation within photosynthetic microbial communities using a high density bioreactor. **J. Price**, C.M. Sales

1:55 ENVR 453. Integrated meta-omics approach reveals synergistic interactions in a bisphenol- A-degrading microbial community. **K. Yu**, S. Yi, B. Li, L. Alvarez-Cohen, T. Zhang

2:15 ENVR 454. Reconstruction of cellulose-to-methane trophic chain from metagenomics and metatranscriptomics. Y. Jia, **P.K. Lee**

2:45 ENVR 455. Global wastewater microbiome: Diversity and biogeography. **J. Zhou**, X. Wen, T. Curtis, Q. He, D. Ning, Y. Yang, L. Wu, B. Zhang, F. Ling

3:15 Intermission.

3:30 ENVR 456. Genome-resolved metagenomics to assess the long-term impact of disinfection on the drinking water microbiome. **A.J. Pinto**

4:00 ENVR 457. Characterization of the microbial community driving on-site wastewater treatment in nitrogen removing biofilters (NRBs). **K. Langlois**, J.L. Collier, N. Volkenborn, M. Graffam

4:20 ENVR 458. Impact of material electrical conductivity on the microbial community structure in anaerobic digesters. **Q. Cheng**, F.L. de los Reyes, D.F. Call

4:40 ENVR 459. Microbial community

structure and electrochemical activity during the formation of successful versus failed electroactive biofilms. **J. Ortiz Medina**, D.F. Call

Section D

Ernest N. Morial Convention Center Room 349

Water Use Optimization: Water Quality, Reuse & Treatment

Water Reuse & Water Quality

S. Bushart, Y. Jun, K. Pagilla, N. Rao, Y. Yang, *Organizers, Presiding*

1:30 ENVR 460. Connecting recycled water to spreading basins for combined operation and greater water supply resiliency. J. Bradshaw, N. Ashoori, M. Osorio Gonzalez, T. Schmitt, **R.G. Luthy**

2:00 ENVR 461. Water reuse project at University of Nevada-Reno: Addressing human health impacts from emerging contaminants in reclaimed water to enhance its use for urban and peri-urban agriculture. **K. Pagilla**, P. Verburg, D. Hanigan, Y. Yang

2:20 ENVR 462. Effects of oxyanions on arsenic mobilization from arsenopyrite during managed aquifer recharge. **X. Wu**, S. Burnell, C. Neil, D. Kim, H. Jung, Y. Jun

2:40 ENVR 463. Disinfection byproducts removal during water reuse using natural solar photo-fenton process. **I. Abusallout**, G. Hua

3:00 ENVR 464. Optimized pilot-scale recovery of abandoned mine drainage for reuse in hydraulic fracturing using nanofiltration membranes. **S. Wadekar**, T. Hayes, D. Mittal, R.D. Vodic

3:20 ENVR 465. Withdrawn.

3:40 Intermission.

3:50 ENVR 466. Electrodialysis metathesis for desalination of geothermal waters and recovery of rare earth elements: Role of pH and solubility. L.M. Camacho, **M. Shafiq**

4:10 ENVR 467. Experimental investigations for efficient removal of ultrafine coal particles from effluent streams: Bench and pilot-scale studies. A. Bhagavatula, V. Rajagopalan, **B. Duncan**, P. Vimalchand, M. Nelson

4:30 ENVR 468. Sensitivity of watershed delineation and modeled hydrology and water quality to topographic characteristics of watersheds. **Z. Duan**, J. Diaz-Ramirez, J. Martin, S. Xie, Z. Chen, J. Wang

4:50 ENVR 469. Determination of perchlorate by US EPA Method 332.0 using a compact ion chromatography system coupled with mass spectrometry (IC-MS). **B. Huang**, J. Rohrer

5:10 ENVR 470. Development of a U.S. EPA method for the analysis of nonylphenol in drinking water by solid phase extraction and LC/MS/MS. **D.R. Tetttenhorst**, J.A. Shoemaker

Section E

Ernest N. Morial Convention Center Room 350

Accurate Mass/High Resolution

Mass Spectrometry for Environmental Monitoring & Remediation

T. Anmol, R. Marfil-Vega, T.M. Young, C. Zwiener, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 471. Quality control, validation and strategies for statistical analysis in chemometric approaches using high-resolution MS in environmental and waste waters. **D. Cuthbertson**

2:00 ENVR 472. Improving confidence in environmental contaminant identification with highly curated databases and accurate mass MS/MS libraries. **R. Garnica**, E.E. Rennie, T. Anmol, S. Xu, J. Zweigenbaum, M. Miladi

2:25 ENVR 473. Tracing the biotransformation of PAHs in contaminated soil using stable isotope-assisted metabolomics. **Z. Tian**, J. Vila, M. Yu, W. Bodnar, M. Aitken

2:50 ENVR 474. Target, suspect and non-target screening of dioxin-like compounds in environmental samples using a sensitive high-resolution time-of-flight mass spectrometer. **P. Haglund**, N. Eno, S. Nieto

3:15 Intermission.

3:40 ENVR 475. Molecular-level insights into environmental organic contaminants by high resolution fourier transform ion cyclotron resonance (FT-ICR) mass spectrometry. **R.P. Rodgers**, S. Rowland, H. Chen, A.M. McKenna, P. Zito, Y. Corilo

4:05 ENVR 476. Characterization of naphthenic acids and other dissolved organics in natural water from the Athabasca Oil Sands Regions, Canada by using ultra-high resolution Orbitrap mass spectrometry. **C. Sun**, J. Martin, W. Shatyk

4:30 ENVR 477. Analysis of halogenated combustion byproducts in soot on firefighter protection equipment and skin after structural fires. **C. Hoppe-Jones**, S. Beitel, L. Flahr, S.A. Snyder

4:55 ENVR 478. Transformation of dissolved organic matter in engineered ultraviolet (UV) photolysis and UV-based advanced oxidation processes. **D. Minakata**, L. Varanasi, M. Khaksari, L.R. Mazzoleni

5:20 Concluding Remarks.

Section F

Ernest N. Morial Convention Center Room 351

Contaminants in Water Sources Impacted by FEW Systems: Emerging Challenges & Opportunities

D.M. Cwiertny, *Organizer*
C.L. Just, G.H. Lefevre, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 479. Environmental photochemistry of dichloroacetamide herbicide safeners. A.E. Kral, M.E. McFadden, G.H. Lefevre, J.D. Sivey, **D.M. Cwiertny**

1:55 ENVR 480. Adsorption of double-stranded RNA (dsRNA) at solid-water interfaces: Implications for the environmental fate of dsRNA biopesticides from RNA interference (RNAi) agricultural

biotechnology. **K. Parker**, M. Sander

2:15 ENVR 481. Impact on surface water quality due to the enhanced solubility of organochlorine pesticides following an ethanol-blend fuel spill. **M. Otero-Diaz**, B. Woo, N. Bhattacharyya, L. Ma, A. Demond

2:35 ENVR 482. Dichloramine reactivity with amino acids in wastewater. **E. Walker**, K.P. Ishida, S.P. Mezyk

2:55 ENVR 483. Transformation of neonicotinoid insecticides during disinfection under defacto water reuse. **G.H. Lefevre**, K. Klarich, D.M. Cwiertny

3:15 Intermission.

3:25 ENVR 484. Halogenation of agrochemicals and related compounds in waters disinfected with free chlorine: Competition between rates of chlorination and bromination. **J.D. Sivey**, M.A. Broadwater, T.L. Swanson, R.P. Dias, A.L. Roberts

3:45 ENVR 485. Sorption of neonicotinoid insecticides to granular activated carbon during drinking water treatment. **D. Webb**, K.L. Klarich, G.H. Lefevre, D.M. Cwiertny

4:05 ENVR 486. Combining HRMS-based suspect screening and statistical analysis to assess contaminants of emerging concern in a wastewater-impacted urban lake. **S. Wang**, T. Zeng

4:25 ENVR 487. Influence of climate change on subsurface atrazine degradation and transport. **S. Bartelt-Hunt**, R. Barrios, O. Gaonkar, X. Li, D.D. Snow, Y. Li

4:45 ENVR 488. Water quality as an additional factor for the energy-water nexus: Distribution of contaminants in water impacted by fossil fuels activities. **A. Vengosh**

5:05 ENVR 489. Effect of dissolved organic matter on the photochemical transformation of trace organic contaminants in wastewater: The role of singlet oxygen. **L. Ma**, H. Thi Hong Vo, R. Arnold, A.E. Saez

5:25 Concluding Remarks.

Section G

Ernest N. Morial Convention Center Room 342

Advances in Understanding of Sorptive & Reactive Properties of Pyrogenic Carbonaceous Matter (PCM) in the Environment

J.J. Pignatello, W. Xu, *Organizers*
W. Mitch, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 490. Surface-promoted hydrolysis of 2,4,6-trinitrotoluene and 2,4-dinitroanisole on pyrogenic carbonaceous matter. **K. Ding**, C. Byrnes, A.M. Grannas, W. Xu

1:55 ENVR 491. Inherent reactivity of chars from model feedstocks, lignin and cellulose: Persistent free radicals, reactive oxygen species, and non-radical direct reacting sites. **J.J. Pignatello**, J. Yang, B. Pan, B. Xing

2:30 ENVR 492. Redox properties of water-extractable dissolved organic matter (DOM) from plant biomass –

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derived black carbon (biochar). **W. Xu**, N. Walpen, M. Keiluweit, M. Kleber, M. Sander

2:50 ENVR 493. Photoactivity of dissolved black carbon in natural aquatic systems. H. Fu, **X. Qu**, D. Zhu

3:10 Intermission.

3:25 ENVR 494. Capture and dehalogenation of fipronil using a semi-passive black carbon-based electrode. **W. Mitch**, Y. Li

3:45 ENVR 495. Desalination with capacitive deionization under various operating conditions and electrode configuration using Carbon fiber/paper electrodes. **M. Ahmed**, S. Tewari

4:05 ENVR 496. Abiotic reduction of nitrobenzene with sulfide catalyzed by carbon nanotubes in aqueous solutions: Effect of surface modification and parameter optimization. **H. Zhao**

4:25 ENVR 497. Probe the surface reactivity of pyrogenic carbonaceous materials using conjugated microporous polymers. **Z. Li**, J. Mao, W. Xu

Unconventional Catalysis Targeting Stable Molecules

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

Manganese Oxides: Their Formation, Structure, Reactivity & Applications

Sponsored by GEOC, Cosponsored by ENVR

Lignin: From Fundamentals to New Materials & Applications

Carbon Fibers & Chemicals from Lignin

Sponsored by CELL, Cosponsored by ENVR and POLY

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Carbonates, Phosphates & Rare Earth Elements

Sponsored by GEOC, Cosponsored by ENVR and INOR

Forensic Geochemistry

Sponsored by GEOC, Cosponsored by ENVR

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems

Sponsored by CELL, Cosponsored by ENVR and POLY

R&D in the Chemical Catalysis for Bioenergy Consortium

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & In-Situ & Operando Methods

Photocatalytic Approaches

Sponsored by CATL, Cosponsored by

ENVR, INOR and PHYS

WEDNESDAY EVENING

Section A

Ernest N. Morial Convention Center Hall D

Accurate Mass/High Resolution Mass Spectrometry for Environmental Monitoring & Remediation

T. Anumol, R. Marfil-Vega, T.M. Young, C. Zwiener, *Organizers*

6:00-8:00

ENVR 498. High resolution mass spectrometry analysis of biomass burning organic aerosol composition from different wood fuels and combustion conditions. **K. Nguyen**, H. Bayat, M. Hengel, T.B. Nguyen

Section A

Ernest N. Morial Convention Center Hall D

Advances in Understanding of Sorptive & Reactive Properties of Pyrogenic Carbonaceous Matter (PCM) in the Environment

W. Mitch, J.J. Pignatello, W. Xu, *Organizers*

6:00-8:00

ENVR 499. Adsorption characteristics of benzalkonium chloride (BAC) by activated carbon. **W. Choi**, T. Kim, K. Zoh

ENVR 500. Characterization of biochars structure and the applications as a sorbent. **X. Xiao**, B. Chen

ENVR 501. Highly effective catalytic peroxymonosulfate activation on mesoporous carbon nitride for o-phenylphenol degradation. J. Hou, **S. Zheng**, D. Zhu

Section A

Ernest N. Morial Convention Center Hall D

Agro-Environmental & Energy Applications of Biochar/Hydrochar

N.D. Berge, C. Jeong, K. Ro, *Organizers*

6:00-8:00

ENVR 502. Chromium ion removal from aqueous media by aluminum and magnesium impregnated biochar. **A. Herath**, C. Layne, G. Burk, T. Mlsna

ENVR 503. Graphene coated pine wood biochar from slow pyrolysis to decontaminate copper from aqueous solutions. **H. Samaraweera**, T. Mlsna

ENVR 504. Pine wood biochar to decontaminate Cu(II) from aqueous solutions. **A. Hanson**, H. Samaraweera, T. Mlsna

ENVR 505. Removal of lead from aqueous systems by potassium hydroxide activated biochar. **C. Layne**, A. Herath, T. Mlsna

ENVR 506. Recycling phosphate with MgO decorated magnetic biochar composite and its potential use as fertilizer. **B. Zhou**, R. Li, J.J. Wang

ENVR 507. Nitrogen sorption by

biochars derived from different feedstocks and at different pyrolysis temperatures: Affecting factors and mechanisms. **S. Li**, V. Barreto, R. Li, G. Chen, Y.P. Hsieh

ENVR 508. Preparation and re-activation of nitrogen-doped magnetic biochar by molten salt method: Relevant performance for organic pesticides removal. **S. Dai**, Y. Zhao

ENVR 509. Adsorption mechanism of Cu(II) on crop-residue char. **S. Wang**, I. Liao, R. Chang

ENVR 510. Effects of poultry-manure biochars on the soil phosphorus availability to rice plant. M. Soesanto, Y. Hashimoto, M. Cheng, **S. Wang**

Section A

Ernest N. Morial Convention Center Hall D

Antibiotics & Antimicrobial Resistance: Developing Solutions to Address the Connectivity Between Air, Food, Water & Soil

D.S. Aga, X. Li, A. Pruden, P.J. Vikesland, *Organizers*

6:00-8:00

ENVR 511. Tylosin sorption to diatomaceous earth: Investigation of physical processes of tylosin in natural systems and development of mitigation methods. **B. Stromer**, B. Woodbury, C. Williams

ENVR 512. Antimicrobial susceptibility, stress responses, and hormesis in *Pseudomonas fluorescens* as metrics for assessing impacts of antibiotics in the environment. **E.R. Hain**, H. Adejumo, L.M. Blaney

ENVR 513. Superspreader phage-mediated dissemination of antibiotic resistance gene-containing plasmids in wastewater disinfection processes. **M. Gnegy**, A. Pruden, P.J. Vikesland, K. Wigginton

ENVR 514. Detection and evaluation of antibiotics in seven wastewater treatment plants in Southwest Illinois. **Q. Zhang**, C. Donald, J. Rhomberg, K. Tucker

ENVR 515. Large-scale modeling of the antibiotic resistance: A hydrological perspective. **M. Thilakarathne**, V. Sridhar

ENVR 516. Lessons learned on the fate of ARG in end-of-pipe treatment systems for combined sewer overflows. A. Eramo, H. Delos Reyes, W. Morales Medina, **N. Fahrenfeld**

Section A

Ernest N. Morial Convention Center Hall D

Approaches to Fill Data Gaps for Chemical Sources of Risk

C.I. Nicolas, K. Philips, *Organizers*

6:00-8:00

ENVR 517. Effect of toxicity, distribution and metabolism for co-occurring exposure to microplastics and the chiral antidepressant venlafaxine in loach (*M. anguillicaudatus*). **H. Qu**, R. Ma, B. Wang

ENVR 518. OpenRiskNet, an open

e-infrastructure to support data sharing, knowledge integration, *in silico* analysis and modelling in risk assessment. **N. Oki**, T. Exner, S. Kramer, C. Notredame, D. Jenner, G. Kkoutos, H. Sarimveis, M. Jacobs, O. Spjuth, T. Dudgeon, F. Bois, P. Jennings, B. Hardy

Section A

Ernest N. Morial Convention Center Hall D

Aquatic Photochemistry

W. Arnold, K.P. McNeill, S.G. Pati, *Organizers*

6:00-8:00

ENVR 519. Photochemistry of atmospheric carbonyl reaction products. **M.M. Galloway**, J.M. Ackendorf, M.B. Sebold, D.N. Grace, R. Holappa

ENVR 520. Photochemical oxidation reduces the efficacy of aerial dispersants applied in response to oil spills. C.P. Ward, **C.J. Armstrong**, C. Reddy

ENVR 521. Withdrawn.

ENVR 522. Apparent quantum yields of singlet oxygen and photochemical oxygen consumption for crude oils. **C.P. Ward**, C. Reddy, **C.M. Sharpless**

ENVR 523. Photodegradation of sulfathiazole: Kinetics, photo-induced structural rearrangement, and photoproducts antimicrobial activities. **X. Niu**, J. Croue, J. Gladly-Croue

ENVR 524. Comparative study of the photochemical fate of ebselen and its carbon analog during direct and indirect photolysis. **M. Hopanna**, S. Steinly, L.M. Blaney

ENVR 525. Photodegradation of o-phthalic acid and the effects of nitrite and nitrate. **X. Lu**, Y. Zuo

ENVR 526. Analysis of the characterization and toxicity of ultraviolet filter chemical (UVFC) octyl dimethyl para-aminobenzoic acid (OD-PABA) photoproducts. **L. O'Connor**, J. Maung, L. MacManus-Spencer, M.G. Paulick

ENVR 527. Photolysis and cellular toxicity of the organic ultraviolet filter chemical 2-ethylhexyl-4-(dimethylamino)benzoate (OD-PABA) and its photoproducts. **J. Maung**, L. O'Connor, M.G. Paulick, L. MacManus-Spencer

ENVR 528. Effects of natural water matrix on the aquatic photodegradation of 17 β -ethynylestradiol (EE2). **Y. Zuo**, F. Albalawi

ENVR 529. Effects of halide ions on photodegradation of sulfonamide antibiotics: Formation of halogenated intermediates. **X. Qiao**

ENVR 530. Photodegradation of methylparaben in aquatic environment: Kinetics and reaction mechanisms. **Y. Deng**

ENVR 531. Sorption of model micropollutant to polyethylene film after UV exposure. **F.E. Murphy**, M.A. Maurer-Jones

ENVR 532. Effects of precursors on the photocatalytic activities of graphitic carbon nitride in hexavalent chromium

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reduction and rhodamine B degradation under visible light irradiation. **C. Chuaiham**, K. Sasaki

ENVR 533. Characterizing the effects of sethoxydim on the photosynthetic activity and biochemical composition of *Chlorella vulgaris*. **A. Smythers**, A. Garmany, N. Perry, P.E. Adkins, E. Higginbotham, D. Kolling

ENVR 534. Inactivation kinetics of *E. coli* and MS2 coliphage by photogenerated singlet oxygen. **T. Kim**, H. Kim, H. Kim, J. Seo, J. Lee, C. Lee

Section A
Ernest N. Morial Convention Center
Hall D

Chemistry of Drinking Water Distribution Systems & Infrastructure

D. Giammar, Y. Hu, H. Liu, *Organizers*

6:00–8:00

ENVR 535. Montebello water filtration plant-I in Baltimore: Chemistry's contribution to public health. **B. Salazar**, **P.J. Smith**, R. Nuss

ENVR 536. Snapshot of lead and copper in Iowa drinking water. **A. Grant**, D. Latta, S. Dai, D.M. Cwiertyny, M. Scherer

Section A
Ernest N. Morial Convention Center
Hall D

Contaminants in Water Sources Impacted by FEW Systems: Emerging Challenges & Opportunities

D.M. Cwiertyny, C.L. Just, G.H. LeFevre, *Organizers*

6:00–8:00

ENVR 537. Accumulation of copper in sediments of lakes treated with copper-based pesticides. **M. Albalawi**, M.J. Beazley

ENVR 538. Bioaugmentation and phytoremediation of 1,4-dioxane in simulated groundwater. **R. Simmer**, J.L. Schnoor

ENVR 539. Role of abiotic and biotic denitrification in agricultural soils. **O.B. Felber**, D. Latta, M. Scherer, C.L. Just

ENVR 540. Degradation comparison of pentachlorophenol (PCP) versus pentachloroanisole (PCA) using zero-valent magnesium/graphite (ZVMg/C) in an acidified ethanol. **A. Garbou**, C. Clausen, C. Yestrebksy

ENVR 541. Meta-analysis of nanoparticle toxicity: Determining effect of units and identifying future directions. **R.M. Wheeler**, S. Lower

ENVR 542. Removal of perchlorate from water: Environmental chemistry. **A. Plank**, A. Mueller

ENVR 543. Community usage of illicit drugs in Western Kentucky, USA. **K.S. Foppe**, B. Subedi

ENVR 544. Suppression mechanism of anionic pollutants released from fly ash by Ca additives. S. Nakama, Q. Tian, B. Guo, N. Pahlevi, Z. Hu, **K. Sasaki**

ENVR 545. Determination of chemicals of emerging concern in plant tissues using isotope-dilution microwave-assisted extraction and LCMSMS. **O. Quinones**, B. Vanderford, E. Dickenson

ENVR 546. Transformation of pharmaceuticals during dielectric barrier discharge plasma jet treatment in synthetic urine. **E. Rodriguez**, W. Tarpeh, H. Clack, K. Wigginton, N. Love

ENVR 547. Occurrence, fate, and composition of N-nitrosamines and their precursors in wastewater. **C. Pu**, T. Zeng

ENVR 548. Reductive dechlorination of 1,2-dichloropropane by ZVI with vitamin B12. **N. Lapeyrouse**, G.J. Booth, C. Yestrebksy

ENVR 549. Levels and ecological risks of selected endocrine disrupting compounds (EDCs) in the urban surface water of New Calabar River, Port Harcourt City, Nigeria. **E. Inam**, **N.O. Offiong**, E.D. Essien, I. Nwoko

Section A
Ernest N. Morial Convention Center
Hall D

Current State of Environmental Contamination Research: Theory & Experiment

S. Ahuja, G. Jenness, H. McAlexander, M.K. Shukla, *Organizers*

6:00–8:00

ENVR 550. N,N-Dimethyl-p-nitrosoaniline and potassium linoleate hydroperoxide as spin traps in process of hydroxyl radicals formation during chloride-free electrolysis of contaminated water. **N. Barashkov**, T. Sakhno, I. Irgibayeva, A. Aldongarov, A. Mantel

ENVR 551. Investigation of the presence of heavy metals in water and fish from bon accord dam in northern Tshwane, South Africa. **O.O. Oyewole**

ENVR 552. Adsorption of amlodipine and carbamazepine at the air-aqueous interface and onto colloidal surfaces mimicking natural organic matter. **T.A. Williams**, M. Subir

ENVR 553. Irradiation of aqueous solutions of NTO, NQ and DNAN at UV wavelengths. **J. Becher**, S. Beal, S. Taylor

ENVR 554. Evaluating moss as biomonitors of atmospheric heavy metals in Oregon. **A.J. Miller**, A.E. Shiel, B. McCune, S. Jovan, S. Kiel, T. Rosenstiel, J.L. Fry

ENVR 555. Inhalation bioaccessibility of trace metals in PM_{2.5} from three megacities of China: Assessments by simulated lung fluid (SLF) and diffusive gradients in thin films (DGT). Z. Zhao, L. Jin, **X. Luo**, J. Luo, J. Xie, Y. Chen, H. Li, X. Li

ENVR 556. Optimization of free and protein bound microcystin detection in sediments and aquatic organisms. **M. Bolotaolo**, I. Gennity, Y. Bong, B. Puschner, S. Lesmeister, S. Teh

ENVR 557. Aquatic photochemical reaction of divalent mercury with 3-mercaptopropionic acid and its environmental implications. **L. Si**, P.A. Ariya

ENVR 558. Computational investigation on electronic structures and properties of 4,6-bis(nitroimino)-1,3,5-triazinan-2-one: An insensitive munition compound. **K. Pittman**, G.S. Tschumper, M.K. Shukla, H. McAlexander

ENVR 559. Developing a yeast biosensor for measuring phosphate in natural waters. **J. Praner**

Section A
Ernest N. Morial Convention Center
Hall D

Emerging Environmental Biotechnologies for Energy-Efficient Pollutant Control, Remediation & Resource Recovery

X. Mao, Y. Men, C.M. Sales, S. Yi, W. Zhuang, *Organizers*

6:00–8:00

ENVR 560. Nitrogen flows in an anaerobic ammonium oxidation (anammox) reactor. **J. Lawrence**, L. Zhou, R. Keren, J. Banfield, C. Yu, L. Alvarez-Cohen

ENVR 561. Characterizing the potential of waste aerobic granular sludge as an ion-selective seed material for phosphorus recovery from nutrient rich wastewater. **D.B. Kitt**, R.D. Cusick

ENVR 562. Effects of transient hydrologic regimes upon nitrous oxide reduction in denitrifying bioreactors. **P.M. McGuire**, L. Falk, M.C. Reid

ENVR 563. Impact of legacy nitrogen in conventional septic system on nitrogen removal for onsite wastewater treatment. **Z. Maleki Shahraghi**, X. Mao, S. Waugh, H. Walker

ENVR 564. Fabrication of cationic cellulose from natural bioresources for waste activated sludge dewatering treatment. **X. Huang**, P. Hadi, B.S. Hsiao

Section A
Ernest N. Morial Convention Center
Hall D

Environmental Chemistry Undergraduate Education in the Classroom, Laboratory & Beyond

M. Berger, L.A. Welch, *Organizers*

6:00–8:00

ENVR 565. Impact of ocean acidification on the composition of marine shells. **M. Lopez**, **M. Flores**, P.R. Calvo, J. Del Pilar

ENVR 566. Introducing environmental chemistry topics into a first-year science writing course using narratives from geochemistry and evolutionary biology. **B.J. McFarland**

ENVR 567. Environmentalist in film. **F.M. Dunnivant**

Section A
Ernest N. Morial Convention Center
Hall D

From Sewage to Sustainable Energy: Potential Pollution Issues from Production & Application Pathways

S. Chae, W. Giger, R. Kallenborn, A. Torrents, *Organizers*

6:00–8:00

ENVR 568. Withdrawn.

ENVR 569. Towards a Canadian national biosolids research agenda. **J.E. Loyo-Rosales**, L.H. McCarthy

Section A
Ernest N. Morial Convention Center
Hall D

General Posters

S.O. Obare, *Organizer*

6:00–8:00

ENVR 570. Sustainable municipal wastewater treatment: Review of requirements and the urgency. **S. Chitkela**

ENVR 571. Measurement of nicotine emission rate in thirdhand smoke (THS). **M. Noguchi**, A. Yamasaki

ENVR 572. Naturally occurring radioactive materials in coals and coal ash in China. N. Lauer, **A. Vengosh**, S. Dai

ENVR 573. Determination of adsorbable organic halogen (AOX) in wastewater using combustion ion chromatography. **J. Hu**, J. Rohrer

ENVR 574. Quantifying rates of biological production to better understand the carbon cycle in the Canada basin. **B.Y. Ji**, R. Stanley

ENVR 575. Soil organic matter in native prairies and prairie restorations I: Organic carbon content. L.R. Morgan, B.M. Mullins, **J.S. McConnell**

ENVR 576. Soil organic matter in native prairies and prairie restorations II: Humic and fulvic acid fractions. S. Bomma, K. Pallemati, N. Voleiti, **J.S. McConnell**

ENVR 577. Transformation of silver nanoparticles in surface waters. **C. Gagnon**, P. Turcotte, M. Pilote, F. Gagné, S. Smyth

ENVR 578. Withdrawn.

ENVR 579. Innovative materials management in open pit coal mines to reduce leachate conductivity. **S.R. Al-Abad**, P. Pinto, J. McKernan

ENVR 580. Potential role of dissolved molybdenum, iron, and vanadium in harmful algal blooms in Ohio lakes. **S.J. Israel**, S.A. Welch, W. Lyons

ENVR 581. Biological toxicity and FT-ICR MS characterization for photochemically degraded oil/water accommodated fractions as a function of wavelength exposure. **P.L. Bann**, S. Billulco, C. Brannon, L. Reid, B. Farran, W. Jeffrey, A.M. McKenna, C. Davis, **P.P. Benz**

ENVR 582. Biological toxicity of wavelength specific photochemically degraded water accommodated fractions. **C. Brannon**, L. Reid, P.L. Bann, W. Jeffrey, **P.P. Benz**

ENVR 583. Effects of burning and photochemical degradation of surrogate oil as a function of chemical characterization (determined by FT-ICR MS) and biological toxicity. **E. Post**, M. Seivert, W. Jeffrey, **P.P. Benz**

ENVR 584. Heavy metal remediation

from aqueous solutions by new SIT materials. **E. Rush**, A.F. Callender, E.C. Liscic

ENVR 585. Radionuclides speciation in seawater. **C. Moulin**, C. Den auwer, M. Manfort, M. Beccia, B. Reeves, M. Maloubier

ENVR 586. Comparative approach to the understanding of Lake Trout contaminant dynamics in the Great Lakes. **J.J. Pagano**, A.J. Garner, T.M. Holsen

ENVR 587. Impact of energy in environmental pollution. **T. Akinmsire**

ENVR 588. Preparation of super-hydrophobic and super-oleophilic porous alumina ceramics for oil/water separation. **X. Lv, T. Wang**

ENVR 589. Evidence for products of cross-reactions in organic films formed on sulfuric acid solutions at upper troposphere/lower stratosphere aerosol acidities. **T.E. Nelson**, J.H. Bui, E. Li, S. Perez-Montano, A.L. Van Wyngarden

ENVR 590. Styrene oligomer contamination surround Japan in water and sand. **K. Koizumi**, Y. Kodera, T. Komoriya, K. Amemiya, K. Takatama, D.M. Karl, B. Kwon, S. Chung, **K. Saido**, T. Hiaki

ENVR 591. Distribution of soil phosphorus and nitrate in the Spring Lake watershed region of western Illinois. S. Nicioli, K.E. Ribordy, J. Boeckler, J.S. McConnell, **A.L. Hagen**

ENVR 592. Adsorption of BSA onto sodium saturated montmorillonite in the presence of monovalent, divalent, and trivalent cations. **A.L. Hagen**, M. Cash, J.S. McConnell

ENVR 593. Analysis of endocrine disrupting chemicals (EDCs) accumulation in Brown Planaria and its effects on regeneration. **R. AminiTabrizi**, R. Davis, B. Potter, K. Tucker

ENVR 594. Ionic/molecular sponge behavior of graphene oxide laminates. **Y. You**, X. Jin, R. Joshi

ENVR 595. Effects of exposure to light emitting diode (LED) using the model organism *Caenorhabditis elegans*. **F.H. Abdel-Rhman**, A. Aldawsari, K. Anthony, M.A. Saleh

ENVR 596. Oxidation of 3,5,6-trichloro-2-pyridinol by zero valent iron (ZVI) activated persulfate. **R.T. Mogharbel**, C. Yestrebsky

ENVR 597. Surfactant control of heterogeneous oxidation of atmospheric organic aerosol. **J. Faust**, J.P. Abbatt

ENVR 598. Sorption dynamics of cadmium and chromium (II) onto montmorillonite from mixed solvent systems. **M. Cash**, A.L. Hagen, J.S. McConnell

ENVR 599. Soil organic matter in native prairies and prairie restorations III: Structural studies of humic acids with carbon-13 NMR spectroscopy. A. Poladi, J.S. McConnell, **M. Cash**

ENVR 600. Removal of heavy metals in metal plating wastewater by powdered activated carbon (PAC) and sodium

diethyldithiocarbamate-modified PAC. **T. Kim**, T. Kim, M. Kim, K. Zoh

ENVR 601. Lead and copper ion levels in drinking water: Tap versus bottled. **C. Celani**, P.A. Brletic

ENVR 602. Improving pollution mapping with autonomous and semi-autonomous vehicles. **J.R. Casar**, G. Quiroz, C.M. Clark, L. Hawkins

ENVR 603. Comparison of effective optical properties of internally mixed aerosols computed using various mixing rules. **K.S. Dooley**, J. DeYoung

ENVR 604. Aerobic granulation for wastewater treatment: Performance evaluation at elevated temperature using real wastewater. **M. Bob**, H. Ab Halim, A. Nor-Anuar, Z. Ujang

ENVR 605. Dechlorination of octachlorodibenzofuran by zero-valent magnesium with and without activated carbon using different solvent systems. **A.T. Mogharbel**, C. Yestrebsky

ENVR 606. Adsorption mechanism of thallium(I) by smectite. **L. Guo**, H. Lin, **S. Wang**

ENVR 607. *In situ* remediation of poly-chlorinated biphenyl contaminated concrete using non-metal and activated metal treatment systems. **A.M. Almutairi**, C.G. Lewis, C. Clausen, C. Yestrebsky

ENVR 608. Selective removal of radioactive cesium from nuclear waste by zeolites: On the origin of cesium selectivity revealed by systematic crystallographic studies. H. Lee, H. Kim, H. Jeong, M. Park, D. Chung, K. Lee, E. Lee, Y. Kim, J. Kim, **W. Lim**

ENVR 609. Mineralogical studies of precipitates and geochemistry of passive treatment system in Gajipeong Coal Mine, Korea. **J. Kim**, J. Seo, C. Lee, Y. Kim, J. Kim, J. Hyeon

ENVR 610. Study on characterization of magnetized zeolitic materials and recovery from aqueous phase by magnetic separation. H. Kwon, T. Shin, W. Lim, J. Kim, **Y. Kim**

ENVR 611. Epoxides as agents for chemical weapon decontamination and solidification. **D.J. McGarvey**, W.R. Creasy

ENVR 612. Development of engineered surrogate soils. **G. Abdalla**, A. Pandey, B.J. Haywood, S.P. Smith, B. Subramanian, D. Spivak, R.L. Cook

ENVR 613. Synthesis and characterization of organically modified montmorillonite for sequestration of perfluoroalkyl acids in contaminated water. **K. Cooley**, L. MacManus-Spencer, M.E. Hagerman

ENVR 614. Synthesis and characterization of organically modified hectorites for sequestration of perfluoroalkyl acids from drinking water. **A. Pagano**, K. Cooley, L. MacManus-Spencer, M.E. Hagerman

ENVR 615. Evolved gas analysis of the preignition stage of invasive plants of East Texas. **A.D. Trevino**, A.S. Frantzen, M. Tiller, B.P. Oswald

ENVR 616. Application of dispersive pipette extraction in analysis of organic contaminants in water. **H. Guan**, X. Li, W. Huang, Q. Cai

ENVR 617. Concentration exposure effects on the integrative capability of polar organic chemical integrative samplers. **R. Taylor**, V. Toteu Djomte, S.M. Chen, K. Chambliss

ENVR 618. Organic matter size and source in urban systems controls Cu biouptake by *Selenastrum capricornutum*. H. Luan, **T.M. Vadas**, K. Turpin-Nagel

ENVR 619. Monitoring of crop protection chemicals in water: Effects of changing environmental conditions on POCIS sampling rates. **V. Toteu Djomte**, R. Taylor, S.M. Chen, K. Chambliss

ENVR 620. Selective catalytic reduction of NO over Ce_{0.3}TiO_x supported metal oxide catalysts. **Z. Duan**, J. Liu, Z. Zhao

ENVR 621. Synthesis MnCo₂O₄ spinel-type catalyst doped with alkaline earth metal for the catalytic combustion of soot. **K. Zhao**, Z. Zhao, Y. Wei, Y. Li, R. Li

ENVR 622. Novel SCRPF path with the three-dimensionally ordered macroporous La_{1-x}K_xMnO₃ perovskite-type mixed metal Oxides atalysts for the simultaneous removal of PM and NO_x from diesel engine. **R. Li**, Z. Zhao

ENVR 623. Removal and recovery of phosphate from wastewater using novel reusable renewable resource-based nanocomposites. **A. Nakarmi**, T. Viswanathan

ENVR 624. Comparative studies of the treatment of rubber processing effluent with *Moringa oleifera* seed powder and *Jatropha carcus* seed powder as coagulants. **O. Ize-Iyamu**, E. Egbon, D. Ehiwe, O. Ize-Iyamu

ENVR 625. Application of factorial analysis to optimize preparation of activated carbons from renewable and low-cost precursors including olive pits, date pits, acorn shells, corn husks and coconut shells. **A. Algahamdi**, Z. Al-Khayat, A. Almalki, A. Alrashdi, T. Assiri, E. Alkhatib, P.A. Snetsinger

Section A
Ernest N. Morial Convention Center
Hall D

Green Chemistry & the Environment

A. Balu, R. Luque, S.O. Obare, Organizers

6:00-8:00

ENVR 626. 2D material-based membranes for ionic liquid recycling. **J. Yin**, S. Tan, I. Hammtree, D. Li

ENVR 627. Beyond palm oil: Anticipatory environmental and techno-economic modelling for a bio-refinery process producing future food, fuels and high-value chemicals using green chemistry techniques. **S. Parsons**, M. McManus, C. Chuck

ENVR 628. Adsorption of lactic acid from fermentation broth using a cost-effective adsorbent. **K. Chutivasanaskun**, T. Chaisuwan, S. Wongkasemjit

ENVR 629. Ecological friendly

fabrication of polymer composites employing solution blending assisted with protic ionic liquid. **R.L. Perez**, J.S. Van Buskirk, P.K. Chhotaray, I.M. Warner

ENVR 630. Impacts of energy on environment. **T. Komolafe**

ENVR 631. Novel discharge-based technology for converting tar compounds into fuel gas. **J. Sun**

ENVR 632. Withdrawn.

ENVR 633. Using enzymatic combinations to treat asphaltene aggregation. **J. Abolafia**, **J. Cowan**, **A. Harrison**, **J. Hensley**, **T. Kim**, **W. Ko**, **M. Le**, **H. Manivannan**, **L. Rivera**, **P. Sarker**, **R. Tyagi**

Section A
Ernest N. Morial Convention Center
Hall D

Innovative Chemical & Material Approaches for Sustainable Water Purification

J. Choe, J. Liu, D. Shuai, Y. Wang, Organizers

6:00-8:00

ENVR 634. Mechanistic study on the decomposition of perfluorooctanesulfonic acid by advanced oxidation combined with reductive defluorination. **N. Souza**, A. Parenky, H. Choi

ENVR 635. Functionalized chitosan-Ti₃C₂T_x (MXene) nanofiber composite for water filtration. **E. Mayerberger**, A. Toth, M. Barsoum, C.L. Schauer

ENVR 636. Effects of citrate and tartrate on 2,4-dichlorophenol and 2,4,6-trichlorophenol removal in pyrite-packed columns under continuous flow conditions using heterogeneous Fenton reaction. O. Oral, **C. Kantar**, N.A. Oz

ENVR 637. Development of functional plastics containing long-chain aliphatic podands for the remediation of water. **J. Pothoof**, M. Bhagwagar, C. Baker, M.A. Benvenuto

ENVR 638. Air cathode iron-electrocoagulation (ACE) for removing emerging contaminants of concern in wastewater. **S. Bandaru**, A. Gadgil

ENVR 639. Utilization of polyisobutylene bound magnetic nanoparticles for the extraction of crude from aqueous environment conditions. **P.K. Manyam**

ENVR 640. Faceted TiO₂/Fe₂O₃ nanoparticles with carbon-based supports for water treatment applications. **A. Yurum**, Z. Gohari, Y. Yurum

ENVR 641. Adsorption technique for organic pollutants using different carbon materials. **A. Mahmoud**, A. Stolle, M. Steller, P. Braeutigam

ENVR 642. Hybrid porous materials for the removal of dye-contaminated wastewater. **M. Chin**, F. Tian

ENVR 643. Adsorption of lead onto activated carbon derived from *Garcinia cambogia*. **A. Liyanage**, M. Edussuriya, T. Mlsna

ENVR 644. Withdrawn.

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ENVR 645. Innovative chemical & material approaches for sustainable water purification. **S. Goodman**, K. Song, A. Dichiaro

Section A

Ernest N. Morial Convention Center Hall D

Novel Concepts in the Role of Chemistry in the Food, Energy & Water Nexus

S. Ahuja, S. Chae, I. Chowdhury, D.D. Dionysiou, *Organizers*

6:00-8:00

ENVR 646. Discovery of design principles for phosphate recognition at water interfaces. **W. Zhao**, J.F. Neal, H.C. Allen, A.H. Flood

ENVR 647. Extraction and quantification of environmental inositol phosphates using solid phase extraction and inductively coupled plasma mass spectroscopy. **A. Altomare**, M.J. Beazley

ENVR 648. Diurnal variability in organic matter constituents in an anaerobic baffled reactor treating domestic wastewater for agricultural water reuse applications. Z. Orandle, B. Pietruschka, M. Palomo, C. Buckley, S. Mncumbe, C. Pascua, L. Steinberg, **N. Mladenov**

Section A

Ernest N. Morial Convention Center Hall D

Novel Membrane-Based Technology for Water Purification & Desalination

D. Jassby, B. Mi, *Organizers*

6:00-8:00

ENVR 649. Removal of natural organic matter with nano-filtration after electrodiolysis pretreatment. **S. Kum**, D.F. Lawler, L.E. Katz

ENVR 650. Mitigation of toxic industrial chemicals and materials in water for emergency individual hydration. **E. Brack**, W. Zukas, T. Tiano, M. Mcpartlin

ENVR 651. Effect of the surface zeta potential on the fouling reduction of nanocellulose coated ultrafiltration membranes. **M. Yang**, B.S. Hsiao, P. Hadi

ENVR 652. Analysis of organic compound permeability in relation to ultrafiltration membrane fouling. **A.A. Sanchez**, N. Mladenov

Section A

Ernest N. Morial Convention Center Hall D

Ongoing Challenges in the Treatment of Contaminants of Emerging Concern

L.M. Blaney, A.J. Hernandez, A. Heyden, Y. Men, *Organizers*

6:00-8:00

ENVR 653. Effect of iron activator types on the persulfate oxidation of pharmaceuticals (diclofenac, salicylic acid and ibuprofen). **J. Choi**, W. Sik Shin

ENVR 654. Role of morphology and corresponding properties in nanotoxicity of nanoscale battery material

$\text{Li}_2\text{Ni}_2\text{Mn}_2\text{Co}_{1.3}\text{O}_{12}$. **N.V. Hudson-Smith**, M. Hang, P. Clement, R.J. Hamers, C.L. Haynes

ENVR 655. Exploring the role of lipopolysaccharides in bacterial interactions with nanoparticles. J.T. Buchman, A. Rahnamoun, **K.M. Landy**, X. Zhang, A. Vartanian, L.M. Jacob, C.J. Murphy, R. Hernandez, C.L. Haynes

Section A

Ernest N. Morial Convention Center Hall D

Physics & Chemistry of Water Treatment: Symposium in honor of Professor Desmond F. Lawler

J. Darby, L.E. Katz, J.A. Nason, N.B. Saleh, *Organizers*

6:00-8:00

ENVR 656. Quantifying copper speciation in pulp and paper wastewater effluent and implications for the biotic ligand model. **J. Mitzel**

ENVR 657. Examining the role of TiO_2 surface transformations on nanoparticle properties and treatment efficacy. **A. Deline**, J.A. Nason

ENVR 658. Fundamental studies of ultrasound induced degradation of a popular antihistamine, cetirizine. **D. Cui**, A. Tarifa, A. De Caprio, K.E. O'Shea

ENVR 659. Predicting performance and nutrient management feasibility of struvite recovery systems. **A. Furneaux**, R.D. Cusick

ENVR 660. Impact of water quality characteristics on the mitigation of estrogenic contaminants from drinking water via electrocoagulation and electrooxidation. **K.N. O'Malley**, E. Maher, P. McNamara

ENVR 661. Aqueous chloride concentrations and ionic strength control silver nanoparticle toxicity in *Pseudomonas aeruginosa* thereby increasing stress response and antibiotic resistance. **B.A. Chambers**, S.K. Smith, N.B. Saleh, M.J. Kirisits

ENVR 662. Forward osmosis on seawater and wastewater effluent from a steel industry. J. Jung, **J. Kweon**, J. Ryu

ENVR 663. Modeling the performance of a pulp mill wastewater treatment plant located in Uruguay, South America. S. Bentancur, C. Lopez-Vazquez, **H. Garcia**, M. Duarte, D. Brdjanovic

ENVR 664. Biosolids-derived biochar for adsorption of organic micropollutants: The impact of temperature and pore size. **Y. Tong**, B. Mayer, S.L. Singer, P.J. McNamara

ENVR 665. Physicochemical relationships between metal-based (Fe^{3+} , Al^{3+}) precipitates and inorganic/organic contaminants. **S. Yeo**, T. Stewart, S. Yoon, D.F. Lawler, L.E. Katz

ENVR 666. Influence of coagulant characteristics on the removal of DOM and low levels of Hg from surface water in alum and ferric-coagulation systems. **F. Diaz**, L.E. Katz, D.F. Lawler

ENVR 667. Effect of sludge retention time on the filtration performance of anaerobic

membrane bioreactors treating synthetic dairy wastewater with high lipid content. **A. Szabo**, S. Pacheco-Ruiz, D. Miguez, C. Hooijmans, H. Garcia, D. Brdjanovic, J. van Lier

ENVR 668. Evaluation of the Speece cone oxygen transfer performance in clean water and mixed liquor in a pilot-scale membrane bioreactor. M. Barreto, I. Ochoa, **H. Garcia**, C. Hooijmans, D. Brdjanovic

ENVR 669. Predicting electro conductivity based on ionic composition for multi component aqueous solutions. **S. Jafarzade Ghadimi**, W. Walker

ENVR 670. Achieving high water recovery in real brackish water treatment by membrane capacitive deionization (MCDI) desalination systems. **O. Owoseni**

ENVR 671. Relative importance of sweep coagulation and inactivation for virus control at different pH values during iron electrocoagulation. **K. Kim**, S. Chellam

ENVR 672. Constant flux microfiltration of secondary wastewater effluent: Fouling mechanisms with and without backwashing. **K. Gupta**, S. Chellam

ENVR 673. Performance deterioration and chemical cleaning of 7-year old reverse osmosis membranes from a full-scale water reuse facility. **B. Abada**, S. Chellam

ENVR 674. Transformation and aggregation of indium tin oxide (ITO) nanoparticles: Influence of surface chemistry on environmental fate of globally important engineered nanomaterial. **J. Grundy**, A. Suresh, N.B. Saleh, L.E. Katz, C.A. Saez Cabezas, M.J. Kirisits, D.J. Milliron

ENVR 675. Ultrasonic degradation of the Zika pesticide naled in aqueous solution: Kinetics and mechanistic investigation. **A. Abdullah**, K.E. O'Shea

Section A

Ernest N. Morial Convention Center Hall D

Redox & Interfacial Dynamics Among Coupled Biogeochemical Cycles of Fe, S, Minerals & Organic Matter: Implications to Multiscale Behaviors of Contaminants, Carbon & Nutrients

J.M. Cerrato, Y. Hu, Z. Wang, T. Zeng, *Organizers*

6:00-8:00

ENVR 676. Dynamic interaction between As, Fe, and S controlling arsenic mobility. **T. Jiarong**, C. Liu, L. Peng

ENVR 677. Interaction between reduced colloidal humic substances with chromium and its effect on chromim transformation and transport. **B. Li**, C. Liu, P. Liao

ENVR 678. Dechlorination reactivity of biologically derived iron sulfide and sulfidated zero-valent iron particles. **A.W. Murray**, S. Islam, W. Yan, K. Millerick

ENVR 679. Preparation of magnetic chitosan honeycomb beads composed of chitosan and sodium citrate: an effective and recyclable adsorbent for the removal of heavy metal ions from aqueous

solutions. **S. Pu**, H. Ma, **W. Chu**

ENVR 680. NO_x and SO_x formation, reaction, and dispersion in complex urban areas: Modeling and comparison to field data. **S. Wuerz**

Section A

Ernest N. Morial Convention Center Hall D

Shaping Activity through Structural Modification: From Small Molecules to Nanoparticles: A Symposium in honor of Professor Bing Yan

D.D. Dionysiou, V.K. Sharma, H. Zhou, *Organizers*

6:00-8:00

ENVR 681. Breakdown of TCDD using a visible light-powered hybrid photocatalyst (FePWC3N4): Detection with residual toxicity to zebrafish embryos. A. Wang, Z. Wang, W. Dong, J. Dong, J. Liu, D.E. Hinton, M. Chernick, **W. Dong**

ENVR 682. GD2-targeting nanoconstruct as CT imaging and NK cell-mediated cancer cell killing agent. **P. Jiao**

ENVR 683. Amidoximes as histone deacetylase inhibitors. **Q. Geng**

ENVR 684. Two of the seven nanoparticle properties induce oxidative stress through distinct pathways. H. Sun, **H. Zhou**, B. Yan

ENVR 685. Airborne particulate matter causes the activation of plasma kallikrein-kinin system. **Q.S. Liu**, X. Jin, F. Hao, Q. Zhou, G. Jiang

ENVR 686. Formation of environmentally persistent free radicals (EPFRs) on polycyclic aromatic hydrocarbons (PAHs) contaminated ion metals modified-smectite clays. **H. Jia**

ENVR 687. Protein corona formation ameliorate amorphous silica nanoparticle-induced cardiovascular inflammation. **Y. Song**

Section A

Ernest N. Morial Convention Center Hall D

Water Use Optimization: Water Quality, Reuse & Treatment

S. Bushart, Y. Jun, K. Pagilla, N. Rao, Y. Yang, *Organizers*

6:00-8:00

ENVR 688. Withdrawn.

ENVR 689. Trace metal quantification in unregulated water sources on the Navajo Reservation. **J. Torkelson**, J. Credo, J.C. Ingram

ENVR 690. Removal of bisphenol-S (BPS) by O_3 and H_2O_2 advanced oxidation processes in water. **C. Weeks**, P.A. Ruiz-Haas

ENVR 691. Polymeric membrane reactor for ozone treatment of endocrine disrupting compounds in water. Y. Li, **J. Song**, K. Yeung

ENVR 692. Microwave-induced catalytic oxidation of two-component (phenol, p-nitrophenol) phenolic

wastewater. R. Liu, W. Wang, C. Shi, **C. Ma**

Biomineralization & Bio-Compatible Minerals

Sponsored by GEOC, Cosponsored by BIOL and ENVR

Contaminated Site Remediation through Microbial, Geological & Chemical Processes

Sponsored by GEOC, Cosponsored by ENVR

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

Forensic Geochemistry

Sponsored by GEOC, Cosponsored by ENVR

Manganese Oxides: Their Formation, Structure, Reactivity & Applications

Sponsored by GEOC, Cosponsored by ENVR

Microbially-Driven Geochemical Reactions: Kinetics & Communities

Sponsored by GEOC, Cosponsored by BIOL and ENVR

Mineral-Water Interface Geochemistry & Modeling at the Laboratory- & Field-Scales: Symposium in Honor of James A. Davis

Sponsored by GEOC, Cosponsored by ENVR

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Sponsored by GEOC, Cosponsored by ENVR and INOR

Multiscale Biogeochemical Processes in Soil Ecosystems: Critical Reactions & Resilience to Climate Changes

Sponsored by GEOC, Cosponsored by AGRO and ENVR

Theoretical & Experimental Studies of Supercritical Fluids in the Subsurface

Sponsored by GEOC, Cosponsored by ENVR and INOR

THURSDAY MORNING

Section A

Ernest N. Morial Convention Center Room 346

Green Chemistry & the Environment

Cosponsored by CEI
Financially supported by AEESP
A. Balu, S.O. Obare, *Organizers*
R. Luque, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 ENVR 693. Recovery of rare earth elements (REEs) from coal fly ash: Coupling hydrothermal extraction and ligand-associated hydrophobic glass media sorption. **T.M. Ditrlich**, S.K. Mohanty

9:05 ENVR 694. Voided polymer imaging technology for thermal printing. **B. Einsla**

9:35 ENVR 695. Alternative solvents in organic synthesis: Supporting the incorporation of sustainability into the chemical industry. **K.L. Wilson**, A.J. Watson

10:05 ENVR 696. Chemical innovation: A GAO report on sustainability. **K. Howard**

10:25 Intermission .

10:35 ENVR 697. Dual optimization of microporosity in carbon spheres for superior CO₂ adsorption at ambient conditions. **A.C. Dassanayake**, M. Jaroniec

10:55 ENVR 698. Adsorption of bisphenol-A in aqueous solution using silica nanoparticles obtained from sugarcane waste ash. **S. Rovani**, J.J. Santos, P. Corio, D.A. Fungaro

11:15 ENVR 699. Reduction of Pb and Cr metal contents in laboratory wastewater using electrocoagulation and chelation of citric acid from *Averrhoa bilimbi*. Linn. **C. Saifri**, Y. Yusbarina

11:35 ENVR 700. Microwave-induced organic synthesis and mass spectral characterization of curcumin and 2-aminoguanidine adduct: A potentially useful inhibitor for advanced glycation end products in diabetes and other chronic diseases associate with oxidative stress. **B. Dayal**, M.A. Lea

11:55 ENVR 701. Environmentally persistent free radicals in total particulate matter of tobacco smoke and e-cigarettes. **F. Hasan**, L. Khachatryan, S.M. Lomnicki

12:15 Concluding Remarks.

Section B

Ernest N. Morial Convention Center Room 347

Current State of Environmental Contamination Research: Theory & Experiment

Cosponsored by CEI
S. Ahuja, M.K. Shukla, *Organizers*
G. Jenness, H. McAlexander, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 702. Environmental organic chemistry: Photooxidation and fate transport. **W. Nelson**

8:30 ENVR 703. Photocatalytic nylon: Chitosan membrane blends. **J.P. Buchanan**, C.A. Weiss, J.A. Jefcoat, H.R. Peel, R.K. Buchanan, A.D. Netchaev, J.D. Klein, S.G. Patel, R.D. Brown, J.M. Montijo

8:55 ENVR 704. Biodegradation of environmental microplastics generated from laundering of fabrics. **J. Pawlak**, R.A. Venditti, J. Daystar, M. Ankeny, J. Cheng

9:20 Intermission.

9:35 ENVR 705. Degradation kinetics of tetracycline antibiotics in agricultural manure during anaerobic digestion. **J. Kasumba**, B. Couch, J.H. Loughrin, E.D. Conte

10:00 ENVR 706. Predicting thermophysical properties of environmental contaminants via first principles and classical molecular simulation approaches. **N. Rai**, H. Goel, S. Venkatesan

10:25 ENVR 707. Nature of

contaminants in arid soil: A computational study on the adsorption of munition compounds and arsenic species on the (0001) surface of β-Fe₂O₃ and β-Al₂O₃. **G.R. Jenness**, J. Seiter, M.K. Shukla

10:50 Intermission.

11:05 ENVR 708. Mechanistic insights into the aerobic oxidation of alcohols on Pd(111). **J.R. Schmidt**

11:30 ENVR 709. Quantum chemical calculation on photodegradation of some insensitive munitions compounds. **M.K. Shukla**

Section C

Ernest N. Morial Convention Center Room 348

Emerging Environmental Biotechnologies for Energy-Efficient Pollutant Control, Remediation & Resource Recovery

Cosponsored by CEI
Y. Men, C.M. Sales, *Organizers*
X. Mao, S. Yi, W. Zhuang, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 710. Locally enriched cultures can cometabolize 1,4-dioxane at drinking water relevant concentrations. **A. McElroy**, D. Knappe, M. Hyman

8:25 ENVR 711. Cometabolic degradation of antibiotic using microalgae. **J. Xiong**, M. Kurade, G. Ha, J. Kim, B. Jeon

8:45 ENVR 712. Ammonia-monooxygenase-mediated cometabolic biotransformation and abiotic transformation of micropollutants. **Y. Yu**, P. Han, L. Zhou, M. Wagner, Y. Men

9:05 ENVR 713. Biotransformation of 6:2 fluorotelomer thioether amido sulfonate under different redox conditions. **S. Yi**, K. Harding-Marjanovic, E. Houtz, J.A. Field, W. Zhuang, D.L. Sedlak, L. Alvarez-Cohen

9:25 ENVR 714. Microbial community variation in organohalide antibiotics containing waterbodies. **J. He**

9:55 Intermission.

10:10 ENVR 715. Biocatalytic degradation of 1,2,3-trichloropropane for achieving extremely low regulatory limits. **A. Razavi**, F. Shirazi

10:30 ENVR 716. Surface display enzyme biocatalysts for treating emerging contaminants. **N. Wei**, Y. Chen, B. Zhu

10:50 ENVR 717. Identification and enzymatic characterization of a novel NADH dependent azoreductase, encoded by AzoK in *Klebsiella pneumoniae*. **S. Dixit**, S. Garg

11:10 ENVR 718. Polycyclic aromatic hydrocarbon degradation by *Cycloclasticus*, as measured by a novel immunoassay, correlates with increased cell proliferation. S. Zhang, M. Omarova, L. Swientoniewski, A. Panchal, T. Yu, V.T. John, Y. Lvov, D. Zhang, **D.A. Blake**

11:30 ENVR 719. From bioavailability science to soil remediation: Sustainable stimulation of biological networks for enhanced pollutant carbon turnover. **J. Ortega-Calvo**, R. Posada-Baquero, J. Vila, J. Garcia, M. Cantos

Section D

Ernest N. Morial Convention Center Room 349

Water Use Optimization: Water Quality, Reuse & Treatment

Water treatment: Processes

S. Bushart, Y. Jun, K. Pagilla, N. Rao, Y. Yang, *Organizers, Presiding*

8:00 ENVR 720. Impact of CeO₂ nanoparticles and sodium chloride (NaCl) on soil water potential and distribution. B.L. Hallmark, X. Ma, A. Assi, P. Schwab, **R. Mohtar**

8:30 ENVR 721. Source water quality impacts on drinking water treatment plant performance and disinfection byproduct formation during a storm event. **C.W. Neil**, Y. Zhao, A. Zhao, J. Neal, J. Yang

8:50 ENVR 722. Investigation of radical chlorine species in advanced oxidation processes. **J. Castillo**, S. Mezyk

9:10 ENVR 723. Treatability of dissolved organic nitrogen in an advanced tertiary wastewater treatment plant. **K. Ahmadi**, A. Mayorga, Y. Yang, E. Marchand

9:30 ENVR 724. Formation of bromated halonitromethanes from organic amines during ozonation. **J. Fu**, H. Yang, X. Wang, J. Tan, W. Yuan, Z. Yuan, L. Feng, Y. Xie

9:50 Intermission.

10:00 ENVR 725. Withdrawn

10:20 ENVR 726. Evolutionary trajectories of urban water demand and the journey towards the water sensitive city. **M. Rippy**

10:40 ENVR 727. Impact of operating conditions in membrane-based separation processes on the characteristics of inorganic scales on membrane surface. **O.R. Lokare**, S. Wadekar, R.D. Vidic

11:00 ENVR 728. pH-dependence of chloramine photolytic quantum yields under advanced oxidation process conditions. **L. Twilight**, K.P. Ishida, S.P. Mezyk

11:20 ENVR 729. Radical-based degradation of contaminant alkyl nitrates in advanced oxidation process treated wastewaters. **S. Arciva**, B. Daws, S.P. Mezyk

11:40 ENVR 730. Investigation of the reaction of the hypochlorite radical with nitrosamines in aqueous solution. **A. Lechner**, S.P. Mezyk

Section E

Ernest N. Morial Convention Center Room 350

Accurate Mass/High Resolution Mass Spectrometry for Environmental Monitoring & Remediation

T. Anumol, R. Marfil-Vega, T.M. Young, C. Zwiener, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 731. Structure identification by mass spectrometry non-targeted analysis using the US EPA's CompTox Chemistry Dashboard. **A.J. Williams**,

†Cooperative Cosponsorship

A. McEachran, C. Grulke, S. Newton, K. Isaacs, K. Philips, N. Baker, J. Sobus

8:30 ENVR 732. Quality control/quality assurance for qualitative analysis of environmental samples by LC/HRAM MS. **J. Zweigenbaum**

8:55 ENVR 733. Exploring the exposome with non-targeted analysis of house dust. **E.M. Ulrich**, D. Mills, J. Sobus, J. McCord, K. Hibbert, N. Tulve

9:20 ENVR 734. Comprehensive targeted and non-targeted analysis of indoor dust using LC-HRMS with ion mobility. **D. Stevens**, L. Mullin, K. Jobst, E. Reiner, A. Ladak, R. Plumb

9:45 Intermission.

10:10 ENVR 735. Developing and improving accurate mass tools for the analysis of unknowns in surface and groundwater samples. **E.M. Thurman**, I. Ferrer, J. Zweigenbaum

10:35 ENVR 736.

Kendrick mass defect as an additional tool to process high resolution mass spectrometry data and identify transformation products. **C. Zwiener**, S. Merel

11:00 ENVR 737. Identifying universally present consumer product constituents in California sewage sludge by high resolution LC-ESI-qTOF-MS. **G. Pecora**

11:25 ENVR 738. Hydrogen deuterium exchange of environmental samples to improve non-target elucidation. **E. Schymanski**, C. Ruttkies, J. Hollender, S. Neumann, M. Krauss

11:50 Discussion.

Section F

Ernest N. Morial Convention Center Room 351

Nutrient Management & Water/Wastewater Treatment through Biomass Production in Aquatic & Terrestrial Ecosystems

W. Grieco, A. McQuilling, *Organizers, Presiding*

9:00 Introductory Remarks.

9:05 ENVR 739. Efficacy of submerged attached growth reactors for small community wastewater ammonia removal. **R.R. Mattson**, M. Wildman, C.L. Just

9:25 ENVR 740. Integrating anammox with autotrophic denitrification process by electrochemistry technology. **S. Qiao**, X. Yin, J. Zhou

9:45 ENVR 741. Electrocatalytic oxidation degradation of ammonia nitrogen wastewater. **Z. Yang**, G. Yan, S. Guo

10:05 ENVR 742. Comparative assessment of suspended and benthic microalgae cultivation strategies for water treatment and production of biobased commodities. **R.W. Davis**, A. Siccadi, J. Quinn, R.C. Pate

10:25 Intermission.

10:40 ENVR 743. Modeling nitrogen use efficiency in multi-trophic aquaculture production. **A. McQuilling**, D. Blersch, D. Wells

11:00 ENVR 744. Conversion of concentrated thin stillage from corn-

ethanol production to beneficial biomass products. **C. Lin**, P. K. C, K. Gurusu, S. Shatu, T. McCawley, R.G. Jones, B. Corace, E. Corace, C. Lin

11:20 ENVR 745. Optimized combination of fillers in constructed wetlands for eutrophication control. **Z. Duan**, Q. Liu, J. Liu, G. Wang, Y. Zhou, H. Liu, N. Li

11:40 ENVR 746. Resource recovery from wastewater as single-cell protein. **H.R. Molitor**, J.L. Schnoor

Section G

Ernest N. Morial Convention Center Room 342

Advances in Understanding of Sorptive & Reactive Properties of Pyrogenic Carbonaceous Matter (PCM) in the Environment

W. Mitch, J.J. Pignatello, *Organizers*
W. Xu, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 ENVR 747. Pyrogenic carbonaceous matter interactions with inorganic and organic carbon and nitrogen. **J. Lehmann**, R. Hestrin, L. Krounbi, S. DeCicciis, T. Whitman

9:10 ENVR 748. Biochars change the sorption and degradation of thiacloprid (THI) in soil: Insights into chemical and biological mechanisms. **H. Sun**, P. Zhang

9:30 ENVR 749. Carbon dioxide-mediated ammonia loading onto pyrogenic waste biomass. **L. Krounbi**

9:50 Intermission.

10:05 ENVR 750. Pyrogenic organic matter alters the efficiency of soil microbial communication. **C.A. Masiello**, X. Gao, H. Cheng, V.I. Del, J.J. Silberg

10:40 ENVR 751. Influence of black carbon on anaerobic microbial dechlorination rates of PCBs. **T. Needham**, U. Ghosh, K.R. Sowers

11:00 ENVR 752. Biochar-facilitated microbial reduction of hematite. **S. Xu**, D. Adhikari, R. Huang, Y. Tang, E.E. Roden, **Y. Yang**

11:20 Panel Discussion.
11:40 Concluding Remarks.

Manganese Oxides: Their Formation, Structure, Reactivity & Applications

Sponsored by GEOC, Cosponsored by ENVR

Elucidation of Mechanisms & Kinetics on Surfaces

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Lignin: From Fundamentals to New Materials & Applications

Polymers & Resins from Lignin

Sponsored by CELL, Cosponsored by ENVR and POLY

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Iron Oxyhydr-Oxides: Redox Processes

Sponsored by GEOC, Cosponsored by ENVR and INOR

Unconventional Catalysis Targeting Stable Molecules

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

Theoretical & Experimental Studies of Supercritical Fluids in the Subsurface

Sponsored by GEOC, Cosponsored by ENVR and INOR

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems

Sponsored by CELL, Cosponsored by ENVR and POLY

THURSDAY AFTERNOON

Section B

Ernest N. Morial Convention Center Room 347

Current State of Environmental Contamination Research: Theory & Experiment

Cosponsored by CEI
S. Ahuja, G. Jenness, *Organizers*
H. McAlexander, M.K. Shukla, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 ENVR 753. City-specific *in vitro* exposure-toxicity relationships of PM_{2.5} in China. **L. Jin**, J. Xie, C.K. Wong, R. Zimmermann, X. Li

1:30 ENVR 754. Assessing the impacts of changes in sources on air pollution in Rochester, NY from 2008 to 2013. **F. Emami**, P. Hopke

1:55 ENVR 755. Environmental remediation of chlorinated hydrocarbons using biopolymer stabilized iron loaded halloysite nanotubes. **Y. Su**

2:20 Intermission.

2:35 ENVR 756. Synthesis and evaluation of novel low viscosity amine-based acid gas capture solvents. **J. Page**, D. Malhotra, P.K. Koech, M. Nguyen, R. Zheng, V. Glezakou, R. Rousseau, D.J. Heldebrant

3:00 ENVR 757. Intra-day pollution characteristics and load investigation of antibiotics in major wastewater treatment plants of Beijing based on a more reliable sampling approach. **Y. Zhang**, B. Wang, G. Yu

3:25 ENVR 758. Biogeochemical model for gas ebullition in the presence of NAPLs in sediments. **M. Khazraee Zamanpour**, **K. Rockne**

3:50 Intermission.

4:05 ENVR 759. Toward quantitative H₂PO₄⁻ sensing: Simultaneous determination of all species concentrations in multi-equilibria of aqueous solutions containing dihydrogen phosphate. **J. Schell**, E. Zars, C. Chiccone, R. Glaser

4:30 ENVR 760. Source identification of fluorescent dissolved organic matters in MX river by PARAFAC and HPSEC. **B. Liu**, J. Wu, C. Cheng, J. Tang, Y. Chai, M. Khan

4:55 Concluding Remarks.

Section C

Ernest N. Morial Convention Center Room 348

Emerging Environmental Biotechnologies for Energy-Efficient Pollutant Control, Remediation & Resource Recovery

Cosponsored by CEI
Y. Men, S. Yi, *Organizers*
X. Mao, C.M. Sales, W. Zhuang, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 ENVR 761. Green oxidation via bioelectrochemically derived hydrogen peroxide. **J. Griffin**, E. Taw, A.A. Gosavi, N. Thornburg, K.A. Gray, J.M. Notestein, G. Wells

1:25 ENVR 762. Combining bioremediation and in situ chemical oxidation for treatment of aqueous film forming foams (AFFFs) in groundwater. **E.K. Cook**, Y. Sun, **C.I. Olivares**, S. Yi, D.L. Sedlak, L. Alvarez-Cohen

1:45 ENVR 763. Bioelectrochemical treatment of mixed 1,4-dioxane and chlorinated solvent contaminations. **N. Pica**, N. Johnson, Y. Miao, S. Mahendra, J. Blatevogel

2:05 ENVR 764. Lab-scale continuous ozonation combined with biofiltration to understand the fate of trace contaminants during slow sand filtration and soil aquifer treatment. **J. Wenk**, G. Zoumpouli, B. Kasprzyk-Hordern, O. Happel

2:25 ENVR 765. Deciphering microbial phenotypes via isotopically nonstationary metabolic flux analysis. **Y. Tang**

2:55 Intermission.

3:05 ENVR 766. Mass balance for N transformations in a nitrogen removing biofilters for onsite residential wastewater treatment. **S. Waugh**, X. Mao, C.J. Gobler, H. Walker

3:35 ENVR 767. Biofilm biology-informed biofilm engineering for environmental applications: From understanding biofilm lifestyle to building a better biofilm. **Y. Wu**, M. Mukherjee, **B. Cao**

3:55 ENVR 768. Withdrawn.

4:15 ENVR 769. Integrated system for thin stillage remediation coupled with microalgae cultivation for carbohydrate production. **F. Sayedini**, **A. Kermanshahi Pour**, Q. He

4:35 ENVR 770. Electrochemical filters for the selective recovery of rare earth and specialty metals. **D.L. Plata**, M.P. O'Connor

Section D

Ernest N. Morial Convention Center Room 349

Water Use Optimization: Water Quality, Reuse & Treatment

Water treatment: Method development

S. Bushart, Y. Jun, K. Pagilla, N. Rao, Y. Yang, *Organizers, Presiding*

1:00 ENVR 771. Multi-scale systems analysis for engineering optimization in water supply infrastructure systems. **Y. Yang**, C. Neil, N. Chang, Y. Jun, **B. Bierwagen**, T. Speth

[†]Cooperative Cosponsorship

1:30 ENVR 772. High frequency and near real-time monitoring of N-nitrosodimethylamine using a novel extraction-free chemiluminescence-based method. **S. Roback**, M.H. Plumlee, K.P. Ishida, T. Fujioka, H. Kodamatani

1:50 ENVR 773. Evaluation of the formation of chlorinated by-products during surface water treatment by an electro-peroxone process. **W. Yao**, J. Fu, G. Yu, Y. Wang

2:10 ENVR 774. Establishing cost and performance goals for electrochemical deionization: A techno-economic analysis of faradaic and capacitive materials in CDI systems. **S. Hand**, X. Shang, K. Smith, R.D. Cusick

2:30 ENVR 775. Slow-release persulfate candle assisted electrochemical oxidation of PAHs in groundwater. **A. Sarmanik**, W. Sik Shin

2:50 Intermission.

3:05 ENVR 776. Photocatalytic degradation of disinfection byproducts using natural sunlight and TiO₂. **I. Abusallout**, G. Hua

3:25 ENVR 777. Peanut shell based activated carbon and its use for heavy metal removal. **D. Pitre**, M. Edussuriya, T. Mlsna

3:45 ENVR 778. Competitive association of scale-forming cations with different water-soluble anionic polyelectrolytes (PSS and PAA) during membrane separation. **M. Chen**, K. Shafer-Peltier, S. Randtke, E.F. Peltier

4:05 ENVR 779. Adsorption kinetics of 4-n-nonylphenol on hematite and goethite. **K. Watson**

Section E

Ernest N. Morial Convention Center Room 350

Accurate Mass/High Resolution Mass Spectrometry for Environmental Monitoring & Remediation

T. Anumol, R. Marfil-Vega, T.M. Young, C. Zwienen, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 ENVR 780. Fall Creek monitoring station: An automated workflow to identify emerging contaminants using highly resolved temporal sampling. **C. Carpenter**, D.E. Helbling

1:30 ENVR 781. Identification of micropollutants in surface water by using suspect screening strategies based on regulatory databases. **P. Gago-Ferrero**, A. Krettek, L. Ahrens, K. Wiberg

1:55 ENVR 782. Tracking large numbers of CECs via non-target screening. **K.S. Jewell**, C. Dietrich, U. Kunkel, M. Schluessener, U.R. Thorenz, F. Thron, T. Ternes

2:20 ENVR 783. Emerging micropollutants in environment: Analysis of water samples by high resolution mass spectrometry. **M. Chachignon**, E. Cocardon, M. Denieul, V. Ingrand, G. Leroy, G. Meheut, C. Tondelier

2:45 Intermission.

3:10 ENVR 784. Detecting polar micropollutants in a river-riverbank

filtrate using non-target screening. **V. Albergamo**, J. Schollee, E. Schymanski, R. Helmus, J. Hollender, P. de Voogt

3:35 ENVR 785. Suspect screening of halogenated micropollutants in surface waters affected by wastewater discharges using passive samplers. **F. Menger**, K. Wiberg, L. Ahrens, P. Gago-Ferrero

4:00 ENVR 786. Targeted and untargeted analysis of per- and polyfluoroalkyl substances in Australian wastewater treatment plants. T. Coggan, T. Anumol, J. Shimeta, N. Crosbie, C. Milner, **B. Clarke**

4:25 ENVR 787. Newly identified hydrocarbon surfactants in AFFFs and AFFF-impacted groundwater. **R.A. Garcia**, A.C. Chiaia Hernandez, P. Lara-Martín, M. Loos, J. Hollender, J.A. Field

4:50 Concluding Remarks.

Elucidation of Mechanisms & Kinetics on Surfaces

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Manganese Oxides: Their Formation, Structure, Reactivity & Applications

Sponsored by GEOC, Cosponsored by ENVR

Lignin: From Fundamentals to New Materials & Applications

Biochemical Modification of Lignin

Sponsored by CELL, Cosponsored by ENVR and POLY

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Uranium Incorporation: Sulfate Mineral Geochemistry

Sponsored by GEOC, Cosponsored by ENVR and INOR

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Theoretical & Experimental Studies of Supercritical Fluids in the Subsurface

Sponsored by GEOC, Cosponsored by ENVR and INOR

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems

Sponsored by CELL, Cosponsored by ENVR and POLY

FLUO

Division of Fluorine Chemistry

N. Vasdev, *Program Chair*

SUNDAY MORNING

Section A

Embassy Suites New Orleans Fountainbleu Sec 1/2

ACS Award for Creative Work in Fluorine Chemistry: Symposium in honor of Erhard Kemnitz

T. Braun, D.A. Dixon, *Organizers*
F. Kraus, T. Skapin, *Presiding*

8:00 Introductory Remarks.

8:10 FLUO 1. Oxidations of aromatic species, usually in HF. **K. Seppelt**, M. Malischewski, M. Khanfar

8:40 FLUO 2. Coordination chemistry of xenon(VI) trioxide. **G.J. Schrobilgen**, J.T. Goettel, K.M. Marczenko, V. Haensch, H. Mercier

9:10 FLUO 3. Silicon fluorides and their congeners. **H.W. Roesky**

9:40 Intermission.

10:00 FLUO 4. Computational characterisation of catalysts in reactive environments: Phase stability, surface composition, structure and reaction sites. **N. Harrison**

10:30 FLUO 5. Employing silylium-ion like surface species as a potent hydrodehalogenation catalyst. **M. Ahrens**, M. Feist, A. Siwek, T. Braun, E. Kemnitz

11:00 FLUO 6. Novel synthesis approaches towards nano copper(II) fluoride – a high potential material for lithium ion batteries. **T. Krahl**, F. Marroquin Winkelmann, A. Martin, E. Kemnitz

SUNDAY AFTERNOON

Section A

Embassy Suites New Orleans Fountainbleu Sec 1/2

ACS Award for Creative Work in Fluorine Chemistry: Symposium in honor of Erhard Kemnitz

T. Braun, D.A. Dixon, *Organizers*
M. Finze, G.J. Schrobilgen, *Presiding*

1:00 FLUO 7. Fluoroammonium cations. **K.O. Christe**, A. Vij, W. Wilson, R.M. Haiges, D.A. Dixon

1:30 FLUO 8. Solid-state structure of protonated ketones and aldehydes. **M. Gerken**, D. Stuart, S.D. Wetmore

2:00 FLUO 9. New superacids based on pentafluoroothoellurate derivatives of aluminium. **S. Riedel**

2:30 Intermission.

2:50 FLUO 10. Recent studies on direct fluorinations and fluoroalylations. **S.S. Prakash**

3:20 FLUO 11. NHC-nickel-catalyzed derivatization of polyfluoroarenes via nickel-mediated C-F bond cleavage. **U.**

Radius

3:50 FLUO 12. Synthesis and reactions of aryldifluoromethyl copper reagents. **M. Kathan**, B. Duda, A. Haupt, **D. Lentz**

4:20 FLUO 13. Methylation of nitriles: Isolation and characterization of N-methyl nitrilium ions. **T. Saal**, A. Nitzer, K.O. Christe, R.M. Haiges

MONDAY MORNING

Section A

Embassy Suites New Orleans Fountainbleu Sec 1/2

ACS Award for Creative Work in Fluorine Chemistry: Symposium in honor of Erhard Kemnitz

T. Braun, D.A. Dixon, *Organizers*
M. Gerken, S.S. Prakash, *Presiding*

8:00 FLUO 14. Fluorine-containing matrix-metalloproteinase inhibitors: The role of fluorine substituents and Zinc binding groups on activity. **G. Haufe**

8:30 FLUO 15. Preparation and reactivity of selected cross-conjugated fluoroisoidenones and fluoro-dendralenes. **M. Ertzorn**

9:00 FLUO 16. Fluorine in peptide and protein engineering. **B. Kokschi**

9:30 FLUO 17. Interaction of genetically engineered polypeptides with rare earth-containing metal fluoride nanoparticles. J.P. Seeley, T. Krahl, E. Kemnitz, **J.T. Welch**

10:00 Intermission.

10:20 FLUO 18. Aluminum chlorofluoride –AlF₂Cl: Fluorine chemist catalyst of choice. **V. Petrov**

10:50 FLUO 19. Fluoride sol-gel procedures: Preparation of some atypical forms of nanostructured fluorides. **T. Skapin**

11:20 FLUO 20. Activation of fluorinated olefins by synergistic action at metal and silicon centres. **T. Braun**, E. Kemnitz, T. Ahrens, C. von Hahmann, C. Xu, G. Meißner, A. Raza, M. Talavera

MONDAY AFTERNOON

Section A

Embassy Suites New Orleans Fountainbleu Sec 1/2

ACS Award for Creative Work in Fluorine Chemistry: Symposium in honor of Erhard Kemnitz

T. Braun, D.A. Dixon, *Organizers*
S. Riedel, R.G. Syvret, *Presiding*

1:00 FLUO 21. Computational studies of main group and actinide fluorides and new fluoride affinities. **D.A. Dixon**

1:30 FLUO 22. Silver(2+) fluorides: Low dimensional magnetism with extremely strong superexchange. **W. Grochala**

2:00 FLUO 23. Chemistry of uranium and halogen fluorides. **F. Kraus**

2:30 Intermission.

2:50 FLUO 24. Using anhydrous hydrogen chloride as a probe molecule

†Cooperative Cosponsorship

for aluminum fluoride Lewis acids. **J.M. Winfield**

3:20 FLUO 25. Perfluorocarbon-liquids as ophthalmic devices—a piece of cake? **D. Menz**, H. Menz, T. Lechner

3:50 FLUO 26. Award Address (ACS Award for Creative Work in Fluorine Chemistry Sponsored by the ACS Division of Fluorine Chemistry). From crystalline to nanoscopic metal fluorides: A transformation into a different world of materials properties. **E. Kemnitz**

MONDAY EVENING

Section A

Ernest N. Morial Convention Center
Halls D/E

Sci-Mix

N. Vasdev, Organizer
8:00–10:00

FLUO 27. Recent advances in the epoxidation of perfluoro- and hydrofluoroolefins. **D.R. Brandt**, V. Petrov

FLUO 28. Synthesis of a heptapeptide containing an optically active trifluoromethyl-β⁵-tetrafluorosulfanyl-substituted amino acid. **A. Ikeda**, A.M. Capellan, J.T. Welch

TUESDAY MORNING

Section A

Embassy Suites New Orleans
Fountainbleu Sec 1/2

ACS Award for Creative Work in Fluorine Chemistry: Symposium in honor of Erhard Kemnitz

T. Braun, D.A. Dixon, Organizers
I. Krossing, J.T. Welch, Presiding

8:00 FLUO 29. Industrial scale fluorochemical synthesis: Importance of liquid- and gas-phase fluorination catalysis for halogen exchange chemistry in the preparation of low global warming potential (GWP) fluorocarbons. **R.G. Syvret**

8:30 FLUO 30. Preparation of new hydrofluoroethers (HFEs) by the addition of tetrafluoroethylene (TFE) to 2,2-dimethyl-1,3-dioxolane and subsequent reactions. X. Liu, M.J. Bulinski, M.G. Costello, **J.S. Thrasher**

9:00 FLUO 31. New fluorinated components for lithium-ion batteries. **G. Roesenthaler**, I. Cekic-Laskovic, M. Winter

9:30 FLUO 32. Fluorinated compounds synthesis in superacid. T. Cantin, U. Castelli, L. Lebedel, A. Mamontov, B. Michelet, A. Trouiller, H. Carreyre, F. Lecornué, A. Mingot, **S. Thibaudeau**

10:00 Intermission.

10:20 FLUO 33. Mechanochemical synthesis, structure and characterization of fluorine-containing alkaline earth metal compounds **G. Scholz**

10:50 FLUO 34. Theoretical investigations of metal oxofluorides. **B. Paulus**

11:20 FLUO 35. Fluorine-based nanomaterials: what did you expect and what are you expecting. **A. Demourgues**

TUESDAY AFTERNOON

Section A

Embassy Suites New Orleans
Fountainbleu Sec 1/2

ACS Award for Creative Work in Fluorine Chemistry: Symposium in honor of Erhard Kemnitz

T. Braun, D.A. Dixon, Organizers
D. Lentz, J.S. Thrasher, Presiding

1:00 FLUO 36. New fluorocarbon materials for electronic applications. **O.V. Boltalina**, S.H. Strauss, X. Wang, N.J. DeWeerd, B.J. Reeves, C. Brook

1:30 FLUO 37. When fluorine meets carbon: Reactivity mechanisms, structural changes and applications. **A. Tressaud**, E. Durand, H. Groult

2:00 FLUO 38. Room temperature generation of F₂ gas from Cs(FH)₂, ⁴⁵F molten salt. **K. Matsumoto**, T. Sugimoto, T. Inoue, R. Hagiwara

2:30 Intermission.

2:50 FLUO 39. Perfluoroalkylhydridoboranes and -borates: From ionic liquids to Lewis acid-base chemistry. P.T. Hennig, L.N. Schneider, J. Sprenger, N.V. Ignat'ev, **M. Finze**

3:20 FLUO 40. Novel transition metal carbonyl cations: What are the limits with large WCA counterions? **I. Krossing**

3:50 FLUO 41. Hydroarylation of olefins and methane H/D exchange reactions catalyzed by aluminum chlorofluoride (ACF). **B. Calvo**

4:10 Concluding Remarks.

TUESDAY EVENING

Section A

Ernest N. Morial Convention Center
Hall D

Radiopharmaceutical Chemistry
Cosponsored by INOR[†], MEDI[†] and NUCL[†]

S.E. Lapi, A.B. Packard, G.D. Tamagnan, N. Vasdev, Organizers

6:00–8:00

FLUO 42. Quality control development for the improved clinical production of 3'-deoxy-3'-[¹⁸F]fluorothymidine, which utilizes 3-methyl-3-pentanol, for pediatric cancers. **A. Nguyen**, J. Mishra, R. Marino, H. Tillman, B. Kahali, L. Cunningham, E. Butch, S.E. Snyder

FLUO 43. Bio-inspired peptoid chelators for imaging and targeted alpha therapy. **J.A. Rees**, S.J. O'Sullivan, R.J. Abergel

FLUO 44. Synthesis and evaluation of novel hydrophilic molecule for 19F MRI application. **L. Devkota**, C. Ngwa, K.B. Ghaghada, E.A. Tanifum, A.V. Annapragada

WEDNESDAY MORNING

Section A

Embassy Suites New Orleans
Fountainbleu Sec 1/2

Radiopharmaceutical Chemistry
Fluorine

Cosponsored by INOR[†], MEDI[†] and

NUCL[†]

S.E. Lapi, A.B. Packard, Organizers
G.D. Tamagnan, N. Vasdev, Organizers,
Presiding

8:00 FLUO 45. New approaches to radiotrifluoromethylations. **V.W. Pike**

8:30 FLUO 46. Design, synthesis and preliminary evaluation of fluorinated glycogen synthase kinase-3 inhibitors for PET neuroimaging. **V. Bernard-Gauthier**, H. Krishnan, S.H. Liang, N. Vasdev

8:50 FLUO 47. In situ radiosynthesis of L-5-[¹⁸F]fluorotryptophan. Y. Xin, **K. Nasr**, X. Sun

9:10 FLUO 48. Radiosynthesis and evaluation of fluorine-18 and carbon-11 radiotracers for PET imaging of PDE10A in colorectal cancer. **J. Fan**, N. Yasui, B. Kasten, S. Samuel, X. Chen, G. Piazza, Z. Luo, Z. Tu

9:30 Intermission.

9:50 FLUO 49. Re(I) promoted ¹⁸F-fluorination reactions for the preparation of PET / optical molecular probes. **B.H. Fraser**, M. Klenner, M. Massi, G. Pascali

10:10 FLUO 50. Transition-metal mediated late-stage radiofluorination. S. Lee, S. Thompson, A. Mossine, N. Ichiishi, I. Jackson, S.W. Krska, M. McCammant, K.J. Makaravage, P. Melvin, M.S. Sanford, P.J. Scott, **A.F. Brooks**

10:30 FLUO 51. Fluorinated peptides and peptidomimetics targeting the ghrelin receptor (GHSR-1a). **L.G. Luyt**

10:50 FLUO 52. Design and radiosynthesis of [¹⁸F]dibenzocyclooctynes for highly efficient radiolabelling of macromolecules via strain-promoted alkyne-azide cycloaddition. **A. Kostikov**, V. Popik

WEDNESDAY AFTERNOON

Section A

Embassy Suites New Orleans
Fountainbleu Sec 1/2

Radiopharmaceutical Chemistry

Carbon-11 & Radionuclide
Production

Cosponsored by INOR[†], MEDI[†] and NUCL[†]
S.E. Lapi, A.B. Packard, Organizers
G.D. Tamagnan, N. Vasdev, Organizers,
Presiding

1:00 FLUO 53. Carbonylations beyond aryl-X: Development of new multicomponent reactions. **L.R. Odell**, L. Åkerbladh, L. Schembri, P. Nordeman, S. Roslin, J. Eriksson

1:30 FLUO 54. ¹¹C-Carbonylation via “in-loop” ¹¹CO₂-fixation. **K. Dahl**, T.L. Collier, S.H. Liang, N. Vasdev

1:50 FLUO 55. Strategies for the radiochemical synthesis of ¹¹C-labeled 2- and 3-trifluoromethyl-4-aminopyridine: Potential radioligands for imaging brain demyelination. **P. Brugarolas**, B. Yang, J. Sanchez-Rodriguez, S. Telu, V.W. Pike

2:10 FLUO 56. Expanding the radiochemistry toolbox for PET tracer synthesis. **D. Vugts**

2:40 Intermission.

3:00 FLUO 57. Recent advances in actinium-225 production, chemistry, and applications. **P.D. Benny**, T.R. Dyke, R.A. Boll

3:30 FLUO 58. Production and characterization of titanium-45 for PET imaging. **I.F. Chaple**, A.V. Massicano, B. Wright, E. Boros, S.E. Lapi

3:50 FLUO 59. Auger-emitting ¹¹⁹Te/¹¹⁹Sb production for radiotherapy. **K. Bennett**, S. Bone, J. Engle, S.A. Kozimor

4:20 FLUO 60. Manganese-52 production: Cross-section measurements via irradiation of natural chromium targets. **R. El Sayed**, A.V. Massicano, S.E. Lapi

THURSDAY MORNING

Section A

Embassy Suites New Orleans
Fountainbleu Sec 1/2

Radiopharmaceutical Chemistry

Cosponsored by INOR[†], MEDI[†] and NUCL[†]
G.D. Tamagnan, N. Vasdev, Organizers
S.E. Lapi, A.B. Packard, Organizers,
Presiding

8:00 FLUO 61. Zr-89 based multimodal probes. **E. Boros**

8:30 FLUO 62. Influence of chelator conjugation method on immunoPET imaging. **D. Vivier**, C. Rodriguez, P. Adumeau, B. Zeglis

8:50 FLUO 63. Inorganic ion-exchangers for radiochemical separations of Y/Zr and Sc/Ti. **S.L. Queern**, C.L. Manderbach, C.S. Cutler, D.G. Medvedev, S.E. Lapi, J.M. Fitzsimmons

9:10 FLUO 64. ImmunoPET imaging of the soluble protein interferon-β. **N. Viola-Villegas**, H. Gibson, B. McKnight, W. Wei

9:40 Intermission.

10:00 FLUO 65. Direct astatination of poly(adenosine diphosphate ribose) polymerase inhibitors using boronic acid precursors. **M. Makvandi**, S.W. Reilly, R.H. Mach

10:30 FLUO 66. Production of theranostic radioscandium for nuclear imaging and radiotherapy. **C.S. Loveless**, G.L. Diehl III, L.L. Radford, S.E. Lapi

10:50 FLUO 67. Spectroscopic studies of actinium coordination chemistry. **B.W. Stein**, M.G. Ferrier, S.A. Kozimor, E.R. Batista, J.M. Berg, E.R. Birnbaum, K.D. John, P. Yang

THURSDAY AFTERNOON

Section A

Embassy Suites New Orleans
Fountainbleu Sec 1/2

Radiopharmaceutical Chemistry

Cosponsored by INOR[†], MEDI[†] and NUCL[†]
G.D. Tamagnan, N. Vasdev, Organizers
S.E. Lapi, A.B. Packard, Organizers,
Presiding

1:00 FLUO 68. New ⁵⁵Co PET-agent as a diagnostic analog for ¹⁵³Sm-DOTMP. **L.L. Radford**, S. Ellebracht, L. Swirsky,

[†]Cooperative Cosponsorship

S. Bright, R. Beacham, R. Frank, J. Simon, S.E. Lapi

1:20 FLUO 69. SPECT/CT imaging of ¹⁷⁷Lu-labeled phosphoramidate-based PSMA inhibitor with an albumin-binding motif. **X. Ling,** C.J. Choy, J.D. Latoche, J.J. Geruntho, Y. Wu, N. Salamacha, B. Langton-Webster, C.J. Anderson, C.E. Berkman

1:40 FLUO 70. Synthesis of ²¹²Pb-RM2: A potential radiotherapeutic agent for prostate cancer. **N.C. Okoye,** T. Rold, A. Berendzen, S.S. Jurisson, T.J. Hoffman

2:00 FLUO 71. The development of ^{72,77}As radiopharmaceuticals for potential PET imaging and therapy: production, radiochemistry and biological evaluation. **Y. Feng,** T.E. Phelps, M.D. Phipps, A.J. DeGraffenreid, A.L. Wooten, N. Okoye, A. Ktring, C.S. Cutler, D.S. Wilbur, T.J. Hoffman, S.S. Jurisson

2:20 Intermission.

2:40 FLUO 72. Synthesis and *in vivo* characterization of a ⁶⁸Ga/NIR labeled peptide for somatostatin receptor targeting. S.C. Ghosh, S. Hernandez Vargas, J. Voss, K. Carmon, **A. Azhdarinia**

3:10 FLUO 73. NOTA and NODAGA ^{99m}Tc/¹⁸⁶Re-tricarbonyl complexes: Radiochemistry of model complexes and *in vivo* evaluation of a ^{99m}Tc-NODAGA-SSTR antagonist bioconjugate. **G. Makris,** L.L. Radford, M. Kuchuk, F. Gallazzi, S.S. Jurisson, C.J. Smith, H.M. Hennkens

3:30 FLUO 74. Synthesis and evaluation of MAMA-based bifunctional chelators for the oxorhenium (V) core **F. Najafi Khosroshahi,** D.W. Demoin, A. Dame, Y. Feng, S.S. Jurisson

3:50 FLUO 75. ⁶⁸Ga-labeled tracer for pretargeted immunoPET imaging of colorectal cancer. **P. Adumeau,** M. Davydova, B. Zeglis

GEOC

Division of Geochemistry

W. Burgos, Program Chair

SOCIAL EVENTS:

GEOC Social Hour, 6:00 PM: Tue

BUSINESS MEETINGS:

GEOC Board Meeting, 6:00 PM: Sun

SUNDAY MORNING

Section A

Ernest N. Morial Convention Center Room 355

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Cosponsored by COLL, ENFL, ENVR and INOR

N. Kabengi, M.L. Machesky, A. Navrotsky, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 GEOC 1. Structure and dynamics of earth materials, interfaces and reactions. **D. Cole,** D. Wesolowski

9:05 GEOC 2. Dave, Don, Moira, me and the HECC. **M.L. Machesky**

9:35 GEOC 3. Complexity at the oxide-water Interface: A clarity of vision. **P. Fenter**

10:05 GEOC 4. S(i)mulating collaboration with Dave Wesolowski: From β (rutile) to β (potential). **M. Predota,** M.L. Machesky, D. Wesolowski, P.T. Cummings

10:35 GEOC 5. Thermodynamic analysis of adsorption and exchange of alkali metal cations on rutile. **P. Ilani KASHKOUli,** L. Wu, N. Kabengi, A. Navrotsky

10:55 Intermission .

11:05 GEOC 6. Atomic- to pore-scale geochemistry: Effects of ion sorption and incorporation on mineral growth.

A.G. Stack, A. Bertagni, J. Bracco, M. Cheshire, C. Dai, N. Deng, P. Fenter, S.R. Higgins, Y. Hu, A. Ievlev, S. Jindra, J.D. Kubicki, S. Lee, M. Lorenz, K. More, V. Starchenko, J. Weber

11:35 GEOC 7. Relationship between incorporation of impurity cations and their effects on mineral growth: High-resolution *in-* and *ex-situ* observations in the (Ba,Sr) SO₄ system. **J. Weber,** J. Bracco, S.R. Higgins, K. More, M. Lorenz, A. Ievlev, J.D. Poplawsky, S. Jindra, A.L. Bertagni, A.G. Stack

11:55 GEOC 8. Effects of strontium impurity on barite precipitation in mesoporous media. **V. Starchenko,** M. Cheshire, J. Weber, A.G. Stack

12:15 Discussion.

Section B

Ernest N. Morial Convention Center Room 338

Multiscale Biogeochemical Processes in Soil Ecosystems: Critical Reactions & Resilience to Climate Changes

Cosponsored by AGRO and ENVR

M. Keiluweit, *Organizer*
N. Senesi, B. Xing, Y. Yang, *Organizers, Presiding*
M. Keiluweit, *Presiding*

8:30 Introductory Remarks.

8:35 GEOC 9. Geochemical and mathematical constraints on the carbon sequestration potential of eroding watersheds. **A. Berhe,** T.A. Ghezzehei

9:05 GEOC 10. Ferrous iron oxidation under varying pO₂ levels: The effect of Fe(III)/Al(III) oxide minerals and organic matter. C. Chen, **A. Thompson**

9:35 GEOC 11. Transport and Transformation of Particulate Organic Matter in Permeable Riverbed Sediments. S. Bessey, J. Mejia, N. Stern, S. Loheide, E.E. Roden, **M.A. Ginder-Vogel**

9:55 GEOC 12. Iron electron transfer and atom exchange in ferrihydrite-NOM Coprecipitates. **Z. Zhou,** D. Latta, N. Noor, A. Thompson, M. Scherer

10:15 Intermission.

10:30 GEOC 13. Multi-scale dynamics of carbon cycling in orchards as a function of irrigation type. C. Avila, M.V. Schaefer,

N. Bogie, E. Dubinsky, E. Brodie, M. Fogel, A. Marklein, D. Rath, A. Berhe, T.A. Ghezzehei, S.J. Parikh, W. Riley, K. Scow, M. Torn, **S. Yang**

11:00 GEOC 14. Characterization and phenanthrene sorption of natural and pyrogenic organic matter fractions. **K. Sun,** J. Jin, B. Xing

11:30 GEOC 15. Aerobic microbial respiration of mineral-bound organic carbon: Bioavailability and priming effects. **D. Adhikari,** D. Wordofa, S. Dunham-Cheatham, S. Poulson, E.E. Roden, Y. Yang

11:50 GEOC 16. Adsorption and molecular fractionation of dissolved organic matter on iron-bearing mineral matrices of varying crystallinity. **E.K. Coward,** T. Ohno, A.F. Plante, D.L. Sparks

12:10 GEOC 17. Humic-like products formation via the reaction of phenol with nitrite in ice phase. **D. Min,** W. Choi

Section C

Ernest N. Morial Convention Center Room 339

Biomineralization & Bio-Compatible Minerals

Cosponsored by BIOL and ENVR
J.D. Rimer, *Organizer*
J.A. Soltis, G. Zhu, *Organizers, Presiding*

9:00 Introductory Remarks.

9:00 GEOC 18. Understanding the mechanisms of biomineralisation: a grand challenge. **J. Harding,** C. Freeman, A. Finney, R. Innocenti Malini

9:30 GEOC 19. Nucleation and growth of crystalline carbonates from amorphous precursors. **D. Joester**

10:00 GEOC 20. How corals build reefs from nanoparticles. **P. Gilbert**

10:30 Intermission.

10:50 GEOC 21. Elucidating the intracellular chemical environment that regulates biological calcite crystallization in marine plankton. **A. Gal,** J. Mahamid, D. Fairve, A. Scheffel

11:20 GEOC 22. Uptake of uranium by plants in waters containing calcium and carbonate. **E. El Hayek,** C. Torres, L. Rodriguez Freire, A. Brearley, M. Spilde, S. Cabaniss, A. Ali, J.M. Cerrato

11:40 GEOC 23. Thermodynamics of confined calcium phosphate nucleation in collagen fibrils. **D. Kim,** B. Lee, S. Thomopoulos, Y. Jun

12:00 GEOC 24. Structure flexibility controls the adsorption and digestion kinetics of point mutant amelogenin on hydroxyapatite (100). **J. Tao,** R. Jayasinha Arachchige, B. Tarasevich, Y. Shin, G. Buchko, W. Shaw, J. De Yoreo

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

Energy, Water & Food Production
Sponsored by AGFD, Cosponsored by CELL, GEOC and MPPG

SUNDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 355

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Cosponsored by COLL, ENFL, ENVR and INOR

N. Kabengi, M.L. Machesky, A. Navrotsky, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 GEOC 25. A decade modeling the mineral-water interface: Is there an electrical double layer? **J.D. Kubicki**

2:05 GEOC 26. Molecular simulation of ionic liquids at interfaces: Effects of solvation, humidification, and mixing. **M.W. Thompson,** N.C. Osi, K. Van Aken, B. Dyatkin, F. Tiet, R. Matsumoto, E. Mamontov, Y. Gogotsi, P.T. Cummings

2:25 GEOC 27. Electrical double layer in nanoporous electrodes. **J. Wu**

2:45 GEOC 28. Atomistic structure of mineral nano-aggregates from simulated compaction and dewatering. **L.J. Criscenti,** T.A. Ho, J.A. Greathouse, Y. Wang

3:05 Intermission.

3:20 GEOC 29. Not to be soon revised—Dave Wesolowski's accomplishments in understanding hydrothermal chemistry. **W.H. Casey**

3:50 GEOC 30. David Wesolowski's contributions to hydrothermal geochemistry. **H. Ohmoto**

4:20 GEOC 31. Hydrothermal synthesis of chromian spinel from iron and chromium hydroxides using a flow-through apparatus. **T. Otake,** M. Nishikata, Y. Ohtomo, Y. Kimura, D. Kawamoto, T. Sato

4:40 GEOC 32. Nonlinear surface spectroscopy of the β-quartz/water interface. **F. Geiger**

5:00 GEOC 33. A setup for combined zeta-potential and second harmonic generation measurements. **J. Luetzenkirchen**

5:20 Discussion.

Section B

Ernest N. Morial Convention Center Room 338

Multiscale Biogeochemical Processes in Soil Ecosystems: Critical Reactions & Resilience to Climate Changes

Cosponsored by AGRO and ENVR
M. Keiluweit, *Organizer*
N. Senesi, B. Xing, Y. Yang, *Organizers, Presiding*
M. Keiluweit, *Presiding*

1:30 GEOC 34. Influence of soil carbon and priming effects on greenhouse gases emissions in degraded wetlands restored with rice cultivation. **W. Horwath,** R. Ye, J. Morris

2:00 GEOC 35. Microbial physiology and products drive soil organo-mineral interactions and bioavailable nitrogen dynamics. **S. Grandy,** C. Kallenbach, A. Jilling

[†]Cooperative Cosponsorship

2:30 GEOC 36. Molecular characterizations of soil carbon responses to nitrogen additions. **Q. Zhao**, K. Hofmockel, M. Thilly, S. Callister, R. Kukkadapu, L. Bramer

2:50 GEOC 37. Synergistic effect of calcium on organic carbon sequestration to ferrihydrite: Potential for Fe-Ca-OC ternary complexes. **T.D. Sowers**, J. Stuckey, D. Adhikari, Y. Yang, D.L. Sparks

3:10 Intermission.

3:30 GEOC 38. Interconnecting soil organic matter with N and P cycling. **L. Celi**

4:00 GEOC 39. Linking sources and transformation of phosphorus in the soil-water continuum in the estuarine environment. **D. Jaisi**, M. Sun, S. Joshi, L. Stout, K. Bear

4:30 GEOC 40. Phosphorus speciation in atmospherically deposited air particulates from high and low elevation sites of California and Colorado. **U.G. Nwosu**, B. Lash, M. Barnes, S.C. Hart, A. Berhe, P.A. O'Day

4:50 GEOC 41. Investigation of carbon cycling in a subtropical estuary subjected to an early-season flood pulse, and secondary sources. **B.J. Haywood**, J.R. White, R.L. Cook

5:10 GEOC 42. Impact of redox reactions on carbon stability: Reduction, oxidation, and reduction-oxidation transition. D. Adhikari, Q. Zhao, K.K. Das, X. Wang, S. Poulson, Y. Tang, D. Obrist, E.E. Roden, **Y. Yang**

Section C

Ernest N. Morial Convention Center Room 339

Biomining & Bio-Compatible Minerals

Cosponsored by BIOL and ENVR
J.D. Rimer, *Organizer*
J.A. Soltis, G. Zhu, *Organizers, Presiding*

1:30 GEOC 43. 3D breast tumor model for studying the formation mechanisms of microcalcifications. **N. Vidavsky**, J.A. Kunitake, C. Fischbach, L.A. Estroff

2:00 GEOC 44. Influence of structural defects on biomimetic ZnS nanoparticle dissolution: An in-situ electron microscopy study. J. Eskelsen, J. Xu, M. Chiu, J. Moon, B. Wilkins, D.E. Graham, B. Gu, **E. Pierce**

2:20 GEOC 45. Biomining of metals in bacterial organelles. C. Grant, L. Rahn-Lee, M. Byrne, **A. Komeili**

2:50 Intermission.

3:10 GEOC 46. Role of amelogenin β -sheet ribbons in biomining of hydroxyapatite. **S. Akkineni**, S. Engelberth, J. Tao, J. Bonde, S. Habelitz, J.J. DeYoreo

3:30 GEOC 47. Self-organization of biomimetic polycrystalline precursors into fractals. **P. Knoll**, O. Steinbock

Carbon Dioxide Conversion & Artificial Photosynthesis
Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Energy, Water & Food Production
Sponsored by AGFD, Cosponsored by CELL, GEOC and MPPP

MONDAY MORNING

Section A

Ernest N. Morial Convention Center Room 338

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Cosponsored by COLL, ENFL, ENVR and INOR
N. Kabengi, M.L. Machesky, A. Navrotsky, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 GEOC 48. Geochemistry and materials science teach each other: A tribute to "Weso". **A. Navrotsky**

9:05 GEOC 49. Fluid interface reactions, structures and transport. D. Wesolowski, **Y. Gogotsi**

9:35 GEOC 50. Two-dimensional transition metal carbides and nitrides, MXenes, as host materials for ions. **M. Naguib**, H. Wang, N.C. Osti, A.I. Kolesnikov, L. Vlcek, E. Mamontov, P. Kent

9:55 GEOC 51. Molecular simulations of fluid-solid interfaces around hydrated clay particle edges and site-specific adsorption of divalent cations at these surfaces. **B.F. Nguana-Wakou**, I. Androniuk, A.G. Kalinichev

10:15 GEOC 52. Dynamical restructuring of bi-ionic liquid solution interfaces during electrochemical CO₂ reduction. **J. Medina Ramos**, S. Lee, A. Hubaud, T. Fister, P. Fenter

10:35 Intermission.

10:50 GEOC 53. Effects of phosphonates on physicochemical properties of mica under energy-related subsurface conditions. **L. Zhang**, Y. Jun

11:10 GEOC 54. Improving nucleation predictions through understanding of ion-water and ion-ion interactions in concentrated solutions. **H. Wang**, L. Vlcek, K. Page, J. Neufeind, A.G. Stack

11:30 GEOC 55. Thermodynamic properties of water confined on metal oxide nanoparticles using inelastic neutron scattering. **N.L. Ross**, A.I. Kolesnikov, B.F. Woodfield, A. Navrotsky

11:50 GEOC 56. Fluid-solid interfacial phenomena at the nexus of energy and geochemistry research. **D. Wesolowski**

Section B

Ernest N. Morial Convention Center Room 355

Mineral-Water Interface Geochemistry & Modeling at the Laboratory- & Field-Scales: Symposium in Honor of James A. Davis

Cosponsored by ENVR
M.B. Hay, D.B. Kent, *Organizers*
K. Campbell, *Organizer, Presiding*
S.P. Hyun, *Presiding*

8:30 Introductory Remarks.

8:40 GEOC 57. Quantum calculations modeling arsenic and uranium adsorption. **J.D. Kubicki**

9:00 GEOC 58. The MUSE: A multi-start optimization algorithm for surface complexation parameters in complex systems. **M. Chrysochoou**, N. Bompoti,

M.L. Machesky

9:15 GEOC 59. Modeling uranium(VI) adsorption onto montmorillonite under varying carbonate concentrations: A surface complexation model accounting for the spillover effect on surface potential. **C. Tournassat**, R.M. Tinnacher, S. Grangeon, J.A. Davis

9:30 GEOC 60. Intercomparison of surface complexation models for uranium(VI) adsorption to goethite: Sources of variation in model output and movement toward a more globally optimal model. **A. Satpathy**, D. Giammar

9:45 GEOC 61. Surface complexation modeling – From BSM back to TLM?. **J. Luetzenkirchen**

10:00 GEOC 62. Biogeochemical interfacial reactivity in a changing environment. **D.L. Sparks**

10:25 Intermission.

10:50 GEOC 63. Effects of fulvic acid on uranium(VI) sorption kinetics: Using kinetics to characterize metal sorption processes. **R.M. Tinnacher**, P.S. Nico, J.A. Davis, B. Honeyman

11:10 GEOC 64. Assessing the need for complexity in surface complexation models of goethite. L.E. Katz, **J. Han**

11:25 GEOC 65. U(VI) and Fe-containing oxyhydroxide and clay minerals: Redox reactivity and products. **M. Boyanov**, D. Latta, B. Mishra, M. Scherer, S. Yan, E.J. O'Loughlin, K.M. Kemner

11:40 GEOC 66. A mean electrostatic model for ion transport through heterogeneous clay. **C. Steefel**, C. Tournassat

11:55 GEOC 67. Effect of Long-Term Bentonite Heating on U(VI) Adsorption. **P. Fox**, P.S. Nico

12:10 GEOC 68. Surface complexation from the grain to plume scale in a gravel aquifer influenced by groundwater-surface water exchange: Considerations for system predictability. **J. Zachara**, X. Chen, D.B. Kent, C. Liu

Section C

Ernest N. Morial Convention Center Room 339

Contaminated Site Remediation through Microbial, Geological & Chemical Processes

Cosponsored by ENVR
B. Jeon, Y. Ok, D. Tsang, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 GEOC 69. Modeling framework for adsorption processes in environmental remediation and monitoring. A. Ladshaw, C. Tsouris, **S. Yiacoymi**

9:05 GEOC 70. Exploring the mechanisms of trace metals immobilization by biochar. **D. Alessi**

9:35 GEOC 71. Testing the feasibility of temperature monitoring to determine degradation rates at a crude oil spill site. **E. Warren**, B.A. Bekins

9:55 GEOC 72. Contributions of abiotic, aerobic pathways to chlorinated ethene degradation during back diffusion from

low permeability zones. **E. Berns**, A. Valocchi, R. Sanford, T.J. Strathmann, C. Schaefer, C.J. Werth

10:15 Intermission.

10:35 GEOC 73. Effects of temperature on aggregation, retention, and transport of graphene oxides in granular porous media. **B. Gao**, M. Wang

11:05 GEOC 74. Assessment and remediation of arsenic-containing soils for urban development in Hong Kong. **D. Tsang**, C.S. Poon, X. Li

11:25 GEOC 75. Nanoscale examinations on the speciation of copper within organic matter from soils contaminated by mining activities. **H. Mantha**, M. Schindler, M.F. Hochella

11:45 GEOC 76. Using flow-through columns to optimize the microbially-driven Fenton reaction for the in situ degradation of organic contaminants. **N. Xie**, Y.J. Toporek, T.J. Dichristina, M. Taillefer

12:05 GEOC 77. Effect of heating time and peak temperature of pyrolysis on biochar derived from rice husk. **S. Chandra**, J. Bhattacharya

Carbon Dioxide Conversion & Artificial Photosynthesis

Theoretical Studies, Policy & Catalytic Conversion

Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

MONDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 338

Microbially-Driven Geochemical Reactions: Kinetics & Communities

Cosponsored by BIOL and ENVR
W.D. Burgos, C. Chan, S. Crowe, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 GEOC 78. Stable isotope insights into redox connections in the cycling of nitrogen and metals. **S.D. Wankel**

2:05 GEOC 79. Microbially mediated nitrate-reducing Fe(II) oxidation: Quantification of chemodenitrification and enzymatic reactions. **T. Liu**, D. Chen, X. Luo, F. Li

2:35 GEOC 80. Influence of inter-species competition on the kinetics and extent of microbial anaerobic Fe(II) oxidation. **C. Bryce**, L. Sauter, Y. Huang, S. Kleindienst, A. Kappler

3:05 Intermission.

3:30 GEOC 81. Oxidative extracellular electron transfer—rethinking the role of microbes in biogeochemical cycles. **A. Bose**

4:00 GEOC 82. Evaluation of microbially-induced carbon steel corrosion using zero resistance ammetry in a split-chamber format. **J.M. Senko**, R.B. Miller, C. Monty, A. Sadek

4:30 GEOC 83. Geochemical and temporal influences on the enrichment of acidophilic iron-oxidizing bacterial communities. **W.D. Burgos**

Section B

Ernest N. Morial Convention Center

[†]Cooperative Cosponsorship

Room 355

Mineral-Water Interface Geochemistry & Modeling at the Laboratory- & Field-Scales: Symposium in Honor of James A Davis

Cosponsored by ENVR
K. Campbell, D.B. Kent, *Organizers*
M.B. Hay, *Organizer, Presiding*
J. Luetzenkirchen, *Presiding*

1:30 Introductory Remarks.

1:35 GEOC 84. Elemental partitioning between aqueous and solid phases that form in wastewater brine from a shale-gas well evolves during storage prior to disposal. **D.B. Kent**, M. Marvin-DiPasquale, M. Engle, M.S. Blondes, C. Conaway, W.H. Orem, I.M. Cozzarelli, J.B. Jaeschke, M. Kohler, M.R. Arias, L. Kieu, M. Mnich, K.J. Skalak, M.S. Varonka

1:50 GEOC 85. Constituent ions and "spectator" low molecular weight organic acids influence ligand exchange kinetics: Geochemical implications. **N.E. Boland**, A.T. Stone, A. Wildman, Y. Xu, L. Rea, E. Briody-Pavlik, Z. Huang

2:05 GEOC 86. Investigation on Pb-calcite interaction by transmission X-ray microscopy. **K. Yuan**, S. Lee, V.D. Andrade, N.C. Sturchio, P. Fenter

2:20 GEOC 87. Cadmium removal mechanism by mackinawite under anoxic conditions. **S.P. Hyun**, B. Kim, K.F. Hayes

2:35 GEOC 88. Arsenate sorption on iron oxyhydroxides: Initial studies with James A. Davis and updated analysis. **G.A. Waychunas**

2:55 GEOC 89. Interfacial geochemistry in practice: Arsenic and household water treatment. **J. Hering**

3:20 Intermission.

3:45 GEOC 90. Arsenic mobilization and attenuation during injection of treated coal seam gas co-produced water into deep aquifers. B. Rathi, A. Siade, M. Donn, L. Helm, R. Morris, J.A. Davis, M. Berg, **H. Prommer**

4:00 GEOC 91. Geochemical processes along hyporheic redox gradients controlling carbon and metal transformations. **P.S. Nico**, J.A. Davis, X. Yuan

4:15 GEOC 92. Control of U(IV) transformation and mobilization by nano-scale FeS₂ in suboxic and oxic systems. **Y. Bi**, K.F. Hayes

4:35 GEOC 93. Microbially-mediated metal/radionuclide oxidation coupled to nitrate reduction in an alluvial aquifer. **K. Weber**, J. Westrop, J. Nolan, S. Bone, J.R. Bargar, K. Campbell, D.D. Snow

4:55 GEOC 94. The stability of non-crystalline U(IV) under oxic and anoxic conditions. **R. Bernier-Latmani**, L. Loreggian, S. Bretagne, A. Novotny

5:15 GEOC 95. Post audit of a reactive transport model of hexavalent uranium migration in a shallow alluvial aquifer. **G.P. Curtis**, M. Kohler

Section C

Ernest N. Morial Convention Center
Room 339

Contaminated Site Remediation through Microbial, Geological &

Chemical Processes

Cosponsored by ENVR
B. Jeon, Y. Ok, D. Tsang, *Organizers, Presiding*

1:30 GEOC 96. Gasification-derived biochar adsorbents for wastewater treatment and emerging contaminants removal. T. Maneerung, W. Ng, X. Cui, **C. Wang**

2:00 GEOC 97. From environmental biotechnology research to continued application: The challenges and roadblocks to address. **J. Bhattacharya**

2:25 GEOC 98. Electron doping of iron minerals by dissolved sulfide: Implications for contaminant reduction. **D. Latta**, T. Robinson, J. Entwistle, A. Neumann, Y. Lan, M. Bradley, P.G. Tratnyek, M. Scherer

2:45 GEOC 99. Valorization of sewage sludge for attenuation of polycyclic aromatic hydrocarbons (PAHs) in simulated crude oil contaminated soil. **N.O. Offiong**, **E.J. Inam**

3:05 GEOC 100. Synthesis of novel adsorbent β -cyclodextrin-graphene oxide nanocomposite (β -CD-GO) for the potentially enhanced removal of dyes and heavy metals from wastewater. **R. Rathour**, J. Bhattacharya

3:25 Intermission.

3:40 GEOC 101. Degradation of the perchlorate anion through chemical and electrochemical methods. **K. Paeng**, E. Kim, H. Jee, N. Myung

4:05 GEOC 102. Synthesis and characterization of hydrochars with PHC sorption properties. **D. Bulmer**, P. Mussone, S. Siciliano, D. Peak

4:25 GEOC 103. Structural variability in manganese oxides produced at a coal mine drainage remediation site. **M.A. Hinkle**, F.T. Ling, P. Heaney, J. Post

4:45 GEOC 104. PCB dechlorination hotspots and reductive dehalogenase genes in sediments from a contaminated wastewater lagoon. **J.M. Ewald**, Y. Liang, A. Martinez, A. Awad, J.L. Schnoor, K.C. Hornbuckle, T. Mattes

5:05 GEOC 105. Methanol self-association and preferential solvation of chelating agents for the extraction of heavy metals in sCO₂. **T. Graham**, D. Pope, Y. Ghaadrghadr, S.B. Clark, A.E. Clark, S.R. Saunders

5:25 Concluding Remarks.

Carbon Dioxide Conversion & Artificial Photosynthesis
Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Redox & Interfacial Dynamics Among Coupled Biogeochemical Cycles of Fe, S, Minerals & Organic Matter: Implications to Multiscale Behaviors of Contaminants, Carbon & Nutrients
Sponsored by ENVR, Cosponsored by GEOC

Undergraduate Research Posters Geochemistry

Sponsored by CHED, Cosponsored by GEOC and SOCED

Section A

Ernest N. Morial Convention Center
Room 355

Microbially-Driven Geochemical Reactions: Kinetics & Communities
Cosponsored by BIOL and ENVR
W.D. Burgos, C. Chan, S. Crowe, *Organizers, Presiding*

9:00 GEOC 106. Thiols as proxies for the biogeochemical transformation of iron, manganese, and sulfur in marine sediments. **M. Taillefer**, E. Eitel, A. Bertagnolli, A. Burns, F. Stewart, T.J. Dichristina

9:30 GEOC 107. Relevance of stratified Midwestern lakes to past, present, and future microbial biogeochemistry. **E.D. Swanner**, C. Wittkop, S. Katsev, N. Lambrecht, M. Fakhraee

10:00 GEOC 108. Redox regime shifts in euxinic marine environment (Rogoznica Lake, eastern Adriatic coast). **I. Ciglenecki**, M. Margus, M. Cankovic, A. Cvitesic, I. Petric, G. Collins, N. Mikac

10:30 Intermission.

10:50 GEOC 109. Characterizing and solving environmental arsenic contamination through combined geochemical, geobiological and organic matter characterization. **B.C. Bostick**, J. Sun, A. Nghiem, J. Jamieson, H. Prommer, B. Yan, L. van Geen, B. Mailloux, S. Chillrud

11:20 GEOC 110. Investigating the relationship between mercury methylation and microbial community composition across sulfate gradients in Northern Minnesota. **D.S. Jones**, N.W. Johnson, C. Mitchell, G. Walker, J.K. Coleman Wasik, E.B. Swain, J.V. Bailey

11:50 GEOC 111. Effects of minerals on mercury methylation by *Desulfotomaculum* ND132. **L. Zhao**, S. Wu, X. Lu, H. Chen, B. Gu

12:10 GEOC 112. Modeling the kinetics of bacterial metal bioavailability: The role of metal adsorption. **J. Fein**

Section B

Ernest N. Morial Convention Center
Room 338

Mineral-Water Interface Geochemistry & Modeling at the Laboratory- & Field-Scales: Symposium in Honor of James A Davis

Cosponsored by ENVR
K. Campbell, M.B. Hay, D.B. Kent, *Organizers*
A. Amirbahman, H. Prommer, *Presiding*

8:30 GEOC 113. Surface catalyzed carbonate and bicarbonate reduction: Implications on serpentinization-related abiotic methane production. **Y. He**, J. Wang, H. Bao

8:45 GEOC 114. Introducing soft X-ray based excitation emission matrix spectroscopy for geochemical analysis. **D. Peak**, J. Hamilton, T.Z. Regier

9:00 GEOC 115. Synthesis of engineered soil surrogates. **A. Pandey**, G. Abdalla, B.J. Haywood, S.P. Smith, B. Subramanian, R.L. Cook, D. Spivak

9:15 GEOC 116. Mechanisms of tripolyphosphate adsorption and hydrolysis on mineral surfaces. **J.**

Hamilton, D. Peak

9:30 GEOC 117. Flume simulations of Fe oxidation and deposition in abandoned mine drainage. W.A. Peterson, E.K. Herman, **M.M. McGuire**

9:45 GEOC 118. The relationship between hydro-geomorphic setting and geochemical gradients along flowpaths in stream sediments impacted by acid mine drainage. **D. Singer**, A.J. Jefferson, E.L. Traub, N. Perdrilal

10:00 GEOC 119. Controls on phosphorus export from an agricultural watershed with calcareous bedrock and surficial geology. G. McDonald, **A. Amirbahman**, S. Norton, I. Fernandez, K. Hoppe, J. Dennis

10:15 Intermission.

10:30 GEOC 120. Nano-environmental science as an emerging field, with a tribute to Jim Davis and his enduring legacy. **M.F. Hochella**

10:55 GEOC 121. Uranium uptake and redistribution in iron oxide nanoparticles: Effects of phase transformation and crystal growth mechanism. **J.A. Soltis**, M.E. McBriarty, S. Spurgeon, J.J. DeYoreo, E. Iltou

11:10 GEOC 122. Role of iron in controlling radionuclide migration at a legacy waste site exhibiting dynamic redox transitions. **D. Waite**, T. Payne, A. Kinsela, M. Bligh, X. Vazquez-Campos

11:30 GEOC 123. Oxidative uranium release from anoxic sediments under diffusion-limited conditions. **S. Bone**, M.R. Cahill, M.E. Jones, S.E. Fendorf, J.A. Davis, K. Williams, J.R. Bargar

11:45 GEOC 124. Vertical transport of uranium in the unsaturated zone: A likely plume persistence mechanism. S. Roycroft, V. Noel, K. Boye, R. Johnson, W. Dam, S.E. Fendorf, **J.R. Bargar**

12:05 GEOC 125. Challenges and advances in translating aqueous geochemistry to bioavailability and toxicity. **S.N. Luoma**

12:25 Concluding Remarks.

Section C

Ernest N. Morial Convention Center
Room 339

Impacts of Mining & Hydraulic Fracturing On Crop & Livestock Production

Cosponsored by AGFD, AGRO and ENVR
D. Alessi, T. Borch, N.R. Warner, *Organizers, Presiding*

9:00 GEOC 126. Mining, reclamation, plant productivity, and livestock production implications. **J. Ippolito**

9:30 GEOC 127. Understanding coupled biogeochemical and mineralogical processes that control trace-metal fate in acidic mine water supports water treatment at Iron Mountain Mine, CA. **K. Campbell**, C. Alpers, K. Nordstrom

10:00 GEOC 128. Transport of uranium and co-occurring constituents in abandoned mines in Native American communities. **J.M. Cerrato**, S. Avasarala, A. Ali, J.M. Blake, K. Artyushkova, L. Rodriguez-Freire, C. Velasco, A. Brearley, E. El Hayek

† Cooperative Cosponsorship

10:30 GEOC 129. Speciation and reactivity of uranium and organic matter in abandoned mine wastes from Laguna–New Mexico. **C. Velasco**, S. Avasara, A. Ali, K. Artyushkova, C. Osburn, J.M. Cerrato

10:50 Intermission.

11:10 GEOC 130. Arsenic mobility and reactivity near abandoned mine wastes in Cheyenne River, South Dakota (CRST). **C. DeVore**, L. Rodriguez-Freire, A. Ali, K. Artyushkova, J.M. Cerrato

11:30 GEOC 131. Concurrent removal of boron and scale-forming cations by co-precipitation, adsorption and polymer-enhanced ultrafiltration. **O. Dollar**, E.F. Peltier, M. Chen, K. Shafer-Peltier, S. Randtke

11:50 GEOC 132. Reactive transport modeling of remedial actions at the Pennsylvania Mine near Keystone, Colorado. **R.L. Runkel**, P.L. Verplanck, E. Petri, K. Walton-Day

Carbon Dioxide Conversion & Artificial Photosynthesis

Photocatalytic Conversion

Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Redox & Interfacial Dynamics Among Coupled Biogeochemical Cycles of Fe, S, Minerals & Organic Matter: Implications to Multiscale Behaviors of Contaminants, Carbon & Nutrients

Sponsored by ENVR, Cosponsored by GEOC

TUESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 355

Microbially-Driven Geochemical Reactions: Kinetics & Communities

Cosponsored by BIOL and ENVR
W.D. Burgos, C. Chan, S. Crowe, Organizers, Presiding

1:30 Introductory Remarks.

1:35 GEOC 133. Life through the proterozoic. **P. Crockford**

2:05 GEOC 134. Exploring the relative importance of surficial cyanobacteria communities versus physical, chemical and biological processes at depth on sulfur cycling in two microbial mat environments. **M. Gomes**, D. Fike, J. Klatt, U. Lingappa, S. O'Reilly, L. Riedman, S. Grim, K. Metcalfe, G. Dick, W. Fischer, J. Grotzinger, A. Knoll

2:35 GEOC 135. Quantitative indicators of sulfate reducer metabolic state: Isotopes and proteomics. **W.D. Leavitt**, J. Waldbauer, S. Venceslau, M. Sim, A. Bradley

3:05 GEOC 136. Biogeochemical rates in a dark sulfuretum. **J. Macalady**, M. Mansor, B. Kamermans, M.S. Fantle, J. Cosmidis

3:35 Intermission.

4:00 GEOC 137. Shaping the kinetics of methanogenic communities: A multi-omic approach to study interspecies cooperation. **R. Ziels**, H. Stensel, D. Beck

4:30 GEOC 138. Interplay between microbial signatures and mineral

precipitation in a geological evaporite. **A. Olcott Marshall**, D. Lockamy

5:00 GEOC 139. Microbial lipid biomarkers in a Marcellus Shale natural gas well: From remnant molecules to adapted communities. **A. Hanson**, J. Lipp, K. Hinrichs, P. Mouser

Section B

Ernest N. Morial Convention Center Room 338

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Silica/Alumina Surfaces & the Electrical Double Layer

Cosponsored by ENVR and INOR
J. Bracco, S.E. Mason, J. Weber, Organizers, Presiding

1:30 GEOC 140. Calorimetry, spectroscopy and density functional theory: Oxyanions and ferrihydrite. **J.D. Kubicki**, N. Kabengi, A. Namayandeh, M. Chrysochoou

2:00 GEOC 141. Comparison of X-ray reflectivity and *ab initio* molecular dynamics structures of the corundum-water and graphene-electrolyte interfaces. **K. Harmon**, K. Letchworth-Weaver, E.J. Bylaska, A. Gaiduk, F. Giberti, S. Lee, T. Fister, J. Weare, M.J. Bedzyk, G.A. Galli, M. Chan, P. Fenter

2:20 GEOC 142. Hydrophobic aqueous interfaces by DFT-MD simulations and vSFG: 2-dimensional H-bond networks. **S. Pezzotti**, A. Serva, D. Galimberti, M.P. Gaigeot

2:40 GEOC 143. Adsorption of oxalic acid on rutile surfaces. D. Biriukov, **M. Predota**, O. Kroutil, M.K. Ridley, M.L. Machesky

3:00 GEOC 144. An *ab initio* study of water at interfaces: The case of alumina adsorbent. **A. Abbaspour Tamijani**, I. Metz, **S.E. Mason**

3:20 GEOC 145. Modeling aluminum nanoclusters in variable chemical environments with first-principles DFT and thermodynamics. **J.L. Bjorklund**, J.W. Bennett, T. Forbes, S.E. Mason

3:40 Intermission.

4:00 GEOC 146. Mineral/water interfaces characterized by *Ab initio* molecular dynamics: Making the link between structure and SFG vibrational spectroscopy. **M.P. Gaigeot**

4:30 GEOC 147. Relative permittivity in the electrical double layer from nonlinear optics. **F. Geiger**

4:50 GEOC 148. vSFG signals at charged mineral-water interfaces: $\beta^{(2)}$ (β) contributions and how to use them for unraveling interfacial structures. **D. Galimberti**, S. Pezzotti, M.P. Gaigeot

5:10 GEOC 149. Structure of the amorphous colloidal silica-aqueous electrolyte interface: Electrolyte concentration dependence. **A. Goel**, J. Luetzenkirchen, M.A. Brown

Section C

Ernest N. Morial Convention Center Room 339

Impacts of Mining & Hydraulic Fracturing On Crop & Livestock

Production

Cosponsored by AGFD, AGRO and ENVR
D. Alessi, T. Borch, N.R. Warner, Organizers, Presiding

1:30 GEOC 150. Pathways and mechanisms for natural attenuation of nonionic surfactants in hydraulic fracturing fluids if released to agricultural soil and groundwater. **P. Mouser**, K.M. Heyob, J. Blotvogel, J.J. Lenhart, T. Borch

2:00 GEOC 151. The response of soil microbial communities to hydraulic fracturing fluids. **S. Crowe**, N. Finke, J. Spence, R. Simister, A. Sturm

2:30 GEOC 152. Toxicological and chemical assessment of water quality downstream of NPDES oil and gas produced water discharges. **M. McLaughlin**, J. Blotvogel, B. McDevitt, N.R. Warner, R.L. Tanguay, E. Folkerts, T. Blewett, D. Alessi, G. Goss, J. Argueso, T. Borch

2:50 GEOC 153. Investigating enhanced sediment radium levels at NPDES facilities in Wyoming with a comparison to Pennsylvania. **B. McDevitt**, M. McLaughlin, J. Blotvogel, T. Borch, N.R. Warner

3:10 Intermission.

3:30 GEOC 154. Fate of organic additives in hydraulic fracturing fluids from injection through production and treatment. B. McAdams, K. Carter, J. Blotvogel, T. Borch, **J. Hakala**

3:50 GEOC 155. Elemental contaminants in produced water and their impact on treatment and reuse. **E.F. Peltier**, M. Chen, S. Randtke, K. Shafer-Peltier, M. Veisi, O. Dollar

4:10 GEOC 156. Oil and gas wastewater spreading on roads and associated environmental and human health impacts. **T. Tasker**, P. Piotrowski, L. Castillo, T. Blewett, K. Ganow, P. Delompre, J. Vanden Heuvel, F.L. Dorman, N.R. Warner, W.D. Burgos

4:30 GEOC 157. Risks for reuse of unconventional oil and gas wastewater. **A. Vengosh**, A.J. Kondash

Carbon Dioxide Conversion & Artificial Photosynthesis

Electro-Photo Catalytical Conversion

Sponsored by ENFL, Cosponsored by CATL, COMP and GEOC

Redox & Interfacial Dynamics Among Coupled Biogeochemical Cycles of Fe, S, Minerals & Organic Matter: Implications to Multiscale Behaviors of Contaminants, Carbon & Nutrients

Sponsored by ENVR, Cosponsored by GEOC

WEDNESDAY MORNING

Section A

Ernest N. Morial Convention Center Room 355

Manganese Oxides: Their Formation, Structure, Reactivity & Applications

Cosponsored by ENVR
W.D. Burgos, M.A. Ginder-Vogel, M. Zhu, Organizers, Presiding

8:30 Introductory Remarks.

8:35 GEOC 158. Formation and reactivity of manganese oxides in the environment: field and laboratory results. **G.W. Luther**, V.E. Oldham, A. Thibault de Chanvalon, E.R. Estes, B.M. Tebo, M. Wright, M. Jones, M. Siebecker, A. Madison, A. Mucci

9:05 GEOC 159. The role of trivalent manganese in mineralogy and geochemistry of birnessite. **M. Zhu**

9:25 GEOC 160. Evolution of vernadite crystal structure as a function of pH: Implications for reactivity. S. Grangeon, **B. Lanson**

9:45 GEOC 161. Rapid transformation of layered to tunneled manganese oxide triggered by interlayer Mn(III). **P. Yang**, S. Lee, J. Post, H. Xu, Q. Wang, W. Xu, M. Zhu

10:05 Intermission.

10:30 GEOC 162. Structures and behaviors of birnessites. **J. Post**, P. Heaney, F.T. Ling

11:00 GEOC 163. Tracking the recrystallization and transformation of birnessite in reducing environments with ^{54}Mn radiotracers. **E. Elzinga**

11:30 GEOC 164. Manganese(IV) oxide formation by a bacterial manganese oxidase. **A. Soldatova**, C. Romano, L. Tao, T.A. Stich, W.H. Casey, R. Britt, B.M. Tebo, T.G. Spiro

12:00 GEOC 165. Understanding the redox reactivity of mycogenic manganese oxides. B. Uster, **J.A. Henson**, G.S. McCarty, J. Pena, L.A. Sombers, **O. Duckworth**

Section B

Ernest N. Morial Convention Center Room 338

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Confinement: Clay Mineral Geochemistry

Cosponsored by ENVR and INOR
J. Bracco, S.E. Mason, J. Weber, Organizers, Presiding

8:30 GEOC 166. Optical imaging of surface chemistry and dynamics in confinement. C. Macias-Romero, I. Nahalka, H. Okur, **S. Roke**

8:50 GEOC 167. The interfacial structure of water droplets in a hydrophobic liquid. N. Smolentsev, W. Smit, H. Bakker, **S. Roke**

9:10 GEOC 168. The impact of nano-scale confinement on the adsorption of copper. **A. Knight**, A. Tigges, A. Ilgen

9:30 GEOC 169. Atomistic-scale evaluation of the fracture toughness of silicates in aqueous solutions. **J.M. Rimsza**, R.E. Jones, L.J. Criscenti

9:50 Intermission .

10:10 GEOC 170. Hydration structure of mineral-water interfaces. **S. Lee**, J. Bracco, I.C. Bourg, A.G. Stack, P. Fenter

10:40 GEOC 171. Free energy of interaction of two smectite clay nanoparticles in liquid water. **X. Shen**, I.C. Bourg

[†]Cooperative Cosponsorship

11:00 GEOC 172. Metadynamics based molecular dynamics simulation and experimental study of the adsorption of phthalate esters on smectite clay surfaces. **J. Willemssen**, S.C. Myneni, I.C. Bourg

11:20 GEOC 173. Imaging nucleation at the mica-water interface with high speed molecular-resolution atomic force microscopy. **B. Legg**, M.D. Baer, C.J. Mundy, J.J. DeYoreo

11:40 GEOC 174. Properties of clay-rich fine-grained sedimentary rocks from large-scale molecular dynamics simulations. **T.R. Underwood**, I.C. Bourg

12:00 GEOC 175. Sugar-influenced hydrodynamics in mineral nanopores revealed by molecular dynamics simulations coupled with spectroscopic experiments. **L. Aristilde**, S. Kelch, S. Galdi

WEDNESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 355

Manganese Oxides: Their Formation, Structure, Reactivity & Applications

Cosponsored by ENVR
W.D. Burgos, M.A. Ginder-Vogel, M. Zhu, *Organizers, Presiding*

1:30 GEOC 176. Transformation of phenolic contaminants by environmentally-relevant manganese oxides. **C.K. Remucal**, E. Leverich, M.A. Ginder-Vogel

2:00 GEOC 177. Biogenic manganese oxides from AMD treatment system remove contaminants of emerging concern from hospital wastewater. **L.E. Castillo**, P. Piotrowski, F.L. Dorman, J. Vanden Heuvel, W.D. Burgos

2:25 GEOC 178. Changes in bisphenol A oxidation mechanism in the presence of manganese oxide. **S.J. Balgooyen**, G. Campagnola, C.K. Remucal, M.A. Ginder-Vogel

2:45 GEOC 179. Application of different manganese dioxide (MnO₂) media for the removal of bisphenol A (BPA). **M.M. Shaikh**, H.J. Zhang, J.M. Cerrato

3:05 Intermission.

3:30 GEOC 180. Reduction of layered manganese oxides by organic acids: Effects on mineral structure and trace metal fate. **J.G. Catalano**, E.D. Flynn, M.A. Hinkle

4:00 GEOC 181. Reductive dissolution kinetics of birnessite by natural organic matter. **Q. Wang**, M. Zhu

4:20 GEOC 182. Decoupling flavin and thiol mediated reduction of manganese oxides by *Shewanella oneidensis* MR-1. **K. Michelson**, R. Sanford, A. Valocchi, C.J. Werth

4:40 GEOC 183. Reduction of manganese (oxyhydr)oxides by organic sulfur electron shuttles. **E. Eitel**, S. Zhao, Y. Tang, M. Taillefer

Section B

Ernest N. Morial Convention Center Room 338

Molecular Processes at Mineral-Water Interfaces: Linking Theory &

Experiments

Carbonates, Phosphates & Rare Earth Elements

Cosponsored by ENVR and INOR
J. Bracco, S.E. Mason, J. Weber, *Organizers, Presiding*

1:30 GEOC 184. Molecular scale structure of the calcite(104)-water-interface and interfacial reactions of Selenite (Se(IV)O₃²⁻), insights from experiment and theory. **F. Heberling**, R. Polly

2:00 GEOC 185. *Ab initio* thermodynamics of hydrated Mg and Ca carbonates. **A.M. Chaka**

2:30 GEOC 186. Molecular scale mechanisms of heteroepitaxial nucleation and growth at mineral-water interfaces.

S.L. Riechers, M. Xu, E.S. Ilton, Y. Du, L. Kovarik, T. Varga, B. Arey, O. Qafoku, K. Rosso, S.N. Kerisit

3:00 GEOC 187. CaCO₃ heterogeneous nucleation pathways: Effect of mineral surface hydrophobicity. **A. Kaishi**, A. Fernandez-Martinez, A. van Driessche, L. Michot, G. Montes-Hernandez, B. Lee

3:20 Intermission .

3:40 GEOC 188. Linking computational simulation with neutron diffraction to understand ion solvation structure and ion pairing in aqueous solutions. **A.G. Stack**, H. Wang, J. Neufeind, N. Rampal, J.M. Simonson

4:10 GEOC 189. ATR-FTIR analysis of ligand adsorption at the mineral-solution interface. **A.K. Wanhala**, A.G. Stack, M. Cheshire, V.S. Bryantsev

4:30 GEOC 190. Influence of organic ligands on the mobilization and pattern of rare earth elements. **P. Liu**, Y. Tang

4:50 GEOC 191. Divalent metal sorption on struvite: Assessing the influence of pH and concentration on sorption mechanisms. **O. Goswami**, A. Rouff

Section C

Ernest N. Morial Convention Center Room 339

Forensic Geochemistry

Cosponsored by ENVR
D. Coleman, S. Singletary, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 GEOC 192. Forensic geology. **R. Murray**

2:05 GEOC 193. Forensic use of the electron microprobe. **S. Singletary**, H. Hanna

2:20 GEOC 194. Forensic chemical and geochemical evaluation of seepage fluids and groundwater in a semi-controlled dumping site in northern Croatia. **G. Kniewald**, M. Mlakar

2:35 Intermission.

2:55 GEOC 195. Nuclear forensic analysis of uranium dioxide fuel pellets. **T.L. Spano**, L. Corcoran, A. Simonetti, C. Dorais, S. Lewis, T. Gunther, P.C. Burns

3:10 GEOC 196. Chromium in aqueous media: How to determine source and speciation with limited data. **K. Thorbjornsen**

3:25 GEOC 197. Monitoring on styrene oligomer derived from debris polystyrene world wide. **K. Saïdo**, H. Kimukai, B. Brezel, **K. Koizumi**, D.M. Karl, N. Maximenko, B. Kwon, S. Chung, M. Ochiai

3:40 Concluding Remarks.

WEDNESDAY EVENING

Section C

Ernest N. Morial Convention Center Hall D

Biominalization & Bio-Compatible Minerals

Cosponsored by BIOL and ENVR
J.D. Rimer, J.A. Soltis, G. Zhu, *Organizers*

6:00-8:00

GEOC 198. MapX – An *in situ*, full-frame X-ray spectroscopic imager for planetary science and astrobiology. **R.C. Walroth**, P. Sarrazin, T. Bristow, D. Blake

GEOC 199. *In-situ* morphological and structural transformation of abiogenic and biogenic iron-sulfide nanoparticles: An X-ray scattering and transmission electron microscopy study. **E.A. Moreno Flores**, J. Banuelos, J. Xu

Section C

Ernest N. Morial Convention Center Hall D

Contaminated Site Remediation through Microbial, Geological & Chemical Processes

Cosponsored by ENVR
B. Jeon, Y. Ok, D. Tsang, *Organizers*

6:00-8:00

GEOC 200. EXAFS and μ XRF analysis of arsenic speciation and spatial distribution in mine tailings: Implications for physical weathering, bioaccessibility, and remediation. **M.R. Vejar**, C.J. Reilly, C.S. Kim

GEOC 201. Microspatial analysis of arsenic oxidation state in mine tailings: Implications for bioaccessibility and remediation. **C.J. Reilly**, M.R. Vejar, C.S. Kim

GEOC 202. Degradation in low-temperature thermal remediation: Mechanisms and mineral catalysis. **J. Davis**, C. Oden, H. Liljestrang, C.J. Werth, L.E. Katz

GEOC 203. Degradation of TCE by iron minerals and aquifer materials. **T.C. Robinson**, M. Scherer, D. Latta, T. Mattes, P. Richards, A. Neumann, J. Entwistle, E. Suchomel, R. Deeb, L. Kane

GEOC 204. Pyrolytic treatment for the remediation of crude oil contaminated soil. **J. Jiang**, S. Dev, S. Lee, B. Jeon

GEOC 205. Sediment core depth profile enhanced degradation of CFCs by biotic and abiotic in-situ stimulation. **N. Gambrell**, **C. Masse**, S.K. O'Shea

GEOC 206. Characterization of in-situ marine core sediment and pore water degradation of CFCs. **C. Masse**, N. Gambrell, S.K. O'Shea

GEOC 207. Reduction of Hg(II) by structural Fe(II) in clay minerals. K.O. Thalhaammer, M. Boyanov, K.M. Kemner, **E.J. O'Loughlin**

GEOC 208. Wood biochar as cattle

feed supplement: Effect on milk yield and nutrient quality in the farms of West Bengal, India. **J. Bhattacharya**, B. Das

Section C

Ernest N. Morial Convention Center Hall D

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Cosponsored by COLL, ENFL, ENVR and INOR
N. Kabengi, M.L. Machesky, A. Navrotsky, *Organizers*

6:00-8:00

GEOC 209. Fluid behaviors in natural confinement systems. **B. Hwang**, D.J. Srivastava, T. Whitmer, S. Ok, A. Swift, P.J. Grandinetti, D. Cole

GEOC 210. Thermodynamic analysis of alkali metal ions (Li⁺, Na⁺, K⁺) exchange on MXene using flow microcalorimetry. **E. Stroeva**, P. Ilani Kashkoui, M. Naguib, D. Wesolowski, N. Kabengi

GEOC 211. Withdrawn.

Section C

Ernest N. Morial Convention Center Hall D

Forensic Geochemistry

Cosponsored by ENVR
D. Coleman, S. Singletary, *Organizers*

6:00-8:00

GEOC 212. Geochemical fingerprinting of uranium rich samples utilizing a multivariate approach. **L. Corcoran**, T.L. Spano, A. Simonetti, S. Lewis, T. Gunther, P.C. Burns

GEOC 213. Calcium and iron isotope analysis of uraninite and other uranium-rich materials: Development of potential new forensic isotope tracer methods. **T. Gunther**, L. Corcoran, A. Simonetti, P.C. Burns

GEOC 214. Detailed in-situ characterization of uraninite from North American deposits using a combined FIB-SEM approach. **S. Lewis**, A. Simonetti, L. Corcoran, T.L. Spano, P.C. Burns

Section C

Ernest N. Morial Convention Center Hall D

General Geochemistry

W.D. Burgos, N. Kabengi, *Organizers*

6:00-8:00

GEOC 215. Investigation of the reactions of NO_x species with pyrite(FeS₂). **T. Rush**, H. Bevsck

GEOC 216. Laboratory study of interfacial processes of herbicides. **P. Orlović-Leko**, K. Vidović, I. Ciglenečki

GEOC 217. The study of interaction of bacterial cytochromes and iron oxide minerals. **H. Wang**, A. Johs, L. Liang, J. Browning, A. Tennant

GEOC 218. Oxidized manganese in Costa Rican tree leaves. **R.L. Sanders**, J. Sager, A. Schwarz

GEOC 219. Study of iodine distribution in western Oklahoma brine waters. **J.R.**

† Cooperative Cosponsorship

Wickham, K. Betz, M. Archer, D. Edlin

GEOC 220. NMR correlation spectroscopy of liquids at geochemical pressures (GPa). **G. Ochoa**, J.D. Kerr, W.H. Casey, M.P. Augustine

GEOC 221. Resolving the spatial distribution of siderophores and other metabolites at lichen-mineral interface. **B.P. Fields**, J. Thieme, K. Haselwandter, Y. Tang

GEOC 222. Bioreduction of iron in pyroaurite by *Shewanella putrefaciens* CN32. M. Ramos, M. Boyanov, K.M. Kemner, **E.J. O'Loughlin**

GEOC 223. Development of a new method for CEC determination of clays. A.S. Frantzen, **C.A. Keith**

GEOC 224. Methylmercury levels in cover soils from two landfills in Xi'an and Shanghai, China: Evidence for inactive sites of methylmercury production. **Z. Tao**

Section C
Ernest N. Morial Convention Center
Hall D

Manganese Oxides: Their Formation, Structure, Reactivity & Applications
Cosponsored by ENVR
W.D. Burgos, M.A. Ginder-Vogel, M. Zhu, *Organizers*

6:00-8:00

GEOC 225. Effects of cations on structural transformation of birnessite by fulvic acid under anoxic conditions. **Q. Wang**, P. Yang, M. Zhu

GEOC 226. Effects of ligands on structural transformation of birnessite during the reaction with Mn(II). **P. Yang**, Q. Wang, M. Zhu

Section C
Ernest N. Morial Convention Center
Hall D

Microbially-Driven Geochemical Reactions: Kinetics & Communities
Cosponsored by BIOL and ENVR
W.D. Burgos, C. Chan, S. Crowe, *Organizers*

6:00-8:00

GEOC 227. Mapping the potential for functional redundancy in iron-oxidizing communities using pathway-centric analysis. **D. Ayala**, R. Simister, S. Crowe, S. Hallam, W.D. Burgos

Section C
Ernest N. Morial Convention Center
Hall D

Mineral-Water Interface Geochemistry & Modeling at the Laboratory- & Field-Scales: Symposium in Honor of James A Davis
Cosponsored by ENVR
K. Campbell, M.B. Hay, D.B. Kent, *Organizers*

6:00-8:00

GEOC 228. Passivation of uranium ore material surfaces with uranyl phosphate precipitation. **T. Kane**, K. Campbell, M.B. Hay

GEOC 229. Chemical forms of sediment-bound Fe(II) in sediments from an aquifer contaminated by a petroleum spill. **M. Kohler**, D.B. Kent, I.M. Cozzarelli, E.

Elzinga, K. Scheiderich, B.A. Bekins

GEOC 230. Surface complexation and reactive transport modeling: An environmental consultant's perspective. **M.B. Hay**, P. Moran, J. Gillow

Section C
Ernest N. Morial Convention Center
Hall D

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments
Cosponsored by ENVR and INOR
J. Bracco, S.E. Mason, J. Weber, *Organizers*

6:00-8:00

GEOC 231. Modelling of solid-liquid interactions using scaled charges in accord with the Electronic continuum correction. D. Biriukov, **M. Predota**, O. Krutil, Z. Chval, M. Kabelac

GEOC 232. Sorption of pyridine cations to aluminosilicate clays: Influence of solid phase composition and structure. **S. Shaheen**, D. Freeman, J. Sullivan, D. Vasudevan

GEOC 233. Photochemical cycling of reactive oxygen species in hydrothermal springs: Impacts on biosignature preservation. **M. Mave**, N. Hinman

Section C
Ernest N. Morial Convention Center
Hall D

Multiscale Biogeochemical Processes in Soil Ecosystems: Critical Reactions & Resilience to Climate Changes
Cosponsored by AGRO and ENVR
M. Keiluweit, B. Xing, Y. Yang, *Organizers*

6:00-8:00

GEOC 234. Assessing environmentally persistent free radical formation potential and redox processes in Louisiana wetland soils undergoing erosion. **E. Ampiah**, B.J. Haywood, J.R. White, R.L. Cook

GEOC 235. Time-lapse view of carbon fluctuations in of the Mississippi River. **M.P. Hayes**, B.J. Haywood, F. Scaglia Drusini, R.L. Cook

GEOC 236. Integrating laboratory and field studies of organo-mineral interactions using multiple spectroscopic methods. **W. Atkinson**, R. Sleighter, T. Regier, P.G. Hatcher, S.C. Myneni

Section C
Ernest N. Morial Convention Center
Hall D

Theoretical & Experimental Studies of Supercritical Fluids in the Subsurface
Cosponsored by ENVR and INOR
G.M. Bowers, R. Kirkpatrick, N. Loganathan, *Organizers*

6:00-8:00

GEOC 237. Grand canonical molecular dynamics simulation of supercritical carbon dioxide and methane intercalation in smectite interlayers. **N. Loganathan**, O. Yazaydin, G.M. Bowers, A.G. Kalinichev, R. Kirkpatrick

GEOC 238. Understanding alternative shale gas extraction technologies: Comparing and contrasting supercritical methane and carbon dioxide interactions with smectite clay on the molecular scale

using *in situ* spectroscopy and diffraction. **G.M. Bowers**, S. Cuniff, H.T. Schaefer, J. Loring, S. Burton, E.D. Walter, D.W. Hoyt, O. Yazaydin, N. Loganathan, R. Kirkpatrick

THURSDAY MORNING

Section A
Ernest N. Morial Convention Center
Room 355

Manganese Oxides: Their Formation, Structure, Reactivity & Applications
Cosponsored by ENVR
W.D. Burgos, M.A. Ginder-Vogel, M. Zhu, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 GEOC 239. Redox reactivity of layer-type MnOx nanoparticles: Insights from kinetic and site-specific surface speciation studies. **J. Pena**, A. Simanova, Y. Wang, F. Marafatto, S. Benkaddour

9:05 GEOC 240. Cation exchange and redox reactions in birnessite as revealed by time-resolved X-ray diffraction. **P. Heaney**, J. Post, F.T. Ling, K. Kong, C.L. Lopano, C.R. Parasida, J. Stubbs, P.J. Eng

9:35 GEOC 241. Cr(VI) generation from Cr(III)-containing iron oxides associated with manganese redox cycling. **C. Pan**, A. Qian, J.G. Catalano, D. Giammar

9:55 GEOC 242. Shining light on Cr(III) oxidation mechanisms on Mn-oxides. **J. Fischel**, D.L. Sparks

10:15 Intermission.

10:40 GEOC 243. Efficient catalytic As(III) oxidation on the surface of ferrihydrite in the presence of aqueous Mn(II). **X. Feng**, S. Lan, H. Ying, X. Wang, F. Liu, W. Tan, Q. Huang

11:10 GEOC 244. Reactivity of manganese oxide at redox interfaces in diffusion controlled environments. **S. Ying**, M. Abernathy, R. Mock, J. Lezama, A. Garniwan, L. Lake, I. Lee, M.V. Schaefer

11:40 GEOC 245. Arsenic oxidation by the mighty manganese soils of Graskop. **M. Fischel**, C. Clarke, D.L. Sparks

12:00 GEOC 246. Impact of metal impurities on redox reactivity of hausmannite ($Mn^{II}Mn^{III}_3O_4$). **B. Song**, E.B. Cerkez, D.R. Strongin, B. Kim

Section B
Ernest N. Morial Convention Center
Room 338

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Iron Oxyhydr-Oxides: Redox Processes
Cosponsored by ENVR and INOR
J. Bracco, S.E. Mason, J. Weber, *Organizers, Presiding*

8:30 GEOC 247. Ions and solvent structure at mineral- aqueous interfaces. **E. Borguet**

9:00 GEOC 248. Carbonate adsorption on ferrihydrite under atmospheric conditions: Experimental and modeling. **N.M. Bompoti**, M. Chrysochoou, M. Villalobos, M.L. Machesky

9:20 GEOC 249. Quantifying rates

and extents of Fe²⁺ catalyzed iron oxide recrystallization. **P. Joshi**, M.S. Fanfle, C. Gorski

9:40 GEOC 250. Adsorption of nucleic acid/protein supramolecular complexes on goethite: Impact of solution interactions on behavior at the solution-mineral interface. **M. Schmidt**, C.E. Martinez

10:00 GEOC 251. Reconstituting the Fe L-edge and O K-edge XANES and XMCD spectra of magnetite from first principle calculations. **M. Sassi**, C. Pearce, P.S. Bagus, E. Arenholz, K. Rosso

10:20 Intermission.

10:30 GEOC 252. X-ray absorption, Mössbauer, diffuse reflectance spectroscopies and density functional theory calculations of Fe(II)/Fe(III) redox couple in ferric nontronites. **A. Ilgen**, R. Kukkadapu, R.E. Washington, K. Leung

10:50 GEOC 253. Mediated electrochemical reduction of iron (oxyhydr-)oxides under defined thermodynamic boundary conditions. M. Aeppli, A. Voegelin, C. Gorski, **T.B. Hofstetter**, M. Sander

11:10 GEOC 254. Unifying framework to relate pollutant reduction rates by oxide-bound Fe(II) to thermodynamics. S. Stewart, T.B. Hofstetter, P. Joshi, **C. Gorski**

11:30 GEOC 255. Role of defects in Fe(II)-goethite electron transfer. **L. Andrade**, D. Latta, A. Neumann, C. Pearce, M. Sassi, A. N'Diaye, K. Rosso, M. Scherer

11:50 GEOC 256. Redox degradation of DTPMP phosphonate with Fe-bearing phyllosilicates under subsurface conditions. **L. Zhang**, Y. Jun

12:10 GEOC 257. Confinement-induced solvent effects on electron transfer reactions at water-mineral interfaces. **R. Remsing**

Section C
Ernest N. Morial Convention Center
Room 339

Theoretical & Experimental Studies of Supercritical Fluids in the Subsurface

Cosponsored by ENVR and INOR
G.M. Bowers, R. Kirkpatrick, N. Loganathan, *Organizers, Presiding*

8:30 Introductory Remarks.

8:40 GEOC 258. Properties of water under ultra-confinement: Questions about the subsurface. **L. Anovitz**, A.I. Kolesnikov, C. Hoffmann, G. Reiter, T. Prisk, P. Kent, E. Mamontov, D. Wesolowski

9:10 GEOC 259. Molecular dynamics simulation prediction of quartz wetting by water vs. supercritical CO₂. E. Sun, E. Chang, L.N. Lammers, **I.C. Bourg**

9:40 GEOC 260. Impact of small organic molecules on the wettability of quartz by brine versus CO₂. **E. Sun**, I.C. Bourg

10:00 GEOC 261. Reactivity and transformations of minerals in adsorbed H₂O films. **J. Loring**, Q. Miller, H.T. Schaefer, E. Ilton, O. Qafoku, C.J. Thompson, P. McGrail, K. Rosso

10:30 Intermission.

10:40 GEOC 262. Interactions of water

[†]Cooperative Cosponsorship

TECH-243

and supercritical carbon dioxide on the basal surface and interlayer of clay minerals. **R.T. Cygan**

11:10 GEOC 263. Getting the lead out: The unusual carbonation chemistry of a Pb-smectite in contact with wet supercritical carbon dioxide. **G.M. Bowers**, S. Cuniff, H.T. Schaef, S. Burton, J. Loring

11:30 GEOC 264. Investigation of geochemically relevant supercritical fluids interaction with clay minerals present in deep geological formations using grand canonical molecular dynamics (GCMD). **N. Loganathan**, O. Yazaydin, G.M. Bowers, A.G. Kalinichev, R. Kirkpatrick

11:50 GEOC 265. Gas and supercritical fluid adsorption at mineral surfaces, in narrow pores, and to swelling clays: Impacts of hydration and fluid identity. **G. Rother**, D. Cole, I.C. Bourg, M. Cheshire, L. Vlcek

12:20 Concluding Remarks.

THURSDAY AFTERNOON

Section A

**Ernest N. Morial Convention Center
Room 355**

Manganese Oxides: Their Formation, Structure, Reactivity & Applications

Cosponsored by ENVR
W.D. Burgos, M.A. Ginder-Vogel, M. Zhu, *Organizers, Presiding*

1:30 GEOC 266. Thallium (I) sorption behavior on birnessite. **M. Villalobos**, Y. Cruz-Hernandez, M.A. Marcus

2:00 GEOC 267. Adsorption behavior of Mn(II) on the surface of Fe (oxyhydr) oxides under various aqueous conditions. **S. Namgung**, G. Lee

2:20 GEOC 268. Potential role of Mn(IV) oxides in abiotic nitrous oxide production. **A. Cavazos**, M. Taillefert, Y. Tang, J. Glass

2:40 Intermission.

3:00 GEOC 269. Electrochemical characterization of manganese oxide electrodes for water desalination and renewable energy production. **C. Gorski**, J. Fortunato, T. Kim, B.E. Logan

3:30 GEOC 270. Withdrawn.

3:50 GEOC 271. Previously unexplored fast photochemical oxidation of Mn²⁺ (aq) in an abiotic inorganic process and consequent formation of birnessite nanosheets. H. Jung, **Y. Jun**

Section B

**Ernest N. Morial Convention Center
Room 338**

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Uranium Incorporation: Sulfate Mineral Geochemistry

Cosponsored by ENVR and INOR
J. Bracco, S.E. Mason, J. Weber, *Organizers, Presiding*

1:30 GEOC 272. Illuminating uranium incorporation in iron (oxyhydr)oxides using AIMD-informed EXAFS analysis. **M.E. McBriarty**, S.N. Kerisit, E.J. Bylaska, J.A. Solits, S. Shaw, E. Ilton

1:50 GEOC 273. Evolution of uranium speciation during sulfidation of iron (oxyhydr)oxides under conditions relevant to geological disposal of radioactive waste. **L.T. Townsend**, S. Shaw, J.W. Mosselmans, A. Walton, R. Hibberd, K. Morris

2:10 GEOC 274. Uranium(VI) uptake during iron(III) (oxyhydr)oxide formation: Underpinning radioactive effluent treatment. **E. Winstanley**, K. Morris, L. Abrahamsen-Mills, S. Haigh, S. Shaw

2:30 GEOC 275. Stability and core-shell structure of U(IV)-silicate colloids. **T. Neill**, K. Morris, C. Pearce, N.K. Sherriff, S. Shaw

2:50 Intermission.

3:10 GEOC 276. Withdrawn.

3:30 GEOC 277. Designing inhibitors of mineral scale: A new platform based on cooperative microfluidic and computational assays. **R. Sosa**, X. Geng, J. Palmer, M.A. Reynolds, J. Conrad, J.D. Rimer

3:50 GEOC 278. Heterogeneous (Ba,Sr)₂SO₄ nucleation at organic-water interfaces: Implications for strontium immobilization. **N. Deng**, B. Cao, X. Zuo, Y. Hu

4:10 GEOC 279. Strontium adsorption at the barite (001) – water interface. **J. Bracco**, S. Lee, J. Stubbs, P.J. Eng, J. Weber, P. Fenter, J.D. Kubicki

Section C

**Ernest N. Morial Convention Center
Room 339**

Theoretical & Experimental Studies of Supercritical Fluids in the Subsurface

Cosponsored by ENVR and INOR
G.M. Bowers, R. Kirkpatrick, N. Loganathan, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 GEOC 280. Behavior of supercritical C-O-H fluids in nanoporous materials. **D. Cole**, A. Striolo, S. Gautam

2:05 GEOC 281. Molecular simulations of competitive sorption of carbon dioxide and methane on illitic clay surfaces in shales. **E.M. Myshakin**, L. Chong, D. Crandall

2:35 Intermission.

2:45 GEOC 282. Geochemical and geomechanical alteration of reservoir rock by CO₂-saturated brine following carbon sequestration. **S. Fuchs**, L.A. Hernandez, A. Akono, D.N. Espinoza, C.J. Werth

3:05 GEOC 283. Cavity formation in aqueous solutions and molecular origin of salting-out effect for CO₂. **T.A. Ho**, A. Ilgen

3:25 Discussion.

5:25 Concluding Remarks.

HIST

Division of the History of Chemistry

N. Tsarevsky, Program Chair

SUNDAY MORNING

Section A

**Hilton New Orleans Riverside
Grand Salon D Sec 24**

Tutorial & General Papers

N.V. Tsarevsky, *Organizer*
J.S. Jeffers, *Presiding*

8:00 HIST 1. Chemistry in America: Seventeenth century New England and John Winthrop, Jr.. **G.D. Patterson**

8:30 HIST 2. Withdrawn.

9:00 HIST 3. Early German influences on women in chemistry. **R.C. White**

9:30 HIST 4. Solving crime mysteries using chemistry: The early days of forensic science. **N.V. Tsarevsky**

10:00 Intermission.

10:15 HIST 5. Bibliometric overview of drug repurposing using PubMed. **N. Baker**, A.J. Williams, S. Ekins, A. Tropsha

10:45 HIST 6. History of Ethyl Corporation in Baton Rouge, Louisiana and beyond. **C.D. Varnado**

11:15 HIST 7. History of cyclic polymers. **F.M. Haque**, S.M. Grayson

11:45 HIST 8. John Herschel as a chemist. **G.D. Patterson**

SUNDAY AFTERNOON

Section A

**Hilton New Orleans Riverside
Grand Salon D Sec 24**

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Cosponsored by AGFD, CHED, DAC[‡], MPPG[‡] and PRES[‡]
Financially supported by ACS Louisiana Local Section
A.F. Bopp, *Organizer*
M. Orna, *Organizer, Presiding*

1:00 Introductory Remarks.

1:10 HIST 9. Impact of agriculture on food supply: A history. **L. Simon Sarkadi**

1:40 HIST 10. Critical impact of NaCl on global human history and development. **M. Duerst**

2:10 HIST 11. Sweet chemistry: A philatelic history of sugar. **D. Rabinovich**

2:40 Intermission.

3:00 HIST 12. History of sugar and sweeteners. **G. Eggleston**

3:30 HIST 13. Uncorking the past: Alcoholic beverages as the universal medicine before synthetics. **P.E. McGovern**

4:00 HIST 14. Why we do this to ourselves? The chemical/botanical history of chili peppers. **R. Mullin**

4:30 Concluding Remarks.

MONDAY MORNING

Section A

Hilton New Orleans Riverside

Grand Salon D Sec 24

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Cosponsored by AGFD, CHED, DAC[‡], MPPG[‡] and PRES[‡]
Financially supported by ACS Louisiana Local Section
A.F. Bopp, M. Orna, *Organizers*
D. Rabinovich, *Presiding*

8:30 Introductory Remarks.

8:40 HIST 15. Cuisine and chemistry: From Liebig's "Diabetic Trinity" to molecular gastronomy. **L. Civitello**

9:10 HIST 16. Harvey Wiley and the transformation of the American diet. **J. Rees**

9:40 HIST 17. History of dietary guidelines and their impacts. **E. Schoffers**

10:10 Intermission.

10:30 HIST 18. Eating chemicals: The flavor industry and its chemical relations. **N. Berenstein**

11:00 HIST 19. Genetically modified organisms (GMOs) as part of our food sources: Are you what you eat? **P.L. Daubenmire**

11:30 HIST 20. Carotenoids, cochineal and copper: Food coloring through the ages. **M. Orna**

12:00 Concluding Remarks.

Molecules that Changed the World sponsored by YCC, Cosponsored by HIST and I&EC

MONDAY AFTERNOON

Section A

**Hilton New Orleans Riverside
Grand Salon D Sec 24**

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Cosponsored by AGFD, CHED, DAC[‡], MPPG[‡] and PRES[‡]
Financially supported by ACS Louisiana Local Section
M. Orna, *Organizer*
A.F. Bopp, *Organizer, Presiding*

1:30 Introductory Remarks.

1:40 HIST 21. How food culture survives and thrives in a changing world. **P. Tooker**

2:40 HIST 22. Evolution of flour: From New England Graham to New Orleans Swans Down. **L. Civitello**

3:10 Intermission.

3:30 HIST 23. Effects of fertilizer on food supply. **L. Simon Sarkadi**

4:00 HIST 24. Role of chemical analysis in food safety and food authentication. **E. de Ronde**

4:30 HIST 25. What 18 inches could mean? Relative sea level rise and Louisiana. **A. Gaudé**

5:00 HIST 26. Student/teacher essay contest winners: The best in the chemical history of food. S.C. Rukes, **M. Orna**

5:30 Concluding Remarks.

[‡]Cooperative Cosponsorship

Information Legacy of Eugene Garfield: From the Chicken Coop to the World Wide Web

Sponsored by CINP, Cosponsored by HIST and PRES

Tales of Chemistry & Cocktails

Sponsored by YCC, Cosponsored by HIST

MONDAY EVENING**Section A**Ernest N. Morial Convention Center
Halls D/E**Sci-Mix**

N.V. Tsarevsky, Organizer

8:00–10:00

7. See previous listings.

31, 45, 48-49. See subsequent listings.**TUESDAY MORNING****Section A**Hilton New Orleans Riverside
Grand Salon D Sec 24**HIST Award Symposium Honoring Jeffrey I. Seeman**

J. Gal, Organizer, Presiding

8:25 Introductory Remarks.**8:30 HIST 27.** Seeman, Padwa, Gupton and five membered heterocycles: How organic chemistry brought us together. **J.T. Gupton****9:00 HIST 28.** Two examples of serendipity in my scientific career. **E. Juaristi****9:30 HIST 29.** My journey from a never-heard land to ... to the land of opportunities. **M. Hajaligol****10:00 HIST 30.** Thoughts on the relevance of history. **M. Caserio****10:30 Intermission.****10:45 HIST 31.** Publishing chemical history: Lessons learned. **E.E. Wille****11:15 HIST 32.** Resilience: When life hands you a lemon, make lemonade. **M. Rouhi****11:45 HIST 33.** History of and history in *Angewandte Chemie*. **P.K. Goelitz****TUESDAY AFTERNOON****Section A**Hilton New Orleans Riverside
Grand Salon D Sec 24**HIST Award Symposium Honoring Jeffrey I. Seeman**J. Gal, Organizer, Presiding
M. Orna, J. Seeman, Presiding**1:00 HIST 34.** Reflections on the relationships of error to discovery in chemistry. **C.J. Giunta****1:30 HIST 35.** Origins: God or no God, that is the question. **M.T. Bowers****2:00 HIST 36.** Chemical receptors andtransduction events on the mammalian tongue. **S. Simon****2:30 HIST 37.** Three evocative ideas: The Matthew effect, post mature contributions and the role of the role model. **H. Zuckerman****3:00 Intermission.****3:15 HIST 38.** Best of all possible worlds. **R. Anderson****3:45 HIST 39.** "Go for it": Words of wisdom from my fathers. **L.M. Shea****4:15 HIST 40.** FDA history, drug inspection and compliance overview. **B. Higgins****4:45 HIST 41.** Emergence of molecular reaction dynamics. **D.R. Herschbach****WEDNESDAY MORNING****Section A**Hilton New Orleans Riverside
Grand Salon D Sec 24**Tutorial & General Papers**

N.V. Tsarevsky, Organizer, Presiding

8:15 HIST 42. History of the American chemical laboratory manual. **W.P. Palmer****8:45 HIST 43.** Victor Grignard (1871–1935) and Henry Gilman (1893–1986): Pioneers in organometallic chemistry. **R.K. Dieringer, H.K. North, D.E. Lewis****9:15 HIST 44.** Wolff-Kishner reduction: Biography, discovery and development. **D.E. Lewis****9:45 HIST 45.** Development of Butlerov's Structural Theory, 1859–1862. **C.S. Goedhart, D.R. Rothbauer, S.N. Rasper, D.E. Lewis****10:15 Intermission.****10:30 HIST 46.** Mining of elements versus discovery, analysis, and separation of elements. **C. Hahn****11:00 HIST 47.** August Michaelis: A pioneer of phosphorus chemistry. **D. Selenit****11:30 HIST 48.** Markovnikov on isomerism in organic chemistry. **D.E. Lewis****12:00 HIST 49.** Mutual influence of atoms in chemical compounds—Markovnikov's Rule. **D.E. Lewis****I&EC****Division of Industrial and Engineering Chemistry****C. Abney, Program Chair****OTHER SYMPOSIA OF INTEREST:****2018 ACS Sustainable Chemistry & Engineering Lectureship Awards:****Symposium in Honor of Ning Yan** (see CELL, Sun)**Polymer Colloids: Synthesis, Analysis, Modeling & Applications**

(see POLY, Sun, Mon, Tue, Wed)

2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in Honor of Rafael Luque (see CELL, Mon)**Industrial Innovations in Polymer Science** (see POLY, Mon)**BUSINESS MEETINGS:****I&EC Subdivision Meeting (Open), 10:00 AM:** Sat**I&EC Business Meeting (Open), 1:00 PM:** Sat**SUNDAY MORNING****Section A**Loews New Orleans Hotel
Louisiana I

E.V. Murphree Award in Industrial and Engineering Chemistry: Symposium in honor of Linda J. Broadbelt

Cosponsored by WCC
D.J. Klinke, H. Kung, Organizers
B.H. Shanks, Presiding**8:00 Introductory Remarks.****8:05 I&EC 57.** Withdrawn**8:35 I&EC 1.** Software tools for molecular-level modeling of refinery and petrochemical reactors. **M.T. Klein****9:05 I&EC 3.** Severe pyrolyses of n-decane, cyclodecane, and decahydronaphthalene, with graph-theoretic interpretations. **P.S. Virk****9:35 Intermission.****9:55 I&EC 4.** Application of molecular dynamics to discover and quantify reaction pathways. **J. Pfaendner, C. Fu****10:25 I&EC 5.** Reaction mechanisms in industrial and engineering chemistry: from pyrolysis to proteins. **H. Mayes****10:55 I&EC 6.** From petrochemical reaction networks to intercellular networks in cancer: Developing ways to let reactive systems speak for themselves. **D.J. Klinke****Section B**Loews New Orleans Hotel
Feliciana East**I&EC Fellow: Symposium in Honor of Yong Wang**J.L. Bryant, Organizer
J. Holladay, J. McEwen, Organizers,
Presiding**8:00 Introductory Remarks.****8:05 I&EC 7.** Consequences of surface reconstruction of perovskites in catalyzing acid-base reactions. **Z. Wu****8:30 I&EC 8.** Structural and mechanistic insights from *in situ/operando* catalyst characterization. **A.M. Karim****8:55 I&EC 9.** Application of ambient pressure photoelectron spectroscopy to catalysis studies. **F. Tao****9:20 I&EC 10.** Direct conversion of syngas into lower olefins and aromatics with bifunctional catalysts. **K. Cheng, W. Zhou, J. Kang, Q. Zhang, Y. Wang****9:45 Intermission.****10:05 I&EC 11.** Enhancing the stability/performance of catalysts via atomic layer deposition. **C.L. Marshall, H. Zhang, J. Camacho-Bunquin, J. Elam, R. Kennedy, P.C. Stair, K.R. Poeppelmeier****10:30 I&EC 12.** Metal-incorporated silicates via evaporation-induced self-assembly as superior catalytic materials. **A. Ramanathan, H. Zhu, J. Wu, S.K. Maiti, B. Subramaniam****10:55 I&EC 13.** Cu/SSZ-13 catalysts for the selective catalytic reduction of NO_x: Unusual features of the complex redox reaction mechanism. **C.H. Peden, D. Mei, Y. Wang, J. Szanyi, F. Gao****11:20 I&EC 14.** Catalysis researchers caused climate change and what we can do to fix it. **C.W. Jones****Section C**Loews New Orleans Hotel
Louisiana II**ACS Award in Separations Science & Technology: Symposium in honor of Massimo Morbidelli**P. Arosio, M. Lattuada, A. Varma,
Organizers, Presiding**8:00 Introductory Remarks.****8:05 I&EC 15.** Engineering an intein with cleavage control for single step purification platforms. **G. Belfort****8:25 I&EC 16.** Adapting process engineering to (bio)chemists for the development of smarter processes. **R.M. Nicoud****8:45 I&EC 17.** Continuous cell culture and purification processes for the integrated manufacture of monoclonal antibodies. **D.J. Karst, F. Steinebach****9:05 I&EC 18.** Simple approach to design chromatographic processes for mAb capture. **D.E. Pfister, R.M. Nicoud****9:25 Intermission.****9:45 I&EC 19.** Recent advances in understanding the molecular basis of selectivity in multimodal protein separation systems. **S.M. Cramer****10:05 I&EC 20.** Solution complexation: A methods to improve purity and yield in crystallization. **A.S. Myerson****10:25 I&EC 21.** Ligand-mediated nanocrystal growth. **S. Lazzari, K.F. Jensen****10:45 I&EC 22.** Enabling adsorbent screening for post-combustion CO₂ capture through process optimization. **A. Rajendran****11:05 I&EC 23. Award Address** (ACS Award in Separations Science and Technology Sponsored by the Waters Corporation). End-to-end integrated continuous manufacture of therapeutic proteins. **M. Morbidelli****11:35 Concluding Remarks.****Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water**

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

[†]Cooperative Cosponsorship

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

SUNDAY AFTERNOON

Section A

Loews New Orleans Hotel
Louisiana I

E.V. Murphree Award in Industrial and Engineering Chemistry: Symposium in honor of Linda J. Broadbelt

Cosponsored by WCC
H. Kung, Organizer
D.J. Klinke, Organizer, Presiding

1:30 Introductory Remarks. 1:35 I&EC 24. Award Address (E.V. Murphree Award in Industrial and Engineering Chemistry Sponsored by the ExxonMobil Research and Engineering Company). Reaction pathway analysis of the (bio)conversion of (bio) macromolecules. **L.J. Broadbelt**

2:15 I&EC 25. Next generation chemical products via bioprivileged molecules. **B. Shanks**

2:45 I&EC 26. Computational framework for the identification of bioprivileged molecules. **X. Zhou, Z. Brentzel, B.H. Shanks, J.A. Dumesic, L.J. Broadbelt**

3:15 Intermission.

3:35 I&EC 27. Hybrid biological and catalytic processing to produce acrylonitrile. **G. Beckham, E. Karp, T. Eaton, V. Sánchez i Nogué, V. Vorotnikov, M. Bidy, A. Bratis**

4:05 I&EC 28. Kinetic analysis of phosphorylation of chimeric antigen receptors: Insight for T cell immunotherapy. **S. Finley**

4:35 I&EC 29. Interfacial perimeter sites for selective hydrocarbon oxidation over supported Au catalysts. **H. Kung, M. Kung**

Section B

Loews New Orleans Hotel
Feliciano East

I&EC Fellow: Symposium in Honor of Yong Wang

J.L. Bryant, Organizer
J. Holladay, J. McEwen, Organizers, Presiding

1:00 Introductory Remarks.

1:05 I&EC 30. Cascade catalysis: A strategy for process intensification. S. Eady, W. Wen, Z. Wang, **L.T. Thompson**

1:35 I&EC 31. Catalysis for C-C coupling and oxygen removal reactions of oxygenates at acid-base pairs on oxide surfaces. S. Wang, **E. Iglesia**

2:05 I&EC 32. Dynamics of first row transition metal or alloy clusters and their catalytic consequences for C-H bond dissociation and formation steps. **Y. Chin, P.T. Lachkov, W. Tu**

2:35 I&EC 33. Electrocatalytically-assisted oxidative dehydrogenation (ODH) of ethane. **U.S. Ozkan, D. Dogu, K. Meyer, S. Gunduz, D.J. Deka, A. Co**

3:05 Intermission.

3:20 I&EC 34. Structure-activity relationships for catalytic and

photocatalytic reactions on nanocrystalline metal oxides: Bridging the materials gap. P. Pepin, **J.M. Vohs**

3:50 I&EC 35. On the various mechanisms of hydrodeoxygenation and ring hydrogenation of phenolics on metals. **D.E. Resasco, N. Duong, Q. Tan, C. Teles, F. Noronha**

4:20 I&EC 36. Understanding and design of metal based catalysts. **Y. Wang**

4:50 Concluding Remarks.

Section C

Loews New Orleans Hotel
Louisiana II

I&EC International Fellow: Symposium in honor of Shahidah Mohd Shariff

A.S. Hussain, Organizer, Presiding 1:00 Introductory Remark.

1:05 I&EC 37. Unlocking new opportunities: From seeing the unseen to fueling world champions. A.S. Hussain, M. Abai, **S. M Shariff**

1:30 I&EC 38. Of empowering talents & driving innovations. **M. Abai, A.S. Hussain, S. M Shariff**

1:45 I&EC 39. Foam-assisted water alternating gas (FAWAG) formulation design: Efficiency and sustainability. I.C. Chai, V. Hon, **P. A Hamid**

2:05 I&EC 40. Phase behavior study for carbon dioxide rich natural gas: Carbon dioxide solids and hydrate formation. **A. Md Jalil, N. Othman, Z. Kassim, R. Salihuddin, A. Abu Seman, F. Rahman, M. Mat Isa**

2:20 Intermission.

2:35 I&EC 41. Sand agglomeration in oil & gas reservoirs: Chemistry, experiments and simulations. **O.K. Matar, R. Lee, A. Shaffee, P. Luckham**

2:55 I&EC 42. Exploring wax precipitation in crude oils through diffusion ordered spectroscopy nuclear magnetic resonance combined with molecular dynamics simulations. **S. Shahruddin, G. Jiménez-Serratos, G.J. Britovsek, O.K. Matar, E. Muller**

3:10 I&EC 43. Mercury removal from natural gas condensate using solid supported ionic liquid. Y. Kuah, **S. Bin Mohd Azam Shah Wong, A. Bin Hassan, N. Binti A Manan, M. Bin Ishak, S. Binti M Shariff, A. Bin A Rahman, M. Bin A Hamid**

3:30 I&EC 44. Development of PETRONAS own drilling fluid, MG3DF. A. Hassan, **M. Abai, J. Basar, S. Lee, A. Abidin, H. M Ali, S. Binti M Shariff**

3:45 I&EC 45. From waste to wealth: Carbon fixation using gas fermentation. **S. Simpson**

4:05 I&EC 46. Ethylene oligomerisation beyond Schulz-Flory distributions. **G.J. Britovsek, A.K. Tomov, E. Muller, O.K. Matar, S. Shahruddin, C. Young**

4:25 I&EC 47. Mannich reactions catalyzed by sulfonate for the construction of bioactive organic moieties. **C.D. Wilfred, J. Leveque, S. Sardar**

4:40 I&EC 48. Tailoring hydrocarbon composition and functional groups for fuel

efficiency. **M. Chan, C.A. Muthiah**

4:55 Concluding Remarks.

Science Cafes & Engaging the Public: Techniques for Hosting Successful Events
Sponsored by PRES, Cosponsored by CATL, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, I&EC, INOR, MPPG, SCHB and YCC

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

MONDAY MORNING

Section A

Loews New Orleans Hotel
Louisiana I

I&EC Early Career Fellow: Symposium in honor of Beata Kilos

D.G. Barton, E. Nikolla, Organizers, Presiding

8:00 Introductory Remarks.

8:05 I&EC 49. Site and structural requirements for stabilization of transition states for oligomerization and hydrogen transfer reactions on solid acids. M. Sarazen, **E. Iglesia**

8:50 I&EC 50. Niobium: A love story. N. Thornburg, A. Ardagh, E. Taw, **J.M. Notestein**

9:20 I&EC 51. Mechanisms, active intermediates, and descriptors for epoxidation rates and selectivities on dispersed early transition metals. **D. Flaherty, D. Bregante, A. Johnson, A. Patel**

9:50 Intermission.

10:10 I&EC 52. Catalytic partial oxidation of olefins: A functional assessment inspired by mechanistic and kinetic analysis. **A. Bhan**

10:40 I&EC 53. Design of high activity supported catalysts for olefin metathesis based on dispersed metal oxides. **S.L. Scott**

11:10 I&EC 54. Reaction mechanism and the nature of the active site for standard selective catalytic reduction of NO_x on Cu/SSZ-13 zeolites. **F. Ribeiro, W. Delgado, R. Gounder, J.T. Miller, W.F. Schneider, A. Yezerets, A.A. Parekh, C. Paolucci, I. Khurana, J. Albaracin, J.R. Di Iorio, A.J. Shih**

11:40 Concluding Remarks.

Section B

Loews New Orleans Hotel
Feliciano East

E.V. Murphree Award in Industrial and Engineering Chemistry: Symposium in honor of Linda J. Broadbelt

Cosponsored by WCC
D.J. Klinke, Organizer
H. Kung, Organizer, Presiding

8:30 Introductory Remarks.

8:35 I&EC 55. The role of atomistic modeling in precursor design for nanostructured film deposition. **A. Adamczyk**

9:05 I&EC 56. Structured polymer colloids via constrained volume self-assembly. **R.D. Priestley**

9:35 I&EC 57. Withdrawn.

10:05 Intermission.

10:25 I&EC 58. Coupling of mass transfer and chemical kinetics during co-pyrolysis of cellulose and high-density polyethylene. M. Nallar, **H. Wong**

10:55 I&EC 59. On the use of analytical solutions and dimensionless numbers to guide polymerization system understanding and design. **I. Konstantinov, C. Villa, T. Karjala, P. Jain**

11:25 I&EC 60. Acrylate monomer reactivity and polymer architecture models for improved structure/property relationships. **S.G. Arturo, I. Konstantinov, G. Zhang, V. Regatte, H. Gao, L.J. Broadbelt**

Molecules that Changed the World
Sponsored by YCC, Cosponsored by HIST and I&EC

2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in honor of Rafael Luque
Sponsored by CELL, Cosponsored by ENVR and I&EC

Industrial Innovations in Polymer Science
Sponsored by POLY, Cosponsored by I&EC

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

MONDAY AFTERNOON

Section A

Loews New Orleans Hotel
Louisiana I

I&EC Early Career Fellow: Symposium in honor of Beata Kilos

D.G. Barton, E. Nikolla, Organizers
A. Kulkarni, L. San Miguel, Presiding

1:00 Introductory Remarks.

1:05 I&EC 61. Influence of shale gas on industrial catalyst research. **D.G. Barton**

1:35 I&EC 62. Oxygen electrocatalysis using layered mixed metal oxides. **E. Nikolla**

2:05 I&EC 63. Completing the cycle: How field experience informs catalyst design and process improvement. **W. Vining, W.J. Hizny, M.T. Buelow, J. Lapadula, P. Tran**

2:35 Intermission.

2:55 I&EC 64. Molten salt catalysis forming OH radicals from oxygen and water and their reactions with hydrocarbons. **K. Takanabe**

3:25 I&EC 65. Teaching an old dog new tricks: Size-dependent photocatalytic activity of supported vanadium oxide species. B. Kortewille, I.E. Wachs, N. Cibura, G. Bacher, O. Pfingsten, M. Muhler, **J. Strunk**

3:55 I&EC 66. Acceptorless dehydrogenative coupling of ethanol over bulk MoS₂ and spectroscopic structure-function correlations. **L.R. McCullough, E.S. Cheng, A.A. Gosavi, B.A. Kilos, D.G. Barton, E. Weitz, H. Kung, J.M. Notestein**

4:25 Concluding Remarks.**Section B**

Loews New Orleans Hotel
Felician East

2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in honor of Fengqi You

Cosponsored by CELL
D. Garcia, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 I&EC 67. Synthesis and characterization of functional metal-organic framework materials. **O.K. Farha**

1:30 I&EC 68. Engineering nanostructured materials to measure water stress in plants. **A. Stroock**, S. Zhu, P. Jain

1:55 I&EC 69. Capturing and separating ammonia with metal-organic framework materials. **J.T. Hupp**, M. Rimoldi, A. Howarth, O. Farha

2:20 I&EC 70. Computational modeling of nanoporous materials for precombustion CO₂ capture and hydrocarbon separation. **Y.G. Chung**, D. Gomez Gualdrón, P. Bai, J.I. Siepmann, R. Snurr

2:45 Intermission.

3:00 I&EC 71. Engineering and optimizing the co-assembly of nanoparticle alloys via molecular simulations. **F. Escobedo**

3:25 I&EC 72. Modeling of metal-organic frameworks as tunable adsorbents for separations. K.T. Leperi, Y.G. Chung, B. Bucior, F. You, **R. Snurr**

3:50 I&EC 73. Chemical looping oxidative dehydrogenation for ethylene production with a smaller carbon footprint. **F. Li**

4:15 I&EC 74. Multi-scale life cycle analysis and optimization for sustainable chemistry & engineering. **F. You**

4:40 Concluding Remarks.**Industrial Innovations in Polymer Science**

Sponsored by POLY, Cosponsored by I&EC

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

MONDAY EVENING**Section A**

Ernest N. Morial Convention Center
Halls D/E

Sci-Mix

C.W. Abney, *Organizer*

8:00–10:00

26, 42, 46, 58, 68. See previous listings.

94, 103, 110–111, 120, 122, 125, 128, 135, 137, 140, 144. See subsequent listings.

TUESDAY MORNING**Section A**

Loews New Orleans Hotel
Louisiana I

I&EC Early Career Fellow: Symposium in honor of Beata Kilos

D.G. Barton, E. Nikolla, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 I&EC 75. The role of metal cations in the activation of C-H bonds in organic compounds. **A.T. Bell**

8:50 I&EC 76. Maximizing efficiencies of photocatalytic water splitting by engineering interfaces in multi-component photocatalysts. **S. Linic**

9:20 I&EC 77. Activity and speciation of supported pincer-ligated iridium catalysts in continuous-flow gas phase alkane dehydrogenation. **F.E. Celik**, B. Sheludko, A.S. Goldman

9:50 Intermission.

10:10 I&EC 78. Identity of reactive hydrogen species and their transfer during the hydrogenation of aldehydes and ketones. **Y. Chin**, J. Shangguan, Z. Wu

10:40 I&EC 79. Catalytic oxidative esterification of aldehydes to esters with air over supported Pd catalysts promoted with Bi or Sb. A. Kirilin, **W. Lee**, V.J. Sussman, M. Bashir, T. Calverley, H. Clements, J. Kang, L. Bogan

11:10 I&EC 80. Vapor phase ethanol carbonylation over supported rhodium catalysts. **S. Yacob**, B.A. Kilos, D.G. Barton, J.M. Notestein

11:40 Concluding Remarks.**Section B**

Loews New Orleans Hotel
Felician East

I&EC Fellow: Symposium in honor of Dave Mackowiak: ACTP

C.P. Nicholas, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 I&EC 81. Methods for characterizing acidity on solid catalysts. **R. Miller**, T. Mezza

8:30 I&EC 82. Acetylene hydrogenation catalyst testing. **G. Barbay**, M. Brayden

8:55 I&EC 83. Not all Nitrogens are equal: Contribution of peripheral versus internal amines to the observed reactivity and capture properties of melamine dendrons on SBA-15. **Y. Lou**, D.F. Shantz

9:20 Intermission.

9:35 I&EC 84. From proof-of-principle to commercialization of Honeywell Ecofining™ and UOP Renewable Jet Fuel Process™ technologies. **P.T. Barger**

10:00 I&EC 85. Honeywell's low climate impact fluorocarbons. **T. Stith**

10:25 I&EC 86. From exploratory research to proof of principle: Laboratory testing at Honeywell UOP. **D. Mackowiak**

10:50 Award Presentation.

11:00 I&EC 87. New process technology for conversion of acetic acid to ethanol and acrylic acid. **R.D. Gillespie**, J. Chapman, C. Peterson, D. Lee, S. Mueller

11:25 Concluding Remarks.**2018 ACS Sustainable Chemistry & Engineering Lectureship Awards: Symposium in honor of Ning Yan**

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Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

TUESDAY AFTERNOON**Section A**

Loews New Orleans Hotel
Louisiana I

I&EC Early Career Fellow: Symposium in honor of Beata Kilos

D.G. Barton, E. Nikolla, *Organizers*
A. Kulkarni, L. San Miguel, *Presiding*

1:00 Introductory Remarks.

1:05 I&EC 88. MOF mediated synthesis of Fischer-Tropsch catalysts: Thinking out of the box. **V. Santos**, T. Wezendonk, A. Chojceki, J. Gascon, F. Kapteijn, M. Ruitenbeek, G. Meima

1:35 I&EC 89. Mechanistic consequences of Cu ion mobility in zeolites for the selective catalytic reduction of nitrogen oxides with ammonia. **R. Gounder**

2:05 I&EC 90. Elucidating the mechanism for the catalytic hydrodeoxygenation of phenols. B. Jake, A. Hensley, B. Wong, D. Mei, Y. Wang, **J. McEwen**

2:35 Intermission.

2:55 I&EC 91. Advanced zeolite catalysis technologies for clean air. **B. Moden**, H. Li

3:25 I&EC 92. Hydroprocessing catalyst system design for tailoring crude oils characterized by advanced analytical techniques. M. Hurt, **B. Zhan**

3:55 I&EC 93. Untraveled roads to familiar destinations: exploring new pathways to produce classic chemicals. **B.A. Kilos**, L. Luo, D.G. Barton, J. Kang, B. Stears, A. Malek, W. Lee, C. Yang, J.M. Notestein

4:35 Concluding Remarks.**Section B**

Loews New Orleans Hotel
Felician East

Water Purification for a Sustainable Future

G.M. Geise, *Organizer*
S.M. Mahurin, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 I&EC 94. Wastewater treatment by catalytic wet air oxidation process over a Tunisian clay pillared with Al-Fe. **G. Lafaye**, H. Sassi, H. Ben Amor, M. Jeday, J. Barbier Jr

1:35 I&EC 95. Advanced adsorbents for the extraction of uranium from seawater. **R.T. Mayes**

2:05 I&EC 96. Electrically enhanced adsorption and green regeneration for fluoride removal using Ti(OH)₂-loaded activated carbon electrodes. Y. Li, C. Zhang, Y. Jiang, **T. Wang**

2:35 Intermission.

2:50 I&EC 97. Membrane-based water desalination: From graphene to porous carbon. **S.M. Mahurin**, I. Vlasiouk, S. Dai

3:20 I&EC 98. Structure/property

relationships in polymer membranes for water purification and energy applications. **G.M. Geise**

3:50 I&EC 99. The influence of graft-polymer chain length on uranium binding mode: Identifying the origins of emergent phenomena. **C.W. Abney**, L. Earl

4:20 Concluding Remarks.**Polymer Colloids: Synthesis, Analysis, Modeling & Applications**

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

TUESDAY EVENING**Section A**

Ernest N. Morial Convention Center
Hall D

General Posters

C.W. Abney, *Organizer*
6:00–8:00

I&EC 100. Functionalized nanocrystalline cellulose sorbents for efficient carbon dioxide (CO₂) capture at elevated temperatures. **A.C. Dassanayake**, C. Gunathilake, R.S. Dassanayake, N. Abidi, M. Jaroniec

I&EC 101. Synthesis carbide from supercritical CO₂-ethanol extraction residues of powder river basin coal. **K. Sun**, X. He, M. Tang, M. Fan

I&EC 102. Carbon fiber formation from supercritical carbon dioxide extraction tar/PAN with Bi(NO₃)₃ as photocatalyst. **X. He**, M. Tang, K. Li, F. Liu, K. Sun, M. Fan

I&EC 103. Improved hybrid adsorption-absorption method to capture carbon. **S. Yan**

I&EC 104. Amidine- and imidazole-based ionic liquids for CO₂ capture. **C. Do-Thanh**, J.A. Schott, S.M. Mahurin, S. Dai

I&EC 105. The stability of V(acac)₃ in the presence of ionic liquids. **J. Lee**, J. Kim, J. Lee

I&EC 106. Property of piperidinium-based ionic liquids containing nitrile group on cation. **C. Oh**, S. Park, J. Lee

I&EC 107. Prepared self-assembled ionogels and their ion transfer properties. **S. Lee**, S. Park, J. Lee

I&EC 108. Preparation of porous carbons using polysaccharides as electrodes of EDLC. **S. Park**, S. Lee, J. Lee

I&EC 109. Porous carbon electrodes for supercapacitor prepared by a soft template method. **J. Kim**, J. Lee, J. Lee

I&EC 110. Comparative study of wet vs dry biochar ozonization on oxygenation of biochar surface and dissolved organic carbon. A. Pullin, K. Blowe, D. Arrington, G. Kharel, S. Abate, A. Sika, S. Kumar, **J.W. Lee**

I&EC 111. Surface enhanced Raman spectroscopy of catalytically active AuNP/TiO₂ composites. **A. Prokofjevs**, M. Kung, H. Kung

I&EC 112. New odor control technology for drainage system. S. Wong, L. Luk, **M. Arjona Alonso**, W. Han, K. Yeung

[†]Cooperative Cosponsorship

WEDNESDAY MORNING**Section A**

Loews New Orleans Hotel
Louisiana I

General Papers

C.W. Abney, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 I&EC 113. Preparing the industrial workforce: The role of operator in research and in production. **F.K. Wood-Black**

8:25 I&EC 114. Single-walled carbon nanotube-based chemiresistive sensors for food and agriculture. **J.M. Schnorr**, J. Goods, T.M. Swager

8:45 I&EC 115. Rynaxypyr® insecticide: A case study in the discovery through commercialization of modern crop protection chemicals. **G.P. Lahm**, T.P. Selby, T.M. Stevenson, D. Cordova

9:05 Intermission.

9:25 I&EC 116. Fabrication of free-standing, superomniphobic films for effective chemical shielding. **H. Vahabi**, W. Wang, S. Movafaghi, A. Kota

9:45 I&EC 117. Developments in monitoring continuous reactions by ruggedized, online benchtop NMR. **S. Riegel**, J. Araneda

10:05 I&EC 118. Novel measurement of shear strength using thermal strain. **G. Kim**

10:25 Intermission.

10:45 I&EC 119. Antimicrobial non-irritant wound dressings through N-halamine surface modification. **B. Demir**, S.D. Worley, R. Broughton, T. Huang

11:05 I&EC 120. Insights into interfacial behaviors for the isobutane alkylation with C4 olefins using ionic liquids as catalyst. **W. Sun**, W. Zheng

11:25 I&EC 121. Acid-catalyzed synthesis of trioxane in aprotic media. **W. Ma**, Y. Hu

11:45 Concluding Remarks.**Section B**

Loews New Orleans Hotel
Felician East

Inaugural Joint Symposium of the Separation Science Subdivisions

Cosponsored by ANYL
C. Rimmer, *Organizer*
G.A. Fugate, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 I&EC 122. Physical separations of rare earth elements from coal and coal by-products. **Y. Soong**, R. Lin, B. Howard, E. Roth, T. Bank, E.J. Granite

8:30 I&EC 123. Determination of the halogen content of polymers and electronics using combustion ion chromatography. **B. Huang**, J. Rohrer

8:55 I&EC 124. Closing nuclear fuel cycle With ALSEP process: Hot multistage demonstration. **A. Gelis**, A. Breshears, M. Brown, P. Kozak

9:20 Intermission.

9:40 I&EC 125. Aminopolymer synthesis, characterization, and use in composite sorbents for CO₂ capture. **M. Sarazen**,

C.W. Jones

10:30 I&EC 126. Efficient and selective extraction of ^{99m}TcO₄⁻ from aqueous media using hydrophobic deep eutectic solvents. **T.E. Phelps**, N. Bhawawet, G.A. Baker, S.S. Jurisson

10:55 I&EC 127. High temperature size exclusion chromatography measurements of polyolefins with precise control of branch frequency and branch length. **S.V. Orski**, W. Farrell, K. Beers

11:20 Concluding Remarks.**Section C**

Loews New Orleans Hotel
Louisiana II

ACS Pharma Roundtable: Innovative Green Processing Technology & Chemistry

M.E. Kopach, *Organizer*
D. Entwistle, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 I&EC 128. Synthetic transformation employing continuous flow technologies and green solvent systems. **C.L. Liotta**, P. Pollet, S.A. France

8:45 I&EC 129. Small volume continuous production of a clinical candidate through a green lens. **K. Cole**

9:25 I&EC 130. Lowering the dose for critical medicines by improving pharmacokinetics: A new approach to improving global medicines access. **J.M. Fortunak**, F.E. Nytko, T. Ellison

10:05 Intermission.

10:25 I&EC 131. Strategies and methods for the synthesis of neuroactive disulfide-linked peptides. **J.L. Stockdill**

11:05 I&EC 132. Enabling technologies applied to accelerating oncology projects in a sustainable manner. **P. Richardson**

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

WEDNESDAY AFTERNOON**Section A**

Loews New Orleans Hotel
Louisiana I

Celebrating Over Four Decades of Research in Nanomaterials & Commercialization: Symposium in honor of Kenneth Klabunde

Cosponsored by INOR[†]
P.J. Pauzauskie, *Organizer*
R.M. Richards, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 I&EC 133. Nanostructured materials with unique catalytic properties. **R.M. Richards**

1:35 I&EC 134. From fundamental molecular recognition to practical applications. **C.B. Aakeroy**

1:55 I&EC 135. Solvated metal atom dispersion and digestive ripening – duo par excellence for diverse nanostructured materials. **B.R. Jagirdar**

2:15 I&EC 136. Single molecule pathways to a better understanding of mass transport in nanostructured materials. **D.A. Higgins**, T. Ito, R. Kumarasinghe,

H. Xu

2:35 Intermission.

2:45 I&EC 137. Mesoporous silica-templated metal, metal oxide, and metal carbide/nitride catalysts with unique structures and properties for catalytic reactions relevant to biomass upgrading. **S. Gage**, B.G. Trewyn, S. Pylypenko, R.M. Richards

3:05 I&EC 138. Bimetallic nanoclusters/chiral polymers in catalytic asymmetric oxidation. **B. Hao**, K. Apley, D.H. Hua

3:25 I&EC 139. Synthesis, characterization, and catalytic activity of ionic liquid templated mesoporous zirconia. **J. Roach**, A. Spink, D.S. Heroux

Section B

Loews New Orleans Hotel
Felician East

Inaugural Joint Symposium of the Separation Science Subdivisions

Cosponsored by ANYL
C. Rimmer, *Organizer*
G.A. Fugate, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 I&EC 140. Hydrogen sulfide capture using amine-modified mesoporous adsorbents. **C. Okonkwo**

1:30 I&EC 141. Monte Carlo simulations of separation processes with solid mass separating agents: Molecular-level insights and materials design. **J.I. Siepmann**

1:55 I&EC 142. Molecular simulation insights on Xe/Kr separation in a set of nanoporous crystalline membranes. R. Anderson, B. Schweitzer, T. Wu, M.A. Carreon, **D. Gomez Gualdrón**

2:20 I&EC 143. Odor-control technology for H₂S malodor problem in dewatered sludge from chemically-enhanced primary treatment process. **M. Arjona Alonso**, K. Cheng, W. Han, K. Yeung

2:45 Intermission.

3:05 I&EC 144. Surface-functionalized nanomaterials for separation processing of crude and aqueous fractions of biooils. **M.Z. Hu**, M. Lu

3:30 I&EC 145. Optical Technique for In Situ Measurement of Concentration Polarization in Direct Contact Membrane Distillation. **O.R. Lokare**, P. Ji, G. Dutt, R.D. Vidić

3:55 I&EC 146. Optical probes of liquid-liquid extraction speciation and kinetics in real-time. **M.P. Jensen**, G. Picayo, M.A. Eddy

4:20 Concluding Remarks.**Section C**

Loews New Orleans Hotel
Louisiana II

ACS Pharma Roundtable: Innovative Green Processing Technology & Chemistry

M.E. Kopach, *Organizer*
D. Entwistle, *Organizer, Presiding*

1:00 I&EC 147. Benchmarking green chemistry adoption by the global pharmaceutical supply chain. **B.W. Cue**, V. Veleva

1:40 I&EC 148. Streamlined functionalization of pyridines, diazines and pharmaceuticals. **A. McNally**

2:20 Intermission.

2:40 I&EC 149. Advanced engineered biocatalysts for sustainable pharmaceutical manufacture. **D. Entwistle**

3:20 I&EC 150. Evolution of a chemical process (from the laboratory and beyond). **J.D. Brown**

4:00 Concluding Remarks.**Polymer Colloids: Synthesis, Analysis, Modeling & Applications**

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

THURSDAY MORNING**Section A**

Loews New Orleans Hotel
Louisiana I

Celebrating Over Four Decades of Research in Nanomaterials & Commercialization: Symposium in honor of Kenneth Klabunde

Cosponsored by INOR[†]
P.J. Pauzauskie, *Organizer*
R.M. Richards, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 I&EC 151. Titania nanoclusters supported on siliceous mesoporous materials for photocatalytic water splitting. **R.T. Koodali**

8:35 I&EC 152. Rapid heat-up synthesis of quantum dots with color-tunable photoluminescence. **E.J. McLaurin**

8:55 I&EC 153. Rapid colloidal nanoparticle synthesis. **V. Chikan**

9:15 I&EC 154. Theoretical investigation of the electronic structure and stability for doped Au₂₅ clusters. **F. Alkan**, A.R. Munoz Castro, C.M. Aikens

9:35 Intermission.

9:45 I&EC 155. pH-Dependent surface chemistry of metal oxide nanoparticles in biological and environmental media. **V.H. Grassian**

10:15 I&EC 156. High commercial value carbon nanomaterials from biomass for energy storage. **Z. Li**

10:35 I&EC 157. Liquid biopsies for early stage solid tumors. **S.H. Bossmann**, M. Kalubowilage, O. Covarrubias-Zambrano, A.P. Malalasekera, H. Wang, S.O. Wendel, G. Zhu, D.L. Troyer

Section B

Loews New Orleans Hotel
Felician East

Separation Science & Technology in the Medical Cannabis & Hemp Industry

Cosponsored by CHAS
E.M. Pryor, *Organizer*
J.W. King, *Organizer, Presiding*
E. Pryor, *Presiding*

8:00 Introductory Remarks.

8:05 I&EC 158. Grinding: The delicate dance between optimization and repetition to control extraction outcomes. **M. Roggen**, **B. Schubmehl**

8:25 I&EC 159. Scaling the purification of cannabis extracts: High-throughput strategies for the isolation of cannabinoids and remediation of contaminants. **E. Miler**, J. Thompson

[†]Cooperative Cosponsorship

8:45 I&EC 160. Harnessing the advantages of SFC for next generation cannabinoid products. **B.G. Reid**

9:05 I&EC 161. Microdetermination of cannabinoid solubilities in gaseous solvent mixtures. **R.B. Murphy**, R. Liu, A. Martinez, D. Grigoreva, L. Snyder, C. Camara

9:25 I&EC 162. Supercritical fluids manufacturing of cannabidiol (CBD) and other cannabinoids from *Cannabis sativa* following cGMP guidelines of the US FDA. **T. Castor**

9:45 Intermission.

10:00 I&EC 163. Different operation conditions and regimes in supercritical extraction of cannabinoids: The role of co-solvent at pilot scale. **L.J. Rovetto**, **N.V. Aieta**

10:20 I&EC 164. PLOT-cryoadsorption: Determination of cannabinoid vapor pressure. **T. Bruno**, **T. Lovestead**

10:40 I&EC 165. Processing industrial hemp-derived CBD extract: From crude oil to finished products. **A. Pham**

11:00 I&EC 166. Obtaining a plant sample with low cannabinoid content using supercritical fluid extraction (SFE). **A.C. Gallo Molina**, F. Parada, W. Garzón, J.A. Martínez

11:20 I&EC 167. Industrial-scale cannabis indica drug processing. **J. Yearly**

11:40 I&EC 168. Design and optimization of cannabinoid and terpene enrichment processes by chemical engineering capstone design engineering teams at the University of Alberta. **J.W. King**, M. Jamieson

THURSDAY AFTERNOON

Section A

Loews New Orleans Hotel
Louisiana I

Celebrating Over Four Decades of Research in Nanomaterials & Commercialization: Symposium in honor of Kenneth Klabunde

Cosponsored by INOR[†]
R.M. Richards, *Organizer*
P.J. Pauzauskie, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 I&EC 169. Copper-mediated synthesis and optoelectronic trapping of ultra-high aspect ratio palladium nanowires. **P.J. Pauzauskie**, J. Hanson, M. Lim, L. Vandsburger, P. Roder, X. Zhou, B. Smith, F. Ohuchi

1:35 I&EC 170. High-performance electrical energy storage based on hierarchical hybrid structures. **J. Li**

1:55 I&EC 171. Materials electrochemistry in rechargeable alkali metal ion batteries. **F. Lin**

2:15 I&EC 172. Low valent coordination complexes of nickel for the activation of chalcogens. **C.G. Riordan**, J. Wallick

2:35 Intermission.

2:45 I&EC 173. Structure-function relationships at the molecular level: Controlling the secondary coordination sphere. **A. Borovik**

3:05 I&EC 174. Stable rhodium single-site catalyst embedded in dendritic nanospheres. J. Tian, D. Yang, J. Wen, A. Filatov, Y. Liu, A. Lei, **X. Lin**

3:25 I&EC 175. Stabilizing Ni-rich layered cathode materials via elemental substitution for high energy lithium batteries. **J.D. Steiner**, J. Walsh, B. Zydlewski, F. Lin

INOR

Division of Inorganic Chemistry

S. Koch and N. Radu, *Program Chairs*

OTHER SYMPOSIA OF INTEREST:

Homogeneous Catalysis for Applied Organic Synthesis (see *CATL*, Mon, Tue)

Innovative Chemistry & Materials for Electrochemical Energy Storage (see *ENFL*, Sun, Mon, Tue, Wed)

Carbon Dioxide Conversion & Artificial Photosynthesis (see *ENFL*, Sun, Mon, Tue)

Actinide Complexes & Nanoclusters (see *NUCL*, Sun, Mon, Tue)

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium (see *PROF*, Sun, Mon)

Radiopharmaceutical Chemistry (see *FLUO*, Tue, Wed, Thu)

SUNDAY MORNING

Section A

Ernest N. Morial Convention Center
Room 345

Synthetic Chemistry Addressing Challenges in Energy & the Environment

Cosponsored by *CATL* and *WCC*
L.A. Berben, A. De Bettencourt Dias, A.L. Prieto, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 INOR 1. Synthesis and characterization of the Zintl phase $\text{Yb}_2\text{Eu}_x\text{CdSb}_2$ for direct thermal to electrical energy conversion. **S. Kauzlarich**

8:55 INOR 2. Mössbauer spectroscopic insights into the electronic structure and mechanism of bio-inspired iron complexes. **C.V. Popescu**, P. Ghosh, S. Ding, M.Y. Darensbourg, M.B. Hall

9:15 INOR 3. The synthesis and characterization of metal organic frameworks for CO_2 utilization. J. Zhu, P. Usov, **A.J. Morris**

9:35 Intermission.

9:45 INOR 4. Obtaining white light from layered perovskites. M.D. Smith, A. Jaffe, E. Dohner, A. Lindenberg, **H. Karunadasa**

10:05 INOR 5. Linear and star block copolymers derived from biorenewable resources as adsorbents for waste water

remediation. **A.M. Baliya**, K. Bernhardt, K. Moore

10:25 INOR 6. New trimetallic assemblies for solar energy conversion: combining new light absorbers with new catalysts. **C. Turro**, W.T. Kender, K.R. Dunbar

10:45 Intermission.

10:55 INOR 7. Developing a mild and modular route to chemically modified electrodes for photoelectrochemical cells. **J.Y. Yang**

11:15 INOR 8. Use of peptoids for molecular recognition of contaminants in water. **A.A. Fuller**, K.M. Tenorio, J. Huber, K. Dowell, S. Hough

11:35 INOR 9. Re-wiring biological hydrogen production. **A. Parkin**

Section B

Ernest N. Morial Convention Center
Room 344

Metal-Organic Frameworks: What Are Next?

W. Lin, H. Zhou, *Organizers*
S. Ma, *Organizer, Presiding*
B. Wang, *Presiding*

8:30 Introductory Remarks.

9:20 INOR 10. MOF design to applications: Impact of pore system control on gas separations and storage. **M. Eddaoudi**

9:50 INOR 11. polyMOFs: Bridging the polymer-MOF materials gap. **S. Cohen**, Z. Zhang, S. Ayala, G. Schukraft

10:20 Intermission.

10:30 INOR 12. The organic secondary building unit: π -Stacking interactions define topology in MOFs. **M. Dinca**, S. Park, L. Xie

11:00 INOR 13. Electrically conductive coordination networks. **H. Kitagawa**

11:30 INOR 14. Metal-organic frameworks applications in the face of increasing demand for novel electronic materials to advance special purpose technologies. **J. Ornstein**, R. Ozdemir

Section C

Ernest N. Morial Convention Center
Room 343

ACS Award in Organometallic Chemistry: Symposium in honor of Clifford P. Kubiak

J.S. Figueroa, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 INOR 15. Role of uranium–arene bonding in H_2O reduction catalysis. **K. Meyer**

9:00 INOR 16. Excited states of new bimetallic complexes for solar energy applications. **C. Turro**, T.J. Whittemore, C. Xue, T.A. White, H.J. Sayre

9:25 INOR 17. Elucidating the mechanism of CO_2 reduction to CO by group 6 $\text{M}(\text{CO})_6$ species using infrared spectroelectrochemistry and quantum chemistry. **K.A. Grice**, C. Saucedo, M. Groenboom, J. Nganga, A.M. Angeles Boza, J.A. Keith

9:50 INOR 18. Organic mixed valence compounds and Kekulé diradicaloids derived from CAACs. **G. Bertrand**

10:15 INOR 19. Polypyridyl electrocatalysts for the reduction of CO_2 . L. Lieske, **C.W. Machan**

10:40 Intermission.

11:00 INOR 20. Running the alphabet from A(-frames) to Z(-schemes) with hydrogen. **R. Eisenberg**

11:25 INOR 21. Second-sphere coordination assists metal-halogen bond photoactivation. **D.G. Nocera**, S. Hwang, D. Gygi

11:50 INOR 22. From ceiling to fluorine: Stable metal heptafluoroisopropyl complexes and transfer reagents. N.O. Andrella, K. Liu, M. Vasiliu, D.A. Dixon, **R. Baker**

Section D

Ernest N. Morial Convention Center
Room 352

ACS Award in Inorganic Chemistry: Symposium in honor of James Moers Mayer

S.N. Brown, C.T. Saouma, *Organizers*
J.J. Warren, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 INOR 23. Interfacial proton-coupled electron transfer: Interplay between experiment and theory. **S. Hammes-Schiffer**

8:55 INOR 24. Identifying proton-coupled electron transfers that give rise to potential- pK_a relationships in catalysis. **J.L. Dempsey**, E. Rountree, B.D. McCarthy

9:15 INOR 25. Mechanisms and distance-dependence of proton-coupled electron transfer. **L. Hammarstrom**

9:35 INOR 26. Hydrogen atom transfer reactions of bis(iminosemiquinonato) palladium(II) and -platinum(II): Thermodynamic and kinetic coupling. **S.N. Brown**, K.M. Conner, A.C. Arostegui, D.D. Swanson

9:55 INOR 27. Investigating concerted proton-electron transfer with base-appended radical cations. E.A. Welker, D.J. Robinson, B.L. Tiley, C.M. Sasaran, M. Vettleson, N.T. Fretz, J.J. Geruntho, M.A. Zuchero, W. Tong, R.A. Richards, F.M. Simpson, S. Stoll, J. Wolbach, **I.J. Rhile**

10:15 Intermission.

10:25 INOR 28. Examining the effects of structural modifications on explosive sensitivity. **V. Manner**, M. Cawkwell, E. Kober, T. Myers, J. Yeager, G. Brown, H. Tian

10:45 INOR 29. Metal complexes of "two-story" calix[6]arene ligands: Structure and reactivity. **D.E. Over**, G. De Leener, N. Le Poul, F. Topić, K.T. Rissanen, Y.F. Le Mest, I. Jabin, O. Reinand

11:05 INOR 30. Sterically undemanding pincer ligands: Reactions of iridium complexes. **D.M. Heinekey**, T. Lekich, B. Gary, S.M. Bellows, T.R. Cundari

11:25 INOR 31. Sulfuric acid catalyzed cyclohexylbenzene hydroperoxide cleavage: effects of reaction medium and mechanistic implications. **K. Wang**, R. Garcia

[†]Cooperative Cosponsorship

Section E

Ernest N. Morial Convention Center
Room 353

ACS Award in Pure Chemistry: Symposium in honor of Mircea Dinca

Y. Roman-Leshkov, *Organizer*
Y. Surendranath, *Organizer, Presiding*

8:00 Introductory Remarks.

8:10 INOR 32. Hydrocarbon separations in metal-organic frameworks. J. Bachman, M. Kapelowski, M.I. Gonzalez, D. Reed, E.D. Bloch, Z. Herm, J.A. Mason, **J.R. Long**

8:40 INOR 33. Advanced porous organic polymers for environmental remediation. **S. Ma**

9:10 INOR 34. Postsynthetic metal exchange in pincer MOFs. **C.R. Wade**, A.A. Kassie

9:40 INOR 35. Bioinspired sponges: Design principles for metal-organic frameworks-enzymes composite. **O.K. Farha**

10:10 Intermission.

10:30 INOR 36. Strategies for incorporating p-block element catalysts inside MOFs for reductions and oxidations. B. Tahmouresilerd, P. Larson, **A.F. Cozzolino**

11:00 INOR 37. Metal-organic frameworks as flasks: Chromophore photophysics in a confined environment. **N.B. Shustova**, E. Dolgoplova, A.M. Rice

11:30 INOR 38. Withdrawn

Section F

Ernest N. Morial Convention Center
Room 354

Alfred Bader Award in Bioinorganic or Bioorganic Chemistry: Symposium in honor of Alison Butler

Cosponsored by WCC
J.S. Martinez, *Organizer*
M. Haygood, *Presiding*

8:30 Introductory Remarks.

8:40 INOR 39. Siderophore production and quorum sensing in the marine bacterium *Vibrio Harveyi*. D.L. McRose, **F. Morel**

9:05 INOR 40. Iron recycling in marine systems: Of microbes and molecules. **K.A. Barbeau**

9:30 INOR 41. Alkane oxidizing enzymes in the marine environment: What we can learn from integrating biochemistry, microbiology, and omic databases. **R.N. Austin**

9:55 INOR 42. Siderophores in a symbiotic system. **M. Haygood**, H. Naka

10:20 Intermission.

10:40 INOR 43. Abundant mesopelagic metalloenzymes in the Pacific oxygen minimum zone. **M. Saito**, M.R. McIlvin, D.M. Moran, A. Santoro, C. Dupont, C. Lamborg, P. Rafter

11:05 INOR 44. Redox chemistry and mussel adhesion. **H. Waite**

11:30 INOR 45. Mechanistic

investigations of manganese(IV) oxide biomineralization catalyzed by a multicopper oxidase complex. **B.M. Tebo**, C. Romano, A. Soldatova, M. Zhou, A.C. Dohnalkova, L. Kovarik, L. Tao, T.A. Stich, Y. Song, V.H. Wysocki, L. Pasa-Tolic, W.H. Casey, R. Britt, T.G. Spiro

11:55 INOR 46. Solution and (nano) particulate chemistry within the dynamic mixing zone of the first 2 meters of hydrothermal vent orifices. **G.W. Luther**, E.R. Estes, A. Findlay, M. Yucel, A. Gartman, R. Rosas, N.R. Coffey, V.E. Oldham, T.J. Shaw, J. Ferry, M.c. Dias, B.M. Tebo

Section G

Ernest N. Morial Convention Center
Room 210

Nitrogen Un-Fixation: Mechanisms & Models of Nitrification/ Denitrification Reactions

K.M. Lancaster, *Organizer*
N. Lehnert, *Organizer, Presiding*

8:30 INOR 47. Nitrite-ammonia expressway, with no stop at dinitrogen. **P.M. Kroneck**

9:00 INOR 48. Evolution and modularity of ammonia oxidation pathways. L.Y. Stein, **M.G. Klotz**

9:30 INOR 49. Evaluating the mechanism of NO reduction in a flavodiiron nitric oxide reductase model complex. **C. White**, N. Lehnert

9:50 INOR 50. Nitrous oxide reduction mediated by a nucleophilic nickel(II) sulfide. **T.W. Hayton**

10:20 Intermission.

10:30 INOR 51. Structure and function of particulate methane monooxygenase, an ammonia monooxygenase homolog. **A.C. Rosenzweig**

11:00 INOR 52. Synthetic copper-sulfide models of Cu₂ with activity towards N₂O and other small molecules. B. Johnson, S. Bagherzadeh, S. Rathnayaka, C. Hsu, **N.P. Mankad**

11:30 INOR 53. Revision by enzymology of bacterial ammonia oxidation. **J.D. Caranto**

11:50 INOR 54. Probing mechanisms of nitrous oxide generation in a denitrifying polyphosphate accumulating bacteria enrichment culture. H. Gao, Y. Mao, T. Zhang, **G. Wells**

Section H

Ernest N. Morial Convention Center
Room 211

Undergraduate Research at the Frontiers of Inorganic Chemistry

C. Nataro, L.A. Watson, *Organizers*
K.L. Stone, *Presiding*

8:30 Introductory Remarks.

8:40 INOR 55. Schiff-base vanadium(V) catecholate complexes and their interactions with a model membrane interface. S.M. Petry, J.T. Koehn, C.M. Glover, A. Levina, P. Lay, **D.C. Crans**

9:00 INOR 56. Synthesis, characterization, and reactivity of platinum indazole complexes with potential anti-cancer activity. **R.E. Bachman**, K.

Barwick, A.J. Bachman, K.A. Wheeler

9:20 INOR 57. Mixed fluorinated subphthalocyanines and subnaphthalocyanines: Tuning fluorescence by synthetic design. **K.J. McAuliffe**, L. Sejarasari, E.R. Trivedi

9:40 INOR 58. Understanding the molecular basis of multiple mitochondrial dysfunctions syndrome 1: Impact of substitution on the structure and function of the essential iron-sulfur protein NFU1. **N. Wesley**, J. Cowan

10:00 Intermission.

10:15 INOR 59. Intramolecular hydrogen bonding between peptide strands directed by a rigid, bimetallic ring system. **T.P. Curran**, J.L. Stewart, T.T. Nguyen, J. Frempong

10:35 INOR 60. Modeling coupled binuclear copper enzymes using *de novo* designed *Due Ferri* single chain (DFsc) proteins. **B. VanDyke**, A.J. Reig

10:55 INOR 61. The IONiC/VIPEr Grand Experiment in teaching inorganic chemistry: Come join us! **B.A. Reisner**, **J.L. Stewart**

11:15 Discussion.

Section I

Ernest N. Morial Convention Center
Rooms 340/341

Bioinorganic Chemistry: Proteins & Enzymes & Model Systems

S.A. Koch, *Organizer*
P.J. Farmer, Y. Zhang, *Presiding*

8:30 INOR 62. Catalysis of superoxide degradation by a Zn(II) complex with a quinol-containing ligand. M.B. Ward, M. Yu, A. Scheitler, I. Ivanovic-Burmazovic, **C.R. Goldsmith**

8:50 INOR 63. Photoswitchable probes to reversibly control the activity of carbonic anhydrase in cancer cells. **K. Aggarwal**, E.L. Que

9:10 INOR 64. Copper guanidinoquinoline complexes as entatic state models of electron transfer proteins. **J. Stanek**, A. Hoffmann, S. Herres-Pawlis

9:30 INOR 65. Tyrosinase model systems with efficient catalytic activity. **P. Liebhäuser**, C. Wilfer, A. Hoffmann, S. Herres-Pawlis

9:50 INOR 66. Multiple-site, long-distance concerted proton electron transfer in biomimetic metalloproteins. **B. Koronkiewicz**, J. Swierk, C.A. Schmuttenmaer, J.M. Mayer

10:10 Intermission.

10:20 INOR 67. A computational investigation of some mechanistic effects of metal center on regulating reactivity of heme-copper oxidase. M. Michael, Y. Shi, **Y. Zhang**

10:40 INOR 68. Mechanism-guided design of efficient P450 catalysts for C-H amination via nitrene transfer. **V. Steck**, R. Fasan

11:00 INOR 69. Quantum chemical modeling of metal-dependent decarboxylases. **F. Himo**

11:20 INOR 70. Building copper active sites in artificial metalloproteins. **S.I.**

Mann, T. Heinisch, T.R. Ward, A. Borovik

11:40 INOR 71. Photo-induced oxygenations of Ru(II) bis(bipyridyl) flavonolate complexes. **P.J. Farmer**, X. Han, M. Kumar, M.A. Omary, M. Ghimire

12:00 INOR 72. Withdrawn.

Section J

Ernest N. Morial Convention Center
Room 212

Chemistry of Materials: Materials for Energy & Catalytic Applications

C.G. Lugmair, *Organizer*
P. Dongare, C. Schoettle, *Presiding*

8:30 INOR 73. 9,10-Dihydro-9,10-diboranthracene salts as versatile catalysts. **E. von Grothuss**, M. Wagner

8:50 INOR 74. (Ag)Au concave cubes as experimental models of computationally predicted active sites for the oxygen-assisted coupling of alcohols. **D. Robertson**, M.E. King, M.L. Personick

9:10 INOR 75. Highly active and stable calixarene-protected clusters for hydrogenation catalysis. **C. Schoettle**, A. Okrut, A. Palermo, A. Solovyov, A.S. Katz

9:30 INOR 76. Refinement of aerosol processes to generate highly dispersed catalytic centers for metathesis on silica supports. **B.S. Hanna**, M. Bukhovko, S.C. Hayden, S. Shaikh, M. Khokhar, S. Zhang, D.F. Consoli, Y. Roman-Leshkov, M. Ostraat

9:50 Intermission.

10:05 INOR 77. Synthesis of POSS based hybrid catalysts and their application in alkane oxidation. **A.J. Karkamkar**

10:25 INOR 78. Mechanistic investigation of alkyl benzene photooxidation by flavin photocatalyst. **P. Dongare**, I. MacKenzie, D.A. Nicewicz, T.J. Meyer

10:45 INOR 79. Characterization of and catalysis with lattice-confined reactive intermediates. **D. Powers**

11:05 INOR 80. Carbonate-promoted C-H carboxylation of aromatic hydrocarbons with CO₂. **D.J. Xiao**, A. Yau, M. Kanan

Section K

Ernest N. Morial Convention Center
Room 335

Coordination Chemistry: Synthesis & Characterization

A. Larsen, *Organizer*
W. Lee, N.A. Piro, *Presiding*

8:30 INOR 81. From T-shaped to face-capping: A flexible bisguanidiny pyridine ligand for Fe to Zn. J.E. Allen, **N.A. Piro**

8:50 INOR 82. Allosteric regulation of a four-state WLA macrocycle. **A. d'Aquino**, H. Cheng, J. Barroso, Z. Kean, J.E. Mendez, C. McGuirk, C.A. Mirkin

9:10 INOR 83. Synthesis and structural characterization of copper(II) oxalate complexes. **A.T. Royappa**, A.D. Royappa, R.F. Moral, A.L. Rheingold,

†Cooperative Cosponsorship

R.J. Papoular, D.M. Blum, T.Q. Duong, **J.R. Stepherson**, O.D. Vu, B. Chen, M.R. Suichomel, J.A. Golen, G. André, N. Kourkoulis, A.D. Mercer, A.M. Pekarek, D.C. Kelly, C.L. Stern, P. Mueller

9:30 INOR 84. Crystal structure of zirconium tetrachloride revisited. **R. Borjas Nevarez**, S.M. Balasekaran, E. Kim, P. Weck, F. Poineau

9:50 INOR 85. Electronic coupling in cationic and anionic ligand-centered, mixed-valence complexes of nickel, palladium, and platinum. **C.P. Ramirez**, A.F. Heyduk

10:10 Intermission.

10:20 INOR 86. Synthesis and characterization of an iron complex bearing a hemilabile NNN-pincer for catalytic hydrosilylation of organic carbonyl compounds. H. Lin, M. Zeller, C. Chen, **W. Lee**

10:40 INOR 87. Synthesis and structural characterizations of fluorine substituted cobalt oxo-cubes. **A. Rahman**, A. Nicolay, P. Lee, R. Lavoie, T. Tilley

11:00 INOR 88. Structural and vibrational spectroscopic studies of hexafluororhenate (IV) salts. **J. Louis-Jean**, S. Mariappan Balasekaran, D. Smith, A. Salamat, C. Pham, F. Poineau

11:20 INOR 89. Counter ion influence based on the copper(II) methylbenzoic acid complex mixed with 2,2'-bipyridine: Synthesis, X-ray characterization and biological activity. **J.A. Obaleye**, A.A. Ajibola, V.B. Bernardus

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[‡], BIOL[‡], BIOT, CHED, CMA, COLL, COMP[‡], CWD, ENVR, INOR[‡], MEDI[‡], ORGN, PHYST[‡], PMSE[‡], POLY[‡], PREST[‡], WCC and YCC

Control of Zeolite Structure, Composition & Sites for Catalysis

Sponsored by CATL, Cosponsored by INOR

Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments

Sponsored by CATL, Cosponsored by ENFL, INOR and PHYS

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

Challenge & Opportunity in Lignin Valorization

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

SUNDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 345

Synthetic Chemistry Addressing Challenges in Energy & the Environment

Cosponsored by CATL and WCC
L.A. Berben, A. De Bettencourt Dias, A.L. Prieto, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 INOR 90. Structural and thermochemical parameters influencing the PCET formation of a cobalt(III)-hydride. **J.L. Dempsey**, D. Kurtz, N. Elgrishi, W.C. Howland, B. Kandemir

1:55 INOR 91. Biosynthesis of the H-cluster of the [FeFe]-hydrogenase. **J.B. Broderick**

2:15 INOR 92. Surface-ligand induced stabilization of plasmonic behavior of copper sulfide nanoparticles. Z. Georgieva, M. Tomat, **K. Plass**, C. Kim

2:35 INOR 93. Aqueous chemistry of transition metal complexes of perfluoropinacolate ligands. J.E. Henebry, E.M. Laaker, **L.H. Doerrer**

2:55 Intermission.

3:00 INOR 94. Mimicking nature by metal-organic frameworks: Perspective and applications. **N.B. Shustova**, E. Dolgoplova, A.M. Rice, B. Yarbrough

3:20 INOR 95. Bio-inspired dehalogenation: Developing first-row transition metal complexes to treat priority pollutants perchloroethylene and trichloroethylene. **K.M. Van Heuvelen**

3:40 INOR 96. Manipulating the thermoelectric properties of polymer semiconductors. J. Ogle, M. Teferi, C. Boehme, **L.L. Whittaker**

4:00 INOR 97. Elemental distribution and excited state dynamics in oxynitride nanocrystals. **G. Dukovic**

Section B

Ernest N. Morial Convention Center Room 344

Metal-Organic Frameworks: What Are Next?

W. Lin, S. Ma, H. Zhou, *Organizers*
B. Chen, D. Jiang, *Presiding*

1:30 INOR 98. Toward forth generation porous coordination polymers/metal-organic frameworks. **S. Kitagawa**

2:15 INOR 99. Optimizing NIR-emitting MOFs through design and modulation of Ln-MOF platforms. **N.L. Rosi**, T. Luo, C. Liu, P. Muldoon

2:45 INOR 100. Metal-organic frameworks for programmable drug release. **H. Deng**

3:15 INOR 101. A novel application of Metal Organic Framework (MOF) as a smart fragrance delivery vehicle for consumer products. **L. Pan**

3:35 Intermission.

3:50 INOR 102. A toolkit for the modification of high valent carboxylate MOFs. **H. Zhou**, S. Yuan

4:20 INOR 103. Exchange of linkers and guests in MOFs. **A.J. Matzger**

4:50 INOR 104. Evolution of form in metal-organic frameworks. **W. Choe**

Section C

Ernest N. Morial Convention Center Room 343

ACS Award in Organometallic Chemistry: Symposium in honor of Clifford P. Kubiak

J.S. Figueroa, *Organizer*
A.A. Barney, *Presiding*

1:30 INOR 105. Electrocatalytic alcohol oxidation with molecular catalysts.

R.M. Waymouth, K.M. Waldie, E. McLoughlin, C.E. Chidsey

1:55 INOR 106. Structural and chemical aspects of metal-isocyanide network materials. **J.S. Figueroa**, D. Agnew, A. Arroyave

2:20 INOR 107. Phosphinidene chemistry stemming from anthracene-based reagents. W.J. Transue, A. Velian, M.B. Geeson, M. Nava, **C.C. Cummins**

2:45 INOR 108. Bifunctional metalloligands in $MN_2S_2BRe/Mn(CO)_X$ complexes designed for CO_2 reduction catalysts. A.M. Lunsford, N. Arnet, S. Ding, M.B. Hall, **M.Y. Darensbourg**

3:10 Intermission.

3:30 INOR 109. Capturing intermediates of molecular catalyst/semiconductor systems by transient mid-IR spectroscopy. **L. Hammarstrom**, M. Abdellah, M. Gilbert Gatty

3:55 INOR 110. Electrochemically-promoted catalytic asymmetric hydrogenation using chiral organorhodium complexes. **B.T. Donovan-Merkert**

4:20 INOR 111. Organometallic species at the heart of small molecule reduction catalysis. **J.C. Peters**

4:45 INOR 112. Catalytic C-H borylation: New catalysts with high regioselectivities for challenging substrates. **M.R. Smith**

Section D

Ernest N. Morial Convention Center Room 352

ACS Award in Inorganic Chemistry: Symposium in honor of James Moers Mayer

C.T. Saouma, J.J. Warren, *Organizers*
S.N. Brown, *Organizer, Presiding*

1:30 INOR 113. Mechanistic studies on iron-catalyzed alkene coupling reactions. D. Kim, **P.L. Holland**, W. Rahaman, R. Poli

1:50 INOR 114. The role of amines in CO_2 reduction. **C.T. Saouma**

2:10 INOR 115. Mechanistic studies of the insertion of carbon dioxide into late transition metal element sigma bonds. **N. Hazari**, J. Heimann

2:30 INOR 116. Proton relays in CO_2 reduction catalysts: Is one enough? **J.J. Warren**, S. Sinha, S. Hanson

2:50 INOR 117. Metal-oxido and metal-hydroxido complexes in biology. **A. Borovik**

3:10 Intermission.

3:20 INOR 118. Proton-electron promoted reductive O-O cleavage within synthetic heme- O_2 -copper assemblies. **K.D. Karlin**, S.M. Adam, G.B. Wijerathne, P.J. Rogler, S. Sharma, I. Garcia-Bosch

3:40 INOR 119. Radical reactions at metal-oxo complexes: Revisiting old questions about metal-oxo "π radicals". **J.D. Soper**

4:00 INOR 120. Mechanisms of dinitrogen cleavage and nitride reduction to ammonia at pincer complexes. **A.J. Miller**, S. Schneider, I. Siewert, F. Hasanayn, B.M. Lindley, R.S. van Alten, Q.J. Bruch

4:20 INOR 121. Adding or removing protons and electrons in metal-mediated reduction of N_2 and oxidation of NH_3 . **R. Bullock**, D. Prokopchuk, A.J. Kendall, P. Bhattacharya, E.S. Wiedner, M.T. Mock

Section E

Ernest N. Morial Convention Center Room 353

ACS Award in Pure Chemistry: Symposium in honor of Mircea Dinca

Y. Roman-Leshkov, *Organizer*
Y. Surendranath, *Organizer, Presiding*

1:30 Introductory Remarks.

1:40 INOR 122. MOF-templated metallic clusters as catalysts and electrocatalysts. C. Kung, Z. Li, A. Atilgan, O. Farha, **J.T. Hupp**

2:10 INOR 123. Electrically conductive metal-organic frameworks: Insights from theory. **C.H. Hendon**

2:40 INOR 124. Metal-semiquinoid magnets: From molecules to materials. I. Jeon, J. DeGayer, L. Liu, **D. Harris**

3:10 Intermission.

3:30 INOR 125. Strategies and results for controlled activation of small-molecule zinc sensors in cells. J.M. Goldberg, **S.J. Lippard**

4:00 INOR 126. Transition metal signaling in the brain and beyond. **C.J. Chang**

4:30 INOR 127. Bioinorganic explorations of the competition for nutrient metal ions at the host/microbe interface. **E.M. Nolan**

5:00 INOR 128. Carbon-fixation pathway of the bionic leaf. C. Liu, S. Nangle, P. Silver, **D.G. Nocera**

Section F

Ernest N. Morial Convention Center Room 354

Alfred Bader Award in Bioinorganic or Bioorganic Chemistry: Symposium in honor of Alison Butler

Cosponsored by WCC
J.S. Martinez, *Organizer*
V.L. Pecoraro, *Presiding*

[‡]Cooperative Cosponsorship

1:30 Introductory Remarks.

1:40 INOR 129. New biology revealed by tracking mobile zinc in the brain. **S.J. Lippard**

2:05 INOR 130. Metals, drugs and disease. **K.J. Franz**

2:30 INOR 131. Investigations of siderophore-mediated antibiotic delivery to Gram-negative bacteria. **E.M. Nolan**

2:55 INOR 132. Biosynthesis of methanobactin. **A.C. Rosenzweig**

3:20 Intermission.

3:40 INOR 133. In sickness and in health: Relationships between plasma metal ions and the development of infectious diseases. **P.L. Carver**

4:05 INOR 134. Seeing red: The role of heme in *Pseudomonas aeruginosa* virulence and pathogenesis. **A. Wilks**, S. Mourillo, W. Huang, A.T. Dent

4:30 INOR 135. Immunotherapy is enhanced by vanadium compounds. **D.C. Crans**, M. Selman, J. Diallo

4:55 INOR 136. A bioinorganic-inspired approach for developing inhibitors of influenza endonuclease. **S. Cohen**, C.V. Credille, B. Dick, C. Morrison

Section G

Ernest N. Morial Convention Center Room 210

Nitrogen Un-Fixation: Mechanisms & Models of Nitrification/Denitrification Reactions

K.M. Lancaster, N. Lehnert, *Organizers*
J.D. Caranto, *Presiding*

1:30 INOR 137. Bioinorganic aspects of nitrogen monoxide (NO) oxidation or reduction chemistry mediated at copper or heme centers. **K.D. Karlin**, J.J. Liu, G.B. Wijeratne, R. Cao, S. Sharma

2:00 INOR 138. A missing link from nitric oxide to nitrite in ammonia oxidizing bacteria. **K.M. Lancaster**, M. Smith, J.D. Caranto

2:30 INOR 139. Investigation of enzymatic N₂O production through isotopic analysis and engineered enzymes. **C. Finders**, E.L. Hegg, J. Haslun, N. Ostrom

2:50 INOR 140. Modeling key intermediates in Cytochrome P450 Nitric Oxide Reductase: Electronic structure and reactivity. **N. Lehnert**

3:20 Intermission.

3:30 INOR 141. A metalloprotein functional mimic of cytochrome c nitrite reductase. **K. Bren**, Y. Guo, B. Kandemir, J. Stroka

4:00 INOR 142. Probing the mechanism of microbial N₂O production. **E.L. Hegg**, C. Finders, J. Haslun, N. Ostrom, N. Lehnert

4:30 INOR 143. Influences of the heme-lysine crosslink in Cytochrome P460 over redox catalysis and nitric oxide sensitivity. **A.C. Vilbert**, K.M. Lancaster

4:50 INOR 144. Rebalancing the nitrogen cycle: Earth-abundant metal reduction of nitrate with purpose-designed

ligands. **K.G. Caulton**, A. Cabelof, D.M. Beagan, J. Seo, S. Braley, A.V. Polezhaev, C. Chen

Section H

Ernest N. Morial Convention Center Room 211

Undergraduate Research at the Frontiers of Inorganic Chemistry

Catalysis, Coordination Chemistry & Materials

C. Nataro, L.A. Watson, *Organizers*
B. Fox, *Presiding*

1:30 INOR 145. Synthesis, separation, and characterization of two-dimensional tin (II) sulfide nanosheets. E. Juarez-Diaz, E.S. Aydil, **J.D. Dwyer**

1:50 INOR 146. Bio-derived building blocks for various drop in fuels and value added chemicals. **O. Staples**, C. Moore, R. Jenkins, T. Semelsberger, W. Kubic, A.D. Sutton

2:10 INOR 147. Synthesis and spectroscopic studies of rhodium pincer hydride complexes. **A. Talosig**, O. Ozerov, B. Morse, A. Larsen

2:30 Intermission.

2:45 INOR 148. Synthetic, spectroscopic, and computational study of SNS copper(I) pincer complexes based on bis-imidazole and bis-triazole precursors: Impact of ligand design and solvent coordination on conformer interconversion. **J.R. Miecznikowski**, M. Lynn, J. Jasinski, E. Reinheimer

3:05 INOR 149. High throughput synthesis of thermoelectric nanocrystals: Investigation of the lithium, zinc, antimony phase space. **K. Baumler**, A. White, A. Medina-Gonzalez, J. Vela

3:25 INOR 150. Synthesis and structural characterization of RE₂Cd₂₃T (RE = La-Gd; T = late group 14, 15, or 16 element). **G.J. Desroches**, S.S. Bobev

3:45 INOR 151. Tuning cation exchange of copper chalcogenide nanoparticles. A. Unruh, B. Li, H. Le, **K. Plass**

Section I

Ernest N. Morial Convention Center Rooms 340/341

Organometallic Chemistry: Synthesis & Characterization-Early Transition Metals

N.S. Radu, *Organizer*
C. Camp, J.A. Telsler, *Presiding*

1:30 INOR 152. Paramagnetic resonance spectroscopy of catalytically relevant organochromium(III) complexes. **J.A. Telsler**, H. Hansen, J. Krzystek, M. Enders

1:50 INOR 153. Influence of tetradentate macrocyclic ligand sterics on the conformational flexibility and photoluminescent properties of copper(II) complexes. **P. Patil**, J. Khusnutdinova

2:10 INOR 154. Synthesis, characterization and reactivity of chromium(VI) alkylidene complexes. **P. Wu**, K.H. Theopold, G.P. Yap

2:30 INOR 155. Zirconocene-amine intermolecular frustrated Lewis pairs. **H.**

Hamilton, A.M. King, O. Metters, D. Wass

2:50 INOR 156. Light-dependent, zirconium-catalyzed hydrophosphination. **C. Bange**, R. Waterman

3:10 INOR 157. Towards tantalum-based early-late heterobimetallic complexes. **C. Camp**

3:30 INOR 158. Synthesis and characterization of cyclopalladated with C[∞]N ligand complexes for catalytic carbon hydrogen bond activation. **N.P. Yahaya**

3:50 INOR 159. Exploring Shrock cycle intermediates: Synthesis of CCC-NHC Ta bis imido complexes and their reactivity with hydrazine derivatives. **T.R. Helgert**, T.K. Hollis, C.E. Webster, J. Denny, G. Liang, B. Donnadieu

Section J

Ernest N. Morial Convention Center Room 212

Environmental & Energy-Related Inorganic Chemistry

S.A. Koch, *Organizer*
B.L. Davis, T.M. Nenoff, *Presiding*

1:30 INOR 160. Progress toward high voltage, high cycle life non-aqueous flow cells for grid scale energy storage. T. Chu, S. Maurya, I.A. Popov, N. Mehio, E.R. Batista, P. Yang, **B.L. Davis**

1:50 INOR 161. Ligand exchange reactions of copper bipyridyl redox couples used in dye sensitized solar cells. **Y. Wang**, T. Hamann

2:10 INOR 162. Heterometallic molecular precursor for the preparation of low-temperature Li-Mn oxide. **H. Han**, A.M. Abakumov, E. Dikarev

2:30 INOR 163. N-heterocyclic carbene catalytic platforms for solar fuel conversions. **O. Luca**, A.M. Lilio

2:50 INOR 164. Capture of carbon dioxide via electrochemical concentration. **S.A. Chabolla**, J.Y. Yang

3:10 Intermission.

3:20 INOR 165. Curved carbon-rich materials for energy storage applications. **M.A. Petrukina**

3:40 INOR 166. Structure-function trends in immobilized molecular catalysis of CO₂ reduction. **K. Prather**, J.D. Blakemore

4:00 INOR 167. Selective silica separations from waste water using ion-exchange media. **T.M. Nenoff**, K. Sasan, P.V. Brady, J. Krumhansl

4:20 INOR 168. The impact of surface chemistry and texture on the CO₂ uptake capacity of graphene oxide. **A.S. Alazmi**, O. El Tall, M. Hedhili, P. Costa

4:40 INOR 169. Stranded and shut-in gas provides a stop-gap measure for electrical demand. **S. Tedesco**

5:00 INOR 170. Nano-pyrite as a highly efficient reagent for remediation of chromate. **A.W. Applett**, A. Bergeson, T. Reed, J. Stephens

Section K

Ernest N. Morial Convention Center Room 335

Chemistry of Materials: Nanomaterials

C.G. Lugmair, *Organizer*
L. Wheeler, *Presiding*

1:30 INOR 171. On the use of carboxylic acid groups to graft photosensitizers on Ru nanoparticles for water splitting catalysis: Experimental and theoretical characterization of the surface composition. **R. Gonzalez Gomez**, R. Poteau, K. Philippot, C. Amiens, I. Del Rosal, L. Cusinato

1:50 INOR 172. Sequential cationic and anionic ligand exchange chemistry on cesium lead halide perovskite quantum dots for high-efficiency photovoltaics. **L. Wheeler**, A. Marshall, E. Sanehira, P. Schulz, M. Suri, N.C. Anderson, J. Berry, L. Lin, J. Luther

2:10 INOR 173. Molecular clusters as precursors for battery electrodes. **A. Pinkard**

2:30 INOR 174. Exploring the effect of nanoscale architecture on thermal conductivity of nanoporous SiO₂ films. **Y. Yan**, M. Li, S. King, J. Kang, T. Galy, Y. Hu, S.H. Tolbert

2:50 INOR 175. Low fluence multiphoton imaging with alloyed lanthanide nanocrystals. B. Tian, A. Fernandez-Bravo, E. Chan, P. Schuck, **B.E. Cohen**

3:10 INOR 176. *In vivo* X-ray imaging of transport of renal clearable gold nanoparticles in the kidneys. **J. Xu**, M. Yu, J. Zheng

3:30 Intermission.

3:45 INOR 177. PEI or GSH coated gold nanoparticles conjugated to cullin-5 DNA and heat shock protein 90 inhibitor, tanespimycin, for breast cancer therapy. **S. Talamantez-Lyburn**, E. Ehrlich, **M. Devadas**

4:05 INOR 178. Synthesis of core/shell nanoparticles and their impact on cytotoxicity of A549 lung cells. **W.C. Corbin**, A.A. McBride, K.S. Butler, **B.A. Hernandez-Sanchez**

4:25 INOR 179. Blood biocompatible conjugate of super robust and water-soluble gold-aryl functional nanoparticles with bovine serum albumin. **A. Mohamed**, M. Karuthaka, M. Naggarg, I.A. Shehadi, B. Workie

4:45 INOR 180. Manganese and iron oxo-clusters as a substitute for gadolinium in MRI contrast. **V. Dahanayake**, S.L. Stoll

5:05 INOR 181. Photo/chemo/immunotherapy of primary tumor and remission of metastasis by using cascade upconversion nanoparticles. **J. Chen**

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SUNDAY EVENING**Section A**

Ernest N. Morial Convention Center Hall D

Undergraduate Research at the Frontiers of Inorganic Chemistry**General**

C. Nataro, L.A. Watson, *Organizers*

5:30–7:30

INOR 182. IONiC VIPER: Slithering to the next stage of improving the teaching and learning of inorganic chemistry. **L.A. Watson, C. Nataro, A.K. Bentley, H.J. Eppley, E.R. Jamieson, A.R. Johnson, J.R. Raker, B.A. Reisner, S.R. Smith, J.L. Stewart, N. Williams**

Section B

Ernest N. Morial Convention Center Hall D

Undergraduate Research at the Frontiers of Inorganic Chemistry**Bioinorganic Chemistry**

C. Nataro, L.A. Watson, *Organizers*

5:30–7:30

INOR 183. Synthesis of a nickel iron phosphine complex: Structural mimic of carbon monoxide dehydrogenase (CODH). **N. Suththirat, Z. Thammavongsy, J.Y. Yang**

INOR 184. Ni²⁺ and Co²⁺ biomimetic structural analogues of the enzyme active site of acireductone dioxygenase (ARD). **A. Sanchez, S.A. Toledo, V. Lynch**

INOR 185. Investigating dechlorination

abilities of bio-inspired nickel compounds.

R. Griffin-Hare, C. Ye, B. Wada, K. Van Heuvelen

INOR 186. Cancer selective ruthenium pro-drugs have been studied to show that pH can influence the distribution coefficient and uptake. **S. Altman, A.R. Hairston, J. Gray, F. Qu, E.T. Papish**

INOR 187. Peptides linked via a methyleneamine linker to a rigid, bimetallic ring system as a possible model system for β -sheet formation. **T.P. Curran, J.L. Stewart, P.R. Handali, J.P. Sanderson-Brown**

INOR 188. Synthesis and conformational analysis of peptides linked to a rigid, bimetallic ring system using aromatic spacers. **T.P. Curran, J.L. Stewart, L.M. Davidson, N. Pokharel, J. Frempong, M.L. Phillip, C.B. Gøber**

INOR 189. Synthesis of new tridentate ligands to model the active sites of zinc metalloproteases. **S. Bradley**

INOR 190. Altering the *de novo* *Dee Ferri* single chain protein to mimic the structure and reactivity of coupled binuclear copper enzymes. **S. Worthington-Kirsch, B. VanDyke, A.J. Reig**

INOR 191. Exploring the electronic structure of sulfite oxidase utilizing a metal complex bearing a selenium scorpionate ligand. **S. Nichols**

INOR 192. Ru(II)-diimine complexes for cross-linking P450 enzyme aggregates. **M. Do, M. Kato, L.E. Cheruzel**

INOR 193. Investigation of ⁸⁹Zr⁴⁺ chelation for positron emission tomography. **A. Chung, M. Abdalrahman, B. Barron, R.P. Planalp**

Section C

Ernest N. Morial Convention Center Hall D

Alfred Bader Award in Bioinorganic or Bioorganic Chemistry: Symposium in honor of Alison Butler

Cosponsored by WCC
J.S. Martinez, *Organizer*

5:30–7:30

INOR 194. Iron and gold nanoparticles, where do they go? Bioanalytical techniques to measure metal content by ICP-MS. **H.M. Neu, K. Ok, S.A. Alexishin, M.A. Kane, J.E. Polli, S. Teymorian, M.H. Griep, S.L. Michel**

INOR 195. Mechanistic investigations of thioesterase domain in siderophore biosynthesis. **A. Jelowicki, Z.L. Reitz, A. Butler**

INOR 196. A photoreactive marine siderophore from an *Alcanivorax* species with unique iron binding capabilities. **C.D. Hardy, A. Butler**

INOR 197. A suite of asymmetric siderophores produced by a marine *Shewanella* species. **J. Carmichael, A. Butler**

INOR 198. Genomics-based expansion of a natural combinatoric library of siderophores. **Z.L. Reitz, K. Dulaney, A. Butler**

Section D

Ernest N. Morial Convention Center

Hall D**Nitrogen Un-Fixation: Mechanisms & Models of Nitrification/Denitrification Reactions**

K.M. Lancaster, N. Lehnert, *Organizers*

5:30–7:30

INOR 199. Synthesis and characterization of cytochrome P460 active site model complexes. **R.E. Coleman, K.M. Lancaster**

INOR 200. Withdrawn

INOR 201. Role of redox non-innocence in a Co-based nitrate reduction electrocatalyst. **G.R. Ware, D.C. Ashley, E. Jakubikova**

INOR 202. Elucidating the role of nitrosocyanin in ammonia-oxidizing bacteria. **M. Smith, J.D. Caranto, K.M. Lancaster**

INOR 203. Investigating the mechanism of cytochrome P460 from the methanotroph *Methylococcus capsulatus* (Bath). **S.H. Majer, K.M. Lancaster**

INOR 204. A mechanistic view of Cytochrome c nitrite reductase (ccNiR)-catalyzed reduction of nitrite to nitric oxide - a partial reduction of six-electron reduction of nitrite to ammonia (ammonification)- by weak reducing agent. **M. Ali**

INOR 205. New synthetic model that relevant to NO reduction by flavodiiron NO reductases. **H. Dong, C.J. White, N. Lehnert**

INOR 206. Spectroscopic analysis of *Nitrosomonas europaea* cytochrome C₅₅₄ mutant F156H. **D.P. Koltermann**

Section E

Ernest N. Morial Convention Center Hall D

F. Albert Cotton Award in Synthetic Inorganic Chemistry: Symposium in honor of Andrew S. Borovik

D.C. Lacy, C.G. Riordan, J.Y. Yang, *Organizers*

5:30–7:30

INOR 207. Remotely operated systems for primary recovery of ⁹⁹Mo from accelerator-driven sub-critical fission of LEU. **J.F. Krebs, A. Youker, J. Byrnes, K. Quigley, S. Chemerisov, G. Vandegrift**

INOR 208. Coordination chemistry of organomanganese phenolic-pincer complexes. **K. Kadassery, S.N. MacMillan, D.C. Lacy**

INOR 209. Synthesis and characterization of a high-spin Fe-NO enzyme model complex with H-bond donors. **B. Burke, M. Martin, G.P. Yap, R.C. Scarrow**

INOR 210. Quantification of non-idealized hapticity in aza-heterocyclic adducts of Manganocene. **A.F. Cannella, S. Dey, S.N. MacMillan, D.C. Lacy**

INOR 211. Investigation of a peroxomanganese(III) species supported by a diazacycloalkane-based tetradentate ligand. **M. Denler, T.A. Jackson, G.B. Wijeratne**

INOR 212. Modulating the catalytic activity of first-row transition metal catalysts supported by redox-active ligands. **C.B. Kovel, O. Villanueva, J.K. Elinburg, C.E. MacBeth**

INOR 213. Nickel(II) catalyzed aziridination reactions. **D. Liu, J. Bacsa, C.E. MacBeth**

INOR 214. New (μ -Hydroxo)(μ -peroxo) diiron(III) complex: Structure, magnetism, Mössbauer spectra, and reactivity. **A. Kumar**

INOR 215. Withdrawn.

INOR 216. Ligand-based reductions in iron pyridinediimine complexes with protonated secondary coordination spheres. **P. Cheung, J.D. Gilbertson**

INOR 217. Effect of the second coordination sphere on reactivity of monomeric manganese complexes with terminal oxido and hydroxido ligands. **C. Sun, S. Barman, J.R. Jones, A. Borovik**

INOR 218. Mechanistic studies of cobalt-mediated C-H activation of aminoquinoline-directed biaryl coupling reactions. **E.E. Liu, C.E. MacBeth, J. Bacsa**

INOR 219. Biosynthetic inorganic chemistry: Artificial metalloproteins. **K.R. Miller, S.I. Mann, D. Brazzolotto, L. Olshansky, A. Borovik**

INOR 220. Biosynthetic inorganic chemistry. **V. Oswald, J.L. Lee, C. Sun, D.L. Ross, J.A. Bogart, J.L. Kneebone, S.K. Barman, A. Borovik**

INOR 221. Symmetric azulene-based π -linkers asymmetrically functionalized with isocyanide and mercapto junctions. **J. Applegate, N.R. Erickson, N. Gerasimchuk, M.V. Barybin**

INOR 222. Polyelectrochromism of diisocyanide-terminated, linear bi- and terazulenic platforms. **N.R. Erickson, A.D. Spaeth, D.M. McGinnis, M.V. Barybin**

INOR 223. Syntheses and structural comparison of [Co(DIG₃tren)X]BPh₄ complexes (X = halide). **D. Suryavanshi Magar, R.C. Scarrow, G.P. Yap, M. Martin**

INOR 224. Enticing anion reduction with Lewis acids in the secondary coordination sphere of iron (II) pyridinediimine complexes. **K.T. Burns, J.D. Gilbertson**

INOR 225. Exerting extreme π -acidity of isocyanoozulenyl ligands through cyanation of the azulenic scaffold. **Z.A. Wood, M.D. Hart, J.J. Meyers, N. Gerasimchuk, M.V. Barybin**

INOR 226. Functional diversity in gentisate 1,2 dioxxygenases: A spectroscopic study. **R. Gupta, E. Eppinger, J. Gröning, A. Stolz**

Section F

Ernest N. Morial Convention Center Hall D

Undergraduate Research at the Frontiers of Inorganic Chemistry**Organometallic Chemistry, Coordination Chemistry & Catalysis**

C. Nataro, L.A. Watson, *Organizers*

[‡]Cooperative Cosponsorship

5:30-7:30

INOR 227. Synthesis of dimeric zinc complexes for use as ring opening polymerization catalysts. **K.D. Brooks**, D.B. Green, A.L. Rheingold, J.M. Fritsch

INOR 228. Synthesis of chiral tridentate ligands for titanium and tantalum catalyzed asymmetric hydroamination. **A.R. Johnson**, **B.S. Mitchell**

INOR 229. Tuning hydrosilylation of hydrocarbons with substituted alpha-diimine iron(II) bromide precatalysts. **C.C. Cody**, C.E. Schulz, H.M. Hoyt

INOR 230. Synthesis of alkali and alkaline earth metal-NNN pincer complexes. **D. Haugh**, B. Wilson, A.Y. O'Brien, M.M. Gillett-Kunnath, K. Ruhlandt-Senge

INOR 231. Catalytic ring closing reactions of gold compounds containing bis(phosphino)ferrocene ligands. **T.A. Michaels**, C. Nataro

INOR 232. Synthesis, spectroscopy properties, structural and electrochemistry characterization of two novel heterometallic pentanuclear complexes. **K. Gutierrez**, D. Pinero

INOR 233. Progress toward development of Ni/Zn phosphineoxide catecholite bimetallic olefin polymerization catalysts. **Y. Nguyen**, T. Tran, L. Do

INOR 234. Tris(diphenylphosphinomethyl) phenylborates with electron donating and withdrawing groups at the bridgehead boron phenyl substituent. **S. Senthil**, J.T. Stephan, M. Swift, E.T. Chan, P.J. Fischer

INOR 235. An investigation of distant inductive effects on donation into group VI metals in tris(diphenylphosphinomethyl) phenylborate complexes. **J.T. Stephan**, S. Senthil, M. Swift, E.T. Chan, M.V. Vollmer, V.G. Young, Jr., P.J. Fischer

INOR 236. Design and synthesis of polymetallic coordination compounds. **J. Tami**, J.R. Jiménez, R. Plamont, R. Lescouëzec

INOR 237. Mixed-valent copper-based electrocatalysts for the oxygen evolution reaction. **B.H. Torda**, J.K. Nagle

INOR 238. Electronic and spectroscopic properties of $[\text{Ru}(\text{tpy})(\text{tpyph}(\text{OH}))][\text{PF}_6]_2$ and $[\text{Ru}(\text{tpyph}(\text{OH}))_2][\text{PF}_6]_2$ ($\text{tpy} = 2,2':6',2''\text{-terpyridine}$; $\text{tpyph}(\text{OH}) = 4'\text{-[4-hydroxyphenyl]-}2,2':6',2''\text{-terpyridine}$). **C.L. Montgomery**, **C.N. Teahan**, S.L. Shepherd, T. Dudley, D.P. Harrison, J.J. Paul

INOR 239. Synthesis of transition-metal catalysts with diverse potential reactivity. **A.A. DeLucia**, K. Omolo, J.P. Sadighi, L.G. Habgood

INOR 240. Mechanochemical synthesis of chiral and achiral diphosphine dioxide manganese(II) complexes: Polymorphs and solid-state photoluminescence. N. Rabaey, M. Stamp, **D.E. Janzen**

INOR 241. Synthesis of heavy donor antimony ligands coordinated to 3D metals for structural and electronic studies. **S. Shubert**, L. Taylor, M.J. Rose

INOR 242. Reaction of quinolinethiols

with $\text{Fe}_3(\text{CO})_{12}$. **B. Simkhada**, C.A. Mebi

INOR 243. Iron carbonyl complexes with mercaptopyrindines. J. DeArmond, S. McLendon, E. Boraj, F. Oliver, **C.A. Mebi**

INOR 244. Synthesis of copper complexes with 3-hydroxyimidazole-1-oxide as potential single molecule magnets. **C.C. Taylor**, P. Baran

INOR 245. Gold(III) complexes for intramolecular functionalization of strong, sp^3 -hybridized C-H bonds. **G.R. Donalson**, **B. Probsdorfer**, K.M. Gilmore, J.E. Thompson, M. Sleck, D. Ohlson, N.A. Curry, H.R. Murphy, O.A. Rodriguez, K. Saucedo Chavez, A.L. Rheingold, D.R. Weinberg

INOR 246. CO_2 bond scission via a $[\text{P}_2\text{Si}]\text{Rh}$ silylene intermediate. **P.O. Peterson**, T.M. Donnell, M.T. Whited

INOR 247. Acceptorless dehydrogenation of alcohols using $\text{Cp}^*\text{Ir}(\text{pyridinesulfonamide})\text{Cl}$ complexes. **E. Schreiber**, A.R. O'Connor

INOR 248. Rare earth complexes with sulfonamidoquinoline ligands: Synthesis and applications. **S.M. Rumrill**, N. Sequeira, A. Morillo, B.C. Chan

INOR 249. Copper(II) dimer liquid crystals: Effects of axial ligation with caprolactam. **R. Katz**, B.W. Mussleman, K.A. Wheeler, T.W. Clayton

INOR 250. Synthesis of cyclopentadienyl-Co(III) N-heterocyclic carbene or phosphite complexes as a starting point to explore cobalt mediated C-H bond cleavage. **C.W. Frye**, J.P. Lee

INOR 251. Tosylimido transfer reactions with copper complexes of 2,6-bis(tbo)pyridine. **J.E. Allen**, N.A. Piro

INOR 252. Catalytic activity of dioxovanadium(V) salicylaldehyde semicarbazone complexes in oxidation reactions: effect of electron directing groups. **O.Q. Conover**, M.A. Bernard, G.J. Mason, V.P. McCaffrey

INOR 253. Utilizing molybdenum complexes bearing oxygen-donating scorpionate ligands as sulfite oxidase biomimetic models. **N. Fitzpatrick**

INOR 254. Metallation of $[\text{O}_2\text{O}_2\text{N}_2\text{O}]$ ligands obtained from amino acid precursors for applications in polymerization. **C.M. Laux**, A. Anderson-Wile

INOR 255. Water soluble phosphate Schiff-base complexes as detectors for selenate in water. **E. Gier**, L. Jefferies

INOR 256. Catalytic activity of dioxovanadium(V) salicylaldehyde semicarbazone complexes in oxidation reactions: Scope of reaction. **M.A. Bernard**, O.Q. Conover, G.J. Mason, V.P. McCaffrey

INOR 257. Computational investigation of sulfonyl fluoride activation using bidentate NHC ligands and nickel. **N.J. Chan**, M. Ogba, D.J. O'Leary, N.D. Ball

INOR 258. Synthesis and characterization of indium(III) redox active ligand complexes. **K.E. Camacho**, A. Arnold, N. Phan, L.A. Berben

INOR 259. Sensitizing lanthanide luminescence with CMPO-based ligands. **A.T. Henry**, A.K. Mulville, E.K. Connor, S.M. Biros, E.J. Werner

INOR 260. Variation of extraction conditions for selective lanthanide chelation utilizing tripodal CMPO ligands. **E.K. Connor**, A.K. Mulville, E.J. Werner, A.T. Henry, S.M. Biros

INOR 261. Photocatalytic water oxidation by dicopper-dihydroxo complex. **K. Loveridge**, P. VanNatta, M.T. Kieber-Emmons

INOR 262. Homogeneous catalysts for the conversion of epoxides to alcohols. **A.N. Rainsberry**, J.G. Sage, **M.L. Scheuermann**

INOR 263. Mechanistic investigations of reductive elimination from Pt(IV) systems. **C. Roleder**, **E. Stephens**, **E. Zepeda**, N. Williams

INOR 264. Progress towards heteroleptic alkaline earth metal silyl amides. **M. Cousins**, M.M. Gillett-Kunnath, K. Ruhlandt-Senge

Section G

Ernest N. Morial Convention Center Hall D

ACS Award for Distinguished Service in the Advancement of Inorganic Chemistry: Symposium in honor of Thomas B. Rauchfuss

Z.M. Heiden, L.F. Szczepura, *Organizers*

5:30-7:30

INOR 265. Synthesis of novel rhenium selenide clusters containing Fischer carbene ligands. **C.P. Chin**, D.N. Huh, W. Wilson, L.F. Szczepura

INOR 266. Exploring the chemistry of Re and Mo based octahedral hexanuclear clusters. **L.F. Szczepura**

INOR 267. Green syntheses using BASIL technique. **P.F. Brandt**

INOR 268. Atom-economical homogeneous catalytic reduction of CO_2 to commodity chemicals. **W. Chu**, K.I. Goldberg

INOR 269. Electrochemical H_2 oxidation enabled by metal-to-metal hydrogen atom transfer. **G. Chambers**, E.S. Wiedner, R. Bullock

INOR 270. Metallothiolate ligands as pendant base in $[\text{Fe}^{\text{II}}]$, $[\text{Fe}^{\text{II}}(\text{NO})]^{+1}$ and $[(\mu\text{-H})\text{Fe}^{\text{II}}\text{Fe}^{\text{II}}]$ systems. **K. Kariyawasam Pathirana**, P. Ghosh, C. Hsieh, N. Bhuvanesh, M.Y. Darensbourg

INOR 271. Probing photochemical processes of $[\text{FeFe}]$ -hydrogenase model compounds by combined spectroscopic/computational study. **S. Niu**, A. Nelson, P.M. De La Torre, C.F. Works, M.B. Hall

INOR 272. Synthesis of secondary phosphines by copper-catalyzed P-C cross-coupling reaction. **M. Frik**, A.L. Haber, E.B. Schiff, **J.M. Camara**

INOR 273. Synthesis and reactivity of molecular fluorescent pincer complexes. **J.L. Fernandez**, Z.M. Heiden

INOR 274. Beyond common bonding, ferrocene-transition metal interactions. **M.**

Ringenberg

INOR 275. Synthesis and characterization of hydrophobic $[(\beta^2\text{-arene})\text{Ru}(\text{I})\text{Cl}_2]$ complexes. **A.L. Eckermann**, L.A. Miller, C. Chamberlain, V. Drust, C. Davenport

Section H

Ernest N. Morial Convention Center Hall D

ACS Award in Inorganic Chemistry: Symposium in honor of James Moers Mayer

S.N. Brown, C.T. Saouma, J.J. Warren, *Organizers*

5:30-7:30

INOR 276. Mapping the variable reactivity of oleate-capped cerium dioxide nanoparticles. **R. Agarwal**, D. Damatov, J.M. Mayer

INOR 277. Tuning the electronics of p -substituted tris(amidophenoxide) molybdenum complexes. **A.N. Erickson**, S.N. Brown

INOR 278. Exploring differences in bonding between group 10 bis(iminosemiquinone) complexes. **K. Conner**, S.N. Brown

INOR 279. Marcus inverted region in photo-induced proton coupled electron transfer. **G.A. Parada**, S. Kolmar, B. Pettersson, L. Hammarstrom, J.M. Mayer

Section I

Ernest N. Morial Convention Center Hall D

Undergraduate Research at the Frontiers of Inorganic Chemistry Main Group Chemistry

C. Nataro, L.A. Watson, *Organizers*

5:30-7:30

INOR 280. Systematic computational studies of ene reactions between $(\text{F}_3\text{C})_2\text{B}=\text{N}(\text{CH}_2)_2$ and substituted alkenes. S.E. Hammer, J.M. Lafferty, K.R. Lawson, J.R. Gustafson, A.L. Gille, **B.C. Dutmer**, T.M. Gilbert

INOR 281. Preparation of (alkylaminomethylene)indoles and their corresponding main group complexes. **N.R. Wills**, **S. Sabbagh**, N.B. Kingsley **Rivera**, C. Fan, Y. Cai

Section J

Ernest N. Morial Convention Center Hall D

Undergraduate Research at the Frontiers of Inorganic Chemistry Materials, MOFs & Solid-State Chemistry

C. Nataro, L.A. Watson, *Organizers*

5:30-7:30

INOR 283. Nanocasting – Introducing secondary supports into metal-organic frameworks to increase thermal stability of the nodes. **J. Duan**, C. Malonzo, S.P. Desai, T. Webber, Z. Li, O.K. Farha, J.T. Hupp, C. Lu, R. Penn, A. Stein

[†]Cooperative Cosponsorship

- INOR 284.** Actinide aqueous hydrolysis reactions: Initial steps in actinide aggregation. **D. Xia**, A. Gomez, M. Vasilii, D.A. Dixon
- INOR 285.** Synthesis of MOF-templated mixed-metal oxides for catalytic carbon monoxide oxidation. **J. Bence**, C.W. Abney
- INOR 286.** Growth kinetics and cytotoxicity effects of surface modified zinc oxide quantum dots. **J.K. Davis-Gunn**, **D.M. McCall-Butler**, D. Francis, P.P. Benz, A. Schrock, P. Cavnar, K. Molek, A. Mena, B. Colon
- INOR 287.** Synthesis, characterization, and catalytic activity of hollow Mn_3O_4 nanoparticles for cyclohexene oxidation. **C.M. Karki**, J.D. Hoefelmeyer
- INOR 288.** Decorating carbon electrodes with gold nanoparticles to study the kinetics of redox reactions. **G.E. Kamm**, T. Le, **E.M. Ness**, J.C. Lytle, J.F. Parker, D.R. Rolison, J.W. Long
- INOR 289.** Application of the underlying chemistry in $PbTiO_3$ for the design of new polar perovskites. **A. Kandel**, G. Laurita-Plankis
- INOR 290.** Immobilization of earth abundant metals coordinated in heterobimetallic ligand scaffolds on metal organic frameworks. **K. Riley**, S.P. Desai, J. Vitillo, C. Lu
- INOR 291.** Precursor development of iron nanopowders for nanoink Aerosol Jet 3D printing. **D. Perales**, T.J. Boyle, N.S. Bell, A.W. Cook, L.J. Treadwell, D. Reinholdt
- INOR 292.** Kinetic investigation into the mechanism for H_2 activation on supported Au nanoparticles. **C. Peterson**, S. Kumar, T.N. Whittaker, C. Pursell, L. Grabow, B. Chandler
- INOR 293.** Host:Guest chemistry inside a series of zirconium-based metal-organic frameworks. **C. Sparrow**, G.J. McManus
- INOR 294.** Solving gold-containing intermetallic compounds using an automated inorganic crystal structure refinement tool. **G. Viswanathan**, A. Olynyk, E. Antonio, J. Ling, B. Meredig, J. Brgoch
- INOR 295.** Experimental and computational studies of anisotropic hardness in NiP_2 . **A. Lim**, J. Brgoch, A. Mansouri
- INOR 296.** Structural and optical properties of $Ba_3Y_2B_6O_{15} \cdot Ce^{3+}$: A cubic borate with extremely narrow, high efficiency photon emission. **S. Hariyani**, A.C. Duke, J. Brgoch
- INOR 297.** New transition metal and alkali metal complexes containing the hydrotris(3,5-dimethyl-1,2,4-triazolyl) borate ligand. **B.A. Reisner**, B.C. Chan, E.T. Roberts, E.C. Krist, T. Hain, A.R. Losquadro
- INOR 298.** Synthesis and analysis of liquid crystals based on copper (II) tetramers. **A.M. Iradukunda**, T.R. Helgren, T.W. Clayton
- INOR 299.** Encapsulation of fluorescent probes within the pores of a metal-organic framework. **L. Lamos**, G.J. McManus
- INOR 300.** Probing surface recombination at functionalized silicon(111) surfaces. **J. Speller**, D. Boucher, M.J. Rose
- INOR 301.** Modification of the metal coordination sites on 1D coordination polymers. **B.J. Johnson**, N. Ibrahim, W.A. Stubbs
- INOR 302.** Encapsulation of molecules in metal-organic frameworks. **B.J. Johnson**, **S. Smith**, **D. Moe**
- INOR 303.** Synthesis and characterization of liquid crystalline properties of heteroleptic copper(II) dimers using 2-propyl valerate ligands. **Y.F. Wittmer**, C. Oscar, T.W. Clayton
- INOR 304.** Surface chemistry of protein-capped gold nanoparticles. Z.A. Schonrock, **A.K. Bentley**
- INOR 305.** Synthesis and characterization of two-dimensional SnS nanoparticles. **E. Juarez Diaz**, J.D. Dwyer, E.S. Aydil
- INOR 306.** High room temperature separation of CO_2 vs. C_2H_2 and N_2 in $Mn(II)$ acetylenic phosphine-based metal organic framework. **K.M. Walsh**, J. Reynolds, B. Li, B. Chen, S.M. Humphrey
- INOR 307.** Designing flexible ligands for the synthesis of breathable metal-organic frameworks. **N. Giorgi**, G.J. McManus
- INOR 308.** Cholesteric liquid crystalline porphyrin VOC sensors. **M.E. Zick**, M.R. Ramsey, J.E. Winklarek, A.L. Dorfner, J.C. Kranick, L.J. Tucker, J.L. O'Donnell
- INOR 309.** Synthesis and characterization of novel phosphine coordination materials (PCMs) implementing a tetrahedral phosphonium ligand with $M(III)$ ions. **D. Kristek**, J. Reynolds, S.M. Humphrey, A. Bohnsack
- INOR 310.** Synthesis and structural characterization of Ba_2SrGaO_4 . F. R. Green, **V. Pierre**
- INOR 311.** Determination of inorganic water contaminants via quantum dot doped MOFs using fluorescence spectroscopy. **K. Parson**, K.T. Jackson
- Section K**
Ernest N. Morial Convention Center Hall D
- Main Group Chemistry**
T.W. Hudnall, Organizer
5:30–7:30
- INOR 312.** Structures and rotational dynamics of (triarylmethyl)germane propellers. **M.C. Franke**, S.J. Stoudt
- INOR 313.** Structural studies of alkaline earth and rare metal *trans*-azobenzene complexes. A.G. Goos, D. Weissmann, J. Pichler, J. Binder, D. Allis, **S. Vonn Dyke**, M.M. Gillett-Kunnath, K. Ruhlandt-Senge
- INOR 314.** Synthesis and reactivity studies of cationic diborane compounds. **H. Liu**, **W. Yen**, C. Chiu
- INOR 315.** Synthesis and reactivity studies of metallocenes. **T. Lin**, **I.F. Yu**, C. Chiu
- INOR 316.** Synthesis and characterization of functionalized organosilicate systems. **M.A. Boucher**, K.M. Specht, L.S. Dake
- INOR 317.** Photochemistry of main group / late transition metal complexes. **E.S. Tabai**, S. Sen, F.P. Gabbaï
- INOR 318.** Luminescent 1*H*-1,3-benzazaphosphole derivatives. **S. Evariste**, A.L. Rheingold, C. Moore, J. Heinicke, J.D. Protasiewicz
- INOR 319.** Structure function analysis: The role of metal-fluorine interactions in controlling coordination chemistry in alkaline earth metal compounds. Y. Takahashi, B. Wilson, **A.Y. O'Brien**, D. Allis, M.M. Gillett-Kunnath, K. Ruhlandt-Senge
- INOR 320.** $H[Al(OTeF_5)_2]$ – Synthesis and application of a Brønsted superacid. **A. Wiesner**, T.W. Gries, S. Riedel
- Section L**
Ernest N. Morial Convention Center Hall D
- ACS Award in Pure Chemistry: Symposium in honor of Mircea Dinca**
Y. Roman-Leshkov, Y. Surendranath, Organizers
5:30–7:30
- INOR 321.** Non-planar multidentate metallolinker in metal-organic framework: Synthesis and catalytic performance. **C. Sun**, M. Dinca
- INOR 322.** Lithium-ion conductivity in oligo-ethylene oxide functionalized covalent organic frameworks. **D.A. Vazquez-Molina**, G. Pope, A. Ezazi, F.J. Uribe-Romo
- INOR 323.** Investigation of electronic structures of two dimensional conductive metal organic frameworks. **L. Yang**, M. Dinca
- INOR 324.** Conductive metal-organic frameworks for gas sensing. **Y. Ge**, M. Dinca
- Section M**
Ernest N. Morial Convention Center Hall D
- Harry Gray Award for Creative Work in Inorganic Chemistry by a Young Investigator: Symposium in honor of Dwight S. Seferos**
M.R. Jones, A.M. Spokoyny, Organizers
5:30–7:30
- INOR 325.** Ring expansion as a route to unique boron heteroarenes. **S. Yruegas**, C. Martin
- INOR 326.** Exploring Diels-Alder chemistry of boroles. **J.J. Baker**, C. Martin
- Section N**
Ernest N. Morial Convention Center Hall D
- ACS Award in Organometallic Chemistry: Symposium in honor of Clifford P. Kubiak
J.S. Figueroa, Organizer
5:30–7:30
- INOR 327.** Ultra thin layer of iron porphyrin COFs for CO_2 reduction in water. **P.L. Chung**, S. Lee, S. Masaoka, C.P. Kubiak
- INOR 328.** Covalent attachment of $[Ni(\text{alkynyl-cyclam})]^{2+}$ catalysts to the glassy carbon electrode. **A. Zhanaidarova**, C.P. Kubiak
- INOR 329.** Revealing and predicting the stability of P^{II} -containing molecular gyroscope isomers. **A. Ehnborn**, H. Joshi, S. Kharel, L.M. Pérez, M.B. Hall, J.A. Gladysz
- INOR 330.** Rh(I) diisocyanide coordination polymers for electrochemical catalyst heterogenization and semiconductor material applications. **G. Lee**, C.P. Kubiak
- INOR 331.** Mechanistic insight of $M(N_2S_2)$ metalloligand in Re-based electro-catalysts for CO_2 reduction. S. Ding, **Y. Tong**, M.Y. Darensbourg, M.B. Hall
- INOR 332.** Dynamic exchange on the ultrafast timescale. **T.M. Porter**, C.P. Kubiak
- INOR 333.** Electron exchange between redox non-innocent bridging ligands in mixed-valent hydrogen bonded Ru_3O clusters. **G.P. Heim**, T.M. Porter, C.P. Kubiak
- INOR 334.** Photoelectrochemical reduction of CO_2 through the attachment of $Re(bpy)(CO)_2Cl$ derivatives to p-type Si. **C. Miller**, C.P. Kubiak
- INOR 335.** New synthetic routes to functionalized P_3N_2 ligands. **F.M. Brunner**, C.P. Kubiak
- INOR 336.** Thermodynamic insights for the development of nickel-based CO_2 reduction catalysts. **A.L. Ostericher**, C.P. Kubiak
- INOR 337.** Altering the electronic structure of nanoparticles through external stimuli. **L.M. Mawby**, B.J. Lear
- INOR 338.** Hydracity and other thermodynamic considerations for CO_2 reduction. **K.M. Waldie**, C.P. Kubiak
- Section O**
Ernest N. Morial Convention Center Hall D
- Electrochemistry**
B.L. Lucht, Organizer
5:30–7:30
- INOR 339.** Novel confined PFSA/Pt-zeolite composite membrane for self-humidifying PEMFC. R. Deng, **J. Song**, W. Han, K. Yeung
- INOR 340.** Electrochemical analysis of $Ru(II)$ complexes with redox non-innocent S_2N_2 ligands and their applications in the reduction of CO_2 . **J.A. Luna**, G. Durgaprasad, K.D. Spielvogel, C. Haas, S.K. Shaw, S.R. Daly
- INOR 341.** Electrocatalytic methods for O-atom transfer reactions. **T.A. Stinson**, T. Donati, C.G. Martin, O.R. Luca
- INOR 342.** Porous silicon composites for high-capacity metal-ion batteries. **M.L. Anger**, B.D. Fahlman

INOR 343. Selenium redox chemistry: From surface reactivity to biological applications. **M. Diagne, G. Nemeth, E. Wiita, M.C. Buzzeo**

INOR 344. Test-bed for detecting WSNs in Labview via unmanned vehicles. **D. Burks**

INOR 345. Cyclic voltammetric studies of *Sulfobacillus thermosulfidooxidans* using a pyrite working electrode. **R. Blake, Z. Huang, R. Painter, Z. Wang**

Section P
Ernest N. Morial Convention Center Hall D

Environmental & Energy-Related Inorganic Chemistry

S.A. Koch, Organizer

5:30–7:30

INOR 346. Ionic conductivities and ion dissociation in silyl nitrile electrolytes with LiPF₆ and LiTFSI salts for applications in lithium-ion batteries. **S. Beecher, T. Derrah, L.J. Lyons**

INOR 347. Testing the viability of nitroxide radicals as redox shuttles in quantum dot sensitized solar cells. **C.C. Riley, C. Mi, R. Beaulac**

INOR 348. Photosensitization behavior of supramolecular Ir(III)-carborane complex in application to photocatalytic hydrogen production: Efficient visible light-driven charge separation and mediation. **S. Kim, Y. Cho, B. Yun, C. Kim, S. Kang, H. Son**

INOR 349. Photocatalytic reduction of CO₂ to CO through a mixed hybrid system with cationic iridium(III) complexes and Re(I)-complex-anchored TiO₂ catalytic particles. **H. Cheong, S. Kim, Y. Cho, S. Choi, C. Kim, D. Cho, C. Pac, S. Kang, H. Son**

INOR 350. Development of lower-energy photosensitizer for photocatalytic CO₂ reduction: Modification of porphyrin dye in hybrid catalyst system. **S. Choi, H. Cheong, C. Kim, C. Pac, S. Kang, H. Son**

INOR 351. Understanding the natural mechanisms for chromium mobilization in groundwater. **M. Houlihan, A. Lopez, S.E. Fendorf**

INOR 352. Synthesis of group 6 carbonyl complexes containing phosphine ligands for CO₂ reduction. **N. Walker, B.J. Bellott**

INOR 353. New moisture harvesting material from superhydrophilic Titania nanotubes. **Y. Luo, J. Song, K. Yeung**

INOR 354. Platinum@hexaniobate nanopeapods: Sensitized composite architectures for photocatalytic hydrogen evolution under visible light irradiation. **C. Davis-Wheeler Chin, P.R. Fontenot, R.H. Schmehl, J.B. Wiley**

INOR 355. NMR measurements of ion and solvent transport for organosilicon nitrile electrolytes. **J. Zhu, L.J. Lyons**

INOR 356. NMR diffusion studies of LiTFSI/organosilyl electrolytes. **E. Cunningham, L.J. Lyons**

INOR 357. Activation of carbon dioxide through thiolate-bridged heterobimetallic

complexes. **N. Arnet, A.M. Lunsford, X. Yang, M.Y. Darensbourg**

INOR 358. Copper-based redox shuttles supported by rigid tetradentate ligands for dye-sensitized solar cells. **J. Lee, J.W. Jurss, L. Chen, R.R. Rodrigues, J.H. Delcamp**

INOR 359. Cobalt schiff base complex using a pyridinediimine backbone for hydrogen production. **P. Hutchison, M. Kiker, C. Tinker, W.T. Eckenhoff**

INOR 360. Hydrogen production using Mo(O₃)₂(tpa) complex. **C. Tinker, W. Eckenhoff**

INOR 361. Nickel Schiff base complexes for light driven H₂ production. **M. Kiker, A. Graves, W. Eckenhoff**

INOR 362. Nickel complexes with N₂S₂ ligands for electrocatalytic and light-driven production of hydrogen. **J. Dewar, W. Eckenhoff**

INOR 363. Substituent effects on the fixation of carbon dioxide to oxalate by a binuclear copper complex. **F. Khamespanah, F.R. Fronczek, A.W. Maverick**

INOR 364. Iridium dioxide nanocrystals synthesized by molten-salt method for oxygen and hydrogen evolution reactions. **S. Mohan, Y. Mao**

INOR 365. Dose measurements of stray radiation inside the first optical enclosure of beamline 8-ID-A at the national synchrotron light source-II. **K. Kelly, J. Zapata, M. Harvey**

INOR 366. Effects of promoters on increasing methane hydrate formation via gas-liquid interface alteration. **P. Rangsunvigit, A. Seangjai, K. Inking**

INOR 367. Sidewalk development and research. **A. Plumber**

INOR 368. Aerobic respiration on soluble iron is expressed constitutively by *Metallosphaera sedula*. **N. Pham, O. Griswold, R. Blake**

INOR 369. Aerobic respiration on soluble iron is expressed constitutively in *Sulfobacillus thermosulfidooxidans*. **O. Griswold, N. Pham, R. Blake**

INOR 370. Synthesis and characterization of organic-inorganic conjugate dyes designed for solar energy harvesting. **R.E. Bachman, B.C. Bierman, S. Parks**

Section Q
Ernest N. Morial Convention Center Hall D

Inorganic Catalysts

S.A. Koch, Organizer

5:30–7:30

INOR 371. Hollow dendritic Ag/Pt nanoparticles for enhanced methanol oxidation efficiency. **N. Sui, L. Wang, Q. Bai, W. Yu**

INOR 372. Synthesis and characterization of pentadentate ligands for the formation of binuclear complexes. **A.C. Doner, S. Striegler**

INOR 373. Mechanism of the electrocatalytic hydrogen evolution and oxidation with rhenium tris(thiolate) complexes. **H. Tang, E.N. Brothers, M.B. Hall**

INOR 374. Computational study of the N₂ activation and N≡N bond cleavage by a family of group 6 dinuclear [M(II), M(III)] μ-N₂ complexes (M = Mo, W) supported by the cyclopentadienyl, amidinate (CPAM) ligand environment. **J.K. Kirkland, L.M. Duman, L.R. Sita, K.D. Vogiatzis**

INOR 375. Layered, ternary water oxidation catalyst prepared by in-layer cobalt doping, and interlayer iron-oxo cluster intercalation in Mn-O-based birnessite. **L. Mohamad, I.G. McKendry, M. Zdilla**

INOR 376. Silver (Ag) enhanced poly(3,4-ethylenedioxythiophene) (PEDOT) infused TiO₂ nanofibers for improved photocatalytic degradation of chemical pollutants. **D. Dwyer, J. Kinsley, J. DeCoste, W.E. Bernier, W. Jones**

INOR 377. Synthesis, characterization, and catalytic activities of nickel(II) monoamido-tetradentate complex: Evidence for Ni^{III}-Oxo and Ni^{IV}-Oxo species. **H. Jeong, H. Ahn, H. So, H. Lee, C. Kim**

INOR 378. Synthesis, characterization, and efficient catalytic activities of a nickel(III) porphyrin: Remarkable solvent and substrate effects on participation of multiple active oxidants. **A. Kim, D. Zhang, M. Kim, H. Jang, P. Kim, C. Kim**

INOR 379. Synthesis of microporous vanadosilicate AM-6 for shape-selective photocatalytic applications. **J. Mastrandea, M. Ismail**

INOR 380. Electrocatalytic CO₂ reduction with *cis* and *trans* conformers of a rigid dinuclear rhenium complex: Comparing the isolated monometallic and cooperative bimetallic pathways. **W. Yang, S. Sinha Roy, W.C. Pitts, R. Nelson, F.R. Fronczek, J.W. Jurss**

INOR 381. Durable and highly reactive iron-oxo catalyst for hydrocarbon C-H bond functionalization. **L. Chen, X. Su, J.W. Jurss**

INOR 382. Metallothiolates as S-donor ligands to palladium and their function as C-C cross coupling catalysts. **Z. Martinez, P. Ghosh, M. Quiroz, M.Y. Darensbourg**

INOR 383. Computational study for the mechanism of CO₂ reduction using imidazolium-functionalized Rhenium electrocatalysts. **X. Li, S. Sung, M. Nippe, J. Panetier**

INOR 384. DFT investigation on the catalytic reduction mechanisms of N₂ to NH₃ by Fe complexes. **S. Yu**

INOR 385. Polymers from bio-derived resources: Synthesis of poly(silyl ether)s from Furan derivatives catalyzed by a high valent salen-Mn(IV) complex. **S. Vijamarri**

INOR 386. Development of bifunctional catalysts containing hydride-relay ligands for CO₂ hydrogenation. **N. Devi**

INOR 387. Bioinspired manganese

complexes with tetradentate pyridine-appended biperidine ligands catalyze olefin epoxidation. **F. Zhu, G. Yang, A.J. Zoll, S.A. Thompson, J. Jackson, P. Milne, E.V. Rybak-Akimova**

INOR 388. Synthesis, characterization, and structure of non-heme copper(II) complexes: An efficient atom transfer catalyst. **H.U. Valle, K. Riley, D.E. Russell, D.K. Wolgemuth, S.L. Redd, S.L. Stokes, J.P. Emerson**

INOR 389. Novel 5-coordinate and 6-coordinate low-valent molybdenum(VI)-dioxo complexes exhibiting deoxydehydrogenation activity. **R. Tran, S.M. Kilyanek**

INOR 390. Syntheses and characterization of molecular cobalt complexes with pentadentate ligands for electro- and photocatalytic hydrogen production. **P. Wang, S. Lei, M. Sow, M. Long, R. Reddy, G. Liang, C.E. Webster, X. Zhao**

INOR 391. Low valent homogeneous catalysis using metal organic frameworks. **A.M. Rabon, M.C. Young**

INOR 392. Activation of benzylic and allylic C-H Bonds catalyzed by a low-spin Co(II) complex. **A.D. Bell-Taylor, C. Goldsmith, J.D. Gorden**

INOR 393. Incorporation of molecular rectifiers into homogeneous photocatalysts. **D.J. Boston, I. Bhowmick**

INOR 394. Computational investigation of the mechanism of metal-oxo catalyzed deoxydehydrogenation. **K.A. DeNike, S.M. Kilyanek**

INOR 395. Electrocatalytic hydrogen production by bridged butterfly [2Fe-2S] catalysts. **M.O. Talbot, D.H. Evans, R.S. Glass, D.L. Lichtenberger**

INOR 396. Investigation on the electrocatalytic water splitting performance of molten salt synthesized La_{1-x}Sr_xCoO₃. **S. Mohan, Y. Mao**

INOR 397. Rational design and synthesis of substituted chiral BINAM ligands to improve enantioselectivity. **S. Murru, R. Bista, M. Kim, A. Hancock**

INOR 398. Transition metal doped TiO₂/reduced graphene oxide composites for highly efficient dye adsorption. **W.R. Thalgaspitiya, S.L. Suib**

INOR 399. Mesoporous Cu Al mixed metal oxides for one pot synthesis of imines. **D. Dissanayake, S.L. Suib**

INOR 400. Mesoporous manganese oxide catalyzed heterogeneous aerobic oxidation of primary amines to nitriles. **D. Rathnayake, S.L. Suib**

INOR 401. Highly efficient photochromic mesoporous tungsten oxide hexagonal tunnels for catalytic coupling of alkenes. **T.M. Premalal, S.L. Suib**

INOR 402. Computational chemistry: Active metal catalysts for the synthesis of urea. **T. Fitzpatrick**

Section R
Ernest N. Morial Convention Center Hall D

Inorganic Spectroscopy

†Cooperative Cosponsorship

C.V. Popescu, *Organizer*

5:30–7:30

INOR 403. Sensitization of lanthanides by graphene quantum dots: an exception to Kasha-Vavilov rule? **M. McDowell**, A. Metzger, J.M. Tour, A.A. Marti

INOR 404. Photooxidation of Amyloid beta fibrils by a rhenium complex. **B. Jiang**, A.A. Marti

INOR 405. Electronic structure and bonding in 1st row hetero-bimetallic complexes probed via multi-edge X-ray absorption spectroscopy. **S. Chatterjee**, J. Moore, P. Dunn, I. Tonks, C. Lu, K.M. Lancaster

INOR 406. Bridging Ni electronic structure and reactivity: A spectroscopic and theoretical approach. **I. DiMucci**, K.M. Lancaster, M.S. Sanford

INOR 407. Speciation of zinc in the weathered MSWI bottom ash by XAFS. **H. Zhang**

INOR 408. TD DFT studies on phosphorescent cyclometalated alkynyl and phenylplatinum(II) complexes based on tridentate C^NN-coordinating ligands. **E. Warden**, E. Javed, L. Yumin, S. Huo

INOR 409. “Intervale-like” charge transfer in polypyridyl ruthenium complexes of 4-dimethylaminopyridine. **S.L. Guertin**

INOR 410. Pt-Pt interactions occur in solution lead to aggregation and polymorphism of bipyridine platinum(II) complexes. **R.E. Bachman**, J.L. Zahn, M.H. Hudson

MONDAY MORNING

Section A

Ernest N. Morial Convention Center
Great Hall A

ACS Awards in Inorganic Chemistry: Plenary Session

S.A. Koch, N.S. Radu, *Organizers*
B.T. Donovan-Merkert, *Organizer, Presiding*

8:15 INOR 411. Award Address (ACS Award for Distinguished Service in the Advancement of Inorganic Chemistry Sponsored by Strem Chemicals, Inc.). Metal hydrides in nature: Hydrogenase chemistry with models and the proteins. **T.B. Rauchfuss**

8:50 INOR 412. Award Address (Harry Gray Award for Creative Work in Inorganic Chemistry by a Young Investigator Sponsored by the Gray Award Endowment). Electronically delocalized molecules and polymers that contain selenium and tellurium. **D.S. Seferos**

9:20 INOR 413. Award Address (ACS Award in Inorganic Chemistry Sponsored by the Aldrich Chemical Company, LLC). Proton-coupled electron transfer from molecules to materials. **J.M. Mayer**

9:55 Intermission.

10:05 INOR 414. Award Address (ACS Award in Organometallic Chemistry Sponsored by The Dow Chemical Company Foundation). The organometallic chemistry of CO₂ reduction. **C.P. Kubiak**

10:35 INOR 415. Award Address (Alfred Bader Award in Bioinorganic or Bioorganic Chemistry Sponsored by the Alfred R. Bader Fund). Elements of marine bioinorganic chemistry: From microbes to mussels. **A. Butler**

11:05 INOR 416. Award Address (ACS Award in Pure Chemistry Sponsored by the Alpha Chi Sigma Fraternity and the Alpha Chi Sigma Educational Foundation). Taking MOFs to the extreme: Water, ammonia, and halogen capture and release with azolate-based materials. **M. Dinca**

11:35 INOR 417. Award Address (F. Albert Cotton Award in Synthetic Inorganic Chemistry Sponsored by the F. Albert Cotton Endowment Fund). Molecular complexity and inorganic chemistry: Utilizing non-covalent interactions to control function. **A. Borovik**

Actinide Complexes & Nanoclusters
Sponsored by NUCL, Cosponsored by INOR

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski
Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

Challenge & Opportunity in Lignin Valorization
Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

Innovative Chemistry & Materials for Electrochemical Energy Storage
Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments
Sponsored by CATL, Cosponsored by ENFL, INOR and PHYS

MONDAY AFTERNOON

Section A

Ernest N. Morial Convention Center
Room 345

Lanthanide & Actinide Chemistry

A. De Bettencourt Dias, *Organizer*
K. Johnson, E.J. Werner, *Presiding*

1:30 INOR 418. On the difference in luminescence properties of red emitting La₂Zr₂O₇:Eu³⁺ and La₂Hf₂O₇:Eu³⁺ nanoparticles. **S. Gupta**, J. Zuniga, Y. Mao

1:50 INOR 419. Gd-based pH-sensitive MRI contrast agents. **N.N. Paranawithana**, A.F. Martins, P. Zhao, G. Kiefer, D. Sherry

2:10 INOR 420. Lanthanide luminescence and anion binding properties of tripodal iminopyridine complexes. **E.J. Werner**, S.M. Polzin, K.H. Felix

2:30 Intermission.

2:40 INOR 421. Electrochemical studies of surface-immobilized molecular lanthanide complexes. **K.J. Johnson**, D. Lionetti, J.D. Blakemore

3:00 INOR 422. Luminescent rare-earth complexes as sensitizers of singlet oxygen.

K. Johnson, A. De Bettencourt Dias

3:20 INOR 423. Radical-bridged dinuclear and metallacyclic trinuclear lanthanide complexes. **B.S. Dolinar**, D.I. Alexandropoulos, V. Kuduva Radhakrishnan, T. James, K.R. Dunbar

3:40 Intermission.

3:50 INOR 424. Acquisition of upconversion luminescence images exciting with LEDs: A paradigm shift in upconversion imaging. **A. Baride**, J.M. Meruga, W.M. Cross, J.J. Kellar, S. May

4:10 INOR 425. BODIPY-functionalized 1,10-phenanthroline for near-infrared emitting ytterbium (III) complex. **H. He**

4:30 INOR 426. Lanthanide and actinide thiocyanate complexes. **R. Wilson**, T.J. Carter

Section B

Ernest N. Morial Convention Center
Room 344

Metal-Organic Frameworks: What Are Next?

W. Lin, S. Ma, H. Zhou, *Organizers*
W. Choe, N.L. Rosi, *Presiding*

1:30 INOR 427. Switchability phenomena in metal-organic frameworks: From fundamentals to functions? **S. Kaskel**

2:15 INOR 428. Recent progress on porous metal-organic frameworks for gas separation. **B. Chen**

2:45 INOR 429. Pore space partitioning and engineering of metal-organic framework materials. **P. Feng**, X. Bu

3:15 INOR 430. Crystal engineering of hybrid ultramicroporous materials for gas separation applications. **D.G. Madden**, M.J. Zaworotko

3:35 Intermission.

3:50 INOR 431. Engineering MOF porosity and functionality for highly effective gas separation and capture. H. Wang, B. Li, **J. Li**

4:20 INOR 432. Rapid hydrogen–deuterium exchange in metal-organic frameworks. **V. Stavila**, T.C. Wang, D. Cowgill, M. Allendorf

4:50 INOR 433. Ultrahigh and selective SO₂ uptake in inorganic anion-pillared hybrid porous materials. X. Cui, **Q. Yang**, R. Krishna, H. Wu, W. Zhou, B. Chen, H. Xing

Section C

Ernest N. Morial Convention Center
Room 343

ACS Award in Organometallic Chemistry: Symposium in honor of Clifford P. Kubiak

J.S. Figueroa, *Organizer*
C.W. Machan, *Presiding*

1:30 INOR 434. Cooperative effects between metals in chemical transformations. **T. Tilley**

1:55 INOR 435. Bringing inorganic insight to ligand design for metallic nanoparticles. **B.J. Lear**

2:20 INOR 436. Hydracity matters:

From formate oxidation to CO₂ reduction. **J.Y. Yang**, C. Tsay, B. Ceballos, D.W. Cunningham, S. Ruelas, N. Idris

2:45 INOR 437. Thermodynamic hydracity as a tool for understanding transition metal hydride reactivity in water and acetonitrile. **A.J. Miller**, K.R. Breyton, T.R. Cundari, C.L. Pitman

3:10 Intermission.

3:30 INOR 438. Transition metal catalyzed hydrogenation of CO₂ and carbonyl compounds. **W. Chu**, Z. Culakova, **K.I. Goldberg**

3:55 INOR 439. Applications of tris[(1-isopropylbenzimidazol-2-yl)dimethylsilyl]methyl and related ligands to main group and transition metal chemistry. S. Ruccolo, M. Rauch, **G. Parkin**

4:20 INOR 440. Redox non-innocence in first row transition metal chemistry. **P.T. Wolczanski**, S.P. Heins, B. Zhang, B.P. Jacobs, D. Pokhriyal, T.R. Cundari

4:45 Concluding Remarks.

Section D

Ernest N. Morial Convention Center
Room 352

ACS Award in Inorganic Chemistry: Symposium in honor of James Moers Mayer

S.N. Brown, J.J. Warren, *Organizers*
C.T. Saouma, *Organizer, Presiding*

1:30 INOR 441. Reaction of an iridium(III) hydride with oxygen: experimental and computational studies of the mechanism. A.M. Wright, D. Pahls, B. Gary, T. Warner, J. Williams, S. Knapp, K. Allen, C.R. Landis, T.R. Cundari, **K.I. Goldberg**

1:50 INOR 442. Asset or achilles heel? The role of the pendent base in metal-ligand cooperative dehydrogenation catalysis. **J.M. Blacquiere**, J.M. Stubbs, B.J. Bridge, E. El-Zouki

2:10 INOR 443. Olefin trimerization and ethylene tandem conversion to linear low density polyethylene. **J.E. Bercaw**

2:30 INOR 444. Predictive model for the rates of decarboxylation of silver benzoate complexes relevant to catalytic decarboxylative coupling reactions. **J.M. Hoover**, R.A. Crovak, S. Ciccone, A.P. Honeycutt

2:50 INOR 445. Mechanistic insights into the catalytic synthesis of polyesters from biorenewable feedstocks. **W.B. Tolman**

3:10 Intermission.

3:20 INOR 446. Electrocatalytic oxygen reduction with molecular catalysts and mediators. **S.S. Stahl**

3:40 INOR 447. Multiredox chemistry with 2,2'-Bipyridine Equipped with a Disulfide/Dithiol Switch. Synthesis, electrochemistry and complexes. **M. Cattaneo**, C.E. Schiewer, A. Schober, S. Dechert, I. Siewert, F. Meyer

4:00 INOR 448. Electron flow through multicopper oxidases. **H.B. Gray**

4:20 INOR 449. Transition metal phosphide nanoparticles: Novel (pre) catalysts for water splitting. S. Mutinda, D. Li, R. Lyanage, **S. Brock**

[†]Cooperative Cosponsorship

4:40 Concluding Remarks.

Section E

Ernest N. Morial Convention Center
Room 353

ACS Award in Pure Chemistry: Symposium in honor of Mircea Dinca

Y. Surendranath, *Organizer*
Y. Roman-Leshkov, *Organizer, Presiding*

1:30 Introductory Remarks.

1:40 INOR 450. Synthesis of materials with emergent properties. S.M. Clarke, J.P. Walsh, A. Tamerius, R.A. Klein, **D.E. Freedman**

2:10 INOR 451. Porous molecular crystals based on fluorinated aromatics and cyclobenzoin. **O. Miljanic**

2:40 INOR 452. Redox-active tunable inorganic frameworks. **A.M. Schimpf**

3:10 INOR 453. Molecular approaches to heterogeneous electrocatalysis. **Y. Surendranath**, M. Jackson, S. Oh, C.J. Kaminsky, S. Chu

3:40 Intermission.

4:00 INOR 454. Design principles for core-shell catalysts: Transition metal carbides as ideal hosts for noble metal thin films. **Y. Roman-Leshkov**

4:30 INOR 455. Correlation of electronic structure to function: Reactivity and magnetism. **T. Betley**

5:00 INOR 456. Vibronic coherence as a mechanistic probe for ultrafast dynamics in transition metal-based chromophores. B. Paulus, E.D. Foszcz, **J.K. McCusker**

Section F

Ernest N. Morial Convention Center
Room 354

Alfred Bader Award in Bioinorganic or Bioorganic Chemistry: Symposium in honor of Alison Butler

Cosponsored by WCC
J.S. Martinez, *Organizer*
A. Butler, *Presiding*

1:30 Introductory Remarks.

1:40 INOR 457. Strategies for photo-uncaging small molecule bioregulators. **P.C. Ford**

2:05 INOR 458. Synthesis and characterization of organometallic copper nanoclusters. **T.W. Hayton**

2:30 INOR 459. Renewable polymers and ligands derived from lignin. **M.M. Abu-Omar**, S. Zhao, A. Whelton, X. Huang

2:55 INOR 460. Indoleamine 2,3-dioxygenase, the immune response and cancer. **J.T. Groves**, M.T. Nelp, P.A. Kates

3:20 Intermission.

3:40 INOR 461. Inorganic systems and interfaces for controlling bioprocesses: Hemostasis example. **G.D. Stucky**

4:05 INOR 462. Assemblies of gold, platinum and silver nanoclusters: Photophysics and catalysis. **J.S. Martinez**

4:30 INOR 463. Engineering bioinorganic functions through metal-

directed protein self-assembly. **F.A. Tezcan**, L. Churchfield, J. Rittle, L. Williamson

4:55 INOR 464. Making oxygen for space travel. **H.B. Gray**

Section G

Ernest N. Morial Convention Center
Room 210

Nitrogen Un-Fixation: Mechanisms & Models of Nitrification/ Denitrification Reactions

N. Lehnert, *Organizer*
K.M. Lancaster, *Organizer, Presiding*

1:30 INOR 465. Using biosynthetic models of nitric oxide reductase (NOR) in myoglobin to elucidate structural features responsible for NOR activity and its reaction mechanism. A. Bhagi-Damodaran, J. Reed, **Y. Lu**

2:00 INOR 466. Cytochrome c nitrite reductase (ccNIR)-catalyzed reduction of nitrite to nitric oxide by ferrocyanide: Insights into the mechanism of ccNIR-catalyzed ammonification. **A. Pacheco**

2:30 INOR 467. Nucleophilic attack at the bound NO of stable ferric nitrosyl porphyrins. E.G. Abucayon, **G.B. Richter-Addo**

2:50 INOR 468. Ruthenium homogeneous catalysts for electrocatalytic oxidation of ammonia to dinitrogen at ambient temperatures. F. Habib-Zadeh, S.L. Miller, T. Hamann, **M.R. Smith**

3:20 Intermission.

3:30 INOR 469. Advances in electrocatalytic ammonia production by cytochrome c Nitrite reductases. **S.J. Elliott**

4:00 INOR 470. Homogeneous ammonia oxidation: Mechanistic investigation and catalyst development. **G. Menard**, M. Keener, C. Hunt

4:30 INOR 471. Nitrate binding and reduction by a cobalt-based electrocatalyst: the unique properties of DIM ligand. **E. Jakubikova**

4:50 INOR 472. Mechanistic studies of denitrifying heme-nonheme nitric oxide reductases. **P. Moenne Loccoz**

Section H

Ernest N. Morial Convention Center
Room 211

Undergraduate Research at the Frontiers of Inorganic Chemistry

Organometallic & Coordination Chemistry

C. Nataro, L.A. Watson, *Organizers*
S. Poland, *Presiding*

1:30 INOR 473. Coinage metal complexes of new N-heterocyclic thiones and selones. **D. Rabinovich**

1:50 INOR 474. Protonation state effects on the electronic properties of $[Ru(neo)_2(4,4'bpy(OH)_2)]^{2+}$ (neo = neocuproine; 4,4'bpy(OH)₂ = 4,4'-dihydroxy-2,2'-bipyridine). **A.M. Arcidiacono**, E.T. Papish, T. Dudley, J.J. Paul

2:10 INOR 475. Prospects for

tuning Tris(diphenylphosphinomethyl) phenylborate donation via introduction of organic and organometallic substituents at the bridgehead boron phenyl group. **P.J. Fischer**, J.T. Stephan, S. Senthil, M. Swift, E.T. Chan, M.V. Vollmer, V.G. Young, Jr.

2:30 Intermission.

2:45 INOR 476. Selective catalytic reductions using Cp* iridium catalysts in formic acid/triethylamine. **J. Steets**, A.R. O'Connor

3:05 INOR 477. Catalytic asymmetric hydroamination using chiral early metal complexes of bi- and tridentate ligands. **A.R. Johnson**, C. Abelson, B.S. Mitchell, R. Karina, F. Sha, H.S. Slocumb

3:25 INOR 478. Catalytic coupling of epoxides and dry ice under mild conditions: Working toward an undergraduate laboratory experiment. **S. Poland**, T. Downs, J.B. McLemore

3:45 INOR 479. Synthesis and reactivity of palladium compounds with K^2 -bis(phosphino)ferrocene ligands. **N.E. Wamser**, R. Bal, C. Nataro

4:05 Concluding Remarks.

Section I

Ernest N. Morial Convention Center
Rooms 340/341

Organometallic Chemistry: Catalysis-Early Transition Metals

N.S. Radu, *Organizer*
D. Ess, S. Groysman, *Presiding*

1:30 INOR 480. Computational design and experimental realization of chromium catalysts with control of ethylene trimerization and tetramerization. **D. Ess**, S.M. Bischof, D. Kwon, U.J. Kilgore, J.T. Fuller, O.L. Sydora

1:50 INOR 481. Cyclopropanations via heme carbenes: Basic mechanism and effects of carbene substituent, porphyrin substituent, and protein axial ligand. Y. Wei, **Y. Zhang**

2:10 INOR 482. Dinuclear pathways for the activation of strained three-membered rings. **H. Rounds**, C. Uyeda

2:30 INOR 483. Exploring nitrene sources for the titanium-catalyzed [2+2+1] formation of pyrroles. **A. Pearce**, I. Tonks

2:50 INOR 484. Earth-abundant metal catalysts for hydrogenation, hydrofunctionalization and dehydrogenative coupling reactions. **G. Zhang**, J. Aquilina, J. Cheng

3:10 INOR 485. Oxidative amination of alkene by extreme π -loading pincer N-heterocyclic carbene Tantalum bis(imido) complex. **G. Liang**, T.K. Hollis, C.E. Webster

3:30 INOR 486. Ring-opening oxidative amination of methylenecyclopropanes with diazenes via Ti^{IV}/Ti^{III} redox catalysis. **E. Beaumier**

3:50 INOR 487. Chiral ansa-zirconocenes bearing N-azoyl and related fragments: Synthesis, structure and performance in propene polymerization. V.V. Izmer, A.Y. Lebedev, I.S. Borisov, G.P. Goryunov, D.V. Uborsky, J.M. Canich, **A.Z. Voskoboynikov**

4:10 INOR 488. Heterobimetallic

homogeneous catalysts for CO oxidation.

S. Groysman, T. Hollingsworth

4:30 INOR 489. Organolanthanides and their surface organometallic catalysis for hydroboration of esters and epoxides. **S. Patnaik**, Z. Wang, J. Manzano, I.I. Slowing, M. Pruski, A.D. Sadow

4:50 INOR 490. Influence of neodymium coordination environment in ternary catalysts $Nd(RCOO)_3-ALR_3-R_2AlCl$ on the activity in 1,3-butadiene polymerization: Titration of the active sites with a poisoning agent. **D.V. Uborsky**, V.A. Kudakina, A.Z. Voskoboynikov, H. Kloppenburg, T. Gross

Section J

Ernest N. Morial Convention Center
Room 212

Coordination Chemistry: Characterization & Applications

A. Larsen, *Organizer*
L.M. Berreau, T.K. Hollis, *Presiding*

1:30 INOR 491. Anion effects on Cu/O₂-mediated oxidative aliphatic carbon-carbon bond cleavage reactions. **L.M. Berreau**

1:50 INOR 492. Tetradentate polypyridine transition metal complexes as water splitting catalysts. **L.M. Lifshits**, L. Kohler, L. Wickramasinghe, R.P. Thummel

2:10 INOR 493. Fluorinated copper scaffolds for ¹⁹F MR-based detection of hypoxia. **D. Xie**, E.L. Que

2:30 INOR 494. Ultrafast dynamic exchange in five-coordinate complexes of ruthenium. **T.M. Porter**, C.P. Kubiak

2:50 INOR 495. Cooperative ligand-centered reactivity in transition metal complexes with triaminoborane-bridged diphosphines: Protonation turns on borane Lewis acidity. **K. Lee**, C.M. Donahue, S.R. Daly

3:10 Intermission.

3:20 INOR 496. NHC pincer complex donor ability? PiEP (Platinum (Pt) electronic parameter): A donicity scale incorporating strictly meridional, tridentate ligands. **T.K. Hollis**, C.E. Webster, M. Zhang, E.V. Dornshuld, V. Dixet, J. Camacho-Bunquin, M. Delferro

3:40 INOR 497. Photochemical dyads and triads built on rotaxane architectures. A. Ogawa, M. Bechtold, M. Wolf, J. Wytko, K. Oohora, T. Hayashi, D. Guldi, S. Campidelli, **J. Weiss**

4:00 INOR 498. Molecular underground chemical tracers for monitoring underground fluid flows. **J.M. Sears**, T.J. Boyle, R.A. Kemp, J.A. Greathouse, R.F. Hess, L.J. Treadwell

4:20 INOR 499. First row transition metal Mabiq complexes for photocatalysis. **C. Hess**

Section K

Ernest N. Morial Convention Center
Room 335

Inorganic Catalysts

S.A. Koch, *Organizer*
J. Panetier, X. Zhao, *Presiding*

†Cooperative Cosponsorship

1:30 INOR 500. Toward a mechanistic understanding of selective olefin upgrading in metal-organic framework catalysts. **R.J. Comito**, E. Metzger, M. Dinca, Z. Wu, G. Zhang, J.T. Miller

1:50 INOR 501. Computational modeling of molecular electrocatalysts featuring N-heterocyclic carbenes for carbon dioxide reduction. **J. Panetier**, X. Li, K. McCardle, X. Su, J.W. Jurs, S. Sung, M. Nippe

2:10 INOR 502. Artificial photochemical reactions by metal complexes: Cofactor regeneration and CO₂ reduction. **J. Kim**, Y. Jeon, S. Kim, T. Anjong

2:30 INOR 503. Computational characterization of a visible light sensitized tellurorhodamine catalyst for thiol oxidation. **H. Irving**

2:50 INOR 504. Theoretical analysis of C-H activation of Cp*Ir(PPh₃). **X. Yang**

3:10 INOR 505. Enhanced sulfide oxidation activity via tuning site environment of Zr cluster nodes in UiO-66 MOF: A synergistic experimental and computational study. **R. Limvorapitux**, H. Chen, M. Mendonca, R. Snurr, S.T. Nguyen

3:30 Intermission.

3:45 INOR 506. Water oxidation catalysis-the rate determining step? **A. Poater**

4:05 INOR 507. Performance of density functional theory for predicting hydrogenation and dimerization of ethylene using transition metal hydride catalysts supported on zeolites. **N.K. Dandu**, S.O. Odoh

4:25 INOR 508. Evidence for the photo-activation from a [Mo₂S₂(S₂CNR₂)₂]²⁺ pre-catalyst to a Mo₂S₂ core complex as a hydrogen evolution catalyst in alkaline media. **P.R. Fontenot**, B. Shan, B. Wang, S. Simpson, A.F. Greene, L.A. Hunt, N. Hammer, C.E. Webster, J.T. Mague, R.H. Schmehl, J.P. Donahue

4:45 INOR 509. Computational studies of earth-abundant macrocycle-like electrocatalysts for CO₂ reduction. **K. McCardle**, X. Su, J.W. Jurs, J. Panetier

5:05 INOR 510. Electronic and steric effects on hydrogen production catalyzed by molecular Co complexes with pentadentate ligands in aqueous solution. **X. Zhao**, P. Wang, P. Li, C. Mokry, S. Lei, M. Sow, C. Otero, G. Liang, C.E. Webster

5:25 INOR 511. Density functional theory insights into rhodium-catalyzed addition of arylboronic acids to ketones. **P. Miro**, R. Recio, I. Fernandez

5:45 INOR 512. Chromium complexes in photoredox catalysis. **M.P. Shores**, R.I. Portillo, R. Higgins, D.J. Boston, A.K. Rappe

Actinide Complexes & Nanoclusters
Sponsored by NUCL, Cosponsored by INOR

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and

YCC

Homogeneous Catalysis for Applied Organic Synthesis
Sponsored by CATL, Cosponsored by INOR and ORGN[†]

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Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments
Sponsored by CATL, Cosponsored by ENFL, INOR and PHYS

Undergraduate Research Posters

Inorganic Chemistry

Sponsored by CHED, Cosponsored by INOR and SOCED

MONDAY EVENING

Section A

Ernest N. Morial Convention Center Halls D/E

Sci-Mix

S.A. Koch, N.S. Radu, *Organizers*

8:00–10:00

38, 42, 53, 61, 155, 189, 194, 201-202, 205, 208, 216, 230-232, 235, 257, 271-273, 275, 286, 293, 325-326, 334-335, 342, 345-347, 357-358, 364-365, 373, 380-385, 388-390, 452. See previous listings.

574, 663, 713-717, 732-734, 742-744, 746, 751, 755-757, 790, 800, 802-803, 807, 811, 813, 816-817, 823-825, 831, 834-839, 841-844, 849-850, 856-857, 863, 867, 879, 891, 897, 904, 907-908, 939-940, 942-943, 959-962, 968-970, 988-990, 993-996, 1100, 1111, 1126, 1130, 1296, 1303, 1306, 1351, 1405, 1409, 1411. See subsequent listings.

TUESDAY MORNING

Section A

Ernest N. Morial Convention Center Room 345

ACS Award for Distinguished Service in the Advancement of Inorganic Chemistry: Symposium in honor of Thomas B. Rauchfuss

L.F. Szczepura, *Organizer*
Z.M. Heiden, *Organizer, Presiding*
J. van der Vlugt, *Presiding*

8:00 Introductory Remarks.

8:05 INOR 513. How nitrosyls soften first row transition metals for hydrogenase-inspired HER electrocatalysis: Mechanistic and computational studies. S. Ding, P. Ghosh, M.B. Hall, **M.Y. Darensbourg**

8:30 INOR 514. Iron thiolate catalysts for photo- electrochemical hydrogen production. **F. Gloaguen**

8:55 INOR 515. Some aspects of electrochemical and photoelectrochemical conversion of small molecules at iron

sulfur clusters, diiron dithiolate and other centres. **C.J. Pickett**

9:20 INOR 516. H₂ evolution and uptake: From biomimetic approaches to technologically relevant materials. **V. Artero**

9:45 Intermission.

9:55 INOR 517. The mechanism of nitrogen fixation by nitrogenase. **B.M. Hoffman**

10:20 INOR 518. Organometallic chemistry in the radical SAM superfamily. **J.B. Broderick**

10:45 INOR 519. Vibrational spectroscopy of hydrogen-processing enzymes using Mössbauer photons: Why the fuss about little bumps and squiggles? **S.P. Cramer**

11:10 INOR 520. Computational modeling of NiFe-hydrogenase and its biomimetic complexes. **M.B. Hall**, H. Tang, S. Niu

11:35 INOR 521. Hydrogen-evolving molecular electrocatalysts: Interplay between experiment and theory. **S. Hammes-Schiffer**

Section B

Ernest N. Morial Convention Center Room 344

Metal-Organic Frameworks: What Are Next?

W. Lin, S. Ma, H. Zhou, *Organizers*
S.M. Humphrey, N.B. Shustova, *Presiding*

8:30 INOR 522. AIM-ing for catalyst synthesis with single-atom precision. Z. Li, A. Peters, J. Liu, M. Rimoldi, I. Kim, K. Otake, A. Platero-Prats, K.W. Chapman, N. Schweitzer, D.G. Truhlar, L. Gagliardi, C.J. Cramer, A.B. Martinson, O.K. Farha, **J.T. Hupp**

9:15 INOR 523. Metal-organic framework encapsulated with Lewis pair as a new paradigm for heterogeneous catalysis. **S. Ma**, Z. Niu, W. Gunatilleke

9:45 INOR 524. Unraveling the machinery of CO₂ photoreduction and water stability in titanium metal-organic frameworks. **F.J. Uribe-Romo**

10:15 INOR 525. New catalytic applications and methods of analysis of MOFs. **S. Madrahimov**

10:35 Intermission.

10:50 INOR 526. Modeling C–H Bond activation on bimetallic two-atom Co-M oxide clusters deposited on Zr-based MOF nodes. **L. Gagliardi**

11:20 INOR 527. Design strategies to coupling chemistries in dual/multi-function MOF arrays. W.A. Maza, S. Lin, **A.J. Morris**

11:50 INOR 528. Catalysis in MOFs: The characterization challenge and opportunities. **K.W. Chapman**

Section C

Ernest N. Morial Convention Center Room 343

F. Albert Cotton Award in Synthetic Inorganic Chemistry: Symposium in honor of Andrew S. Borovik

D.C. Lacy, C.G. Riordan, J.Y. Yang, *Organizers*
C.E. MacBeth, *Presiding*

8:00 Introductory Remarks.

8:05 INOR 529. Amazing nonheme high-valent iron-oxo landscape. **L. Que**

8:30 INOR 530. Primary copper(I)-dioxygen adduct formation, stabilization and substrate oxidative reactivity. **K.D. Karlin**, D.E. Diaz Romero, D.A. Quist, M. Bhadra, R. Cao

8:55 INOR 531. Mechanism of energy transfer in high quantum yield time-resolved lanthanide complexes. **K.N. Raymond**

9:20 INOR 532. Proton-coupled electron transfer. An overview. **T.J. Meyer**, P. Dongare

9:45 INOR 533. Living with oxos. **H.B. Gray**

10:10 Intermission.

10:20 INOR 534. Enhanced electron transport via material design: Impact on electrochemistry. **E.S. Takeuchi**, K.J. Takeuchi, A.C. Marschilok

10:45 INOR 535. Structure, spectroscopy and activity studies of copper-containing Lytic Polysaccharide Monooxygenases. **P. Walton**, G. Davies

11:10 INOR 536. Metal ligand design: Diverging approaches. W. Keown, L. Chiang, J. Gary, E.C. Wasinger, **T.D. Stack**

11:35 INOR 537. Ligand effects on the properties of formally Cu(III) complexes. **W.B. Tolman**

Section D

Ernest N. Morial Convention Center Room 352

Molecular Confinement Effects in Inorganic & Organic Containers

M. Fujita, B.C. Gibb, J.L. Sessler, *Organizers*
K. Bowman-James, P. Lusby, *Presiding*

8:00 Introductory Remarks.

8:15 INOR 538. Molecular containers and logic devices based on calixpyrroles. **J.L. Sessler**

8:45 INOR 539. Molecular confinement from multiple vantage points. **K. Bowman-James**

9:15 INOR 540. Cu^{II} paddle wheel-mediated dimeric capsules based on tetra-arylextended calix[4]pyrrole ligands. **P. Ballester**

9:45 Intermission.

10:00 INOR 541. Recent developments in coordination driven self-assembly. **P.J. Stang**

10:30 INOR 542. Supramolecular recognition enhanced by hetero radical pairing interactions. **H. Li**

11:00 INOR 543. Turning capsule catalysis inside out: Novel approaches utilizing innately-polarized Pd₂L₄ scaffolds. **P. Lusby**

11:30 INOR 544. Supramolecular assemblies based on pillar-shaped

[†]Cooperative Cosponsorship

macrocyclic compounds "pillar[n]arenes".

T. Ogoshi

Section E

Ernest N. Morial Convention Center
Room 353

**ACS Award in Pure Chemistry:
Symposium in honor of Mircea
Dinca**

Y. Surendranath, Organizer
Y. Roman-Leshkov, Organizer,
Presiding

8:30 Introductory Remarks.

8:40 INOR 545. Recent advances in olefin metathesis by molybdenum or tungsten catalysts. **R.R. Schrock**

9:10 INOR 546. Redox switchable catalysis applied to ring opening polymerization. **P. Diaconescu**

9:40 INOR 547. Biphilar organophosphorus catalysis. **A.T. Radosevich**

10:10 Intermission.

10:30 INOR 548. Exploring dinuclear redox chemistry with silver. **M.G. Campbell**

11:00 INOR 549. Late transition metal complexes supported by "double-pincer" tetradentate ligands. **L.M. Mirica**

11:30 INOR 550. Metaphosphates: Avenues enabled by new reagents and starting materials. **K. Chakarawet, C.C. Cummins**, M.B. Geeson, Y. Jiang, S. Shepard, J. Stauber, M. Tan, W. To, Q. Wan

12:00 Concluding Remarks.

Section F

Ernest N. Morial Convention Center
Room 354

Harry Gray Award for Creative Work in Inorganic Chemistry by a Young Investigator: Symposium in honor of Dwight S. Seferos

M.R. Jones, Organizer
A.M. Spokoiny, Organizer, Presiding
C.W. Machan, Presiding

8:30 Introductory Remarks.

8:35 INOR 551. Frustrated Lewis pair chemistry: An avenue to synthesis and catalysis. **D.W. Stephan**

9:00 INOR 552. Investigation of new photoreactivity of organoboron compounds. **S. Wang**, K. Yuan, S. Møllerup, D. Yang

9:25 INOR 553. Resolving orbital pathways for charge transfer at the interface. **C.P. Berlinguette**, C.W. Kellett, F.G. Parlange, G.J. Meyer, W. Swords, M.D. Turlington

9:50 INOR 554. Earth-abundant molecular electrocatalysts for the reduction of CO₂ and O₂. A. Nichols, S. Chatterjee, S. Hoee, **C.W. Machan**

10:15 Intermission.

10:25 INOR 555. Light-driven redox chemistry of antimony compounds. **F.P. Gabbai**

10:50 INOR 556. Catalytic and self-assembly routes to functional molecules and materials. **I. Manners**

11:15 INOR 557. Organoboron compounds in cross coupling chemistry and as catalysts for FLP reductions. **C.M. Crudden**

11:40 INOR 558. Boron clusters as dopants for solid-state and polymer materials. **A.M. Spokoiny**

12:05 Concluding Remarks.

Section G

Ernest N. Morial Convention Center
Room 210

PCET PhotoCatalysis with Inorganic Molecules & Materials

Cosponsored by PHYSS
J.L. Dempsey, C. Heyer, E. Leon, Organizers
G.J. Meyer, Organizer, Presiding

8:00 Introductory Remarks.

8:05 INOR 559. Proton-coupled electron transfer in artificial photosynthesis and photoreduced nanoparticles. **S. Hammes-Schiffer**

8:30 INOR 560. New synthetic methods and aqueous electrochemical characterization of p-Type CuGaO₂ nanocrystals. A.R. Combs, **B.H. Farnum**

8:50 INOR 561. Surface chemistry and intercalation as strategies to tune reactivity in colloidal transition metal dichalcogenide electrocatalysts. **B.M. Cossairt**, D. Henckel, O. Lenz

9:10 INOR 562. Copper substituted TiO₂: A novel p-type anatase metal oxide and its application in dye-sensitized solar cells. **S. McCullough**, J. Cahoon

9:30 INOR 563. Photoelectrochemical performance of BiVO₄ photoanodes integrated with [NiFe]-layered double hydroxide water oxidation nanocatalysts. **A.M. Müller**, T.S. Sinclair, H.B. Gray

9:50 Intermission.

10:00 INOR 564. Electrochemical measurements of the redox potentials of multiply reduced colloidal semiconductor nanocrystals. C.K. Brozek, G.M. Carroll, E. Tsui, K. Hartstein, **D.R. Gamelin**

10:20 INOR 565. Nano-spectroscopy for characterization of surfaces and interfaces. **J. Atkin**

10:40 INOR 566. Fluorescence activation by visible light in conjugated polymer nanoparticles. **E.J. Harbron**, X. Zhang, H.C. Hannon

11:00 INOR 567. Design, synthesis, and passivation of metal oxide photocathodes for aqueous solution: Fixing and moving beyond NiO. **J. Cahoon**

11:20 INOR 568. Strongly coupled chromophore-base-phenol dyads: PCET oxidation on surfaces and using polymetallic chromophores. **G. Manbeck**, J.J. Concepcion, E. Fujita

11:40 INOR 569. PCET with colloidal quantum dots: Quantification of surface proton concentration and demonstrations of PCET-mediated colloidal catalysis. **E.A. Weiss**, S. Lian, D. Westmoreland, K. McClelland

Section H

Ernest N. Morial Convention Center
Room 211

Solid-State Inorganic Chemistry

C.G. Lugmair, V. Poltavets, Organizers
B. Saparov, Presiding

8:30 INOR 570. The origin of unusual valence band structure in layered bismuth oxyhalides. **H. Kageyama**

8:50 INOR 571. Hybrid Organic-Inorganic Halides of Group 12 Metals (Zn, Cd, Hg): syntheses, crystal and electronic structures, and prospective optoelectronic applications. **B. Saparov**

9:10 INOR 572. Bringing node-and-linker principle out in metal-free systems: Enlarged diamond-like networks from halogen-bonded halide ions. **C.A. Gunawardana**, M. Dakovic, C.B. Akerooy

9:30 INOR 573. Intrinsic broadband white-light emission from ultrastable, cationic lead halide materials. Z. Zhuang, C. Peng, **H. Fei**

9:50 INOR 574. Rapid microwave synthesis of organically-grafted layered perovskites and exfoliated nanosheets. S. Akbarian-Tefaghi, A. Poduval, E. Teixeira Veiga, G. Amand, **J.B. Wiley**

10:10 Intermission.

10:25 INOR 575. Chemically controlled design and discovery of new materials. **T. Tran**, M. Quintero, K. Arpino, X. Wang, T. McQueen

10:45 INOR 576. Borides and carbaborides as transition-metal-free intercalation cathodes with redox active anions. **V. Poltavets**, M.R. Shabetai, J.Y. Do

11:05 INOR 577. Non-icosahedral high-pressure boron allotrope. **I. Chuvashova**, E. Bykova, M. Bykov, V. Prakapenka, K. Glazyrin, L. Dubrovinsky, N. Dubrovinskaja

11:25 INOR 578. Searching for new superconductors with chemistry view. **X. Gui**

11:45 INOR 579. Structurally related carbometalates grown from Pr/Ni flux. T.O. Engstrand, **S.E. Lattner**

Section I

Ernest N. Morial Convention Center
Rooms 340/341

Bioinorganic Chemistry: DNA, RNA & Inorganic Drugs

S.A. Koch, Organizer
J.L. Brumagim, R.S. Khnayzer, Presiding

8:30 INOR 580. Diiridium (III) and Ru(II) complexes as emission probes for cell imaging and cellular activities. **J. Kim**, T. Anjong

8:50 INOR 581. DNA interactions of potent thione and seleno antioxidants: Control via metal coordination? S. Goodman, **J.L. Brumagim**

9:10 INOR 582. Rational design of a cytotoxic dinuclear Cu₂ complex that binds by molecular recognition at two neighboring phosphates of the DNA backbone. **T. Glaser**

9:30 INOR 583. Withdrawn

9:50 INOR 584. Development and study of novel ruthenium complexes

as potential dual-activated anticancer prodrugs: The role of pH in uptake and the use of cytotoxic ligands. **J. Gray**, F. Qu, J. Park, A. Shrestha, S. Altman, A.R. Hairston, Y. Kim, E.T. Papish

10:10 Intermission.

10:20 INOR 585. Naphthoquinone fused N-heterocyclic carbene-Gold(II) complexes as dual targeting cancer therapeutics. **K. Arumugam**, J. Arambula, M. Miles, R. McCall

10:40 INOR 586. Pyridine modified heterocycles and coordination complexes derived from first row transition metals.

K.N. Green, S.M. Brewer, H.M. Johnston

11:00 INOR 587. Structure-activity relationships for a new class of Mn-based MRI contrast agents: Magnetic relaxation, protein binding, and pharmacokinetics. **E. Gale**

11:20 INOR 588. Syntheses, characterization, and biological activities of 2-(benzylimino)methyl)-6-methoxyphenol and its metal(II) complexes. **O. Adewusi**

11:40 INOR 589. Photodynamic therapy of cancer using a long-lived Cu(II) bis-phenanthroline sensitizer. C. Al Hageh, M. Al Assad, Z. El Masri, M. El Sibai, C. Khalil, **R.S. Khnayzer**

Section J

Ernest N. Morial Convention Center
Room 212

**Chemistry of Materials:
Nanomaterials**

C.G. Lugmair, Organizer
M. Friedfeld, Presiding

8:00 INOR 590. Circular dichroism of CdSe nanocrystals bound by chiral carboxylic acids. **M. Puri**, V.E. Ferry

8:20 INOR 591. Halide-terminated cadmium selenide nanocrystals: From classic fundamental chemistry to devices. **N.C. Anderson**, J.S. Owen

8:40 INOR 592. Kinetically controlled heterostructure assembly of cadmium chalcogenide nanorods. **M. Enright**, B.M. Cossairt

9:00 INOR 593. Measurement and theoretical modelling of multiply charged quantum dot redox potentials. **C.K. Brozek**, H. Liu, X. Li, D.R. Gamelin

9:20 INOR 594. Insights in the nucleation and growth mechanism of colloidally stable indium phosphide nanomaterials. **M. Friedfeld**, B.M. Cossairt

9:40 INOR 595. Exfoliation and surface tunability in layered rhenium chalcogenide networks. **B. Choi**

10:00 Intermission.

10:15 INOR 596. Cation exchange induced evolution of InP magic-sized cluster physical and electronic structure. **J. Stein**, B.M. Cossairt

10:35 INOR 597. Nonclassical synthetic phase control at the nanoscale. **A. Ritchhart**, B.M. Cossairt

10:55 INOR 598. Aminophosphines as versatile precursors for the synthesis of group II metal phosphide nanocrystals. **M.**

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Mundy, B.M. Cossairt

11:15 INOR 599. Phase transitions in transition metal chalcogenide superatomic crystals. **E.S. O'Brien**

11:35 INOR 600. Colloidal synthesis of metal germanide nanocrystals. T. Dupper, **A. Hochbaum**

11:55 INOR 601. Frustrated quantum dots, the experimental validation of a computational model. **J.K. Bindra**, L. Gutsev, G. Strouse, N. Dalal, S. Stoian, J. van Tol

Section K

Ernest N. Morial Convention Center Room 335

Coordination Chemistry: Synthesis & Characterization

A. Larsen, *Organizer*
M. Stollenz, E.M. Villa, *Presiding*

8:30 INOR 602. Oxygen-exchange kinetics of the Anderson-type polyoxometalate ion $\text{IMo}_6\text{O}_{24}^{5-}$. **E.M. Villa**, M.R. Spriet

8:50 INOR 603. Reactivity of a μ_3 -nitridotriiron cluster. **B.J. Cook**, D.M. Emert, R. Garcia, L.J. Murray

9:10 INOR 604. Bioinspired monooxygenase mimics: Towards the design of functional high valent metal-oxo intermediates. **J. Bogart**, S.A. Cook, A. Weitz, N. Levi, C. Moore, A.L. Rheingold, M.P. Hendrich, A. Borovik

9:30 INOR 605. Divergent electronic structures and reactivity profiles in bimetallic copper imide complexes. **K.M. Carsch**, T. Betley

9:50 INOR 606. Trapped intermediate of Meerwein-Ponndorf-Verley reduction of hydroxy benzaldehyde using titanium alkoxides. **T.J. Boyle**, J.M. Sears, K.A. Dunnigan, D.R. Wheeler

10:10 Intermission.

10:20 INOR 607. Highly luminescent copper^I bis(amidinate) clusters and digold bis(amidinate) complexes. **M. Stollenz**, O. Ugarte Trejo, A. Calderón Díaz, N. Siwabut, N. Maya, N. Bhuvanesh

10:40 INOR 608. Synthesis, characterization, and reactivity of heterobimetallic Nb/Fe complexes supported by phosphinoamide ligands. **G. Culcu**, C.M. Thomas

11:00 INOR 609. Synthesis and characterization of a Co(II)-iodosylarene adduct. **E. Hill**, A. Filatov, J. Anderson

11:20 INOR 610. Spin ground state tuning of octahedral Fe_9 clusters and their incorporation into extended magnetic structures. **K. Anderton**, B. Malbrecht, T. Betley

11:40 INOR 611. Synthesis and reactivity of bio-inspired mononuclear transition metal complexes: Hydrocarbon functionalization with reactive oxygen species. **N. Botcha**, N. Singh, A. Mukherjee

GSSPC: Finding Our Place at the Bottom

Symposium in honor of Richard Feynman

Sponsored by CHED, Cosponsored by ANYL[†], COLL[†], ENVR[†], INOR, PMSE[†] and PRES[†]

Actinide Complexes & Nanoclusters

Sponsored by NUCL, Cosponsored by INOR

Homogeneous Catalysis for Applied Organic Synthesis

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Innovative Chemistry & Materials for Electrochemical Energy Storage

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Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments

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Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & In Situ & Operando Methods

Enabling Fundamental Advances in Catalysis & Surface Science

Sponsored by CATL, Cosponsored by ENVR, INOR and PHYS

TUESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 345

ACS Award for Distinguished Service in the Advancement of Inorganic Chemistry: Symposium in honor of Thomas B. Rauchfuss

Z.M. Heiden, *Organizer*
L.F. Szczepura, *Organizer, Presiding*
A.R. Fout, *Presiding*

1:30 INOR 612. Hydrogen oxidation electrocatalysis involving hydrogen atom transfer: A homolytic approach to a heterolytic reaction. **R. Bullock**, G.M. Chambers, E.S. Wiedner

1:55 INOR 613. Radical cyclizations catalyzed by $[\text{NET}_3][\text{CpV}(\text{CO})_3\text{H}]$. **J.R. Norton**, J. Kuo, J. Abuyuan, C. Lorenc

2:20 INOR 614. Supported organotungsten complexes for catalysis. **A.P. Sattelberger**, **R.R. Langeslay**, M. Delferro

2:45 INOR 615. Putting more chemistry into chemical vapor deposition, or how I learned to stop worrying and listen to Tom. **G.S. Girolami**, J.R. Abelson

3:10 Intermission.

3:25 INOR 616. Augmenting small molecule binding and activation with Lewis acids. **N.K. Szymczak**, J.B. Geri, J.J. Kiernicki, J.P. Shanahan

3:50 INOR 617. Synthesis and reactivity of BODIPY-containing metal complexes. **Z.M. Heiden**, B.L. Thompson, J.L. Fernandez, N.R. Treich

4:15 INOR 618. Redox-active and

reactive ligands—new avenues for organometallic chemistry, selective bond activation and homogeneous catalysis. **J. van der Vlugt**

4:40 INOR 619. Exploring iron and cobalt-based metal-thiolate catalysts for organic synthesis. **W. Wang**

5:05 INOR 620. Iron-catalyzed oxanylation reduction. **A.R. Fout**, C. Ford, Y. Park, Z. Gordon, M. Drummond

Section B

Ernest N. Morial Convention Center Room 344

Metal-Organic Frameworks: What Are Next?

W. Lin, S. Ma, *Organizers*
H. Zhou, *Organizer, Presiding*
P.K. Thallapally, *Presiding*

1:30 INOR 621. Carbon dioxide capture in diamine-appended metal-organic frameworks. R. Siegelman, P.J. Milner, J. Martell, E. Kim, M.I. Gonzalez, A. Forse, T. Runcevski, J.A. Mason, T. McDonald, J.A. Reimer, **J.R. Long**

2:15 INOR 622. Metal-organic frameworks (MOFs) as a platform for energy applications. **Q. Xu**

2:45 INOR 623. Bimetallic metal-organic frameworks. **N.B. Shustova**, E. Dolgoplova, O. Ejegbavwo, A.M. Rice

3:15 INOR 624. Direct electrical readout sensors utilizing highly selective metal organic frameworks. **T.M. Nenoff**, L.J. Small

3:35 Intermission.

3:50 INOR 625. Commercialization of metal-organic frameworks and lessons learned. **O.K. Farha**, J. Arno, M. Weston, W. Morris, P. Siu

4:20 INOR 626. Strategies for the fabrication of MOF films and coatings. **B. Wang**

4:50 INOR 627. A simple strategy to immobilize enzyme in metal-organic frameworks. **W. Liu**, L. Liu, S. Lirio, C. Lin

Section C

Ernest N. Morial Convention Center Room 343

F. Albert Cotton Award in Synthetic Inorganic Chemistry: Symposium in honor of Andrew S. Borovik

D.C. Lacy, C.G. Riordan, J.Y. Yang, *Organizers*
R. Gupta, *Presiding*

1:30 INOR 628. Multiple-site concerted proton-electron transfers (MS-CPET). **J.M. Mayer**, J. Darcy, M. Ener, B. Koronkiewicz, T. Markle

1:55 INOR 629. Metal-coordinated ligand radical-driven reactivity. **R. Mukherjee**

2:20 INOR 630. Troger's base: A versatile platform for supramolecular chemistry. **D.L. Jameson**

2:45 INOR 631. Syntheses, structural and stability comparisons of $[\text{Co}(\text{D}(\text{G})_3\text{Tr})\text{X}]\text{Y}$ (X = halide or pseudohalide; Y = X or BPh_4). **R.C. Scarrow**, D. Suryavanshi

Magar, B. Burke, G.P. Yap

3:10 INOR 632. Spectroscopy and DFT calculations of a flavo-diiron enzyme identify new structures and NO intermediates of the enzymatic cycle. A. Weitz, N.C. Giri, J.D. Caranto, D.M. Kurtz, E.L. Bominaar, **M.P. Hendrich**

3:35 Intermission.

3:50 INOR 633. Artificial metalloenzymes: Second coordination sphere interactions at their best. **T.R. Ward**

4:15 INOR 634. Discovery and application of 12-lipoxygenase inhibitors as anti-platelet agents. **T.R. Holman**

4:40 INOR 635. Mononuclear high-valent $\text{Fe}(\text{OH})$ and $\text{Mn}(\text{OH})$ corroles. **D.P. Goldberg**, J. Zaragoza

5:05 INOR 636. Carbon- and sulfur-bridged iron clusters of relevance to nitrogenase. S.F. McWilliams, A.L. Nagelski, D.E. DeRosa, N.A. Arnet, B.Q. Mercado, **P.L. Holland**

Section D

Ernest N. Morial Convention Center Room 352

Molecular Confinement Effects in Inorganic & Organic Containers

M. Fujita, B.C. Gibb, J.L. Sessler, *Organizers*
R. Custelcean, H. Li, *Presiding*

1:30 INOR 637. Crystalline sponge method for natural product chemistry. **M. Fujita**

2:00 INOR 638. Confinement of anion-water clusters in guanidine crystals. **R. Custelcean**

2:30 INOR 639. Anion protection and self-assembly inside cages formed from stacked macrocycles. **A.H. Flood**

3:00 INOR 640. Ten years of incarceration: A versatile, water-soluble cage. **D.A. Vosburg**, J. Nitschke

3:30 Intermission.

3:45 INOR 641. Molecular capsules constructed from mixed macrocycles seamed together by metal ions. **J.L. Atwood**, C. Zhang, R. Patil, K. Sikligar, G.A. Baker, P.H. Atwood, S.G. Atwood

4:15 INOR 642. Endo-functionalized molecular tubes. **W. Jiang**

4:45 INOR 643. Unique host properties of polyaromatic coordination capsules. **M. Yoshizawa**

5:15 INOR 644. Recognition and reactions in deep cavitands. **J. Rebek**

Section E

Ernest N. Morial Convention Center Room 353

Inorganic Chemistry of Lead Halide Perovskites: Insights from Fundamentals

R.L. Brutchey, J. Vela, *Organizers*
B.C. Melot, *Organizer, Presiding*

1:30 Introductory Remarks.

1:40 INOR 645. Halide perovskites: New high performance semiconductors.

[†]Cooperative Cosponsorship

M.G. Kanatzidis

2:20 INOR 646. Reducing the toxicity and improving the stability of two-dimensional halide perovskites. **D. Solis-Ibarra**, B. Vargas, P.I. Roman, P. Carmona-Monroy

2:40 INOR 647. Halide perovskites beyond $\text{CH}_3\text{NH}_3\text{PbI}_3$: Structural diversity and opportunities for semiconductor design. **D.B. Mitzi**

3:20 Intermission.

3:50 INOR 648. Looking beyond methylammonium lead iodide for next generation solar absorbers. **D. Scanlon**

4:30 INOR 649. Trends in the lone pair-induced local distortions in tin and lead halide perovskites: Are Sn and Pb in the center of the octahedron? **G. Laurita-Plankis**, D.H. Fabini, C. Stoumpos, M.G. Kanatzidis, R. Seshadri

4:50 INOR 650. Capturing the properties of lead-halide perovskites with new materials. A. Slavney, I. Smith, L. Leppart, J. Neaton, **H. Karunadasa**

Section F

Ernest N. Morial Convention Center Room 354

Harry Gray Award for Creative Work in Inorganic Chemistry by a Young Investigator: Symposium in honor of Dwight S. Seferos

A.M. Spokoyny, Organizer
M.R. Jones, Organizer, Presiding
T. Li, Presiding

1:30 Introductory Remarks.

1:35 INOR 651. Programmable metamaterials. **C.A. Mirkin**

2:00 INOR 652. Nanoparticle slurry technologies for chemical mechanical planarization. **T. Li**

2:25 INOR 653. Using nanoscale geometry to dictate molecular behavior in inorganic nanoparticle composites. **R. Macfarlane**

2:50 INOR 654. Polymers, plasmons, and patterns. **J.M. Buriak**, F. Liu, E.J. Lubber, B. Olsen

3:15 Intermission.

3:25 INOR 655. Peptide platforms for constructing plasmonic chiroptical materials. **N.L. Rosi**, A. Merg, S. Puneekar

3:50 INOR 656. Spherical nucleic acids for gene regulatory and immuno therapeutic applications. **D. Giljohann**

4:15 INOR 657. Wiring-up transition metals: Translating solution chemistry to nano-scale sensors. **T.M. Swager**

4:40 INOR 658. NMR characterization of metal nanoparticle formation, structure, and performance. **J. Millstone**

5:05 INOR 659. Spatial mapping of surface-mediated nanocrystal transformations. **M.R. Jones**

5:30 Concluding Remarks.

Section G

Ernest N. Morial Convention Center Room 210

PCET PhotoCatalysis with Inorganic Molecules & Materials

[†]Cooperative Cosponsorship

Cosponsored by PHYS
J.L. Dempsey, C. Heyer, E. Leon, G.J. Meyer, Organizers
T.A. White, Presiding

1:30 INOR 660. Proton coupled electron transfer bond cleavage of oxygen. **D.G. Nocera**, D.K. Dogutan, M. Qiu, G. Passard, C. Cosentin

1:55 INOR 661. PCET in metal organic frameworks: Toward photoinduced water oxidation. P. Celis-Salazar, S. Lin, **A.J. Morris**

2:15 INOR 662. Role of PCET in small molecule activation: Water oxidation and CO_2 reduction. Y. Xie, D.W. Shaffer, L. Wang, **J.J. Concepcion**

2:35 INOR 663. Iron polypyridyl complexes immobilized on metal oxide semiconductors for photocatalytic hydrogen generation. **W. McNamara**

2:55 INOR 664. New Ru complexes demonstrate ligand-centered reactivity for the reduction of CO_2 . **M.R. Norris**, M. Gu, L. Paul

3:15 Intermission.

3:30 INOR 665. Increasing rates and lowering overpotentials in $[\text{Ni}(\text{P}_2\text{N}_2)_2]^{2+}$ electrocatalysts for production of H_2 . **R. Bullock**, C.M. Klug, A.J. Cardenas, M.J. O'Hagan, E.S. Wiedner

3:50 INOR 666. Unlocking redox reactivity through installation of proton relays in the secondary coordination sphere. **J.Y. Yang**, J. Kotyky, R. Combs

4:10 INOR 667. Mechanistic studies on a family of carbene-supported ruthenium complexes for electrochemical CO_2 reduction. **S. Gonell**, M.D. Massey, I.P. Moseley, C.K. Schauer, J.T. Muckerman, A.J. Miller

4:30 INOR 668. Fast detection method for analyzing CO_2 electroreduction products to probe catalyst degradation mechanism. F. Zhang, **A. Co**

4:50 INOR 669. Evaluating the potential of nanocapsules to synthetically modulate the second coordination sphere of fuel forming catalysts. **N. Elgrishi**

5:10 INOR 670. Electrocatalysis and photo-electrocatalysis of the oxygen reduction reaction. **J.M. Mayer**, M.L. Pegis, C. Wise, D. Martin, O. Jung, B. Koronkiewicz, S. Raugai, N. Kumar, J. Peper

Section H

Ernest N. Morial Convention Center Room 211

Chemistry of Materials: Synthesis & Properties

C.G. Lugmair, Organizer
Y. Rao, Presiding

1:30 INOR 671. Chemical vapor transport synthesis of $\text{Mn}_x\text{Zn}_{1-x}\text{Cr}_2\text{O}_4$ single crystals in a closed ampoule reactor: A virtual equilibrium (steady-state) model that predicts composition (x) of the deposited crystalline solid solution. **Y. Rao**

1:50 INOR 672. Low-valent coordination networks with *m*-terphenyl isocyanides based linkers. **A. Arroyave**

2:10 INOR 673. Thermolysis of heterobimetallic single-source precursors: A springboard to the synthesis of binary intermetallic compounds. **C.L. Daniels**, S. Sahu, F.P. Gabbai, J. Vela

2:30 INOR 674. Hybrid platinum (IV) iodides: progression from perovskite to hydrogen bonded frameworks. **H. Evans**, D.H. Fabini, M. Preefer, R. Seshadri, F. Wudl

2:50 Intermission.

3:05 INOR 675. Kinetic control of one-pot core/shell nanoparticles and nanoplatelets using thio- and selenoureas.

L. Hamachi, I. Jen-La Plante, M.P. Campos, K. Qian, G. Cleveland, I. Reza, H. Yang, E. Chan, W. Walravens, Z. Hens, A. Kuntzmann, S. Ithurria, B. Dubertret, J.S. Owen

3:25 INOR 676. Controlled speciation of transition metal ions in cadmium thiophenolate-based molecular clusters. **K.R. Kittilstved**, F. Kato

3:45 INOR 677. Molten salt synthetic method for making complex metal oxide nanoparticles. **Y. Mao**

4:05 INOR 678. Facile and controllable synthesis of Janus two-dimensional transition metal dichalcogenide monolayers. **J. Zhang**, J. Lou

Section I

Ernest N. Morial Convention Center Rooms 340/341

Coordination Chemistry: Characterization & Applications

A. Larsen, Organizer
E.V. Rybak-Akimova, K.D. Vogiatzis, Presiding

1:30 INOR 679. Pyridine azamacrocycles with appended functional groups: redox reactivity and catalysis. **E.V. Rybak-Akimova**, S.G. McKenzie, T. Palluccio, H. Seidel

1:50 INOR 680. Copper guanidine quinoline complexes as catalysts in ATRP: Prediction of activities via DFT and isodesmic reactions. **T. Rösener**, A. Hoffmann, S. Herres-Pawlis

2:10 INOR 681. Ruthenium(II) polypyridyl complexes with hydroxypyridine mixed ligands: Synthesis, characterization and *in vitro* cell cytotoxicity. **J.A. Obaleye**, A.O. Rajee, A.A. Ajibola, H.F. Babamale, M.O. Bamigboye, P.O. Obaleye

2:30 INOR 682. Withdrawn.

2:50 INOR 683. Tuning the hydricity of nickel hydrides for the electrocatalytic reduction of CO_2 . **A.L. Ostericher**, C.P. Kubiak

3:10 Intermission.

3:20 INOR 684. Understanding the electronic effects that control the non-heme Fe(IV)-oxo reaction channels for C-H activation. **K.D. Vogiatzis**

3:40 INOR 685. Triiron clusters containing single atom bridging ligands for dinitrogen fixation. **R.B. Ferreira**, L.J. Murray

4:00 INOR 686. Mn(IV) complexes for biochemically activated MRI contrast. **H. Wang**, P. Caravan, T. Storr, E. Gale

4:20 INOR 687. Computational modelling of the ligand tuning effect over the transition temperature in spin-crossover systems using density functional methods. **J. Cirera Fernandez**

Section J

Ernest N. Morial Convention Center Room 212

Organometallic Chemistry: Catalysis-Late Transition Metals

N.S. Radu, Organizer
T. Atesin, O. Ozerov, Presiding

1:30 INOR 688. Computational study of the mechanism of dehydrogenative borylation of terminal alkynes by SiNN iridium complexes. **O. Ozerov**, J. Zhou, C. Lee

1:50 INOR 689. Mechanistic observations of cross coupling reactions with PNP Cobalt. **B.J. Foley**, C. Palit, O. Ozerov

2:10 INOR 690. Preferential electrochemical reduction of CO_2 to formate by a CCC-NHC-Ni complex: A computational/mechanistic study. **R.W. Lamb**, J. Cope, N. Liyanage, P.J. Kelly, J. Denny, J.H. Delcamp, T.K. Hollis, C.E. Webster

2:30 INOR 691. Electrocatalytic formate oxidation with an iridium hydride complex. **K.M. Waldie**, C.P. Kubiak

2:50 INOR 692. Bioorthogonal transfer hydrogenation mediated by small molecule organoiridium catalysts. **S. Bose**, L. Do

3:10 INOR 693. Understanding the thermodynamic and kinetic factors that contribute to transfer hydrogenation efficiency by organoiridium complexes. **A.H. Ngo**

3:30 INOR 694. Palladium(0)-catalyzed intramolecular allylic alkylation of diketesters. **T. Atesin**

3:50 INOR 695. Enhancing catalytic performance of phosphine-phosphinate and phosphine-phosphonate Pd alkyl polymerization catalysts by remote binding of $\text{B}(\text{C}_6\text{F}_5)_3$. **A. Johnson**, N.D. Contrella, J. Sampson, M. Zheng, R.F. Jordan

4:10 INOR 696. Carbon dioxide reduction by anionic chalcogenide-bridged tricopper clusters. **B.J. Cook**, L.J. Murray

4:30 INOR 697. Controlled $4e^-$ reduction of CO_2 with various hydroboranes and first row metal hydride catalysts. **S. Bontemps**

4:50 INOR 698. Substrate directed, enantioselective Heck arylation of cyclohexenols promoted by KCF_3 : Synthesis of all *cis* substituted, arylcyclohexenols. **R.A. Angnes**, L.M. Thompson, C.R. Correia, G.B. Hammond

5:10 INOR 699. Metal-ligand bifunctional catalysis: The "accepted" mechanism, the issue of concertedness, and the function of the ligand in catalytic cycles involving hydrogen atoms. **P.A. Dub**

5:30 INOR 700. Olefin hydroarylation catalyzed by ruthenium(II) complexes: Changes in reactivity based on auxiliary

ligands. **X. Jia**, J. Gary, B.A. McKeown, T.R. Cundari, P.J. Perez, T.B. Gunnoe

Section K

Ernest N. Morial Convention Center
Room 335

Inorganic Spectroscopy

C.V. Popescu, Organizer, Presiding
1:30 Introductory Remarks.

1:35 INOR 701. To be or not to be: Bonding studies in heterobimetallic d¹⁰-d¹⁰ centers. **K. Melancon**, B.M. Otten, M.A. Omary

1:55 INOR 702. Multimodal micro-spectroscopies for metal complexes bio-imaging: development metal-CO as multimodal probes. **C. Policar**, F. Lambert, N. Delsuc, H.C. Bertrand

2:15 INOR 703. Near-field optical microscopy and nanoscale spectroscopy (nano-FTIR) on semiconductors, plasmonic and 2D materials. **P. Schäfer**, T. Gokus

2:35 INOR 704. Time-resolved IR studies in conventional and supercritical fluids: From alkane complexes and C-H activation to organometallic noble gas complexes. **M.W. George**

2:55 INOR 705. Effects of electron transfer on hydrogen bonds. **T.M. Porter**, G.P. Heim, C.P. Kubiak

3:15 Intermission.

3:20 INOR 706. Determination of the dramatic increase in protonation rates following one-electron reduction for a series of luminescent osmium hydride complexes. **R.E. Adams**, T.A. Grusenmeyer, A.L. Griffith, R.H. Schmehl

3:40 INOR 707. Theoretical study of substituted CCC-NHC palladium and platinum complexes for OLED applications. **V. Dixit**, E.V. Dornshuld, C.E. Webster, T.K. Hollis

4:00 INOR 708. Solid-state ⁴⁵Sc NMR of Cp*₂Sc-R: Evidence for an agostic interaction in Cp*₂Sc-Et. **M.P. Conley**, D. Culver, W. Huynh, H. Tafazolian

4:20 INOR 709. Direct identification of inner-sphere nitrogen radicals via nitrogen K-edge X-ray absorption spectroscopy. **J.T. Lukens**, D. Iovan, T. Kurogi, D.J. Mindiola, T. Betley, K.M. Lancaster

4:40 INOR 710. Magnetic resonance investigation of bonding between first row transition metals. **S.M. Greer**, J. McKay, K.M. Gramigna, C.M. Thomas, S. Stoian, S. Hill

5:00 INOR 711. Highly concentrated alkali hydroxide aqueous solutions: Classical force fields, speciation and their effects on neutron PDFs. **D. Semrouni**, H. Wang, K. Page, D. Wesolowski, A.G. Stack, A.E. Clark

GSSPC: Finding Our Place at the Bottom

Symposium in honor of Richard Fesyman

Sponsored by CHED, Cosponsored by ANYL[†], COLL[†], INOR, PHYS[†], PMSE[†] and PRES[†]

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TUESDAY EVENING

Section A

Ernest N. Morial Convention Center
Hall D

Metal-Organic Frameworks: What Are Next?

W. Lin, S. Ma, H. Zhou, Organizers

5:30-7:30

INOR 712. Hierarchical pore formation in a series of ultrastable multivariate metal-organic frameworks. **L. Feng**, S. Yuan, L. Zhang, J. Li, A. Kirchon, H. Zhou

INOR 713. Computational modeling of the degradation of MOF-2 by Brønsted acid gases. **Z. Lee**, S. Zhang, L. Flores, **D.A. Dixon**

INOR 714. Rational design and synthesis of heterometallic metal-organic frameworks. **P. Muldoon**, C. Liu, C. Miller, N.L. Rosi

INOR 715. Arsenic coordination materials: Design, properties, and applications. **R.E. Sikma**, S.G. Dunning, P. Kunal, J. Reynolds, J. Chang, S.M. Humphrey

INOR 716. Metal-organic framework templated formation of nanostructured conducting polymers. **T. Wang**, S.K. Smoukov, A.K. Cheetham

INOR 717. Enhancing polymer crystallinity in mixed matrix membranes using metal organic framework nanosheets for efficient CO₂ capture. **C. Youdong**, D. Zhao

INOR 718. Phosphine coordination materials as a platform for catalytic metal

incorporation. **S. Dunning**, G. Nandra, A.D. Conn, K.M. Walsh, W. Chai, P. Kunal, J. Reynolds, J. Chang, A. Steiner, G.A. Henkelman, S.M. Humphrey

INOR 719. Design and synthesis of multifunctional materials comprising stratified metal-organic frameworks and plasmonic nanoparticles. **T. Luo**, X. Gan, J. Millstone, N.L. Rosi

INOR 720. Ligand removal and porosity control in gradient metal-organic frameworks. **C. Liu**, Z.M. Schulte, T. Luo, N.L. Rosi

INOR 721. Chemical modifications to tailor magneto-structural correlations in the triangulated Kagome lattice Cu₃X₂(cpa)₆. **S.F. Skinner**, W.M. Farmer, L.W. Ter Haar

INOR 722. Aggregation to the best: A 12-connected Zirconium MOF with a triphenylene-based hexatopic linker. **Y. Zhang**, X. Yang, S. Yuan, J. Qin, H. Zhou

INOR 723. Ultramicroporous Zr MOF for C2 hydrocarbon separation. **Y. Wang**, D. Zhao

INOR 724. Preparation of 2D MOF materials. Z. Li, **K. He**, K. Yeung

INOR 725. Crystallization of sub-100 nanometer MOF thin film on graphene oxides. W. Chen, **K. He**, K. Yeung

INOR 726. MOF membrane microreactor for organic synthesis. **K. He**, K. Yeung

INOR 727. Rational design of a mixed-linker MOF platform based on merged net principle. **H. Jiang**, J. Jia, A. Shkurenko, Z. Chen, K. Adil, Y. Belmabkhout, L. Weselinski, A. Assen, D. Xue, M. O'Keeffe, M. Eddaoudi

INOR 728. Effects of chloride concentration on graphene analogues for thermoelectric devices. **S. Yoon**, M.C. So

INOR 729. Single-crystal electrical devices of triphenylene-based 2D MOFs. **R.W. Day**, M. Dinca

INOR 730. Fabrication and characterization of conductive metal-organic framework coatings by automated liquid phase epitaxy for electronics. **M.C. So**, V. Cherrette, V. Stavila, J. Llinas, A.A. Talin, M. Allendorf

INOR 731. Ultra-small face-centered cubic Ru nanoparticles confined with an anionic porous coordination cage for high performance catalysis. **Z. Xiao**, Y. Fang, H. Zhou

INOR 732. Towards the design and synthesis of metal-organic frameworks for targeted separation of heavy pollutants. **D. Fairchild**, J. Cordova, G.S. Pour, O.A. Tarano, K. Sanchez, Z. Magnuson, F.J. Uribe-Romo

INOR 733. Amenable and accessible functionality in covalent organic frameworks: Merits in the design of heavy metal scavenger for environmental remediation. **Q. Sun**, S. Ma

INOR 734. Installing biomimetic diiron complex in metal-organic framework for photocatalytic hydrogen evolution. **B.L. Frey**, X. Zhang, J. Zhang

INOR 735. One-pot synthesis of a series of zirconium MOFs with multifunctionalities. **Y. Sun**, H. Zhou

INOR 736. Cooperative enhanced catalysis of lipase-proline@MOF towards enantiomeric chemical transformation. **C. Lin**, S. Lirio, L. Liu, W. Liu

INOR 737. Porous layer network in indium based metal-organic frameworks with carbon dioxide adsorption and fixation. **C. Tsai**, Y. Li, S. Wang, C. Lin

INOR 738. Dual-ligand luminescent metal-organic frameworks towards environmental remediation efforts. **N.D. Rudd**, H. Wang, E.M. Fuentes-Fernandez, S.J. Teat, F. Chen, G.S. Hall, Y.J. Chabal, J. Li

INOR 739. Biomimetics of carbonic anhydrase via metal-organic frameworks. **Y. Chen**, Z. Zhang

INOR 740. Selective CO₂ adsorption on Cu-pyrazolato MOFs. **K. Shi**, L. Mathivathanan, R.G. Raptis

INOR 741. Fluorescent studies of metal-organic frameworks with highly conjugated linkers. **R. Ly**, G.S. Pour, F.J. Uribe-Romo

INOR 742. Titanium based metal-organic frameworks for visible light photocatalytic reduction of CO₂. **M.W. Logan**, N.V. Aleger, S. Ayad, J.D. Adamson, K. Hanson, F.J. Uribe-Romo

INOR 743. Fabricating turn on fluorescent sensors for cyanide in MOFs by sequential linker installation. **J. Li**, S. Yuan, H. Zhou

Section B

Ernest N. Morial Convention Center
Hall D

Molecular Confinement Effects in Inorganic & Organic Containers

M. Fujita, B.C. Gibb, J.L. Sessler, Organizers

5:30-7:30

INOR 744. Getting specific about non-specific interactions: Functional group dependence for the inverse Hofmeister series. **J.H. Jordan**, W. Yao, A. Wishard, B.C. Gibb

INOR 745. Behavior of water under confinement in a metal-organic nanotube. **M. Payne**, A.S. Jayasinghe, T. Forbes

INOR 746. Anion specific effect on protein aggregation and precipitation. **W. Yao**, B.C. Gibb

INOR 747. Withdrawn

INOR 748. Supramolecular assemblies as a mechanistic probe: Formation and catalysis of a Si₃L₆ host. **M. Morimoto**, C.M. Hong, E.A. Kapustin, K.N. Raymond, D. Toste, R.G. Bergman

INOR 749. Supramolecular confinement of anions, from small to large, with molecular pincers. **S. Pramank**, M. Reinmuth, H. Haque, S. Kaur, K. Motley, V. Day, K. Bowman-James

INOR 750. Molecular face-rotating cube with emergent chiral and fluorescence properties. **H. Qu**, Y. Wang, Z. Li, X. Wang, H. Fang, Z. Tian, X. Cao

[†]Cooperative Cosponsorship

INOR 751. Larger assemblies and guest exchange in molecular containers. **A. Wishard**, L. Avram, B.C. Gibb, A. Bar-Shir

INOR 752. Does charge matter? Formation of highly reactive metal nanocluster crystal within coordination cage container. **Y. Fang**, H. Zhou

INOR 753. Designing functional supramolecules for biological applications. **I.A. Riddell**

INOR 754. Anion recognition using water-soluble hosts. **M.R. Sullivan**, W. Yao, P. Sokkalingam, B.C. Gibb

INOR 755. Electrochemical analysis of supramolecular cages as nanocapsules for catalysts. **A. Webb**, J. Bruna, S.C. Lufallah, N. Elgrishi

INOR 756. Improving biocompatibility of nano-scale metal-organic supercontainers (MOSCs) for functional applications. **P. Jampani**, Z. Wang

INOR 757. Salt induced switching of capsular assemblies mirrors the Hofmeister effect. **M.B. Hillyer**, H. Gan, B.C. Gibb

Section C

Ernest N. Morial Convention Center Hall D

PCET PhotoCatalysis with Inorganic Molecules & Materials

Cosponsored by PHYS
J.L. Dempsey, C. Heyer, E. Leon, G.J. Meyer, *Organizers*

5:30–7:30

INOR 758. Homogenous hydrogen evolution system employing non-noble metal bipyridyldiamine co-catalysts. **T. Vagvala**, T. Ooyabe, V. Kalousek, K. Ikeue

INOR 759. Proton transfer and proton-coupled electron transfer reactions of heteroleptic ruthenium(II) complexes incorporating hydroxylated polypyridyl ligands. **K. Martinez**, M. Esposito, E. Milner, J.J. Paul, R.H. Schmehl

INOR 760. Use of 3D ordered macroporous cuprous oxide intercalated with MoS₂ for efficient hydrogen-evolving reaction. **D.T. Conroy**, R.A. Farrer

Section D

Ernest N. Morial Convention Center Hall D

Solid-State Inorganic Chemistry

C.G. Lugmair, V. Poltavets, *Organizers*

5:30–7:30

INOR 761. Probing formation mechanisms of templated vanadium selenites using reaction informatics. **Y. Huang**, A.J. Norquist, J. Schrier

INOR 762. The role of organic structure on phase stability in templated vanadium tellurites. **X. Jia**, A.J. Norquist, J. Schrier

INOR 763. Superhard tungsten tetraboride (WB₄): Effects of variable boron concentration and the dodecaboride forming metals on its properties. **G. Akopov**, I. Roh, Z. Sobell, M.T. Yeung, L. Pangilinan, C.L. Turner, S.I. Khan, R.B. Kaner

INOR 764. Topochemical synthesis and

characterization of transition metal-fluoride double-layered perovskites, (MF)LnNb₂O₇ (M = Mn, Fe, Cu; Ln = La, Pr). **P. Majji**, M. Granier, D. Montasseradi, J.B. Wiley

INOR 765. Hydrothermal synthesis and characterization of manganese doped hematite hollow spheres. **S.A. Seraly**, A.M. Morey

INOR 766. Surface functionalization and thin film deposition of β-Fe₂O₃ hollow spheres. **G.M. Harber**, J. Kittle, A.M. Morey

INOR 767. Synthesis of TMD's by chemical transformations of ultra-thin oxides: Effect of water (and chalcogen source) on morphology and the optical properties. **T. Kuykendall**, S. Aloni, A. Schwartzberg, C. Chen, C. Kastl

INOR 768. Promoted hydride/oxide exchange reaction in SrTiO₃ by introduction of anion vacancy. **F. Takeiri**, T. Yamamoto, Y. Kobayashi, H. Kagayama

INOR 769. Facile synthesis of metal sulfide based chevreol phases. **J. Ortiz Rodriguez**, J. Perryman, J.M. Velázquez

INOR 770. Synergy in properties and chemistry: Development of PbS QDs embedded in Pb-halide perovskite matrices. **E.A. Gauling**, J. Luther

INOR 771. New transparent conductors. **M.T. Yeung**, S.M. Flynn, A.E. Wustrow, J.C. Hancock, K.R. Poeppelmeier

INOR 772. Understanding distortions in the cubic pyrochlore lattice towards the design of polar materials. **S. Husremovic**, G. Laurita-Plankis, J. Li, A. Sleight, R.T. Macaluso, M. Subramanian

INOR 773. Accelerating the discovery of inorganic phosphors with the assistance of machine learning. **Y. Zhuo**, J. Brgoch

INOR 774. Energy-efficient, microwave-assisted solid-state synthesis of phase-pure ternary Ti₂S₄ thiospinels with applications in heterogeneous catalysis. **J. Perryman**, J.M. Velázquez

INOR 775. Honeycomb network of Au-Au bonding in intermetallic, RE-Au-Sn (RE = La, Ce, Pr, Nd) ternary phase space. **S. Loffi**, J. Brgoch, A. Oliyinyk

INOR 776. [1,2,6-Trimethylpyridinium]₂Cu₂Br₆: The vicinal trimethylpyridinium cation pair as supramolecular dication. **M.R. Bond**

INOR 777. Solid state variable temperature and pressure ¹H NMR analysis of templated carbon with substitutional doping. **B. Nakamoto**, C.M. Jensen

INOR 778. Crystal packing of quasicrystalline mixtures of oxidiazanones. **S. Huffman**, G. Ferrence

INOR 779. Borides and carbaborides based intercalation cathodes with redox active anions. **M.R. Shabetai**, **J.Y. Do**, V. Poltavets

INOR 780. Substitution effects of metal and metalloid elements at the silicon sites of TiMnSi₂ compounds. **D. Matetich**, J. Allred

INOR 781. Physical property measurements for single crystal V_{1-x}Mo_xO₂.

M.A. Davenport, J. Jones, J. Allred

Section E

Ernest N. Morial Convention Center Hall D

Nanoscience

B.G. Trewyn, *Organizer*

5:30–7:30

INOR 782. Metal-enhanced fluorescence Hg²⁺ biosensor. N. Sui, L. Wang, **W. Yu**

INOR 783. Improved antimicrobial properties of copper and ascorbic acid based nanoparticle systems: Advanced drugs for a post-antibiotic era. **T.M. Dassanayake Mudiyansele**, V. Serapiglia, K.M. Greskovich, S. Huang

INOR 784. Effect of the aggregation events on the optical properties of molecular-like gold clusters. **M. Sugiuchi**, K. Konishi

INOR 785. Gram scale surface functionalization of nanodiamond. **M.E. Taylor**, J. Bandy, A. Mensch, R.J. Hamers

INOR 786. Synthesis and spectroscopic measurements of yttrium (III) oxide nanomaterials doped with europium (III) cations. W. Wang, **A. Rahman**, P. Zhu

INOR 787. Growth kinetics and cytotoxicity effects of surface modified zinc oxide quantum dots at room and cold temperatures using CsOH and NaOH. **D. Francis**, D.M. McCall-Butler, J.K. Davis-Gunn, A. Mena, B. Colon, P.P. Benz, A. Schrock, P. Cavnar, K.S. Molek

INOR 788. Probing the electronic structure of small metallic nanoparticles using conduction electron spin resonance. **S. Cruz**, A. Silakov, B.J. Lear

INOR 789. Polyarylboranes: Nanoscale materials with interesting photophysical properties. **T. Wang**, **M.W. Lee**

INOR 790. Effects of perchlorate anions on the fabrication of surface enhanced Raman spectroscopy (SERS) sensors. **W. Mihalji-Koch**, F. Dawood

INOR 791. Ceria–Zirconia nanoparticles as an enhanced multi-antioxidant for sepsis treatment. **M. Soh**, T. Hyeon

INOR 792. Sweat-based glucose monitoring and feedback transdermal drug delivery for diabetes treatment. **C. Song**, T. Hyeon

INOR 793. Multifunctional nanoparticle as tissue adhesive for image-guided procedures. **K. Shin**, **G. Ko**, T. Hyeon

INOR 794. Nano-mechanical and physical investigations of novel oxide nanocomposites using atomic force microscopy. **T.T. Brown**, S. Akbarian-Tefaghi, A. Blanco, Z.L. Highland, N. Kuruppu Arachchige, A.M. Taylor, J.C. Garno, J.B. Wiley

INOR 795. Metal oxide support for control over electronic properties in catalytic noble metal particles. **J. Fagan**, B.J. Lear

INOR 796. Crystalline-to-amorphous phase transition of large area Mo₂O₂(μ-S)₂(Et,dtc)₂ nanosheets. **M. Zhukovskiy**, M.K. Kuno

INOR 797. Microwave synthesis of nanocomposites via the capture of preformed nanoparticles within scrolled nanosheets. **A. Blanco**, T. Rostamzadeh, J.B. Wiley

INOR 798. Growth of gold and palladium nanoparticles inside and outside of halloysite nanotubes. **M. Islam Khan**, T. Rostamzadeh, J.B. Wiley

INOR 799. Synthesis and characterization of ZnO nanoparticles and their use as a photocatalyst. **J.D. Harris**, C.C. Pena, A.E. Harris, J. Cowan

INOR 800. Comparative toxicity of ZnO nanoparticles synthesized using different amines. **C.C. Pena**, K. Cornell, J. Cowan, J.D. Harris

INOR 801. Elucidating the mechanism of aluminum nanocrystal formation using EPR spectroscopy. **B.D. Clark**

INOR 802. Role of gold oxidation state in the synthesis of Au-Csp₃ heterostructured nanoparticles. **D. Dacres**, B. Roman, M.T. Sheldon

INOR 803. Nanostructured iron oxide electrodes for the water splitting reaction. **K. Koster**, L. Bradley, P. Kharel, F. Dawood

INOR 804. NiO nanoparticle synthesis, characterization, and toxicology. **P.T. Gwin**, C.C. Pena, K. Cornell, J. Cowan, J.D. Harris

INOR 805. Influence of particle size and stoichiometry on the magneto-electronic properties of La_{1-x}Sr_xCoO₃ nanoparticles. **H.A. De Santiago**, S. Mohan, M. Manno, E. McCalla, C. Leighton, Y. Mao

INOR 806. Polarization properties of semiconductor nanorods. **A. Francis**

INOR 807. Monitoring the growth of silver dendrites for large-area surface enhanced Raman spectroscopy (SERS) sensors. **A. Oh**, **N. DeBuono**, F. Dawood

INOR 808. High pressure exfoliation of layered materials. **W.H. Mak**, M.D. Kowal, E.P. Nguyen, R. Rizvi, R.B. Kaner

INOR 809. Multicolor emitting La₂Zr₂O₇ nanoparticles and its tunability on europium doping. **S. Gupta**, J. Zuniga, **Y. Mao**

INOR 810. Attachment of molecular catalysts to nanocrystal surfaces facilitated by anionic bridging ligands. M.R. Buck, **R.P. Murphy**

INOR 811. Development of a trimodal contrast agent for acoustic and magnetic particle imaging of stem cells. **J. Lemaster**, T. Kim, F. Chen, J.V. Jokerst

INOR 812. Characterization of electrical properties of GaAs nanowires and planar heterostructures by Kelvin probe force microscopy. **G. Matheson**, L. Geelhaar, M. Heilmann, J. Herranz

INOR 813. Translation of transition-metal based catalysis for selective sensing. **V. Schroeder**, T.M. Swager

INOR 814. Can nanotechnology help cell research for major diseases. **M. Breaux**

[†]Cooperative Cosponsorship

Section F

Ernest N. Morial Convention Center
Hall D

Chemistry of Materials

C.G. Lugmair, Organizer

5:30–7:30

INOR 815. Electrochemical etching of Ti_2CT_x MXene in dilute HCl solution. **W. Sun**, M.J. Green, M. Radovic

INOR 816. Stabilizing CuPd nanoparticles via CuPd coupling to WO_{3-x} nanorods in electrochemical oxidation of formic acid. **Z. Xi**, S. Sun

INOR 817. Atomically Thin Pt Coated over Intermetallic FePt Nanoparticles for Efficient Oxygen Reduction Catalysis in Fuel Cells. **J. Li**, S. Sun

INOR 818. Imaging boron nitride nanotubes (BNNTs) by single molecule fluorescence microscopy. **A. Smith**, Z. Tang, C. de los Reyes, D.M. Marincel, M. Pasquali, A.A. Marti

INOR 819. In situ ligand stripping and etching of indium phosphide nanocrystals. **R. Siramdas**

INOR 820. Room temperature, mild condition post-synthesis etching of InP nanocrystals. **M. Yazdanparast**, E. McLaurin

INOR 821. Photophysical Studies of Isomeric N-Heterocyclic Carbene Ir(III) Complexes and Their Applications to Deep-Blue Phosphorescent Organic Light-Emitting Diodes (OLEDs). **B. Yun**, S. Kim, J. Kim, C. Kim, S. Kang, H. Son

INOR 822. Detailed evaluation of nonradiative processes in heteroleptic cyclometalated iridium(III) complexes. **J. Kim**, S. Kim, Y. Cho, D. Cho, S. Kang, H. Son

INOR 823. Optical properties of stellated metal nanocrystals grown from seeds with planar defects. **J.D. Smith**, K.M. Koczur, J.A. Burkhart, S.E. Skrabalak

INOR 824. Chemical decoration of boron nitride nanotubes with aliphatic carbon chains. **C.A. de los Reyes**, K.L. Walz-Mitra, A. Smith, A. Loreda, F. Frankovsky, A.A. Marti

INOR 825. Synthesis of colloidal ZnO nanoparticles and their assembly onto thin films. **R. Gaudet**, S. Ganguly

INOR 826. Computational and experimental development of heterobimetallic single source precursors to Ge-Sn heterostructures. **H. Andaraarachchi**, M.A. White, J. Vela

INOR 827. Preparation and characterization of a new organic-inorganic hybrid material with synergistically combined properties. **A.J. Rodriguez**, R.G. Raptis

INOR 828. Studies of bulk ammonia borane – polyethylene oxide hydrogen storage materials. **K. Kharel**, R. Fu, O. Gunaydin-Sen

INOR 829. New synthetic methods for generating carbon-based materials with well-controlled electronic properties: From superatomic solids to graphene

nanoribbons. **I.M. Klein**, E. O'Brien, M. Paley, A. Crowther, X. Roy

INOR 830. Divalent iron atom coordination in two-dimensional microporous graphitic carbon nitride. **Y. Oh**

INOR 831. Large-scale synthesis of ultrathin lanthanide carbonate hydroxides nanowires for potential biomedical applications. **X. Zhang**, Y. Li, J. Ge, L. Qin, Y. Zheng, B. Lei, Y. Du, Z. Zheng

INOR 832. Synthesis of magnetic $CuCr_2S_4$ chalcospinel nanoparticles using single-source precursors. **F. Akbari Afkhami**, A. Gupta

INOR 833. Visible light sensitization of ferritin proteins by gold nanoparticles. **A. Bruefach**, E.B. Cerkez, K.G. Dutton, Y. Ghidye, M. Kukulka, A.M. Valentine, D.R. Strongin

INOR 834. Self-assembly of PS-b-PEO films as a shadow mask for GaAs nanowire deposition. **L.R. Steiner**, **S.C. Hall**, A. Christy, J.D. Harris

INOR 835. Synthesis of inorganic-organic perovskite hybrid materials via a microwave assisted method. **A. Poduval**, J.B. Wiley, S. Akbarian-Tefaghi

INOR 836. Flux growth of binary and ternary metal boride single crystals as catalysts for the hydrogen evolution reaction. **L. Alameda**, R.E. Schaak

INOR 837. Molten state synthesis of Pt^{2+} activated lanthanum hafnate nanoparticles as potential downconversion phosphor. **J. Zuniga**, S. Gupta, M. Pokhrel, Y. Mao

INOR 838. Grafted covalent organic frameworks for fast ionic conductivity. **G. Pope**, D.A. Vazquez-Molina, A. Ezazi, F.J. Uribe-Romo

INOR 839. Molecular additives for TiO_2 modification: A case study of dye-sensitized solar cells. **H. Cheema**

INOR 840. Assessing effects of varying metal carboxylate coverages on lead sulfide nanocrystal properties. **I. Rreza**, J.S. Owen

INOR 841. Cation exchange as a synthetic entryway to complex nanomaterials. **B.C. Steimle**, J.L. Fenton, R.E. Schaak

INOR 842. Ligand removal from indium phosphide nanocrystals. **S. Lee**, E.J. McLaurin

INOR 843. In-situ synthesis of LaOF phases from LaF_3 and exploration for upconversion luminescence. Y. Mao, **A. Perez**, S. Gupta, M. Pokhrel

INOR 844. Enhanced energy product of iron carbide nanorods induced by ruthenium. **B. Williams**, M. Tsui, E.E. Carpenter

INOR 845. Rationally designed plasmonic nanostructures for biosensing. **W. Qian**, Q. Su

INOR 846. Withdrawn.

INOR 847. Surface properties of WO_3/ZnO catalysts and their catalytic performance in the direct carbonylation of glycerol with CO_2 to glycerol carbonate.

L. Jiaxiang, D. He

Section G

Ernest N. Morial Convention Center
Hall D

Inorganic Chemistry of Lead Halide Perovskites: Insights from Fundamentals

R.L. Brutchey, B.C. Melot, J. Vela,
Organizers

5:30–7:30 INOR 848. Persistent dopants and phase segregation in organolead mixed-halide perovskites. **B. Rosales**, L. Men, S. Cady, M.P. Hanrahan, A.J. Rossini, J. Vela

INOR 849. Single crystal growth and characterization of R-M-X compounds ($R = CH_3NH_2, C_6H_5C_2H_4NH_2, C_6(CH_3)_5CH_2N(CH_3)_3$; $M = Zn, Cd, Hg$; $X = Cl, Br, I$). **R. Rocanova**, B. Saparova

INOR 850. Inherent directional order of methylammonium cations in lead-iodide perovskite. **M. Zdjila**, Y. Rao, B.B. Wayland, X. Li, A. Pender, S. Ding

Section H

Ernest N. Morial Convention Center
Hall D

Organometallic Chemistry: Applications to Materials & Polymer Science

N.S. Radu, Organizer

5:30–7:30

INOR 851. Methodologies of extending π -conjugation in ferrocene. **D. Daigle**, J. Bergeron, U. Pokharel

INOR 852. Development of imino and amino pyridine iron(III) catalysts for atom transfer radical polymerization (ATRP). **V. Shastri**, L.M. Thierier, S.E. Jenny, M. Donley, L.M. Round, N.A. Piro, W.S. Kassel, C.L. Brown, T. Dudley, D.L. Zubris

INOR 853. Design and synthesis of Ru precursors for photoassisted chemical vapor deposition. **O.M. Hawkins**, C.R. Brewer, B. Salazar, A.V. Walker, L. McElwee-White

Section I

Ernest N. Morial Convention Center
Hall D

Organometallic Chemistry: Applications to Organic Transformations

N.S. Radu, Organizer

5:30–7:30

INOR 854. Dearomatization and reactivity of benzene and electron-deficient arenes promoted by π -basic transition metal complexes. **J. Smith**, J.T. Myers, K. Wilson, W. Harman

INOR 855. Multiple transition metal catalysts for mild hydrocarboxylation of alkenes with CO_2 . **J.A. Rogers**, B.V. Popp

Section J

Ernest N. Morial Convention Center
Hall D

Organometallic Chemistry: Catalysis

N.S. Radu, Organizer

5:30–7:30

INOR 856. C-H bond activation and silylation of pyridine with diruthenium complexes. **R.M. Chin**, N. Jocic, J. Prybil, N. McClendon

INOR 857. δ -Heterocyclic carbene titanium(IV) and zirconium(IV) catalysts for the copolymerization of Cyclohexene Oxide with CO_2 . **L. Ralte**, K. Törnroos, E. Le Roux

INOR 858. Utilizing Ti(II)/IV redox catalysis for the synthesis of unsymmetrical carbodiimides. **A. Pancoast**, E. Beaumier, I. Tonks

INOR 859. Influence of hydrogen bonding in photocatalytic systems. **P.L. Cheung**, C.P. Kubiak

INOR 860. Withdrawn

INOR 861. Nickel-mediated fluorocarbene metathesis. **J. Guan**, M.B. Hall

INOR 862. Enantioenrichment of a molybdenum dearomatization agent by redox catalysis. **S. Dakermanji**, K. Welch, W. Harman

INOR 863. Hydrogenation of CO_2 : A rational approach to catalyst design. **K. Grubel**, A.M. Appel, J.C. Linehan

INOR 864. Ester hydrogenation catalyzed by CNN-pincer and CC-bidentate complexes of ruthenium. **L.N. Le**, J. Liu, T. He, A.R. Chianese

INOR 865. A mechanistic DFT study of selective aldehyde hydrogenation by an octahedral PONOP iron catalyst. **B.S. Omar**, F. Hasanayn

INOR 866. Incorporation of NADH-like hydride relays into metal-phosphine catalysts for CO_2 hydrogenation. **C. Zall**

INOR 867. Base-free transfer hydrogenation of alkenones with organometallic complexes bearing a triazene ligand functionalized with pyrazole. **L. Medrano Castillo**, M. Parra-Hake, V. Miranda-Soto, M. Collazo-Flores, D.B. Grotjahn, D. Chávez, A.L. Rheingold

INOR 868. Operando infrared spectroscopic studies of iron-catalyzed hydromagnesiation of vinyl arenes. **J.A. Rogers**, B.V. Popp

Section K

Ernest N. Morial Convention Center
Hall D

Organometallic Chemistry: New Ligand Platforms

N.S. Radu, Organizer

5:30–7:30

INOR 869. Investigations into small molecule activation with a severely sterically crowded trigonal bipyramidal metal complex featuring a multidentate tris(phosphaalkene)phosphine ligand. **P. Miura-Akagi**, M.L. Nakashige, M. Cain, A.L. Rheingold

INOR 870. Derivatized mixed-ring heterocyclic and antenna carotene ligands. V. Komreddy, **D. Rillema**, H. Nguyen, A.J. Cruz, C. Moore, N.K. Senaratne, L. Kadel, D.M. Eichhorn

†Cooperative Cosponsorship

INOR 871. Acid-modulation of scorpionate ligands for modern organometallic chemistry. **P. Shivokevich**, A. Heyer, W. Harman

INOR 872. Synthesis and coordination chemistry of a new PNP pincer featuring phosphalkene and pyrrolide type-donors. **M.M. Riek**, M. Cain, A.L. Rheingold

INOR 873. Efficient synthesis of imidoylamidines. **C.R. Guifarro**, E.V. Rybak-Akimova

INOR 874. Synthesis and coordination of a new tris N-heterocyclic carbene. **M. Montgomery**, **S. Allison**, **A. Duenas**, N. Harris, D. Tapu

INOR 875. Development of new bis N-heterocyclic carbene: Synthesis and coordination chemistry. **A. Mason**, **M.A. Baker**, A. Carter, **D. Tapu**

INOR 876. New cerberus-type N-heterocyclic carbenes: Synthesis and coordination. **R. Hooper**, **J. Malone**, D. Tapu

INOR 877. Toward the synthesis and characterization of a new NHC-palladium complex. **N. Harris**, G. Crimmins, G. Bettler, A. Changas, D. Tapu

INOR 878. Synthesis and reactivity of pincer ligands containing mixed phosphine/stibine donors. **A.J. Kosanovich**, A.M. Jordan, O. Ozerov

INOR 879. Synthesis and reactivity of polydentate 1,3,5-triazine based ligands. **S. Gunther**, O. Ozerov

Section L
Ernest N. Morial Convention Center
Hall D

Organometallic Chemistry:
Synthesis & Characterization-Early
Transition Metals

N.S. Radu, *Organizer*

5:30-7:30

INOR 880. Synthesis of Ti imidos with varying covalent donor ligands and their application in Ti redox catalysis. **T.A. Wheeler**, I. Tonks

INOR 881. Reduction of titanium imidazolin-2-iminato complexes for the activation and cleavage of N₂. **M.A. Baeza**, R. Aguilar, A. Metta-Magana, S. Fortier

INOR 882. Low-valent early transition metal CCC-NHC pincer complexes. **V. Adiraju**, C.E. Webster, T.K. Hollis

INOR 883. Reactivity study of a masked "Ti(III)" complex. **A. Jordan**, R. Aguilar, S. Fortier

INOR 884. Withdrawn

Section M
Ernest N. Morial Convention Center
Hall D

Organometallic Chemistry:
Synthesis & Characterization-Late
Transition Metals

N.S. Radu, *Organizer*

5:30-7:30

INOR 885. Synthetic methodologies

for organometallic polyacenes. **J.T. Bergeron**, D. Daigle, U. Pokharel

INOR 886. Formic acid dehydrogenation: Ruthenium does it better. **N. Anderson**, A.M. Tondreau, J.M. Boncella

INOR 887. Structure determination of PBP silver complexes. **Y. Cao**, W. Shih, N. Bhuvanesh, O. Ozerov

INOR 888. Cyclopentadienyl pyridazines and oxazines and their applications in energy and advanced electronics. **N.C. Tice**, S. Wild, E. Collins, C. Snyder, D.L. Smith

INOR 889. Chameleonic nature of platinum(II) imidazopyridine complexes. **P. Pinter**, R. Pittkowsky, J. Soellner, T. Strassner

INOR 890. Synthesis & reactivity of novel silyl/silylene pincer cobalt complexes. **J. Zhang**, B.J. Foley, N. Bhuvanesh, M.T. Whited, O.V. Ozerov

INOR 891. Synthesis, characterization and reactivity of pincer-type bis(phosphine)/silylene [P₂Si]Ru complexes. **S. Ma**, J. Zhang, M.T. Whited, D.E. Janzen

INOR 892. Evidence for reversible cyclometalation in alkane dehydrogenation and C-O bond cleavage at iridium bis(phosphine) complexes. **S.M. Chapp**, N.D. Schley

INOR 893. Reactive intermediates in silver-catalyzed nitrene transfer. **C. Mak**, M.G. Campbell

INOR 894. Solution and solid state structures of zerovalent palladium and platinum phosphinoferrocene complexes. **E.A. Kober**, S.H. Schreiner

Section N
Ernest N. Morial Convention Center
Hall D

Bioinorganic Chemistry: DNA, RNA
& Inorganic Drugs

S.A. Koch, *Organizer*
5:30-7:30

INOR 895. Mechanistic study of the reaction between KP1019 and serotonin. **L.K. Stultz**, M. Dunbar, V. Krishnan, P. Hanson

INOR 896. Development of novel rhodium-based liver X receptor agonists. **H. Nguyen**, M. Umetani, L. Do

INOR 897. Cytotoxic aldehyde detoxification by organoiridium complexes in cells and zebrafish. **A.H. Ngo**

INOR 898. Design and synthesis of a carboxylate-containing ligand that increases the T1-weighted relaxivity response of a manganese complex to hydrogen peroxide. **T. Hutchinson**, C. Goldsmith

INOR 899. Determining the mechanism by which chromium and bitter melon activates insulin signaling. **P. White**, E. Krol, L.C. Scott, C. Nichols, Z. Krejpcio, J.B. Vincent

INOR 900. Interactions between chromium(III) and DNA. **S. Brown**, J.B. Vincent

INOR 901. Mechanistic insights into intracellular transfer hydrogenation by unprotected organoiridium catalysts. **S. Bose**, L. Do

INOR 902. Synthesis and evaluation of ruthenium complexes with cytotoxicity against cancer cells. **A. Shrestha**, J. Gray, F. Qu, J. Park, Y. Kim, E.T. Papish

INOR 903. Synthesis and cytotoxic properties of organorhenium indomethacinato complexes. **T.V. Hinton**, Y. Zhang, S. Pramanik, S. Mandal

INOR 904. Synthesis, characterization and in vitro antitumor activity of nickel (II) and platinum (II) complexes with some thiophene thiosemicarbazones. **M.A. Al-Yafeai**, H. Nimir

INOR 905. Synthesis, characterization & in vitro biological activity of Pt(II) and Pd(II) thiosemicarbazone. **Y. Eltayeb**

INOR 906. Effects of small molecule modulators binding to Cu and remodeling the pathway of Cu-catalyzed oxidative stress and aggregation in amyloid $\beta_{(1-42)}$. **S. Mitra**, S. Chakraborty

INOR 907. Development of iron binding assays to explore structure activity relationships of 3-AP analogs. **S. Plamthottam**, J. Valenzuela, D. Sun, J. Van Valkenburgh, D. Steele, S. Poddar, C.G. Radu, J.I. Zink

INOR 908. NORM's and effects of exogenous agents: Copper promoted NO release from sugar appended thiol DNIC's. **C. Pectol**, C. Delaney, R.B. Chupik, M.Y. Darenbourg

INOR 909. Organorhenium ibuprofenato, picolinato and nicotinato complexes as anticancer agents. **S. Parnell**, M. Stevenson, Y. Zhang, S. Pramanik, S. Mandal

INOR 910. Photocytotoxicity assessment of a ruthenium(II) polypyridyl complex bearing 2,9-diphenyl-1,10-phenanthroline ligand. N. Mansour, S. Mehanna, M. El Sibai, R.S. Khnayzer, **C. Daher**

Section O
Ernest N. Morial Convention Center
Hall D

Bioinorganic Chemistry: Proteins & Enzymes & Model Systems

S.A. Koch, *Organizer*
5:30-7:30

INOR 911. Characterization of electron transfer pathways and domain binding pockets in 3-ketosteroid-9 β -hydroxylase. **S.R. Soltan**, A. Luiz, P. Patel

INOR 912. Artificial bio-mineralization targeting lanthanide elements. **T. Hatanaka**, A. Matsugami, F. Hayashi, N. Ishida

INOR 913. Formation of myoglobin-nitroso adducts from amine- and nitro-containing drugs. **S. Powell**, B. Wang, X. Yang, V. Herrera, G.B. Richter-Addo

INOR 914. Studies to understand Ti(IV) speciation and transport in the human body. **J.A. Benjamin-Rivera**, A.D. Tinoco, Y. Delgado, M. Pandrala, A. Vazquez, A. Vazquez

INOR 915. Rate of dissociation of chromium(III) from transferrin under

endosomal conditions monitored by EPR. **K.C. Edwards**, M. Lockart, H.H. Kim, M.K. Bowman, J.B. Vincent

INOR 916. Mechanism of oxygen reduction in copper amine oxidases. **S.A. Mills**, K.E. Gazica, M.M. Saugstad

INOR 917. Towards new titanium and vanadium enzymes. O. Peduzzi, A. Paredes, J. Pellegrino, A.J. Reig, **K.M. Buettner**

INOR 918. Electronic effects of a bridging Fe^{II}-Cyanide on [Fe(NO)₂]^{9/10} scaffolds for possible linkage isomerization. **M. Quiroz**, P. Ghosh, M.Y. Darenbourg

INOR 919. Synthesis, structure and reactivity of thiolate-bridged [Fe(NO)₂]⁹ dimers with a pendant thiol. **D. Sil**, A. Baxter, M.Y. Darenbourg

INOR 920. Better resolution of Co hyperfine at low frequency: CoEDTA, a model for obtaining Co hyperfine in high spin complexes of biological interest like the transmembrane metal binding site for CzcP. **W.E. Antholine**, M. Ross, B.M. Hoffman, A.C. Rosenzweig

INOR 921. Withdrawn.

INOR 922. Switchable stereoselectivity in monooxygenation of non-native substrates by P450BM3 using decoy molecules. **K. Suzuki**, O. Shoji, J.K. Stanfield, H. Sugimoto, Y. Shiro, Y. Watanabe

INOR 923. Reconstitution of self-sufficient cytochrome P450 with artificial metal complexes. **K. Omura**, Y. Aiba, S. Ariyasu, O. Shoji, H. Sugimoto, Y. Shiro, Y. Watanabe

INOR 924. Simple Zn-scorpionate complex to test the binding of antimicrobial drugs to Zn containing enzymes. **J. Dewar**, A. Thakur, L. Peterson, W. Eckenhoff

INOR 925. Exploring structural and redox properties of biomimetic models of metal- β binding site in Alzheimer's disease using DFT. **S. Niu**, S.D. Zaric, E.N. Brothers, M.B. Hall

INOR 926. "Beating" Alzheimer's: Inhibition of Cu²⁺- β -amyloid mediated oxidation and peroxidation by betanin from sugar beets. **D.C. Cerrato**, L. Ming

INOR 927. Assembling oxygen-evolving complex (OEC) of photosystem II: Design and synthesis of ligands. **J. Prakash**

INOR 928. Synthesis of functional catalysts for CO conversion based on Mo-cofoster CO dehydrogenase. **M. Foster**, E. Gladhill, L. Nyarko, D. Rokhsana

INOR 929. Models of the molybdenum cofactor: Synthesis and reactivity. **H.H. Varnum**, **V.R. Berke**, D.R. Gisewhite, S.J. Nietner Burgmayer

INOR 930. Short Metallo-peptides and peptides: A look into the oxidative reactivity. **S. Islam**, C. Tang, D.C. Cerrato, J. Cai, L. Ming

INOR 931. Withdrawn

INOR 932. Structural and reactivity investigation of oxomanganese(IV) and bis(μ -oxo)dimanganese(III,IV) complexes.

[†]Cooperative Cosponsorship

Y. Lee, A.A. Massie, T.A. Jackson

INOR 933. Designed metalloproteins for efficient CO₂ reduction via low valent Fe (I/O) state in aqueous medium. **D. Selvan**, S. Chakraborty

INOR 934. Synthesis and reactivity studies of ene-dithiolate modeling molybdenum cofactor. **N. Nguyen**, D. Gisewhite, S.J. Nietzer Burgmayer

INOR 935. Developing TALE proteins as a sensor for detecting pathogens. **K. Gaiko**, M. Kim

Section P

Ernest N. Morial Convention Center Hall D

Coordination Chemistry: Characterization & Applications

A. Larsen, Organizer
5:30–7:30

INOR 936. Fluorometric and colorimetric sensing of citrate with a macrocycle-based dinuclear foldamer in water. M. Rhaman, M.H. Hasan, R. Tandon, **A. Hossain**

INOR 937. Discovery of the novel colorimetric chemosensor for multiple target metal ions Fe²⁺, Co²⁺, and Cu²⁺ in a near-perfect aqueous solution: experimental and theoretical studies. **H. Cho**, **M. Yang**, S. Hwang, S. Kim, C. Kim

INOR 938. Development of highly selective turn-on chemosensor for Zn²⁺ in aqueous media and living cells. **D. Yun**, **J. Chae**, J. Jung, J. Kang, C. Rha, C. Kim

INOR 939. Electrochemical investigation of [Ru(saloph)(NO)(Cl)]-type complexes (saloph = N,N'-bis-(salicylidene)-o-phenyldiamine, and derivatives). **A. Ramuglia**, A. Fadamin, M.J. Shaw

INOR 940. Ni complexes with redox-active tetradentate ligands: Structures, electrochemistry, and reactivity studies with CO₂. **K.D. Spielvogel**, **J.A. Luna**, **A. Benson**, S.K. Shaw, S.R. Daly

INOR 941. Investigated and calculated solvatochromic characteristics of MoCl₄(diimine) anions. **A. Chang**, W.T. Eckenhoff

INOR 942. Metallodithiolate ligands for reversing metal ion induced aggregation of beta amyloid. **E.K. Adams**, M.R. Mackiewicz

INOR 943. Probing valence tautomerism in a cobalt verdazyl coordination compound. C. Kung, S. Fu, D. Chung, **D.J. Brook**

INOR 944. Novel porphyrins bearing phenothiazine pincers to encapsulate fullerenes: Synthesis and complexation study. **K. Jain**, N. Duvva, T. Roy, L. Giribabu, R. Chitta

Section Q

Ernest N. Morial Convention Center Hall D

Coordination Chemistry: Synthesis & Characterization

A. Larsen, Organizer
5:30–7:30

INOR 945. Synthesis of N-heterocyclic chalcogenone silver complexes. **F. Voges-Haupt**, A. Allen, D. Rabinovich

INOR 946. Synthesis and characterization of model copper(I) and gold(I) thiolate nanoparticle precursor complexes. **C. Tran**, R.J. Papoular, L.E. Marbella, J. Millstone, M. Gembicky, B. Chen, A.T. Royappa

INOR 947. Nitrile reactions of 1,1-bis(diphenylphosphino)ethene dirhenium compounds. **G. Crispin**, **D.J. Esjornson**

INOR 948. Coordination chemistry of N,N' azodioxides. **L. Balaraman**

INOR 949. A C₃ symmetric sulfate complex with an *m*-nitrophenyl-functionalized hexaurea receptor. B. Portis, M. Emami Khansari, C. Johnson, D.R. Powell, **A. Hossain**

INOR 950. Exploring new synthetic strategies by using novel manganese carboxylate complexes along with a well-explored ligand, 2-(Hydroxymethyl)-pyridine in the area of polynuclear coordination chemistry. **M.A. Reagan**, A. Saha

INOR 951. Extraordinarily large ferromagnetic coupling ($J \geq 150 \text{ cm}^{-1}$) via electron delocalization in a heterometallic Mo–Mo–Ni chain complex. **J.A. Chipman**, J.F. Berry

INOR 952. Multicomponent supramolecules in coordination-driven self-assembly: Preparation and photophysical studies. **H. Sepehrpour**, P.J. Stang

INOR 953. Structural and electronic properties of 1,3,6-trisubstituted fulvene chromium complexes. **A. Peloquin**, M. Smith, B. O'Connell, S.K. Adas, G.J. Balaich, S.T. Iacono

INOR 954. Novel colorimetric ligand for the detection of silver (I). **L. Patton**, E. Bosch

INOR 955. Spectroscopic and electronic properties of dissymmetric *trans* Co^{III}-cyclam acetylides and their precursors. **S.D. Banziger**, T. Ren

INOR 956. Synthesis of heteroleptic transition-metal complexes containing azodioxide ligands. **K.A. Emhoff**

INOR 957. Synthesis and coordination chemistry of new Schiff base ligands with hydrogen-bonding groups. **A. Penn**, C. Hamaker

INOR 958. Synthesis and characterization of vanadium(IV), vanadium(V) and iron(III) complexes of perfluoropinacol ligands. **S.L. Carter**, J.K. Elinburg, J. Nelson, L.H. Doerrer

INOR 959. Structural characterization of a heterobimetallic Zn/La Schiff base complex. **J. Farnsworth**, M. Zeller, E.R. Trivedi

INOR 960. Variation of water cluster motifs in structurally similar Ni(II) complexes: Synthesis, characterization, and thermal analyses. **N. Saraei**, C.S. Mullins, M. Mashuta, R. Buchanan, C. Grapperhaus

INOR 961. Synthesis and characterization of a series of vanadium(IV) complexes with the Kläui ligand. **X. Wu**, C.C. McLaughlan

INOR 962. Molecular characterization of cationic lanthanide complexes containing phosphine oxide. **P.K. Yuen**, C.D. Lau, E.M. Yen, A.K. Yuen, W. Chan, H. Chan

INOR 963. Multidentate aminophenols prepared from Mannich condensations. **J.R. Farrell**, M. Bender, J. Kirpas, J. Niconchuk, N. Maniatis, M. Wallace, C.J. Ziegler

INOR 964. Thiol and phenol pendant-arms for cross-bridged tetraazamacrocyclic complexes. **P.T. Nguyen**, **D. Jones**, C.C. Jacobsen, T.J. Hubin

INOR 965. Heteroatom-containing bridged azamacrocycles and C-linked bis-azamacrocycles and their coordination complexes. **D. Tresp**, T.K. Ellis, T.J. Hubin

INOR 966. 1,4,7,10,13-pentaazacyclopentadane: Streamlined synthesis and novel transition metal complexes. **F.A. Okorochoa**, **A. Shrestha**, A.G. Oliver, J.A. Krause, T.J. Hubin

INOR 967. Ethylene cross-bridged pentaazamacrocycles and their transition metal complexes. **E. Allbritton**, **T.L. Fletcher**, J.A. Krause, A.G. Oliver, T.J. Hubin

INOR 968. Bis-cyclometalated iridium complexes with chelating dicarbene ancillary ligands. **H. Na**, A. Maity, T.S. Teets

INOR 969. Theoretical investigations on radical bridged supramolecular metallacycles toward exploring single molecular magnets. **V. Kuduva Radhakrishnan**, D.I. Alexandropoulos, B.S. Dolinar, K.R. Dunbar

INOR 970. Halogenated formamidate bridged dirhodium (II,II) complexes as photodynamic therapy based anti-cancer agents. **E. Song**, K.R. Dunbar

INOR 971. Synthesis, spectroscopic characterization and crystal structures of three new zinc(II) complexes of *cis*-1,2-diaminocyclohexane. **M. Monim-Ul-Mehboob**

INOR 972. Highly efficient yellow and red bis-cyclometalated iridium phosphors via ancillary ligand modification. **P. Lai**, T.S. Teets

INOR 973. New bis(amidine) ligands and digold bis(amidine) metalloligands for highly luminescent Group 11 cluster complexes. **O. Ugarte Trejo**, A. Calderón Díaz, N. Siwabut, N. Maya, N. Bhuvanesh, **M. Stollenz**

INOR 974. Role of green chemistry in the synthesis and characterization of several new copper-phenanthroline complexes. **M. Wilk**, R. Johnson, S. Scott, D. Vargas Trujillo, V. Nesterov, M. Omary

INOR 975. Reaction dynamics of the TeMo₂O₂₄⁶⁻ ion in water. **G.M. Kuhl**, E.M. Villa

INOR 976. Light assisted-oxygen atom transfer from group VI transition metals complexes. **S. Fosshat**, M.B. Chambers

INOR 977. Late transition metal complexes of selenonaltol. **M. Spiegel**, A. Hoogerbrugge, S. Truksa, A. Smith, K.L.

Shuford, K. Klausmeyer, P.J. Farmer

INOR 978. Facile metal exchange reactions of ammonium and potassium magnesium dodecaborates. **D.M. Schubert**, M.B. Jacobs

INOR 979. Mononuclear and binuclear Ni complexes with pyridyltriazole ligands. **S. Gao**, T.M. Wheat, J. Theriot, F.R. Fronczek, A.W. Maverick

INOR 980. Investigating multi-electron structure and reactivity with trinuclear μ -3-nitride complexes. **A. Su**, J. Teesdale, T. Betley

INOR 981. Novel polymetallonucleosides. **C.M. Mikulski**

INOR 982. Synthesis and characterization of new copper-quinoxaline complexes via solventless and solvent synthetic routes. **K.A. Reyes**, G. Martinez, Y. Faheem, A. Henderson, V. Nesterov, M. Omary

INOR 983. Synthesis and structural characterization of mercury(II) coordination polymers based on 1,2,4,5-tetra(isopropylthio)benzene ligand. **T. Selby-Karney**, S. Kakumanu, J.T. Mague, P. Chandrasekaran

INOR 984. Synthesis, photophysical properties, and DFT studies of Cu(1,7-phen)(PPH₃)₂PF₆: An unusual three-coordinate Cu(I) compound and the concept of "inhibited" ligands. **A. Miller**, D.J. Casadonte, A.F. Cozzolino

INOR 985. Metal cluster structure types and electron counts: A survey of the Cambridge Structural Database. **D.H. Johnston**

INOR 986. Comparative studies of Co/Rh/Ni dibenzotetramethylaza[14]annulene (TMTAA) complexes with porphyrin analogs. **S. Dey**, B.B. Wayland, M. Zdzilla

INOR 987. Novel aqua and chloro Ru(II) complexes with the tripodal NNN-ligand dipyrido(2,3-*a*:3',2'-*j*)phenazine (dpop') and bidentate NN ligands 2,3-di(2-pyridyl)pyrazine(dpp) and 3,6-di(2-pyridyl)tetrazine(dpt) were prepared and characterized. **R.R. Ruminski**, K. Engstrom, S. Hoover, M. Roe

INOR 988. Molybdenum (VI) amidate complexes: Synthesis and reactivity. **J.M. Smith**, R.K. Thomson

INOR 989. Effects of metal identity on coordination environments and electronic properties in a series of homo- and heterobimetallic complexes of iron and cobalt. **K.M. Gramigna**, R. Mathialagan, S. Kuppuswamy, C.M. Thomas

INOR 990. Designing multicobalt clusters in pursuit of dinitrogen reduction. **M. Eaton**, B.J. Knight, L.J. Murray

INOR 991. Synthesis of chiral amines via early transition metal mediated asymmetric reductive hydrogenation of prochiral imines. B. Zhang, R. Josef, J. Bukacek Frazier, L. Kugelmass, A. Atsango, Y. Kim, **J. Tanski**

INOR 992. Metal-Metal bonded complexes supported by artificial sweeteners: Synthesis and characterization of tetra saccharinate and acesulfamate

[†]Cooperative Cosponsorship

complexes of dirhodium(II,II). **S.C. Haefner**

INOR 993. Synthesis and characterization of novel dinitrosyl iron complexes with chelating ligands. **J.M. Grant**, M.W. Jones

INOR 994. Microwave assisted synthesis and characterization of Cr(III) pyrazolate-formate mixed ligand complexes. **J.M. Lopez**, R.G. Raptis

INOR 995. Synthesis and characterization of a novel non-innocent NNP-type pincer ligand and its first-row transition metal complexes. **K. Talukdar**, A. Issa, J.W. Jurss

INOR 996. Computation investigation of carbonyl and ammine gases for the production of solid urea Via 5d metal complex. **A. Taylor**, B. Prince

INOR 997. The use of bovine milk for the generation of LacDiNAC (LDN) bearing N-glycans for the chemenzymatic synthesis of Schistosoma-type antigenic N-glycans. **K.K. Robinson**

Section R

Ernest N. Morial Convention Center Hall D

Lanthanide & Actinide Chemistry

A. De Bettencourt Dias, Organizer
5:30-7:30

INOR 998. EPR of lanthanide complexes: exploring the consequences of ligand induced anisotropy. **K. Fisher**, G. Moise, A. Bowen, C. Timmel, S. Faulkner, A. Kenwright

INOR 999. New family of d/f-heterobimetallic cationic materials with anion exchange capabilities. **T. Poe**, **M. Polinski**

INOR 1000. Variable coordination motifs of (silyl)anilide ligands on uranium. **A.M. Tondreau**, J.M. Boncella

INOR 1001. Separation of americium from europium using soft donor ligands in ionic liquids. **J. Dehaut**, N.J. Williams, H. Luo, S. Dai

INOR 1002. Anionic lanthanide complexes containing tetradentate halogen-substituted Schiff base ligands. **P.K. Yuen**, C.D. Lau, E.M. Yen, A.K. Yuen, W. Chan, H. Chan

INOR 1003. X-ray diffraction of 1D polymeric lanthanide-transition metal compounds. **P.K. Yuen**, C.D. Lau, E.M. Yen, A.K. Yuen, W. Chan, H. Chan

INOR 1004. Novel ionic f-f bimetallic complexes containing salen. **P.K. Yuen**, C.D. Lau, E.M. Yen, A.K. Yuen, W. Chan, H. Chan

INOR 1005. Recent advances in lanthanide chemistry. **R. Beattie**, J.K. Pagano, K. Erickson, S.K. Cope, B. Scott, D.E. Morris, J.L. Kiplinger

INOR 1006. Synthesis, characterization, and photophysical properties of two new organic ligands for the sensitization of lanthanide ions. **D. Tapia**, J.H. Monteiro, A. De Bettencourt Dias

INOR 1007. Development of Gd(III)-based magnetic resonance agents for molecular imaging of hydrogen

peroxide and hypoxic tumor conditions. **C. Lynch**, J.O. Massing, E.A. Bajema, K. MacRenaris, T.J. Meade

INOR 1008. Syntheses and crystal structures of lanthanide dithiooxamide complexes. **B.M. Amanda**, E.M. Villa

INOR 1009. Syntheses and crystal structures of lanthanide periodate compounds. **R.N. Colin**, E.M. Villa

INOR 1010. Homoleptic uranium and lanthanide phosphinodboranate complexes. **T.V. Fetrow**, A.V. Blake, Z. Theiler, S.R. Daly

INOR 1011. CMPO groups and their derivatives to separate rare earth elements. **H.A. Pearson**, **B.G. Wackerle**, **M.L. Hudson**, S.M. Biros

INOR 1012. Solution and solid state structural chemistry of Th(IV) and U(IV)-mono-carboxylates. **N.A. Vanagas**, K.E. Knope

INOR 1013. Identifying actinyl intermolecular interactions of the U(VI)O₂²⁺ cation in coordination compounds. **M. Pyrch**, T. Forbes

INOR 1014. Coordination chemistry and redox-activity of uranium complexes of tetradentate BIAN-type ligands. **J. Niklas**, B.H. Farnum, J.D. Gorden, A.E. Gorden

INOR 1015. Synthesis, structural characterization, and magnetic properties of hexanuclear lanthanide(III) complexes of an extended tritopic picolinic dihydrazide ligand with terminal oxime groups. **S.S. Tandon**, S.D. Bunge, V. Hogan, M. Murugesu

Radiopharmaceutical Chemistry
Sponsored by FLUO, Cosponsored by INOR[‡], MED[‡] and NUCL[‡]

WEDNESDAY MORNING

Section A

Ernest N. Morial Convention Center Room 345

Bioinorganic Chemistry: Proteins & Enzymes & Model Systems

S.A. Koch, Organizer
S.A. Toledo, Presiding

8:30 INOR 1016. Selective light-driven chemoenzymatic oxytrifluoromethylation. **L.E. Cheruzel**

8:50 INOR 1017. Incorporation of phosphoryl amide moieties to support high valent metal oxido/hydroxido complexes. **V. Oswald**, A. Weitz, E. Hill, N. Sickerman, M.P. Hendrich, A. Borovik

9:10 INOR 1018. Biomimetic reactivity of a family of structural analogues of the resting state of the enzyme nickel-acireductone dioxygenase (Ni-ARD). **S.A. Toledo**, A. Gremillion, J. Jaimes, A.D. Ivan, D. Saldana, A. Sanchez, V. Lynch

9:30 INOR 1019. Design of artificial metalloproteins using Biotin-Streptavidin Technology. **K.R. Miller**, A. Borovik

9:50 INOR 1020. Immobilization of synthetic Cu complexes within a protein host. **D. Brazzolotto**, A. Borovik

10:10 Intermission.

10:20 INOR 1021. Hydroxylation of gaseous alkanes and benzene catalyzed by cytochrome P450BM3 using decoy molecules as a substrate analogue. **O. Shoji**, Y. Watanabe

10:40 INOR 1022. Cellular mapping of carbonic anhydrase and zinc: Towards understanding the bound and labile zinc pool. **R. Mehta**, E.L. Que

11:00 INOR 1023. Modulating intramolecular hydrogen bonding networks in metal complexes to mimic enzyme active sites. **J. Lee**, A. Borovik

11:20 INOR 1024. Three-coordinate iron in an unusual planar iron-sulfur cluster. **D.E. DeRossa**, E. Bill, S. DeBeer, P.L. Holland

11:40 INOR 1025. Withdrawn.

12:00 INOR 1026. Advances in modeling the photosynthetic oxygen evolving complex with geometrically flexible manganese clusters. **M. Zdilla**, S. Vaddypally, S.K. Kondaveeti, I.G. McKendry, D.J. Jovinelli, M.R. Gau, A. Polyak, C. Koellner

Section B

Ernest N. Morial Convention Center Room 344

Metal-Organic Frameworks: What Are Next?

W. Lin, H. Zhou, Organizers
S. Ma, Organizer, Presiding
P. McGrier, Presiding

8:30 INOR 1027. Porous materials from new framework-forming chemistries. **M.J. Rosseinsky**

9:15 INOR 1028. Expanding the MOF toolkit: Phosphines, arsines and chalcogenides. **S.M. Humphrey**, S. Dunning, R.E. Sikma, R. Riparetti, J. Reynolds, I. Malaestean, J. He

9:45 INOR 1029. Extraction of rare earth elements from geothermal brine solution using magnetic core shell nanoparticles. **P.K. Thallapally**, P. McGrail, J. Liu

10:15 INOR 1030. General and direct method for preparing oligonucleotide-functionalized metal-organic framework nanoparticles. **S. Wang**, C.A. Mirkin

10:35 Intermission.

10:50 INOR 1031. Design and functions of sp² carbon covalent organic frameworks. **D. Jiang**

11:20 INOR 1032. Benzobisoxazole-linked covalent organic frameworks. **P. McGrier**

11:50 INOR 1033. Homochiral porous framework as a platform for durability enhancement of molecular catalysts. **F. Xiao**, Q. Sun

12:10 Concluding Remarks.

Section C

Ernest N. Morial Convention Center Room 343

F. Albert Cotton Award in Synthetic Inorganic Chemistry: Symposium in honor of Andrew S. Borovik

D.C. Lacy, C.G. Riordan, J.Y. Yang, Organizers
A. Borovik, Presiding

8:30 INOR 1034. Chiral recognition of amino alcohols using binuclear Ni(II) complex anion as host. **M. Ray**

8:55 INOR 1035. Cobalt-mediated reactions for sustainable C-H activation processes. **C.E. MacBeth**

9:20 INOR 1036. Coordination polymers and molecular assemblies decorated with hydrogen bonds. **R. Gupta**

9:45 INOR 1037. Developing Single-site organometallic complexes for photochemical water splitting. **D.C. Lacy**

10:10 Intermission.

10:25 INOR 1038. Materials for display applications. **N.S. Radu**, G. Rossi, C.K. Ngai, A. Fennimore

10:50 INOR 1039. Experiments in support of safeguards for aqueous spent nuclear fuel reprocessing. **J.F. Krebs**, C. Pereira

11:15 INOR 1040. Mechanistically driven catalyst design for oxidative coupling reactions. **D. Pappo**

11:40 INOR 1041. Shuttling protons and electrons via the secondary coordination sphere for anion reduction. **J.D. Gilbertson**

Section D

Ernest N. Morial Convention Center Room 352

Molecular Confinement Effects in Inorganic & Organic Containers

M. Fujita, B.C. Gibb, J.L. Sessler, Organizers
M. Hardie, W. Jiang, Presiding

8:00 INOR 1042. The inner space environment in coordination chemistry supramolecular clusters. **K.N. Raymond**, C.M. Hong, M. Morimoto

8:30 INOR 1043. Reversible photoswitching in the confinement of coordination cages. **R. Klajn**, D. Samanta

9:00 INOR 1044. Metallo-cages from cyclotrimeratrylene-type ligands – chiral self-sorting and speciation control, luminescence and photoswitching behavior. **M. Hardie**, J. Henkelis, V. Pritchard, S. Oldknow, F. Colin, D. Rota Martir, E. Zysman-Colman

9:30 INOR 1045. Guest packing and reactivity within containers assembled via the hydrophobic effect. **B.C. Gibb**

10:00 Intermission.

10:15 INOR 1046. Molecular discrimination and quantitative detection by luminescent lanthanide-based microporous sensors. **S.M. Humphrey**, S.G. Dunning, A.J. Nunez, R.E. Sikma, M. Moore, A. Steiner, J.L. Sessler

10:45 INOR 1047. Characterization of double and triple decker naphthylsalophen complexes with f-elements: tunable emission from stacking and extended interactions. **A.E. Gorden**

11:15 INOR 1048. Molecular face-

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rotating polyhedra. **X. Cao**

11:45 INOR 1049. Let's get them talking: Systems of container molecules that work together. **J. Nitschke**

12:15 Concluding Remarks.

Section E

Ernest N. Morial Convention Center Room 353

Inorganic Chemistry of Lead Halide Perovskites: Insights from Fundamentals

B.C. Melot, J. Vela, *Organizers*
R.L. Brutchey, *Organizer, Presiding*

8:30 INOR 1050. Synthesis and spectroscopy of nanocrystals of compositionally complex haloperovskite semiconductors. S.E. Creutz, M.C. De Siena, E.N. Crites, T.J. Milstein, X. Yuan, J. Zhao, **D.R. Gamelin**

9:10 INOR 1051. Highly dynamic ligand binding and light absorption coefficient of cesium lead bromide perovskite nanocrystals. **J. De Roo**, M. Ibáñez, P. Geiregat, G. Nedelcu, W. Walravens, J. Maes, J.C. Martins, I. Van Driessche, M. Kovalenko, Z. Hens

9:30 INOR 1052. Quantum dot perovskite solar cells: Realizing the best of both worlds for revolutionary optoelectronic applications. **J. Luther**

10:10 Intermission.

10:40 INOR 1053. Colloidal nanocrystals of APbX₃ [A=Cs⁺, CH₃NH₃⁺, CH(NH₂)₂⁺, X=Cl⁻, Br⁻, I⁻] perovskites with bright photoluminescence spanning the entire visible spectral range. **M. Kovalenko**

11:20 INOR 1054. Computational chemistry to design colloidally stable and trap-free perovskite nanocrystals. S. Boehme, **I. Infante**

11:40 INOR 1055. Single particle luminescence and Raman spectroscopy analyses of lead halide perovskite nanocrystals. **E.A. Smith**, B. Boote, L. Men, D. Freppon, H. Andaraarachchi, J.W. Petrich, J. Vela

Section F

Ernest N. Morial Convention Center Room 354

Chemistry of Materials: Materials for Energy & Catalytic Applications

C.G. Lugmair, *Organizer*
I. McKendry, C.G. Read, *Presiding*

8:30 INOR 1056. Understanding the role of graphene as an overlayer on nanostructured hematite photoanodes for improved solar water oxidation. **M.P. Cardona**, C. Yang

8:50 INOR 1057. Doping-treated BiVO₄ for photocatalytic H₂ fuel production from water. **W. Jo**, K. Gleason, J. Lee

9:10 INOR 1058. High throughput, multi-pH evaluation of earth-abundant pseudo-quaternary metal oxide catalysts for the oxygen evolution reaction. **J. Haber**, D. Guevarra, R. Jones, K. Kan, J. Gregoire

9:30 INOR 1059. Understanding of metal (Ni, Co, Fe) (oxy)hydroxides on graphene as efficient electrocatalysts

for water oxidation. **J. He**, R. Miao, W. Zhong, S.L. Suib

9:50 INOR 1060. Cu₂S conformal layer on cubic Cu₂O photocatalytic nanoparticles to increase stability in water splitting reaction. **N.P. Drago**, S. do Amaral Carminati, R.M. Welch, M. Alves de Melo Junior

10:10 Intermission.

10:25 INOR 1061. Withdrawn.

10:45 INOR 1062. The role of inter- and intralayer dopants in 2D layered manganese complexes for cheap and efficient water oxidation catalysis. **I. McKendry**, L. Mohamad, A. Thenuwara, H. Peng, R. Remsing, D.R. Strongin, M. Zdilla

11:05 INOR 1063. Modifying layered manganese oxides for enhanced water oxidation: Turning a cheap, poor catalyst into a cheap, excellent catalyst. **M. Zdilla**, D.R. Strongin, E. Borguet, M.L. Klein, J.P. Perdew, I.G. McKendry, R. Ding, R. Remsing, H. Peng, R.K. Bhullar, L. Mohamad, A. Thenuwara, S.L. Shumlas, Y. Aulin, Q. Kang

11:25 INOR 1064. Operando Raman interrogation of the synthesis and activation of a CoSe HER catalyst. **K.Z. Rinaldi**, A. Carim, N.S. Lewis

11:45 INOR 1065. β-Zirconium phosphate frameworks as supports for active oxygen evolution reaction electrocatalysts. **M. Ramos-Garcés**, J. Sanchez, T.F. Jaramillo, J.L. Colon

Section G

Ernest N. Morial Convention Center Room 210

PCET PhotoCatalysis with Inorganic Molecules & Materials

Cosponsored by PHYS
J.L. Dempsey, C. Heyer, E. Leon, G.J. Meyer, *Organizers*
B.H. Farnum, *Presiding*

8:00 INOR 1066. Making solar fuels. **T.J. Meyer**, L. Alibabei, D. Wang, B. Shan, B.J. Sherman, M.V. Sheridan, M.K. Brennaman, A. Nayak, M. Eberhart, Y. Wang, R. Sampaio, L. Troian-Gautier, M.K. Gish, G.J. Meyer, J.M. Papanikolas, K. Wee

8:25 INOR 1067. Moving electrons and protons with visible light-absorbing heteroleptic Cu(I) photosensitizers. B.J. McCullough, B.J. Neyhouse, S.E. Roe, **T.A. White**

8:45 INOR 1068. Modulating electron transfer dynamics at dye-semiconductor interfaces via self-assembled bilayers. **K. Hanson**, J.C. Wang, O. Ogunsolu

9:05 INOR 1069. Chromophore-catalyst assemblies for solar fuels. **K.S. Schanze**, G. Leem, J. Jiang, B. Sherman, Y. Eom, T. Pho, L. Nhon, Z. Morseth, J.R. Reynolds, J.M. Papanikolas, T.J. Meyer

9:25 INOR 1070. Pyridyl-NHC ligated Re and W complexes for the photocatalytic reduction of CO₂ to CO and H⁺ to H₂ without photosensitizers. **J.H. Delcamp**, A. Huckaba, H. Shirley, H. Cheema, N. Liyanage, C. Carpenter, R.H. Schmehl, J.W. Jurss, C.E. Webster, N. Hammer

9:45 Intermission.

10:00 INOR 1071. New robust photo- and electrocatalysts for H₂ evolution and CO₂ reduction. **C. Turro**, H.J. Sayre, S. Witt

10:20 INOR 1072. In search for metal-free catalytic motifs for solar fuels. **K. Glusac**

10:40 INOR 1073. Excited state ion-pairs that undergo diffusional excited-state electron transfer. **L. Troian-Gautier**, W. Swords, S.A. Wehlin, M.D. Turlington, E.E. Beauvilliers, G.J. Meyer

11:00 INOR 1074. Light absorption and bond formation from the excited states of metal hydrides. **A.J. Miller**, M.B. Chambers, J.A. Rose, A. Bonn, C.L. Pitman, T. Wong

11:20 INOR 1075. Photocatalytic CO₂ reduction with nickel complexes supported by tunable bipyridyl-N-heterocyclic carbenes. X. Su, H. Shirley, J.H. Delcamp, **J.W. Jurss**

11:40 INOR 1076. Homogeneous hydrogen evolving photocatalysis using charge transfer and ligand localized triplet excited states. K. El Roz, M.M. McGoorty, J.E. Yarnell, M. Yang, C.M. Taliaferro, P.M. De La Torre, **F.N. Castellano**

Section H

Ernest N. Morial Convention Center Room 337

Organometallic Chemistry: New Ligand Platforms

N.S. Radu, *Organizer*
C.H. Larsen, M. Nippe, *Presiding*

8:30 INOR 1077. On-surface synthesis of low coordinate highly reducing metal complexes. **K.G. Caulton**, I.J. Huerfano, A.V. Polezhaev, C. Tempas, T. Morris, D. Wisman, T.S. Rahman, D. Le, S.L. Tait, N. Din

8:50 INOR 1078. Catalyst design for Ti-catalysed [2+2+1] pyrrole formation. **X. See**, I. Tonks

9:10 INOR 1079. Metallocenophane chemistry of the lanthanides: Structure and Magnetism. T. Latendresse, G. Risica, **M. Nippe**

9:30 INOR 1080. Metal-ligand cooperativity with redox-active tetradentate ligands. G. Durgaprasad, J.A. Luna, K.D. Spielvogel, C. Haas, S.K. Shaw, **S.R. Daly**

9:50 INOR 1081. Synthetic strategies to nitrilotriacetamide and tren ligand systems. **D.R. Manke**

10:10 INOR 1082. Impacts of hemilabile moieties in C-H and C-X activation at late transition metals. **E.B. Hulley**, T. Morrow, W. Christman, L. Pap, N. Arulsamy

10:30 INOR 1083. Synthesis of electronically diverse triazole-pyridine ligands: Structure and catalytic activity of corresponding palladium(II) and gold(III) complexes. **C.H. Larsen**, Z.L. Palchak, M.D. Sterling, W.J. Richards, H.M. Ruvalcaba

10:50 INOR 1084. SNAP(O) ligands and their Ru complexes for the practical chemoselective hydrogenation of bio- and oil-derived functionalized esters. **P.A.**

Dub, J.G. Schmidt, R.F. Williams, J.C. Gordon

11:10 INOR 1085. Efficient synthesis of imidoylamidines: Liberation of imidoylamidine ligands from heteroleptic nickel (II) complexes. **C.R. Guifarro**, E.V. Rybak-Akimova

Section I

Ernest N. Morial Convention Center Rooms 340/341

Chemistry of Materials: Metal Organic Frameworks

C.G. Lugmair, *Organizer*
E.D. Bloch, W. Huang, *Presiding*

8:30 INOR 1086. Selective catalytic olefin epoxidation with Mn^{II}-exchanged MOF-5. **A.W. Stubbs**, M. Dinca

8:50 INOR 1087. Withdrawn.

9:10 INOR 1088. Tandem nitrene synthesis using cooperative multifunctional metal-organic framework catalysts. X. Li, B. Zhang, T. Goh, V. Alexander, C. Tsung, L.M. Stanley, **W. Huang**

9:30 INOR 1089. Polyvinylidene fluoride (PVDF)/UiO-66 polymer composite fibers with enhanced catalytic activity towards chemical agents. **D. Dwyer**, D. Cooke, W.E. Bernier, M. Hall, T. Tovar, J. DeCoste, N. Hoffman, N. Dugan, N. Pomeroy, W. Jones

9:50 INOR 1090. MOF catalysis for ethanol to butanol upgrading. **C.N. Neumann**, M. Dinca

10:10 Intermission.

10:25 INOR 1091. Catalytic carbonylation of heterocycles by Co(CO)₄⁻-incorporated Cr-MIL-101. **H.D. Park**, M. Dinca, Y. Roman-Leshkov

10:45 INOR 1092. Ultramicroporous metal-organic materials with benchmarkselectivities of acetylene/ethylene. Y. Chen, **Z. Zhang**

11:05 INOR 1093. Ethylene dimerization in metal-organic frameworks. **E. Metzger**

11:25 INOR 1094. Cis-decalin oxidation as a stereochemical probe of *in*-MOF versus *on*-MOF catalysis. **A.D. Cardenal**, H. Park, D. Powers, C. Chalker

11:45 INOR 1095. Small molecule storage and activation with novel metal-organic materials. **E.D. Bloch**

Section J

Ernest N. Morial Convention Center Room 212

Organometallic Chemistry: Applications to Organic Transformations

N.S. Radu, *Organizer*
C. Hahn, J.T. York, *Presiding*

8:30 INOR 1096. Hydroarylation of alkynes catalyzed by late transition metal complexes. **C. Hahn**, B.J. Garcia, C.J. Adams, J. Medina

8:50 INOR 1097. Study of LiX (X=Cl, I, R) in THF: Aggregation states and reactivity, a theoretical study at the QM and QM/MM levels. **A. Milet**, R. David,

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P. Girard, M. Khazri

9:10 INOR 1098. Studies toward enantioenriched molybdenum dearomatization. **J.T. Myers**, P. Shivokevich, S. Dakermanji, J. Smith, C. Trindle, W. Harman

9:30 INOR 1099. Base metal catalyzed, and regioselective hydroboration of pyridines. **S.R. Tamang**, M. Findlater

9:50 INOR 1100. Terminal Rh^{III} methylenide from formal trinuclear oxidative addition of CH₂Cl₂. **T. Morrow**, E.B. Hulley, N. Arulsamy

10:10 INOR 1101. Tethered axial coordination in dirhodium paddlewheel complexes. **A. Darko**, D. Cressy, W. Sheffield, B. Anderson

10:30 INOR 1102. Investigating the binding and electrophilic activation of ethylene by group 12 metal ions. **J.T. York**

10:50 INOR 1103. Kinetics and mechanism of iron-catalyzed transfer hydrometallation. **B.V. Popp**

11:10 INOR 1104. Catalytic photoredox arene and heteroarene C-C bond-forming reactions driven without sacrificial reagents by tungsten-alkylidyne chromophores. **H.B. Vibbert**, M.D. Hopkins

Section K

Ernest N. Morial Convention Center Room 335

Organometallic Chemistry: Applications to Materials & Polymer Science

N.S. Radu, *Organizer*
T.W. Hudnall, *Presiding*

8:30 INOR 1105. Synthesis of diverse C-H bond activated nonmetallocene lanthanides as a versatile tool for functionalized homo- and blockcopolymers via group-transfer polymerization. **F. Adams**, B. Rieger

8:50 INOR 1106. Substitution effects in highly syndioselective styrene polymerization catalysts based on single-component allyl ansa-lanthanidocenes: A theoretical study. **E. Louyriac**, L. Maron

9:10 INOR 1107. Electrophilic carbenes: Tales of main group chemistry, radicals, and photochemistry. **T.W. Hudnall**, T.A. Perera, R.N. Arias, M.B. Gildner

9:30 INOR 1108. Synthesis, characterization and applications of highly modular polyphosphonates. **T.R. Totsch**, G. Gray

9:50 INOR 1109. New complexes for nickel-catalyzed olefin polymerization. **A. Kocen**, M. Brookhart, O. Daugulis

10:10 INOR 1110. Synthesis of hyperbranched polyethylene with triazolecarboxamidate supported nickel complexes. **D. Xiao**, L. Do

10:30 INOR 1111. *In situ* Lewis acid recruitment effects on (b)py-appended late transition metal catalyzed ethylene polymerization. **A. Smith**, I. Tonks

10:50 INOR 1112. Rhodium-catalyzed dehydropolymerization of arsine boranes. **B. Ackley**, R. Waterman

11:10 INOR 1113. Photochemical reactions of Ru precursors for photoassisted chemical vapor deposition. **C.R. Brewer**, O.M. Hawkins, B. Salazar, A.V. Walker, L. McElwee-White

Radiopharmaceutical Chemistry

Fluorine

Sponsored by FLUO, Cosponsored by INOR[†], MEDI[†] and NUCL[†]

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Confinement: Clay Mineral Geochemistry

Sponsored by GEOC, Cosponsored by ENVR and INOR

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

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R&D in the Chemical Catalysis for Bioenergy Consortium

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in Situ & Operando Methods

Catalysis & Surface Science Applied to the Destruction of Threat Agents

Sponsored by CATL, Cosponsored by ENVR, INOR and PHYS

WEDNESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 345

Coordination Chemistry: Synthesis & Characterization

A. Larsen, *Organizer*
J.L. Brumaghim, J.R. Jeitler, *Presiding*

1:30 INOR 1114. Complexes of 2,6-pyridinedicarboxylate: Understanding the complex chemistry of a simple ligand. **J.R. Jeitler**, M. Jeitler, S. Patberg, E. Schafhausen

1:50 INOR 1115. Coordination sphere effects on unusually large zero field splitting and slow magnetic relaxation in trigonally symmetric 3d molecules. **K. Schulte**, V. Kuduva Radhakrishnan, K.R. Dunbar

2:10 INOR 1116. Effects of second coordination sphere on the properties and reactivity of Mn(III)-oxido complexes. **S. Barman**, J.R. Jones, C. Sun, A. Borovik

2:30 INOR 1117. Anisotropic exchange in polynuclear complexes containing Mo^{III}. **D.K. Kempe**, T.J. Woods, K. Schulte, H. Zhao, M.R. Saber, K.R. Dunbar

2:50 INOR 1118. Homo- and heterobimetallic complexes supported by an unsymmetric redox-active ligand.

C. Hess

3:10 Intermission.

3:20 INOR 1119. Copper-thione complexes are truly complex: Redox and sulfur extrusion reactions. J.M. Murphy, C.D. McMillen, **J.L. Brumaghim**

3:40 INOR 1120. Rhenium metal-metal bonded fluoro complexes. **S. Mariappan Balasekaran**, A.P. Sattelberger, A. Hagenbach, F. Poineau

4:00 INOR 1121. Preparation and structure of lanthanide complexes coordinated to FcCOO and DTBBpy ligands. **N. Johns**, S. Mariappan Balasekaran, A. Chang, P.K. Bhowmik, F. Poineau

4:20 INOR 1122. Employment of non-innocent ligands in transition metal coordination chemistry. **D.I. Alexandropoulos**, B.S. Dolinar, V. Kuduva Radhakrishnan, K.R. Dunbar

Section B

Ernest N. Morial Convention Center Room 344

Electrochemistry

B.L. Lucht, *Organizer*
M. Zdzilla, *Presiding*

1:30 INOR 1123. Highly conductive molecular electrolytes for safer lithium batteries designed through use of the Pearson hard-soft acid-base concept. **M. Zdzilla**, S.L. Wunder, P.R. Chinnam, B. Fall, M. Van Vliet, A. Jalil, R.N. Clymer, A. Venkatnathan, P. Prakash, J. Aguirre

1:50 INOR 1124. Crystalline-amorphous Co@CoO core-shell heterostructures for efficient electro-oxidation of hydrazine. **X. Yan**, Y. Liu, J. Lan, Y. Yu, J. Murowchick, X. Yang, Z. Peng

2:10 INOR 1125. Benchmarking the effects of surface ligands on CoP for the hydrogen evolution reaction. **D. Ung**, B.M. Cossairt

2:30 INOR 1126. Pollutant detection with electrochemical biosensors. **A.L. Furst**, M.B. Francis

2:50 Intermission.

2:55 INOR 1127. Reduction potential and stability trends in heterobimetallic complexes containing trivalent redox-inactive cations. **A. Kumar**, V. Day, J.D. Blakemore

3:15 INOR 1128. Single-electron redox chemistry of [Cp*Rh] enabled by a nitrated bipyridine ligand. **W. Moore**, W.C. Henke, D. Lionetti, V. Day, J.D. Blakemore

3:35 INOR 1129. The electrochemical quartz crystal microbalance as a probe of molecular catalyst homogeneity. **D.J. Sconyers**, J.D. Blakemore

3:55 INOR 1130. Catalysis of the oxygen evolution reaction in strongly acidic electrolytes with earth-abundant crystalline nickel-manganese antimonate. **I.A. Moreno-Hernandez**, C.A. MacFarland, C.G. Read, K. Papadantonakis, B.S. Brunshwig, N.S. Lewis

4:15 INOR 1131. Scalable redox-active coordination network films toward molecular devices. **M. Haga**, K. Yoshikawa, D. Motoyama, H. Ozawa

Section C

Ernest N. Morial Convention Center Room 343

F. Albert Cotton Award in Synthetic Inorganic Chemistry: Symposium in honor of Andrew S. Borovik

C.G. Riordan, J.Y. Yang, *Organizers*
D.C. Lacy, *Organizer, Presiding*

1:30 INOR 1132. Recent advances in the +2 oxidation state chemistry of the rare-earth and actinide metals. **W.J. Evans**

1:55 INOR 1133. Cytochrome P450 compound I: A direct link between electron donation and reactivity. **M. Green**

2:20 INOR 1134. Further studies in ligand non-innocence: Managing electrons and protons. **A.F. Heyduk**, K. Rosenkoetter, B. Charette, C. Ramirez

2:45 INOR 1135. Electrifying the secondary coordination sphere: Proximal cations and their effect on redox reactivity. **J.Y. Yang**, A. Reath, T. Chantarojsiri

3:10 Intermission.

3:25 INOR 1136. Structural biology of redox partner binding: Simple and complicated. **T.L. Poulos**

3:50 INOR 1137. The 6,6'-biazulenyl motif: From unusual polyelectrochromism to molecular nanostructures with remarkably high redox capacity. **M.V. Barybin**

4:15 INOR 1138. What do molecules want? **C.B. Aakeroy**

4:40 INOR 1139. Nickel-dioxyn complexes: Synthesis, structure and reactivity. **C.G. Riordan**

5:05 Concluding Remarks.

Section D

Ernest N. Morial Convention Center Room 352

Lanthanide & Actinide Chemistry

A. De Bettencourt Dias, *Organizer*
I. Hartenbach, E.M. Villa, *Presiding*

1:30 INOR 1140. Isolation of lanthanide cryptate complexes by ligand rearrangement and encapsulation. **D.N. Huh**, J.W. Ziller, W.J. Evans

1:50 INOR 1141. Facile linking of lanthanide cations with soft metals via thiosulfate. **E.M. Villa**, E.Z. Dalton

2:10 INOR 1142. Weak field ligands in f-element chemistry. **H.S. La Pierre**, N.T. Rice, T.P. Gomba, B.J. Yik, L.M. Acquire-Quintana

2:30 Intermission.

2:40 INOR 1143. Molecular approaches to rare earth separations: Tuning ligand electronics for a greener system. **B.E. Cole**, I.B. Falcones, T. Cheisson, B.C. Manor, P.J. Carroll, E.J. Schelter

3:00 INOR 1144. Prism inside: Lanthanide chloride oxidotungstates and -molybdates of the formula Ln₂Cl₂[MO₆] (Ln = La - Nd, Sm - Er; M = Mo, W). K.V. Dorn, **I. Hartenbach**

3:20 INOR 1145. Structural chemistry of Ce(IV), Th(IV), and U(IV) complexes

[†]Cooperative Cosponsorship

isolated from acidic aqueous media. **J.N. Wacker**, O.C. Stewart, Jr., K.E. Knope

3:40 Intermission.

3:50 INOR 1146. An exploration of the lanthanide fluorite structure, MO₂ (Ce, Pr, and Tb) by microRaman. **J.T. Stritzinger**, G. Goff, K. Boland

4:10 INOR 1147. Reactivity of the isolated divalent lanthanide complexes {Ln[N(SiMe₃)₂]₃}⁻¹ with small molecules: CO, CO₂, N₂. **A. Ryan**, J.W. Ziller, W.J. Evans

4:30 INOR 1148. Ferrocene-based redox switches for reversible single-molecule magnet behaviour in dysprosium(III) and erbium(III) bis-diamidoferrocene complexes. **C.M. Dickie**, A.L. Laughlin, J.D. Wofford, N. Bhuvanesh, M. Nippe

4:50 INOR 1149. Formation of thorium and uranium – phosphorano-stabilized carbene. **P. Rungthanaphatsophon**, L. Maron, J.R. Walensky

Section E

Ernest N. Morial Convention Center Room 353

Inorganic Chemistry of Lead Halide Perovskites: Insights from Fundamentals

R.L. Brutchey, B.C. Melot, *Organizers*
J. Vela, *Organizer, Presiding*

1:30 INOR 1150. Interfaces, cations, and carrier dynamics in halide perovskites. **D.S. Ginger**

2:10 INOR 1151. Rationalizing the size-dependent Stokes shift in CsPbBr₃ nanocrystals. **M.C. Brennan**, J.E. Herr, T.S. Nguyen-Beck, J. Parkhill, M.K. Kuno

2:30 INOR 1152. Enhancing the sensitivity of ²⁰⁷Pb solid-state NMR spectroscopy for characterization of organolead halide perovskites. M.P. Hanrahan, B. Rosales, L. Men, J. Vela, **A.J. Rossini**

3:10 Intermission.

3:40 INOR 1153. Is mesoscopic TiO₂ in perovskite solar cells an innocent bystander or a direct participant. R.A. Scheidt, E. Kerns, **P.V. Kamat**

4:20 INOR 1154. Transition path of organic cation induced anomalous photoluminescence in hybrid lead perovskites from real-time single crystal neutron diffraction. **X. Wang**, B. Yang, K. Xiao

4:40 INOR 1155. Synthesis and optical properties of 2D halide perovskites. **W.A. Tisdale**

Section F

Ernest N. Morial Convention Center Room 354

Chemistry of Materials: Materials for Energy & Catalytic Applications

C.G. Lugmair, *Organizer*
R. Coridan, O. Gunaydin-Sen, *Presiding*

1:30 INOR 1156. Search, discovery, and properties of ternary nitrides. **S. Lany**, A. Holder, W. Sun, E. Arca, S. Bauers, G. Ceder, A. Zakutayev

1:50 INOR 1157. Selective metal oxide atomic layer deposition: Toward precision few-atom clusters synthesis. D. Cao, J. Emery, M. Pellin, **A.B. Martinson**

2:10 INOR 1158. Physical and chemical applications of photodoping in electrodeposited cuprous oxide thin films. J. Lowe, **R. Coridan**

2:30 INOR 1159. Synthesis of fluorinated tungsten (VI) oxo-alkoxide complexes as precursors for the chemical vapor deposition of WO_x. **N. Ou**, D.C. Bock, L. McElwee-White

2:50 Intermission.

3:05 INOR 1160. The effect of different molecular weight and catalyst on ammonia borane: Polyvinylpyrrolidone hydrogen storage composites. **O. Gunaydin-Sen**, R. Seemaladinne, S. Pati, K. Kharel, A. Bafana, A. al-Wahish, E. Wujcik

3:25 INOR 1161. Manganese(I) and rhenium(I) molecular CO₂ reduction catalysts heterogenized on gold electrodes at bipyridine sites in Rh(I) 5,5β-dithiocyanide-2,2β-bipyridine coordination polymers. **G. Lee**, C.P. Kubiak

3:45 INOR 1162. Microwave-assisted hydrothermal carbonization of waste plant materials: An approach for improving their energy properties. **S. Elaigwu**

Section G

Ernest N. Morial Convention Center Room 210

PCET PhotoCatalysis with Inorganic Molecules & Materials

Cosponsored by PHYS
C. Heyer, E. Leon, G.J. Meyer, *Organizers*
J.L. Dempsey, *Organizer, Presiding*

1:30 INOR 1163. Multiple proton transfers coupled to a single electron transfer in benzimidazole-phenol derivatives. S. Mora, E. Odella, B. Wadsworth, M.T. Huynh, G.F. Moore, S. Hammes-Schiffer, D. Gust, T.A. Moore, **A.L. Moore**

1:55 INOR 1164. Switching the mechanism: Proton-coupled electron transfer reactivity of a tungsten hydride complex. **J.L. Dempsey**, T. Huang

2:15 INOR 1165. Mechanistic roles of hydrogen bonding interactions in photoinduced PCET. **D.E. Polyansky**, S. Lyman, M. Ertem

2:35 INOR 1166. Innovating bimetallic active sites for small-molecule catalysis. **C. Lu**, R. Cammarota, M.V. Vollmer, S.P. Desai, J. Vitillo, J. Xie, J. Ye, L. Gagliardi

2:55 INOR 1167. Excited State PT, ET and PCET in Hydroxybipyridine Ru(II) Complexes in Nonaqueous solution. K. Martinez, M. Esposito, J.J. Paul, **R.H. Schmehl**

3:15 Intermission.

3:30 INOR 1168. Toward light-driven multiple-electron-coupled proton-transfer (ECPT) reactions. S. Luo, C. Sanborn, W. White, L. Renna, **S. Ardo**

3:50 INOR 1169. Excited-state proton transfer in transition metal compounds. **R. Sampaio**, R.M. O'Donnell, G. Li, G.J. Meyer

4:10 INOR 1170. Free energy relationships in the formation of cobalt hydrides through PCET. **D. Kurtz**, N. Elgrishi, B. Kandemir, W. Howland, J.L. Dempsey

4:30 INOR 1171. PCET branch-points in CO₂-to-fuels catalysis. **Y. Surendranath**, A. Wuttig, Y. Yoon, S. Khan, M. Schreier

4:50 INOR 1172. Charge transfer through metal oxides on semiconductors for hydrogen evolution. **M.J. Rose**, J. Seo, H. Kim, R. Pekarek

5:10 INOR 1173. Probing the elementary steps of PCET catalysis. R. Lomoth, T. Liu, S. Wang, S. Ott, **L. Hammarstrom**

Section H

Ernest N. Morial Convention Center Room 211

Chemistry of Materials: Metal Organic Frameworks

C.G. Lugmair, *Organizer*
C. Mulzer, I. Stassen, *Presiding*

1:30 INOR 1174. O₂ electroreduction catalyzed by conductive metal-organic frameworks. **E. Miner**, M. Dinca

1:50 INOR 1175. Signature of metallic behavior in the metal-organic frameworks M₃(hexaminobenzene)₂ (M = Ni, Cu). **J. Dou**, M. Dinca

2:10 INOR 1176. Vertical and lateral charge transport in ultrathin films of metal organic frameworks. **C. Marti-Gastaldo**

2:30 INOR 1177. Tunable, high single crystal conductivity in a permanently porous metal-organic framework. **L. Xie**, L. Sun, R. Wan, S. Park, J. DeGayner, C.H. Hendon, D. Harris, M. Dinca

2:50 INOR 1178. Synthesis and electromagnetic properties of square-symmetry π-conjugated metal-organic frameworks. **I. Stassen**, M. Dinca

3:10 Intermission.

3:25 INOR 1179. Charge transfer within MOF: The role of polar node. **P. Deria**

3:45 INOR 1180. Systematic study of conductive metal-organic frameworks as electrocatalysts for oxygen reduction reaction. **L. Wang**, E. Miner, M. Dinca

4:05 INOR 1181. Synthesis and characterization of novel palladium- and platinum-based metal-organic frameworks for thermoelectrics. **M.C. So**, N.D. Mackie, S. Yoon, V. Chernet, Y. He, V. Stavila, A.A. Talin, J. Llinas, M. Allendorff, K.L. Mulfort

4:25 INOR 1182. Design and synthesis of highly stable metal organic frameworks with predesigned interactions with light. **W. Newsome**, G.S. Pour, R. Ly, J. Cordova, F.J. Uribe-Romo

Section I

Ernest N. Morial Convention Center Rooms 340/341

Organometallic Chemistry: Applications to Organic Transformations

N.S. Radu, *Organizer*
J.M. Camara, *Presiding*

1:30 INOR 1183. New fluoro-organometallic chemistry of nickel and copper. **D.A. Vasic**, M. Kosobokov, S. Yu

1:50 INOR 1184. Carbon-fluorine bond formation from copper(I) vinyls: Synthesis of fluoroalkenes from alkynes. **A. Jordan**, P.K. Thompson, J.P. Sadighi

2:10 INOR 1185. Copper-catalyzed P-C cross-coupling for the synthesis of secondary phosphines and related ligands. M. Frik, A.L. Haber, E.B. Schiff, **J.M. Camara**

2:30 INOR 1186. Cobalt complexes of tripodal ligands with mixed P, N donors: Applications for catalytic dehydrogenative coupling reactions. **K. Ding**, S. Xu, K. Paudel, B. Pandey, D.L. Tyler

2:50 INOR 1187. Immobilization of molecular nickel cross-coupling catalyst on oxide supports via atomic layer deposition. **R. Key**, A.K. Vannucci

3:10 INOR 1188. How to predict reactivity on organometallic reactions from user-friendly computational tools. **A. Poater**

3:30 INOR 1189. Multiple aromatic C-H bond activations by a dirhenium carbonyl complex. **P. Dhull**, R.D. Adams

3:50 INOR 1190. Toward absolute measurements of Pd(π-arene) C-H acidity. **W. Christman**, T. Morrow, N. Arulsamy, E.B. Hulley

4:10 INOR 1191. Homogeneous (transfer) hydrogenation for the selective conversion of β,β-unsaturated aldehydes. **J.G. De Vries**, R. Farrar-Tobar, P. Puylaert, B. Stadler, S. Hinz

Section J

Ernest N. Morial Convention Center Room 212

Organometallic Chemistry: Synthesis & Characterization-Late Transition Metals

N.S. Radu, *Organizer*
A.M. Tondreau, *Presiding*

1:30 INOR 1192. 1st row transition metals supported by dianionic PNP-chelate ligands; Reactivity and electronic structure. **A.M. Tondreau**, N.H. Anderson, J.M. Boncella

1:50 INOR 1193. Nickel complexes bearing the ¹⁹Pn¹⁹P and ¹⁸Pn¹⁸NOP ligands: Synthesis, characterization, and subsequent reactivity. **N. Anderson**, A.M. Tondreau, J.M. Boncella

2:10 INOR 1194. Photoinduced electron transfer reaction of bis-cyclometalated iridium complexes with β-diketiminato ancillary ligands. **J. Shon**, T.S. Teets

2:30 INOR 1195. Monometallic and bimetallic platinum complexes with fluorinated β-diketiminato ligands. **K. Choung**, T.S. Teets

2:50 INOR 1196. Phosphorescent platinum(II) complexes with mesoionic NHC ligands – tuning the excited state. **J. Soellner**, T. Strassner

3:10 INOR 1197. Synthesis and reactivity of reduced CCC-NHC rhodium pincer complexes. **J. Denny**, R.W. Lamb, C.E. Webster, T.K. Hollis

[†]Cooperative Cosponsorship

3:30 INOR 1198. CCC-NHC pincer iron complexes: Synthesis of bis CCC-NHC complexes and ligand functionalization after complexation. **J. Cope**, R.W. Lamb, J. Denny, C.E. Webster, T.K. Hollis, B. Donnadieu

3:50 INOR 1199. Synthesis, characterization, and photophysics of CCC-NHC pincer Platinum complexes. **M. Zhang**, S. Autry, V. Dixit, E.V. Dornshuld, J. Denny, N. Hammer, C.E. Webster, T.K. Hollis

4:10 INOR 1200. Accessing reactive oxo intermediates: Oxidation of a CCC-NHC-Pt complex. **G.M. Lang**, J. Denny, V. Dixit, C.E. Webster, T.K. Hollis

4:30 INOR 1201. Boryl participation in H-X cleavage facilitated by (PBP)Ir and (PBP)Rh complexes. **Y. Cao**, W. Shih, N. Bhuvanesh, O. Ozerov

Section K

**Ernest N. Morial Convention Center
Room 335**

Main Group Chemistry

T.W. Hudnall, Organizer
A.F. Cozzolino, Presiding

1:30 INOR 1202. Novel Cu(I)- and Co(II)-Sb complexes: Magnetic properties, luminescence, and catalysis. **L. Taylor**

1:50 INOR 1203. Advances in the synthesis of Te, N-containing heterocycles: Potential building blocks for supramolecular frameworks. N.L. Silar, B.A. Larson, F.R. Fronczek, **T. Junk**

2:10 INOR 1204. Metalated ylides: Unique donor ligands for main group chemistry. **V.H. Gessner**

2:30 INOR 1205. Flexible nature of the carbodiphosphorane, C(PPh₃)₂, and its reactivity towards main group alkyl complexes. **P. Quinlivan**, G. Parkin

2:50 INOR 1206. Development of hypervalent 10–P–3 compounds for use as transition metal surrogates: The journey continues.... **M. Cain**

3:10 INOR 1207. Controlling molecular recognition and self-assembly with pnictogen(III) secondary bonding interactions in the solid and solution states. S. Moaven, J. Qiu, **A.F. Cozzolino**

3:30 INOR 1208. Cationic antimony containing compounds as Lewis acid catalysts for transfer hydrogenation reactions. **M. Yang**, M. Hirai, F.P. Gabbaï

3:50 INOR 1209. Platinumβtrifluorostiborane complexes as carboxylic acid catalysts: Activation by fluoride anion abstraction from the trifluorostiborane Z-type ligand. **D. You**, H. Yang, S. Sen, F.P. Gabbaï

4:10 INOR 1210. Understanding Te and Sb separations in support of targeted Auger therapy using X-ray absorption spectroscopy. **S. Bone**, K.T. Bennett, M.G. Ferrier, B.W. Stein, J. Engle, S.A. Kozimor

4:30 INOR 1211. Withdrawn.

4:50 INOR 1212. Synthesis, spectroscopic properties and biological activities of spiro-4-bromobenzylaminophosphazenes. **N. Guven Kuzey**, **N. Asmafliz**, L. Acik,

T. Hokelek

5:10 INOR 1213. Phonon-induced superstructures in layered titanium-oxypnictides superconductors. **R. Maezono**, K. Nakano, K. Hongo

Celebrating Over Four Decades of Research in Nanomaterials & Commercialization: Symposium in honor of Kenneth Klambunde
Sponsored by I&EC, Cosponsored by INOR[†]

Radiopharmaceutical Chemistry

Carbon-11 & Radionuclide Production

Sponsored by FLUO, Cosponsored by INOR[†], MEDI[†] and NUCL[†]

Unconventional Catalysis Targeting Stable Molecules

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Carbonates, Phosphates & Rare Earth Elements

Sponsored by GEOC, Cosponsored by ENVR and INOR

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

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Innovative Chemistry & Materials for Electrochemical Energy Storage

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R&D in the Chemical Catalysis for Bioenergy Consortium

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Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in Situ & Operando Methods

Photocatalytic Approaches

Sponsored by CATL, Cosponsored by ENVR, INOR and PHYS

WEDNESDAY EVENING

Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski

Sponsored by GEOC, Cosponsored by COLL, ENFL, ENVR and INOR

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Sponsored by GEOC, Cosponsored by ENVR and INOR

Theoretical & Experimental Studies of Supercritical Fluids in the Subsurface

Sponsored by GEOC, Cosponsored by ENVR and INOR

THURSDAY MORNING

**Section A
Ernest N. Morial Convention Center**

Room 345

Chemistry of Materials: Metal Organic Frameworks

C.G. Lugmair, Organizer
P.J. Milner, J.P. Vizueta, Presiding

8:30 INOR 1214. Record-setting sorbents for water and ammonia: Engineering capacity, kinetics, and stability. **A.J. Rieth**, M. Dinca

8:50 INOR 1215. Cracking down on vapochromic materials: Vapor induced stress in gas sensing platinum salts. **A.E. Norton**, S. Taylor, J.A. Krause, W.B. Connick

9:10 INOR 1216. Holmium-based metal-organic framework for gas separations and cancer therapy. **J.P. Vizueta**, K.J. Balkus

9:30 INOR 1217. Understanding the mechanism of carbon dioxide uptake by a photoresponsive MOF. **R. Poloni**, C. Yang, A. Charaf Eddin, L. Lin

9:50 INOR 1218. Diamine-appended metal-organic frameworks for carbon dioxide capture from fossil fuel-fired power plants. **P.J. Milner**, R. Siegelman, J. Martell, A. Forse, M.I. Gonzalez, T. Runcevski, D. Gygi, J.A. Reimer, J.R. Long

10:10 Intermission.

10:25 INOR 1219. Adsorption and sensing properties of metal-organic frameworks with mixed organic ligands. **W. Sun**

10:45 INOR 1220. Exploring the effect of ligand design on porphyrin metal-organic framework separation performance. **H. Rubin**, M.M. Reynolds

11:05 INOR 1221. Withdrawn

11:25 INOR 1222. Gas separations in a metal-organic framework featuring exposed vanadium(II) sites. **D. Reed**, D. Jaramillo, J.R. Long

11:45 INOR 1223. In-situ characterization of adsorbates in nanoporous materials with infrared spectroscopy. **H. Jiang**, J. Long

Section B

**Ernest N. Morial Convention Center
Room 344**

Solid-State Inorganic Chemistry

C.G. Lugmair, Organizer
V. Pollavets, Organizer, Presiding

8:30 INOR 1224. Structural and optical properties of two new non-centrosymmetric compounds: MgSiAs₂ and Mg₂Si₂As₈. **K. Woo**, J. Wang, K. Lee, J. Dolyniuk, K. Kovnir

8:50 INOR 1225. Withdrawn

9:10 INOR 1226. Polyamorphism induced multi-level electronic states in phase change K₂Sb₈Se₁₂. **M.S. Islam**, L. Peng, L. Zeng, C. Malliakas, D. Chung, B. Buchholz, T. Chasapis, R. Li, K. Chrissafis, J. Medvedeva, G. Trimarchi, M. Grayson, T.J. Marks, M.J. Bedzyk, R. Chang, V. David, M. Kanatzidis

9:30 INOR 1227. Utilizing heterostructural alloying to design improved piezoelectrically active nitrides.

S. Millican, K. Talley, C. Musgrave, G. Brennecke, A. Holder

9:50 Intermission.

10:05 INOR 1228. Withdrawn.

10:25 INOR 1229. Cu₂IrO₃: Toward the quantum spin liquid phase in honeycomb iridates. **M. Abramchuk**, C. Ozsoy-Keskinbora, J.W. Krizan, K.R. Metz, D.C. Bell, F. Fallah Tafti

10:45 INOR 1230. Synthesis of β-Fe₂O₃ hollow spheres: photonic crystal mimics. **A.M. Morey**, S.T. Iacono

11:05 INOR 1231. Real-time observation of nanoscale manipulation of metal oxide phase transformations using *in situ* transmission electron microscopy. L. Yu, B.M. Hudak, R. Han, G. Waeztig, S. Depner, X. Sang, J. Liu, A. Talapatra, R. Arroyave, K. Page, S. Banerjee, **B. Guiton**

11:25 INOR 1232. Investigation of the effect of rare-earth substitution on the Debye temperature of YAG:Ce³⁺ and BAM:Eu²⁺. **A.C. Duke**, W. Zeier, J. Brgoch

Section C

**Ernest N. Morial Convention Center
Room 343**

Nanoscience

B.G. Trewyn, Organizer
A.A. Marti, Presiding

8:30 INOR 1233. Flow synthesis of MOF nanoparticles in microfabricated reactors. **K. He**, K. Yeung

8:50 INOR 1234. High efficiency and long-term intracellular activity of an enzymatic nanofactory based on metal-organic frameworks. **X. Lian**, H. Zhou

9:10 INOR 1235. Grafting organic functionalities to boron-nitride nanotubes using Billups-Birch reaction. **A.A. Marti**, C. de los Reyes, A. Smith, K. Walz, M. Pasquali

9:30 INOR 1236. Polyarylboranates: Unexpected reactivity from some of the most stable ions. **M.W. Lee**, T. Wang

9:50 INOR 1237. Phase directing ability of an ionic liquid solvent for the synthesis of colloidal Ni₃P nanocrystals. **E.J. Roberts**, C.G. Read, N.S. Lewis, R.L. Brutchey

10:10 INOR 1238. Synthetic phase control over colloidal nickel sulfide nanocrystals. **G. Barim**, R.L. Brutchey

10:30 Intermission.

10:30 INOR 1239. Dynamic nature of thiolate monolayer in Au₂₅(SR)₁₈ nanoclusters. **G. Salassa**, A. Seles, F. Mancini, T. Bürgi

10:50 INOR 1240. Exploiting surface plasmon resonance in Au/ZnO photocatalysts for the selective oxidation of phenols. F. Lin, B.E. Cojocaru, **L.W. Colaciello**, C.A. Cadigan, C. Tian, M.N. Grecu, H. Xin, S. Vyas, V.I. Parvulescu, R.M. Richards

11:10 INOR 1241. Withdrawn.

11:30 INOR 1242. Cyclohexane oxidation over rock-salt structured metal oxides as catalysts. **Q. Yao**, C.A. Cadigan, A.R. Corpuz, G. Jeong, R.

[†]Cooperative Cosponsorship

Bhattacharjee, R.M. Richards

11:50 INOR 1243. Microwave synthesis of Ir-based binary alloy nanoparticles and catalytic properties for hydrogenation. **H. Guo**, H. Li, K. Javis, H. Wan, P. Kunal, S. Dunning, D.S. Fernandez, S.M. Humphrey, G.A. Henkelman

Section D

Ernest N. Morial Convention Center
Room 352

Main Group Chemistry

T.W. Hudnall, *Organizer*
C. Chiu, *Presiding*

8:00 INOR 1244. Reduction of aryl(hydro)boranes: Versatile bond-formation reactions. **T. Kaese**, M. Wagner

8:20 INOR 1245. Withdrawn.

8:40 INOR 1246. Borafluorenes with ultra-large Stokes shifts. **J. Cassidy**, P.A. Rupar, I. Adams, M. Smith

9:00 INOR 1247. Utilization of BODIPY dyes to introduce redox chemistry into main group complexes. **Z.M. Heiden**, I.A. Kieffer, R.J. Allen, J. Deobald

9:20 INOR 1248. One step conversion of potassium organotrifluoroborates to metal organoborohydrides. **E.R. Abbey**

9:40 INOR 1249. Boron containing radicals. M. Chung, H. Tsai, W. Liu, **C. Chiu**

10:00 INOR 1250. Microwave-promoted reactions of the CB_{11}^- carborane anion. **M.A. Juhasz**

10:20 INOR 1251. Lewis superacidic ionic liquids with borenium cations. **M. Swadzba-Kwasny**, S. Coffie, J.M. Hogg, F. Coleman, A. Ferrer-Ugalde, J.D. Holbrey

10:40 INOR 1252. Alkyl groups as electron density donors in π -hole bonding. **J. Echeverria**

11:00 INOR 1253. Lanthanum catalyzed heterodehydrocoupling of silanes with amines. **M. Cibuzar**, R. Waterman

11:20 INOR 1254. Facile access to organometallic heavy alkaline earth metal species using environmentally friendly redox transmetalation protolysis (RTP). Y. Takahashi, A.Y. O'Brien, G.B. Deacon, P.C. Andrews, M. Wolf, A. Torvisco, **M.M. Gillett-Kunnath**, K. Ruhlandt-Senge

11:40 INOR 1255. Reductive CO_2 homologation: C-C homocoupling and asymmetric carbon generation. **S. Bontemps**

Section E

Ernest N. Morial Convention Center
Room 353

Coordination Chemistry: Synthesis & Characterization

A. Larsen, *Organizer*
M.P. Marshak, F. Poineau, *Presiding*

8:30 INOR 1256. Speciation and reactivity of heptavalent technetium in strong acids. **F. Poineau**

8:50 INOR 1257. Molecular magnets utilizing anisotropic coupling with 4d and 5d cyanometallate compounds. **F.J. Birk**, D. Pinkowicz, K.R. Dunbar

9:10 INOR 1258. An investigation into the reactivity profile of high-spin iron hydride clusters. **B.J. Knight**, K. Anderton, M. Eaton, L.J. Murray

9:30 INOR 1259. Dysprosium carbonyl complexes containing multiple ligands derived from ferrocene. **G.L. Powell**

9:50 INOR 1260. Structural elucidation of chemical compounds in reaction conditions that preclude standard characterization techniques. **J. Fehrs**, C.H. Hendon

10:10 Intermission.

10:20 INOR 1261. Bulky β -diketonate ligands and implications for catalysis. **M.P. Marshak**

10:40 INOR 1262. Steps towards the elucidation of the electronic structure of a family of open-shell trinuclear iron clusters. **J. Teesdale**, T. Betley

11:00 INOR 1263. Exploring cooperative redox chemistry using dipyrin pacman complexes. **E.J. Johnson**, C. Kleinlein, T. Betley

11:20 INOR 1264. Copper(I) and silver(I) complexes with unsaturated N-heterocyclic chalcogenones. **A. Allen**, D. Rabinovich

Section F

Ernest N. Morial Convention Center
Room 354

Environmental & Energy-Related Inorganic Chemistry

S.A. Koch, *Organizer*
J.D. Blakemore, M. Nippe, *Presiding*

8:00 INOR 1265. Modulating electrocatalytic CO_2 reduction via secondary coordination sphere functional groups. S. Sung, J. Meeder, **M. Nippe**

8:20 INOR 1266. Controlled synthesis of earth-abundant tin sulfides Sn_3S_7 thin films for photoelectrochemical water splitting. **Y. Liu**, L. Zhang, H. Zhu

8:40 INOR 1267. Bipolar phthalocyanine-based electrolyte for symmetric redox flow batteries. **C. Hunt**, G. Menard

9:00 INOR 1268. Photolytic conversion of light alkanes to alkyl esters by iodine oxides and chloride salts in non-superacidic media. **N. Schwartz**, S.E. Kalman, N. Boaz, J.M. Goldberg, R. Fu, R.J. Nielsen, W.A. Goddard, J.T. Groves, T.B. Gunnoe

9:20 INOR 1269. Carbon dioxide-expanded liquids as media for electrochemistry and catalysis. **J.D. Blakemore**, T. Kerr, C. Shaughnessy, D.J. Sconyers, B. Subramaniam, K.C. Leonard

9:40 INOR 1270. Electrocatalytic reduction of nitrate in water by a highly-fluorinated Cu(II) precatalyst. **J.K. Elinburg**, S. Hannigan, L.H. Doerfer

10:00 INOR 1271. Identification of high ZT thermoelectrics from complex oxide screening. **A. Ganose**, W. Leung, A. Jackson, R. Palgrave, D. Scanlon

10:20 Intermission.

10:40 INOR 1272. Withdrawn

11:00 INOR 1273. Coordination sphere effects on the activity and selectivity of electrochemical CO_2 reduction by a polymer-encapsulated cobalt complex. **Y. Liu**, C.C. McCrory

11:20 INOR 1274. Causes and cures of the photodecomposition of manganese tricarbonyl complexes. **W.C. Henke**, C.J. Otolski, W.N. Moore, K.V. Prather, C.G. Elles, J.D. Blakemore

11:40 INOR 1275. Total utilization of biomass, lignin and carbohydrate: Using earth abundant nickel catalyst. **H. Luo**

12:00 INOR 1276. Palladium N-heterocyclic carbene based CCC-NHC pincer complexes: Air and water stable organometallic emitters. **G.M. Lang**, J. Denny, S. Autry, V. Dixit, N. Hammer, C.E. Webster, T.K. Hollis

Section G

Ernest N. Morial Convention Center
Room 210

Inorganic Catalysts

S.A. Koch, *Organizer*
T. Hamann, D. Powers, *Presiding*

8:30 INOR 1277. Mechanistic insights into the aerobic copper catalyzed decarboxylative thiolation of benzoic acids. **K. Green**, J.M. Hoover

8:50 INOR 1278. Copper cryptand complexes as catalysts for CuAAC click reactions and their prospects for in vivo applications. **T. Tran**

9:10 INOR 1279. Iodine redox catalysts for selective O_2 utilization. **D. Powers**

9:30 INOR 1280. Electrocatalytic reduction of carbon dioxide by finely tuned molecular catalysts. **S. Sung**, D. Kumar, M. Gil-Sepulcre, M. Nippe

9:50 INOR 1281. The influence of ligand environment on the deoxygenation of polyols by early-metal oxo-complexes. **S.M. Kilyanek**, R. Tran

10:10 Intermission.

10:25 INOR 1282. Understanding the fast rates of open butterfly $[2Fe-2S]$ cluster-based catalysts for the hydrogen-evolving reaction (HER). **K. Clary**, H. Petersen, D.H. Evans, R.S. Glass, D.L. Lichtenberger

10:45 INOR 1283. Formic acid oxidation by surface attached $Ni(P_2N_2)_2$ complexes. **F.M. Brunner**, C.P. Kubiak

11:05 INOR 1284. A molecular palladium catalyst immobilized on heterogeneous metal oxide supports for the hydrodeoxygenation of model lignin monomers. **N.A. DeLucia**, A.K. Vannucci

11:25 INOR 1285. Withdrawn.

11:45 INOR 1286. Fabrication of magnetically retrievable metal nanocatalysts for organic transformations. **R.K. Sharma**

12:05 INOR 1287. Withdrawn

Section H

Ernest N. Morial Convention Center

Room 211

Lanthanide & Actinide Chemistry

A. De Bettencourt Dias, *Organizer*
M. Mazzanti, J.D. Rinehart, *Presiding*

8:30 INOR 1288. Generating robust erbium(III) anisotropy without full coordinative saturation for scalable molecule-based magnetic materials. **J.D. Rinehart**, J. Hilgar, M.G. Bernbeck, B. Flores

8:50 INOR 1289. Stabilization of neptunyl crown ether complexes: Characterization by spectroscopic and diffraction approaches. **T. Forbes**

9:10 Intermission.

9:20 INOR 1290. New carbocyclic uranium compounds and their unusual reactivity. **K. Erickson**, J.L. Kiplinger

9:40 INOR 1291. Synthesis and reactivity of complexes of f elements supported by siloxide ligands. **M. Mazzanti**

10:00 INOR 1292. Synthesis, characterization and reactivity of U(IV) and U(III) imido and amido complexes with bulky terphenyl substituents. **J.M. Boncella**, B. Billow, A.L. Odom, C. Moktarzadeh

10:20 Intermission.

10:30 INOR 1293. Heterometallic single-molecule magnets: Synthetic challenges and solutions. C. Burns, B. Wilkins, C.M. Dickie, T. Latendresse, **M. Nippe**

10:50 INOR 1294. Synthesis of mixed tris(imido) uranium complexes. **K.E. Gettys**, N. Anderson, M. Zeller, S.C. Bart

11:10 INOR 1295. New bond forming events using organometallic actinide chemistry. **J.K. Pagano**, J. Xie, K. Erickson, D.E. Morris, B. Scott, R. Wu, M. Sykora, P. Yang, R. Waterman, L. Gagliardi, J.L. Kiplinger

Section I

Ernest N. Morial Convention Center
Rooms 340/341

Organometallic Chemistry: New Ligand Platforms

N.S. Radu, *Organizer*
E.T. Papish, *Presiding*

8:30 INOR 1296. Development of new phosphalkene-pyridine ligands, their coordination chemistry, and use as a noninnocent platform for "waste-free" catalytic processes. **M.L. Nakashige**, M. Cain, A.L. Rheingold

8:50 INOR 1297. Carbon dioxide reduction with transition metals and proton responsive pyridinol based pincer ligands. **E.T. Papish**, S. Das, D.B. Burks, C. Boudreaux, N. Liyanage, S.B. Davis, R.W. Lamb, V. Dixit, F. Qu, C.E. Webster, J.H. Delcamp

9:10 INOR 1298. Synthesis and characterization of "nucleo-pincers" and their transition metal complexes. **S. Gunther**, A.J. Kosanovich, Y. Cao, N. Bhuvanesh, O. Ozerov

9:30 INOR 1299. Robust ruthenium(II) CNC-pincer catalysts selectively reduce carbon dioxide. **C. Boudreaux**, N.

[†]Cooperative Cosponsorship

Liyanage, S. Das, H. Shirley, S. Siek, D. Gerlach, F. Qu, J.H. Delcamp, E.T. Papish

9:50 INOR 1300. New synthetic route to acridone, and acridine-based PNP ligands for low-coordinate late first- and second-row transition metal complexes. **K. Omolo**, J.P. Sadighi

10:10 INOR 1301. Facile dearomatization and metal-ligand cooperation in an unfunctionalized PCP-pincer. **A.J. Kosanovich**, C.H. Komatsu, O. Ozerov

10:30 INOR 1302. Use of a protic bis-(N-heterocyclic carbene)phosphine ligand to explore metal-ligand cooperativity for CO₂ reduction and as a scaffold for bimetallic complexes. **M. Johnson**, S.E. Flowers, B.M. Cossairt

10:50 INOR 1303. Tridentate phosphine ligands bearing aza-crown ether lariats: Applications to Pd and Mo coordination chemistry. **L. Pap**, N. Arulsamy, E.B. Hulley

11:10 INOR 1304. Efficient synthesis of imidoylamidines: The trapping and confirmation of an imidoylamide intermediate. **C.R. Guifarro**, E.V. Rybak-Akimova

Section J

Ernest N. Morial Convention Center Room 212

Organometallic Chemistry: Synthesis & Characterization-Late Transition Metals

N.S. Radu, Organizer
B. Captain, U.R. Pokharel, Presiding

8:30 INOR 1305. Synthetic methodologies for ferrocene-fused acenes. **U.R. Pokharel**, J. Bergeron, D. Daigle, J.P. Selegue

8:50 INOR 1306. Development of electronic unsaturation in transition metal cluster complexes: Addition of Pt(IPr) groupings as sterically demanding ligands. **V. Zollo**

9:10 INOR 1307. Influence of the isocyanide and Tm ligands on the reductive coupling of [Tm^{III}Fe(CNR)₃]OTf. **O. Mitevski**, A.S. Gowda, A. Baur, J.M. Hoover

9:30 INOR 1308. N₂O binding on RCo(CNR)₃ and O-atom transfer reactions. **C. Chan**, J.S. Figueroa

9:50 Intermission.

9:55 INOR 1309. Synthesis of formazanate complexes with third row transition metals and analysis of their spectroscopic and electrochemical properties. **E. Kabir**, T. Teets

10:15 INOR 1310. Further developments in synthesis from [M(S₂C₂Ph₂)₂] (M = Ni, Pd, Pt) by direct ligand substitution. **A. Obanda**, K. Martinez, R.H. Schmehl, I.V. Rubtsov, J.T. Mague, J.P. Donahue

10:35 INOR 1311. Small molecule activation by platinum complexes containing bulky tin groups. **B. Captain**, A. Koppaka, M. Gamage

10:55 INOR 1312. Synthesis, structures and properties of copper complexes with diaminobis(thiolato) ligands. **B. Wang**, S.J. Ferrara, S. Sproules, R. Pascal, J.T.

Mague, J.P. Donahue

11:15 INOR 1313. Group 10 dithiolene compounds with an open-ended 1,2,4,5-Tetrakis(diphenylphosphino)benzene ligand: Synthesis, structure, properties. **M. Pratheepkumar**, K. Arumugam, J.T. Mague, **J.P. Donahue**

Section K

Ernest N. Morial Convention Center Room 335

Chemistry of Materials: Nanomaterials

C.G. Lugmair, Organizer
M. Devadas, Presiding

8:00 INOR 1314. Combinatorial synthesis of multimetallic nanoparticles. **P. Chen**, J. Hedrick, C.A. Mirkin

8:20 INOR 1315. Host-guest design to access the lead halide perovskites nanocrystals under strong confinement using metal organic frameworks as a matrix. **L. Protesescu**, M. Dinca

8:40 INOR 1316. Photo-inks based on porphyrins and diarylethenes (DAEs). A. Galanti, T. Biellmann, J. Wytka, J. Boixel, V. Guerschais, P. Samori, **J. Weiss**

9:00 INOR 1317. Introducing room temperature liquid metals as a reaction solvent for the synthesis of atomically thin 2D metal oxides. **T. Daeneke**, A. Zavabeti, R.B. Kaner, K. Kalantar-zadeh

9:20 INOR 1318. Investigating inter-particle exchanges and crystallographic changes in gold nanoclusters. **C. Hosier**, C. Ackerson

9:40 Intermission.

9:55 INOR 1319. Synthesis of first row transition metals nanoparticles for aerosol deposition. **L.J. Treadwell**, T.J. Boyle, A.W. Cook, D. Perales, D. Woodard, N.S. Bell

10:15 INOR 1320. Controlled growth of Mn₂ single-molecule magnet polymers and oligomers. M. Shmunes, E.R. Williams, S.M. Stone, A.M. Mowson, G. Christou, T.M. Pekarek, **C. Lampropoulos**

10:35 INOR 1321. Au(I) precursors for electron beam induced deposition. **W.G. Carden**, J. Pedziwiatr, K.A. Abboud, L. McElwee-White

10:55 INOR 1322. Magic numbered gold clusters—optical and electrochemical properties. **M. Devadas**, A. Meola, B. Hutson, N. Hondrogiannis, K. Reber

11:15 INOR 1323. Pulsed microwave energy: A kinetic control approach to highly branched nickel multipod nanostructures. **P. Vakil**, B. Ashley, D. Hardy, G.F. Strouse

11:35 INOR 1324. Surfactant-free shape control of gold nanoparticles enabled by unified theoretical framework of nanocrystal synthesis. **C.M. Drain**, M. Wall, M. Kircher

Celebrating Over Four Decades of Research in Nanomaterials & Commercialization: Symposium in honor of Kenneth Klabunde
Sponsored by I&EC, Cosponsored by INOR[†]

Radiopharmaceutical Chemistry
Sponsored by FLUO, Cosponsored by

INOR[†], MEDI[†] and NUCL[†]

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Iron Oxyhydr-Oxides: Redox Processes

Sponsored by GEOC, Cosponsored by ENVR and INOR

Unconventional Catalysis Targeting Stable Molecules

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

Theoretical & Experimental Studies of Supercritical Fluids in the Subsurface

Sponsored by GEOC, Cosponsored by ENVR and INOR

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

Sponsored by CATL, Cosponsored by ENFL, ENVR and INOR

Control of Zeolite Structure, Composition & Sites for Catalysis
Sponsored by CATL, Cosponsored by INOR

THURSDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 345

Chemistry of Materials: Metal Organic Frameworks

C.G. Lugmair, Organizer
C.H. Hendon, Presiding

1:30 INOR 1325. Development of a computational method for simple DFT calculation of pore volume and surface area of porous materials. **C.H. Hendon**, K. Butler, T.Z. Crawford

1:50 INOR 1326. Withdrawn.

2:10 INOR 1327. Tubes vs sheets: A mechanistic investigation of MOF dimensionality. **K.M. Vailonis**, U. Shrestha, M.D. Dadmun, D.M. Jenkins

2:30 INOR 1328. Biocompatible near-infrared MOF fluorophores for bio-imaging applications. **D.F. Sava Gallis**, L.S. Rohwer, K.S. Butler, T.S. Luk

2:50 INOR 1329. Withdrawn.

3:10 Intermission.

3:25 INOR 1330. Mesoporous MOFs for DNA and protein Inclusion. **H. Deng**

3:45 INOR 1331. Lanthanide metal-organic frameworks for proton conduction. **M. Fairley**, L. Qin, Z. Zheng

4:05 INOR 1332. Luminescent conductive metal-organic frameworks. **G. Skorupskii**, K. Williams, R.W. Day, C. Perkinson, M. Cotlet, M. Baldo, W.A. Tisdale, M. Dinca

4:25 INOR 1333. Electronic structure of electrically conductive metal organic frameworks. **J. Fehrs**, C.H. Hendon

4:45 INOR 1334. Boosting transport distances for molecular excitons within photo-excited metal-organic framework films. **S. Goswami**, M. Chen, M.R.

Wasielowski, O.K. Farha, J.T. Hupp

Section B

Ernest N. Morial Convention Center Room 344

Coordination Chemistry: Synthesis & Characterization

A. Larsen, Organizer
C. Martin, N.C. Tomson, Presiding

1:30 INOR 1335. Exploiting the Lewis acidity of boroles to access boron-containing heterocycles. S. Yruegas, V. Adiraju, **C. Martin**

1:50 INOR 1336. Structural and spectroscopic characterization of five-coordinate iron and cobalt bis(dithiolene)-phosphine complexes. **P. Chandrasekaran**, L. Mootha, D. Williams

2:10 INOR 1337. Coordination chemistry of extended pyridyl-acetylacetonate ligands. **C.A. Gunawardana**, A. Sinha, V. Day, C.B. Aakeroy

2:30 INOR 1338. Oxidative reactivity of a rhenium nitride complex. **G.P. Connor**, P.L. Holland, J.M. Mayer

2:50 Intermission.

3:00 INOR 1339. Synthesis and structure of octahedral cobalt clusters.

R.A. Musgrave, A.R. Fout, R. Hernandez Sanchez, T. Betley

3:20 INOR 1340. Synthesis, characterization, and reactivity of thermally stable cupric superoxides. S. McCollom, A.B. Weberg, P.J. Carroll, **N.C. Tomson**

3:40 INOR 1341. Experimental and computational studies of trans-Rh₂ compounds: Improving the photochemistry by manipulating the configurational isomerism. **A. Millet**, C. Xue, C. Turro, K.R. Dunbar

4:00 INOR 1342. Synthesis, characterization, and reactivity of luminescent CuCl complexes with triaminoborane-bridged diphosphines. **C.M. Donahue**, K. Lee, B.A. Massman, S.R. Daly

4:20 INOR 1343. Withdrawn.

Section C

Ernest N. Morial Convention Center Room 343

Organometallic Chemistry: Synthesis & Characterization-Late Transition Metals

N.S. Radu, Organizer
J.P. Donahue, Presiding

1:30 INOR 1344. Homoleptic platinum azo-iminate complexes with hydrogenerative cleavage of formazans. **G. Mu**, T.S. Teets

1:50 INOR 1345. The 4-electron reduction of benzo[c]cinoline by a trimetallic Ni₂Ti complex. **P. Dunn**, I. Tonks

2:10 INOR 1346. Revisiting the cluster-surface analogy: Surface-like behavior in strong field iron clusters. **M.J. Drance**, J.S. Figueroa

[†]Cooperative Cosponsorship

2:30 INOR 1347. Structure and reactivity of mono-anionic rhodium and iridium tris-isocyanides. **M.L. Neville**, J.S. Figueroa

2:50 INOR 1348. Investigations of a reactive open shell trigold(I) carbide and its adducts. **N.T. Daugherty**, J.P. Sadighi, J. Bacsa

3:10 INOR 1349. Withdrawn.

3:30 INOR 1350. Isolation and characterization of in-situ species formed in iron-catalyzed cross-coupling reactions with aryl nucleophiles. **S. Carpenter**, M.L. Neidig

3:50 INOR 1351. Synthesis and characterization of high-spin iron carbene complexes. **A. Wrobel**, T. Betley

Section D

Ernest N. Morial Convention Center Room 352

Bioinorganic Chemistry: Proteins & Enzymes & Model Systems

S.A. Koch, Organizer
W.M. Ames, H.R. Lucas, Presiding

1:30 INOR 1352. New chemical tools for studying cellular iron homeostasis. **A. Fikes**, E.L. Que

1:50 INOR 1353. Biological on/off switch for bacterial biofilm formation in *Agrobacterium vitis*. **D. Williams**, N.M. Nesbitt, E.M. Boon

2:10 INOR 1354. Formation of benzothiazoles from 2-mercaptoaniline and O₂-dependent oxidation of primary alcohols by thiol dioxygenase enzymes. **S. Sardar**, W.P. Morrow, F.W. Foss, B.S. Pierce

2:30 INOR 1355. Mutations on the superoxide reductase: A theoretical study of the 2nd coordination sphere and formation of an oxo-iron intermediate. **R. David**, H. Jamet, V. Nivière, Y. Moreau, A. Millet

2:50 INOR 1356. Reactivity of diiron clusters containing sulfide and hydride bridges. **D. Singh**, B. Knight, L.J. Murray

3:10 INOR 1357. Investigating unique *J*-values for Mn^{III}Mn^{III} and Mn^{III}Mn^{IV} dimers containing a single unsupported μ -oxo bridge with BS-DFT. **W.M. Ames**

3:30 Intermission.

3:45 INOR 1358. Triplet, high-spin, linear {Fe(NO)}⁸: Redox feature of a stable diiron trinitrosyl complex. **P. Ghosh**, S. Ding, M. Quiroz, C. Hsieh, M.B. Hall, M.Y. Darensbourg

4:05 INOR 1359. Nickel and cobalt macrocycles for oxidative transformations. **H.R. Lucas**

4:25 INOR 1360. Molecular modelling on the driving force the acylation of β -lactam antibiotics. **C.U. Ibeji**

Section E

Ernest N. Morial Convention Center Room 353

Chemistry of Materials: Nanomaterials

C.G. Lugmair, Organizer
A.L. Eckermann, Presiding

1:30 INOR 1361. Europium-doped cerium oxide nanomaterials: Synthesis and exposure to l-dopa and eumelanin. **A. D'Achille**, J.L. Coffey

1:50 INOR 1362. Gold nanoparticles stabilized by organic-inorganic hybrid polyoxometalates: Synthesis, surface studies and catalytic applications. **M. Martin Gandul**, G. Newton

2:10 INOR 1363. Thermal decomposition of Prussian blue analogue as precursors for magnetic nanoparticles. **D.A. Hardy**, G.F. Strouse

2:30 INOR 1364. Synthesis of 2D metal borides derived from ternary MAB phases. **L. Alameda**, R.E. Schaak

2:50 INOR 1365. Synthesis and leaching of strontium-doped hydroxyapatite. **A.L. Eckermann**, A. Washburn, K. Libson

3:10 INOR 1366. Minerals to materials: Bulk synthesis of aqueous aluminum clusters and their use as precursors for metal oxide thin films. **B. Fulton**

3:30 Intermission.

3:45 INOR 1367. Carbon nanorods for water expulsion at high humidity. **J. Kothandaraman**, S.K. Nune, D.J. Heldebrant, M.J. Olszta, D. Lao, K. Stoerzinger, Y. Shin, X. Yu

4:05 INOR 1368. Molybdenum promoted mesoporous Co₃O₄: Study of acid-base switchable surface chemistry. **C. Weerakkody**, S.L. Suib

4:25 INOR 1369. Temperature dependant stabilities of various isomers of C32 endohedral metallofullerenes. **T.J. Fuhrer**, S. Church, J. Coello

4:45 INOR 1370. Purification of metallic nanowires and their uses in low density aerogels. **Y. Han**, F. Qian

5:05 INOR 1371. Van der Waals assembly of two-dimensional fullerene thin films. **K. Lee**, B. Choi, I. Jen-La Plante, C. Goulbourne, X. Zhu, X. Roy

5:25 INOR 1372. Exploring synthetic pathways to pluronics-derived mesoporous nitrides with *in situ* SAXS/WAXS. **P. Beaucage**, S.M. Gruner, U.B. Wiesner

Section F

Ernest N. Morial Convention Center Room 354

Chemistry of Materials: Synthesis & Properties

C.G. Lugmair, Organizer
F. Fallah Tafti, T.E. Stevens, Presiding

1:30 INOR 1373. Tuning superconductivity and magnetism in [Li_{1-x}Fe_xOH]FeS by controlling the hydrothermal synthesis conditions. **F. Fallah Tafti**, E. McDonnell

1:50 INOR 1374. Plasmonic excitations in strained Sr_{1-x}Nb_xO₃ nanoparticles. **T. Ofoegbuna**, W. Shelton, J.A. Dorman

2:10 INOR 1375. Near-infrared aza-BODIPY fluorescence probes for selective Cu²⁺ detection and their potential in living cell imaging. **N. Wanichacheva**, Y. Tachapermporn, P. Praikaew, S. Thavornpradit, A. Charoenpanich, J.

Sirirak, K. Burgess

2:30 INOR 1376. Chemically tunable photoluminescence in Si₂Te₂ nanoplates through doping and intercalation. **M. Wang**, B. Wang, K.J. Koski

2:50 Intermission.

3:05 INOR 1377. Synthesis of a magnetically frustrated organometallic ferrous oxide cluster from partial oxidation. **Z.H. Hecht**, J. Kephart, N. Arulsamy, B. Livesay, M.P. Shores, C.V. Popescu, E.B. Hulley

3:25 INOR 1378. Synthesis of β' -Fe₂N, a new soft magnetic material for inductors and transformers. **T.E. Stevens**, C.J. Pearce, S. Atcity, T.C. Monson

3:45 INOR 1379. Using different synthetic conditions to achieve maximum dye loading of Brooker's merocyanine within zeolite L channels. **J.S. Holt**, L. Engerer, T. Dabertin, B. Henning, S. Mattis, K. Weber

4:05 INOR 1380. Kinetic control of ZnS and ZnSe nanocrystal syntheses. **E. Bennett**, L. Hamachi, H. Yang, B. Abecassis, J. De Roo, M. Greenberg, J.S. Owen

Section G

Ernest N. Morial Convention Center Room 210

Coordination Chemistry: Characterization & Applications

A. Larsen, Organizer
K.L. Mulfort, M. Zdilla, Presiding

1:30 INOR 1381. Vectorial charge transfer from heteroleptic Cu(II)dimine complexes. **K.L. Mulfort**, L. Kohler, D. Hayes, R.G. Hadt, L.X. Chen

1:50 INOR 1382. Pyrazole-based ligands for complexation, extraction and recovery of Hg(II) from nuclear waste. **S. Kandel**, K. Chambers, L. Mathivathanan, R.G. Raptis

2:10 INOR 1383. Aminotriphenolate complexes for catalysis and enantioselective molecular recognition. C. Zonta, A.W. Kleij, **G. Licini**

2:30 INOR 1384. Synthesis and elucidation of novel phosphonate-based biocompatible coordination polymers with enhanced dissolution properties. **G. Quinones Velez**, V. López-Mejías

2:50 INOR 1385. Breaching the "CHNO ceiling" in energetic materials by the inclusion of redox-frustrated inorganic elements. **M. Zdilla**, O. O'Sullivan

3:10 INOR 1386. Tunable dimetal tetraguanidinate paddlewheel complexes with unprecedented electron donor abilities. **M. Humphries**, B.R. Smith, E. Wusterbarth, J.T. Njardarson, D.L. Lichtenberger

3:30 INOR 1387. Inorganic-organic hybrid material for the cyanide sensing using Co(II)-bis-terpyridine type coordination complexes. **I. Bhowmick**, C. Collins, D.J. Boston

3:50 Intermission.

4:00 INOR 1388. Synthesis, characterization, and reactivity studies of a zirconium-cobalt bis(phosphinoamide) complex. **K.M. Gramigna**, C.M. Thomas

Section H

Ernest N. Morial Convention Center Room 337

Nanoscience

B.G. Trewyn, Organizer
J.E. Johns, Presiding

1:30 INOR 1389. Cancer nanotherapy promoted by a nuclear targeting molecular capsule. **Y. Fang**, H. Zhou

1:50 INOR 1390. Ultrastable metal nanoparticles studied for the development of biomedical applications, nanomedicine and water purification. **E. Rauwel**, P. Rauwel, S. Küünal, O. Volobujeva, A. Ivask, D. Wragg

2:10 INOR 1391. Controlling DNA delivery from gold nanoparticles in human cells, studied via live-cell fluorescence microscopy. **K.J. Carnevale**, G.F. Strouse

2:30 INOR 1392. Nanobioplar electrodeposition in nanoparticle arrays for tunable optical materials. **G. Crouch**, D. Han, S. Fullerton, D. Go, P.W. Bohn

2:50 Intermission.

3:00 INOR 1393. Impact of natural organic ligands structure on the colloidal stability of silver nanoparticles. **K. Afshinnia**, M. Baalousha

3:20 INOR 1394. Oil separation from water under environmentally relevant conditions using polymer-coated iron oxide nanoparticles. **S. Mirshahghassemi**, J. Lead

3:40 INOR 1395. Ultrathin nanowires of Mo₂Te₃ grown by chemical vapor deposition. **J.E. Johns**, Y. Yoo, J. Jeong

4:00 INOR 1396. Structural characterization and sulfide oxidation of V-DTPA immobilized on mesoporous silica. **J.R. Taft**, C.C. Landry

Section I

Ernest N. Morial Convention Center Rooms 340/341

Chemistry of Materials: Materials for Energy & Catalytic Applications

C.G. Lugmair, Organizer
M.P. Campos, Presiding

1:30 INOR 1397. Synthetic manipulation of hybrid thermoelectric materials. **K.A. Mazzio**, M. Raja Thulasimani, B. Ryll, D. Kojda, K. Habicht, S. Raoux

1:50 INOR 1398. Bismuth chalcogenides as earth-abundant and non-toxic photovoltaics. **A. Ganose**, K. Butler, A. Walsh, D. Scanlon

2:10 INOR 1399. Structured Si/Co-P photocathodes: Designs for efficient light absorption in earth abundant solar fuels devices. **P. Kempler**, M. Gonzalez, K. Papadantonakis, N.S. Lewis

2:30 INOR 1400. Quantum dot nucleation and the future of LED lighting. **M.P. Campos**, L. Hamachi, M.P. Hendricks, I. Rreza, J. De Roo, J.S. Owen

2:50 Intermission.

3:05 INOR 1401. Sequential series multijunction dye-sensitized solar cells (SSM-DSCs): Concept, optimizations and novel applications. **H. Cheema**, J.H. Delcamp

[†]Cooperative Cosponsorship

3:20 INOR 1402. (Photo)electrocatalytic properties of copper gallium delafossite nanoflakes. **Y. Mao**, S. Mohan

3:40 INOR 1403. Ultrathin metal/semiconductor nanosheets for photocatalytic oxidation of alcohols and H₂ evolution. **G. Han**, Y. Sun

4:00 INOR 1404. Photocatalytic degradation of low concentration toluene by atomically platinum dispersed nanoporous TiO₂ film with exposed {001} facets. **H. Zheng**, T. Xu, P. Zhang

Section J

Ernest N. Morial Convention Center Room 212

Organometallic Chemistry: Catalysis-Late Transition Metals

N.S. Radu, Organizer

B.P. Carrow, E.A. Ison, Presiding

1:30 INOR 1405. Synthesis and reactivity studies of a [Cp**Rh*] monohydride. **E. Boyd**, K.V. Prather, D. Lionetti, J.D. Blakemore

1:50 INOR 1406. Mechanism of the Tishchenko reaction catalyzed by an octahedral d⁶-rhodium dihydride catalyst. **J. Mallah**, F. Hasanayn

2:10 INOR 1407. Azaphosphatriptycene in rhodium-catalyzed hydroformylation. **Y. Cao**, J. Napoline, J. Bacsa, J.P. Sadighi

2:30 INOR 1408.

Pentamethylcyclopentadiene as a ligand in rhodium-catalyzed hydrogen evolution. **Y. Peng**, D. Lionetti, J.D. Blakemore

2:50 INOR 1409. Insights into catalytically active rhodium complexes. **D. Selent**, C. Kubis, A. Boerner, W. Baumann, K. Neymeyr, M. Sawall, H. Schroeder

3:10 INOR 1410. Rhodium complexes ligated by an unconjugated bipyridine analogue: Electronic properties and effects on H₂ evolution reactivity. **D. Lionetti**, V. Day, J.D. Blakemore

3:30 INOR 1411. Nickel dipyrin imides capable of C–H bond amination. **Y. Dong**, T. Betley

3:50 INOR 1412. Through-space ligand effects on reaction rate and selectivity in gold(acyclic diaminocarbene)-catalyzed organic transformations. A.A. Ruch, J.K. Nguyen, M.C. Ellison, **L.M. Slaughter**

4:10 INOR 1413. Non-covalent interactions in rhenium oxo/nitrido frustrated Lewis pairs. **E.A. Ison**, N.S. Lambic

4:30 INOR 1414. Selective reduction of CO₂: A rational thermodynamic approach to disfavor proton reduction pathways. **D.W. Cunningham**, J.Y. Yang

4:50 INOR 1415. Unstable boronic acid and pinacol ester cross-coupling enabled by an "on-cycle" precatalyst. **B.P. Carrow**

5:10 INOR 1416. Catalytic N-formylation of amines using CO₂ and H₂. **U. Jayarathne**, N. Hazari, W.H. Bernskoetter

Section K

Ernest N. Morial Convention Center Room 335

Chemistry of Materials: Metal Organic Frameworks

C.G. Lugmair, Organizer
T. Gadzikwa, Q. Zhang, Presiding

1:30 INOR 1417. Synthesis and characterization of high valence metal phosphonate metal-organic frameworks. **D.B. Barbee**, A.R. Barron

1:50 INOR 1418. Bio-template synthesis of zeolitic imidazolate framework-8 (ZIF-8). **Q. Wang**, H. Qin, H. Zhou

2:10 INOR 1419. Phase-purity and size control of NU-1000. **T. Webber**, S. Bingham, R. Combs, W. Liu, S.P. Desai, C. Lu, D.G. Truhlar, R. Penn

2:30 INOR 1420. Precise control of the pore hydrophilicity enabled by post-synthetic cation exchange in a metal-organic framework. **A.M. Wright**, A.J. Rieth, M. Dinca

2:50 INOR 1421. Synthesis and applications of hierarchically structured metal-organic frameworks. **Y. Yue**, S. Armentrout

3:10 Intermission.

3:25 INOR 1422. Some general considerations made for controlled guest materials formation in the confined environments of metal-organic frameworks. **T. Wang**, S.K. Smoukov, A.K. Cheetham

3:45 INOR 1423. Topological transformation of luminescent metal-organic frameworks. **Q. Zhang**

4:05 INOR 1424. Synthetic strategies for constructing enzyme-inspired metal-organic framework materials. **T. Gadzikwa**, C.S. Satterfield, K.P. Samarakoon, M.C. McCoy

4:25 INOR 1425. *Quo vadis niobium?* Multifaceted coordination behavior of MOF-5. **M.D. Korzynski**, L. Braglia, E. Borfecchia, A. Baldansuren, C.H. Hendon, C. Lamberti, M. Dinca

4:45 INOR 1426. Cross-linking Zr-based metal-organic polyhedra via postsynthetic polymerization. **D. Nam**, J. Huh, J. Lee, J. Kwak, H. Jeong, K. Choi, W. Choe

Celebrating Over Four Decades of Research in Nanomaterials & Commercialization: Symposium in honor of Kenneth Klabunde
Sponsored by I&EC, Cosponsored by INOR[†]

Radiopharmaceutical Chemistry
Sponsored by FLUO, Cosponsored by INOR[†], MEDI[†] and NUCL[†]

Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments

Uranium Incorporation: Sulfate Mineral Geochemistry

Sponsored by GEOC, Cosponsored by ENVR and INOR

Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels

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Theoretical & Experimental Studies of Supercritical Fluids in the Subsurface

Sponsored by GEOC, Cosponsored by ENVR and INOR

Control of Zeolite Structure, Composition & Sites for Catalysis
Sponsored by CATL, Cosponsored by INOR

MEDI

Division of Medicinal Chemistry

A. Stamford, Program Chair

OTHER SYMPOSIA OF INTEREST:

Advances in Molecular Recognition of Double-Helical DNA & RNA (see CARB, Mon, Tue)

Discovery of Small Molecules Targeting RNA (see ORGN, Tue)

Structure-Based Drug Design for GPCRs (see COMP, Wed)

SOCIAL EVENTS:

Poster Session & Social Hour, 7:00 PM: Sun, Wed

BUSINESS MEETINGS:

Business Meeting, 5:30 PM: Sun

SUNDAY MORNING

Section A

Ernest N. Morial Convention Center
La Nouvelle Orleans Ballrooms A/B
Leveraging Atropisomers in Medicinal Chemistry

M.M. Weiss, Organizer, Presiding

8:30 Introductory Remarks.

8:35 MEDI 1. Atropisomer axial chirality as a valuable tool in drug discovery. **S. LaPlante**

9:10 MEDI 2. Atropisomerism in macrocyclic factor VIIa inhibitors. **P. Glunz**, N. Wurtz, X. Zhang, L. Mueller, D.L. Cheney, A. Wei, P. Wong, R.R. Wexler, E.S. Priestley

9:45 MEDI 3. Leveraging atropisomerism in the identification of Na_v1.7 inhibitors for the treatment of pain. **B.C. Milgram**, M. Chu-Moyer, E.F. DiMauro, H. Gao, A. Guzman-Perez, D. La, I.E. Marx, B. Moyer, A. Boezio, J. Butler, R. Graceffa, C. Kreiman, E. Peterson, B. Sparling, K. Romero, M.M. Weiss

10:20 MEDI 4. Atropisomerism as a means to modulate target selectivity and an inspiration for new chemistry. **J. Gustafson**

10:55 MEDI 5. Optimizing kinase in the development of lortlatinib: The challenge of atropisomerism. **P. Richardson**

11:30 MEDI 6. Twisted road to the discovery of BMS-986142: Using conformationally locked atropisomers

to drive potency in a reversible inhibitor of Bruton's tyrosine kinase (BTK). **S.H. Watterson**, G.V. De Lucca, Q. Shi, C.M. Langevine, Q. Liu, D.G. Batt, M. Beaudoin Bertrand, H. Gong, J. Dai, H. Yip, P. Li, D.Z. Sun, D. Wu, C. Wang, Y. Zhang, S.C. Traeger, M. Pattoli, S. Skala, L. Cheng, M.T. Obermeier, R. Vickery, L. Discenza, C. D'Arienzo, K.M. Gillooly, T. Taylor, C. Pulicchio, K.W. McIntyre, M.A. Galella, A. Tebben, J. Muckelbauer, C. Chang, L. Salter-Cid, J.C. Barrish, P.H. Carter, A. Fura, J.R. Burke, J.A. Tino

Section B

Ernest N. Morial Convention Center Rooms 252-254

General Orals

A.W. Stamford, Organizer
J.R. Allen, Presiding

8:30 MEDI 7. Inhaled Janus kinase 1 (JAK1) inhibitors as potential treatments for asthma. **M. Zak**, N. Ray, S. Goodacre, N. Ghilardi, H. Dengler, C. Rinderknecht, A. Johnson, M. Briggs, B. McKenzie, D. Brown, J. Kenny

8:50 MEDI 8. Discovery of LAS194046, a potent pan-JAK inhibitor for the inhaled treatment of respiratory diseases. **J. Bach**

9:10 MEDI 9. Design of KDM4C inhibitors with antiproliferative effects in cancer models. **Y. Chen**

9:30 MEDI 10. Small molecules as frontline therapy for immune oncology: Experience from ubiquitin pathway targets. **J. Wu**, S. Kumar, F. Wang, I. Sokirniy, M. Mattern, J. Weinstock

9:50 MEDI 11. Small molecule screening approaches for inhibition of Ubc9 and the sumoylation pathway. **K. Zlotkowski**, W.M. Hewitt, G. Lontos, S. Dahlhauser, L. Saunders, R. Sinniah, D. Needle, J. Tropea, B. Ma, P. Yan, H. Bokesch, M.L. Peach, M.C. Nicklaus, J.J. Barchi, J. McMahon, R. Nussinov, D. Waugh, K. Gustafson, J. Schneekloth

10:10 MEDI 12. Evaluation of triazolopyrimidine microtubule-stabilizing small molecules as potential candidates for the treatment of Alzheimer's disease and related tauopathies. **C. Ballatore**, Y. Yao, K. Oukoloff, A. Cornec, M. James, J. Trojanowski, V. Lee, A.B. Smith, K. Brunden

10:30 MEDI 13. Synthesis and characterization of a highly potent series of substituted N-(indanyl)piperidine-4-carboxamides as positive allosteric modulators of the M₃ muscarinic acetylcholine receptor. **A. Bender**, K.D. Nance, H.P. Cho, T.M. Bridges, P.M. Sexton, A. Christopoulos, P.J. Conn, C.W. Lindsley

10:50 MEDI 14. Discovery and design of novel selective kappa opioid antagonists. **M. Green**, N. Kablaoui, R. Danica, C.M. Stiff, B. Brian, K.J. Coffman, M.A. Brodney, P.R. Verhoest

11:10 MEDI 15. Macrocyclic peptides as novel LSD1 inhibitors and their biological evaluation. **I.R. Kumarasinghe**, P.M. Woster

11:30 MEDI 16. Design and synthesis of lysine-targeted covalent inhibitors of HSP72. **J. Pettinger**, Y. Le Bihan, M. Powers, M. Widyia, R. van Montfort, K. Jones, M. Cheeseman

[†]Cooperative Cosponsorship

11:50 MEDI 17. Indole-2-carboxamides (I2Cs) targets mycolic acid transport and offer a potential treatment for *Mycobacterium abscessus* infections. **O. Onajole**, J. Stec, C. Dupont, A. Viljoen, M. Richard, T. Chaira, S. Lun, W. Bishai, S. Raj, D. Ordway, A.P. Kozikowski, L. Kremer

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Large-Scale Applied Molecular Modeling

Sponsored by COMP, Cosponsored by CINF and MEDI

SUNDAY AFTERNOON

Section A

Ernest N. Morial Convention Center
La Nouvelle Orleans Ballrooms A/B

General Orals

A.W. Stamford, Organizer, Presiding

1:30 MEDI 18. Discovery of a potent and efficacious Mcl-1 inhibitor featuring an β -hydroxy phenylacetic acid pharmacophore. **G. Rescouri**, S.P. Brown

1:55 MEDI 19. Discovery of SAM competitive, brain-restricted PRMT5 inhibitors with potent antitumor activity. **J.H. Tatlock**, J. Billitti, J.F. Braganza, A. Brooun, Y. Deng, B. Hirakawa, K. Jensen-Pergakes, R. Kumpf, W. Liu, K. Maegley, I.J. McAlpine, M. McTigue, R. Patman, E. Rui, S.A. Scales, M.B. Tran-Dube, F. Wang, Z. Wang, S. Yamazaki, T. Zhang, M. Wythes

2:20 MEDI 20. Optimization of S1P1 partial agonists leading to the identification of BMS-986166. **A.J. Dyckman**, J.L. Gilmore, M. Yang, T. Dhar, D. Marcoux, Z. Xiao, H. Xiao, L. Li, A. Mathur, J. Xie, K. McIntyre, R. Thomas, T. Taylor, X. Yang, L. Lehman-McKeeman, H. Shi, P.C. Levesque, H. Sun, A.M. Marino, Z. Yang, G. Cornelius, C. D'Arienzo, D. Shen, M. Cvijic, B.M. Warrack, L. Salter-Cid, L. Lombardo, J.E. Macor, P.H. Carter

2:45 MEDI 21. Inhibition of glutamyl cyclase as a new concept for the treatment of Alzheimer's disease: PQ912, the first-in-class QC-inhibitor in clinical development for AD. **U. Heiser**, T. Hoffmann, A. Meyer, R. Sommer, D. Ramsbeck, M. Kleinschmidt, H.U. Demuth, K. Glund, I. Lues

3:10 MEDI 22. Discovery of clinical candidate TAK-915, a highly potent, selective, and brain-penetrating phosphodiesterase 2A inhibitor for the treatment of cognitive disorders. **S. Mikami**, S. Nakamura, T. Ashizawa, I. Nomura, M. Kawasaki, S. Sasaki, H. Oki, H. Kokubo, I.D. Hoffman, H. Zou, N. Uchiyama, K. Nakashima, N. Kamiguchi, H. Imada, N. Suzuki, H. Iwashita, T. Taniguchi

3:35 MEDI 23. Discovery of potent and orally bioavailable macrocyclic peptide-peptoid hybrid CXCR7 modulators. **M. Boehm**

4:00 MEDI 24. Novel ROR β inverse agonists: From GDC-0022 to a novel pyridazine-based series. **J.J. Crawford**

4:25 MEDI 25. Discovery and development of novel small molecule modulators of TNF alpha signalling. **D. Brookings**, R.P. Alexander, T. Arakaki, J. Bentley, T. Bourne, J.A. Brown, A. Burgin, M. Calmiano, B. Carrington, M. Deligney, D. Fox III, A. Foley, H.T. Horsley, J. Heer, J. Henshall, M. Hutchings, V. Jackson, C. Johnstone, J. Kennedy, L. King, B. Kroepfen, A. Lawson, F. Lecomte, J. Madden, K. Menochet, M. Merriman, T. Norman, J. O'Connell, A. Payne, J. Porter, J. Quincey, S. Rapecki, M.D. Selby, A. Vugler, G. Watt, S. Wright, Z. Zhu

4:50 MEDI 26. Discovery of a novel series of small molecule modulators of TNF alpha binding and signalling through a novel mechanism of action. **T. Norman**, F. Lecomte, J. Kennedy, B. Carrington, J. Porter, J. O'Connell, A. Lawson, R. Davis, S. Rapecki, B. Kroepfen, A. Burgin, T. Arakaki

Section B

Ernest N. Morial Convention Center
Rooms 252-254

Medicinal Chemists' Toolbox Series: Dipole & Charge in Drug Design

N.A. Meanwell, P.M. Scola, K. Yeung, Organizers, Presiding

1:30 Introductory Remarks.

1:35 MEDI 27. Deeper understanding of molecular recognition through modern computational techniques. **C.D. Sherrill**, R.M. Parrish, D. Sitkoff, D.L. Cheney

2:10 MEDI 28. Electrostatic basis of anomalous SAR and molecular properties: Tactical lessons in drug design. **D.L. Cheney**, D. Sitkoff, X. Zhu, M. Dhar, B.W. Bakr, C.D. Sherrill

2:45 MEDI 29. Fluorine multipolar interaction: how much does it contribute to binding free energy? **L. Xing**

3:20 MEDI 30. Understanding stacking interactions of heterocyclic drug fragments. **S.E. Wheeler**, A.N. Bootsma, A.C. Doney

3:55 MEDI 31. Polar protein-ligand interactions: Statistical significance and use in structure-guided drug design. **B. Kuhn**

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Large-Scale Applied Molecular Modeling

Sponsored by COMP, Cosponsored by CINF and MEDI

SUNDAY EVENING

Section A

Ernest N. Morial Convention Center
Hall E

General Posters

A.W. Stamford, Organizer

7:00-9:00

MEDI 32. Discovery of a highly selective BTK inhibitor Tirabrutinib(ONO/GS-4059) for B-cell lymphoma and inflammatory diseases. **S. Yamamoto**, R. Suzuki, A. Hiramatsu, H. Kijima, T. Watanabe, H. Egashira, S. Takai, M. Terakado, S. Ogawa, M. Ima, T. Nishiyama, I. Doi, M. Kuroko, R. Omi, K. Kayasuga, S. Kusuda, A. Imagawa, H. Habashita, T. Seko, K. Moriarty, Z. Konteatis, K. Moffett, Y. Lee, W. Chao

MEDI 33. Photoaffinity labeling approach towards binding site identification of chroman-4- one based sirtuin 2 inhibitors. **T. Seifert**, M. Malo, J. Lengqvist, C. Sihlbom, E.M. Jarho, K. Luthman

MEDI 34. Discovery of a novel kinase inhibitor ON 150030, a type 1 inhibitor for relapsed and refractory AML. **M. Reddy**, H. Ghaffari, B. Akula, S.C. Cosenza, M.R. Mallireddigari, V. Dandu, P. Reddy

MEDI 35. Discovery of pyrrolo[1,2-b]pyridazine-3-carboxamides as potent JAK1/3 inhibitors with selectivity against ROCK family kinases. **S. Spergel**, M.E. Mertzman, S. Lin, G. Brown, J. Kempson, J. Guo, S.M. Stachura, J.S. Lippy, R.F. Zhang, S. Pitt, A. Fura, Y. Tang, J.S. Tokarski, J. Sack, J. Khan, J. Li, J. Hennen, P.C. Levesque, P.H. Carter, J.C. Barrish, L. Salter-Cid, G.L. Schieven, S. Wroblewski, W.J. Pitts

MEDI 36. Discovery and structure-activity relationship of pyrrolo[2,1-f][1,2,4]triazines as inhibitors of phosphatidylinositol 3-kinase β (PI3K β) for the treatment of immunological disorders. **Q. Shi**, D. Marcoux, Q. Liu, D.G. Batt, L. Cornelius, A.S. Srivastava, R.J. Cherney, L. Qin, Z. Ruan, J. Neels, R.S. Bhide, L. Li, M. Beaudoin Bertrand, H. Gong, S.H. Watterson, J. Pan, H. Tang, J. Fan, M. Yarde, M. Cvijic, M.T. Obermeier, A. Fura, C.A. Weigelt, M.A. Galella, J. Sack, J. Muckelbauer, K.M. Gillooly, K.W. McIntyre, Q. Ruan, M.A. Poss, J. Hynes, J.E. Macor, P.H. Carter, S. Ruepp, G.L. Schieven, J.A. Tino

MEDI 37. Highly delta selective quinoxalinone PI3K inhibitors. **J.A. Treiberg**, J. Chandrasekhar, C. Ip, D. Koditek, E. Lepist, M. McGrath, J. Mwangi, S. Perreault, J. Somoza, B. Steiner, J.H. Therrien, A.G. Villasenor, S. Wise, B. Wong, G. Phillips

MEDI 38. Dual kinase-bromodomain inhibition of Brd4 and p38a using trisubstituted-imidazoles. **A. Divakaran**, S.K. Talluri, A.M. Ayoub, N.K. Mishra, J.C. Widen, J. Zhu, N. Berndt, E. Schonbrunn, D.A. Harki, W.C. Pomerantz

MEDI 39. Identification of a novel DYRK1A inhibitor lead from computational modeling of kinase inactive conformations. **K. Kumar**, P.M. Ung, P. Wang, H. Wang, H. Li, M.K. Andrews, A. Stewart, A. Schlessinger, R. deVita

MEDI 40. Trifluoromethyl oxetanes:

Synthesis and evaluation as a *tert*-butyl isostere in the gamma secretase modulator program. **P. Mukherjee**, C. am Ende, M. Pettersson, J.K. Dutra, L. Xie

MEDI 41. Highly selective dopamine D₃ receptor (D₃R) antagonists with arylated diazaspiro alkane cores. **S. Reilly**, S. Griffin, M. Taylor, K. Sahlholm, C. Weng, K. Xu, R.R. Luedtke, R.H. Mach

MEDI 42. Discovery of new indomethacin-based analogs with potentially selective cyclooxygenase-2 inhibition and observed diminishing to PGE2 activities. **S.E. Kassab**, M.A. Khedr, H. Ali, M.M. Abdalla

MEDI 43. Withdrawn.

MEDI 44. Utilizing small molecule adjuvants to increase colistin efficacy against Gram-negative bacteria. **B. Minrovic**, C. Melander

MEDI 45. Assessment of mitochondrial membrane potential in cells and *in vivo* using click chemistry and mass spectrometry. **K. Shaffer**, R.A. Smith, M.P. Murphy

MEDI 46. Discovery of reactive oxygen species inducer for treatment of lung cancer. **F. Ndombera**

MEDI 47. Development of novel penicillin binding protein 2 (PBP2) inhibitors as drug candidates for penicillin- and cephalosporin-resistant *Neisseria gonorrhoeae*. **J.M. Turner**, P.M. Woster, C. Davies

MEDI 48. 1,2,4-triazolidine-3-thiones as narrow spectrum antibiotics against *Acinetobacter baumannii*. **W. Huggins**, C. Melander

MEDI 49. Nitrogen-containing derivatives of O-trimethyl-2,3-dehydrosilybin: Design, synthesis, and *in vitro* evaluation in prostate cancer cell models. **B. Vue**, S. Zhang, A. Vignau, G. Chen, X. Zhang, Q. Chen

MEDI 50. Discovery of hydroxylated benzofuro[3,2-b]pyridin-7-ol derivatives as DNA topoisomerase inhibitors: Synthesis, biological evaluation and structure-activity relationship study. **A. Shrestha**, T.M. Kadayat, G. Bist, T.B. Thapa Magar, P. Katila, Y. Kwon, E. Lee

MEDI 51. Evaluation of serotonin modulators as a novel treatment for inflammatory bowel disease. **D.J. Canney**, B.E. Blass, K. Blattner, R. Gao, J. Gordon, H. Wang, W. Khan, D. Pippin

MEDI 52. Applying EPSA in guiding permeability optimization of small molecules. **K. Song**, R. Romero

MEDI 53. Towards understanding the unbound state of drug compounds: Implications for the intramolecular reorganization energy upon binding. **I. Chen**

MEDI 54. Examination of proteins bound to nascent DNA in mammalian cells using: BrdU-ChIP-Slot-Western technique. **D. Pablito**, S. Bhaskara

MEDI 55. Structure-activity relationship of a tetrahydroisoquinoline class of N-methyl-D-aspartate receptor modulators that potentiates GluN2B-containing N-methyl-D-aspartate receptors. **M.**

[†]Cooperative Cosponsorship

- Epplin, K.L.** Strong, J. Bacsa, C.J. Butch, P.B. Burger, D.S. Menaldino, S. Traynelis, D. Liotta
- MEDI 56.** Synthesis and biological effects of a novel carborane-based β -amino acid for the treatment of glioblastoma. **T. He, S.V. Chittur, R. Musah**
- MEDI 57.** Synthesis of novel CCR1 antagonists for treatment of glioblastoma. **F. Faizal, K. Mack, E. Shepherd, S. Chakravorty, M. Gill, M. Notaromaso, I. Pabon, N. Patel, H. Rao, J. Yarfi, J. Xie, J.R. Merritt**
- MEDI 58.** (1-4)-S-thiodisaccharides: Potential anticancer drug candidates against human malignant gliomas. J. Sarnik, M. Toma, A. Czubaika-Bienkowska, A. Maciejka, T. Sliwinski, **Z.J. Witzczak, R. Bielski, T. Poplawski**
- MEDI 59.** HPLC detection of ferulic acid, gallic acid and quercetin from aqueous extracts of *Moringa oleifera*. **A.G. Gonzalez, A. Mar, H.M. Morales**
- MEDI 60.** Synthesis of JMS-17-2 and its analogs as new potential CX3CR1 antagonists. **M. Gao, M. Wang, J.A. Meyer, J.S. Peters, H. Zarrinmayeh, P. Territo, G.D. Hutchins, Q. Zheng**
- MEDI 61.** Developing structure-phototoxicity relationships for the better prediction of phototoxicity. **T. Takai, Y. Dragan, R. Naven**
- MEDI 62.** Resurrecting aged acetylcholinesterase to combat organophosphorus poisoning. **N. Rigel, S. Davis, A.J. Franjesevic, B. Scarpitti, Q. Zhuang, C.S. Callam, C.M. Hadad**
- MEDI 63.** Design and synthesis of dual ALK/BRD4 inhibitors. **E. Watts, E. Tucker, D. Heidenreich, B. Bellenie, S. Knapp, L. Chesler, S. Hoelder**
- MEDI 64.** Discovery of IACS-6274: A potent, selective GLS1 inhibitor with excellent pharmacokinetic properties under development for cancers with specific metabolic vulnerabilities. **M.J. Soth, K. Le, G. Liu, J.P. Burke, J.J. Kovacs, J.P. Bardenhagen, C.A. Bristow, B. Czako, C. Carroll, M.E. Di Francesco, M.M. Hamilton, M. Geck-Do, A. Harris, V. Giuliani, Y. Jiang, T. Johnson, Z. Kang, Z. Liu, T. McAfoos, M. Miller, W.S. Palmer, N.E. Rogers, H.E. Shepherd, N.D. Spencer, J. Theroff, A. Yau, G. Draetta, T. Heffernan, C. Toniatti, P. Jones**
- MEDI 65.** Discovery of novel bicyclic pyridone derivatives as inhibitors of EZH2. **M.A. Marx, T.P. Bobinski, D.M. Briere, J.G. Christensen, R.A. Gallemmo, M.R. Lee, N. Sudhakar, J.W. Winkelman**
- MEDI 66.** Potent small-molecule inhibitors of tubulin polymerization targeted for selective release mediated by tumor-associated hypoxia. **Z. Shi, R. Guddneppanavar, B.A. Winn, C. George, T.E. Strecker, Y. Wang, J. Gerberich, A. Winters, E. Lin, C.J. Maguire, J. Ford, D.J. Chaplin, R.P. Mason, M.L. Trawick, K.G. Pinney**
- MEDI 67.** Development and screening of new cathepsin B and K inhibitors utilizing substituted thiosemicarbazones. **R. McConnell, H. Sarepalla, P. Akula, B. Guda, D. Yermala, N. Kadasala, K. Sayyar, W. Godwin, L. Wen**
- MEDI 68.** Development and screening of new cathepsin D inhibitors. **R. McConnell, K. Malayala, K. Yarlagadda, K. Sayyar, C. Trana, W. Godwin, L. Wen**
- MEDI 69.** Lead optimization of cathepsin K inhibitors for disease-modifying osteoarthritis. **A. Ginnetti, D. Paone, K. Nanda, A. Green, C.S. Burgey, L. Duong, H. Glantschnig, L. Huang, P. Lu, S. McElwee-Witmer, R. Vogel, N. Wei, G. Wesolowski, S. Carroll, S. Mosser, R. Robinson, S. Adamski, D. Eular, N. Hatcher, B. Luo, L. Lubbers, H. Webber, k. wessner, K. Anderson, S. Craithern, D. Dooney, J.D. Ellis, Y. Kuo, B. Ma, D. Rudd, B. Wan, C. Wudarski, M. Zrada, S. Stachel**
- MEDI 70.** Small molecules inhibitors of PCSK9-LDLR protein-protein interaction. J. Taechalerpaisarn, **C.M. Serrano, B. Zhao, X. Liang, K. Burgess**
- MEDI 71.** Using in-line ion-exchange impurity scavenging to improve flash purification efficiency. **J.R. Bickler**
- MEDI 72.** Lead optimization of novel CETP inhibitors for cardiovascular diseases. **G. Park, S. Kim, H. Hwang, E. Lee, S. Woo, E. Ko, C. Im, S. Lee, W. Lee, M. Ma, S. Lee, M. Song**
- MEDI 73.** Histone H3 and H4 acetylation of gamma-globin gene induced by phenylsulfonylurea. **J.L. Dos Santos, T.R. Melo, C. Kumkhaek, C. Lanaro, K.P. Barbieri, M.E. Lopes-Pires, R.C. Chelucci, I.Z. Carlos, S. Marcondes, K. Chegaev, S. Guglielmo, L. Lazzarato, R. Fruttero, M. Chung, G.P. Rodgers, F.F. Costa**
- MEDI 74.** Design and synthesis of novel peroxisome proliferator-activated receptor β agonists. **K. Jung, K. Kim, S. Cho, J. Chin**
- MEDI 75.** Cyclohexyl GPR40 full agonists for the treatment of Type 2 diabetes. **S.K. Meegalla, J. Lanter, H. Huang, S. Lee, T. Martin, J. Silva, M. Otieno, B. Rady, L. Norquay, J. Xu, J. Qi, M. Rankin, Y. Wang, S. Zhao, E. Arnoult, Y. Gong, J. Liu, X. Fran, F. Du, S. Lohani, A. Poca, M.R. Player**
- MEDI 76.** Imidazopyridazine analogues as anti-malarial PfPI3K inhibitors. **R. Liu, T. Pandharkar, I. Safeukui, S. Bhattacharjee, H. Liu, O. Wiest, K. Haldar, M.J. Miller**
- MEDI 77.** Structure based drug design in the search of selective inhibitors of the plasmeprin V (PmVPf) from *Plasmodium falciparum*. **W. Ferraz, G.M. Ferreira, G.H. Trossini**
- MEDI 78.** Design and synthesis of new peptide-benzimidazole conjugates targeting *Trypanosoma cruzi* fibronectin receptor. P. Pitasse-Santos, D. Decoté-Ricardo, C.G. Freire-de-Lima, A.K. Giri, V.J. Hruby, **M.E. Freire De Lima**
- MEDI 79.** Identification of ligand-efficient inhibitors of *Trichomonas vaginalis* uridine nucleoside ribohydrolase using NMR-based fragment screening. **S. Auletta, W. Caravan, J. Persaud, D.G. Brown, D.W. Parkin, B.J. Stockman**
- MEDI 80.** Ribavirin selectively inhibits the guanosine/adenosine/cytidine nucleoside hydrolase from *Trichomonas vaginalis*. **W. Caravan, R. Alam, A. Barbarovich, M. Ismail, A. Barskaya, D.W. Parkin, B.J. Stockman**
- MEDI 81.** Emerging SAR for several series of *Trichomonas vaginalis* adenosine/guanosine preferring nucleoside ribohydrolase inhibitors derived from fragment analog screening. **J.A. Gonzalez, A. Kaur, V. Sapojnikov, D.G. Brown, D.W. Parkin, B.J. Stockman**
- MEDI 82.** Organizing 3D project data for structure-based drug design. **E. Metwally**
- MEDI 83.** MOEsaic: Application of matched molecular pairs to interactive SAR exploration. **A. Ajamian**
- MEDI 84.** Multi-target molecular profiling using MOE: A CYP450 isoform selectivity case study. **M.R. Goldsmith**
- MEDI 85.** Exploiting solvent effects in drug design and optimization. **C. Williams**
- MEDI 86.** Problem based learning with MOE. **A. Bonin**
- MEDI 87.** Total synthesis and analogue development of the cyclic imine natural product scytonemide A. **R.J. Tokarski, T. Wilson, J.E. Orjala, H.L. Rakotondraibe, J. Fuchs**
- MEDI 88.** Using small-molecule structural chemistry to inform drug discovery: Applications of the Cambridge Structural Database. **P. Sanschagrin, S. Sekharan**
- MEDI 89.** Behavior and biological significance of caseinolytic protease P in *Clostridium difficile*. **N. Lavey, A.S. Duerfeldt**
- MEDI 90.** Development and construction of an original compound library for CNS drug discovery: Combining computational and wet data to enhance CNS drug-likeness. **D. Hasegawa, P.P. Graczyk, R. Nicewonger, G.S. Bhatia, L. Birch, P. Dimopoulos, A.H. Payne, Y. Kobayashi, T. Terauchi, R. Clark, S. Suzuki, M. Watanabe, T. Nishioka, H. Terauchi, S. Ozaki, I. Kushida, T. Suh, M.J. Yu, F. Benayoud, K. Sanders, F. Fang**
- MEDI 91.** Bicyclic pro-drug SIP1 partial agonists: Exploring olefinic side chains to modulate the PK, PD, and toxicology profiles. **M. Yang, Z. Xiao, T. Dhar, H. Xiao, J.L. Gilmore, A. Mathur, J. Xie, K. McIntyre, T. Taylor, X. Yang, L. Lehman-McKeeman, H. Sun, A.M. Marino, G. Corneilus, D. Shen, M. Cvijic, L. Salter-Cid, P.H. Carter, A.J. Dyckman**
- MEDI 92.** Evolution of AMPK activators with improved muscle exposure. **J. Hicks, D. Feng, J. Appgar, R. Wilkening, L. Wei, K.J. Leavitt, J. Dropinski, L. Chu, X. Qian, A. Kekec, G. Dong, A. Kim, H. Lu, H. Guan, K. Lu, X. Yang, J. Gorski, G. Eiermann, A. Gollapudi, M. Kurtz, M. Trujillo, R. Myers, D. Kemp, M. Hu, S. Xu, I.K. Sebbat**
- MEDI 93.** Short acting pan-AMPK activators as exercise mimetics. **J. Appgar, R. Wilkening, L. Wei, K.J. Leavitt, D. Feng, H. Lu, H. Guan, K. Lu, X. Yang, J. Gorski, G. Eiermann, A. Gollapudi, M. Kurtz, M. Trujillo, R. Myers, D. Kemp, M. Hu, S. Xu, I.K. Sebbat**
- MEDI 94.** Design and synthesis of NR analogues to inhibit glucose metabolism in cancer cells. **E. de las Heras Ruiz, S. Butterworth, I. Stratford, R. Bryce, A.P. Thomas, D. Stead**
- MEDI 95.** How relevant is secondary structure mimicry in design of small molecules to disrupt protein-protein interfaces? J. Taechalerpaisarn, **M. Arancillo, C. Lin, R. Lyu, Z. Jiang, L.M. Pérez, T.R. Ioerger, K. Burgess**
- MEDI 96.** Finding conserved residue triplets on protein-protein interfaces. **R. Lyu, K. Burgess**
- MEDI 97.** Small molecule peptidomimetic to perturb protein-protein interactions targeting NEDD8-NAE. **C. Lin, K. Burgess**
- MEDI 98.** Cleavable, targeted small-molecule maytansinoid conjugate improves therapeutic index on treating metastatic breast cancer. **Z. Jiang, K. Burgess**
- MEDI 99.** Near-infrared zwitterionic dye to target TrkC expressing cancer cells. **S.M. Usama, K. Burgess**
- MEDI 100.** Withdrawn.
- MEDI 101.** Mechanism of inhibition of *Mycobacterium tuberculosis* isocitrate lyase by 3-nitropropionate. **S. Ray, D. Kreitler, A.M. Gulick, A.S. Murkin**
- MEDI 102.** Potentiation of para-aminosalicylic acid (PAS) by chemical inhibition of para-aminobenzoic acid (PABA) biosynthesis in *Mycobacterium tuberculosis*. **S. Dawadi, Y. Minato, A.D. Baughn, C.C. Aldrich**
- MEDI 103.** Repurposing of antipsychotic drugs as anti-tuberculosis agents. **J. Schultz**
- MEDI 104.** Cephalosporin-pyrazinoid acid conjugates: Novel agents for drug-resistant tuberculosis. **M. Cole, J. Buonomo, Y. Minato, J. Thiede, A.D. Baughn, C.C. Aldrich**
- MEDI 105.** Teixobactin: A recently discovered antimicrobial peptide. Structure-activity relationship. **B.G. de la Torre, S.A. Abdel Monaim, Y.E. Jad, E.J. Ramchuran, A. El-Faham, F. Albericio**
- MEDI 106.** Natural product inspired drug discovery from *Clerodendrum colebrookianum* Walp.: Fragment-based drug design, synthesis and testing for anticancer activity. **H. Arya, C.S. Yadav, S.B. Syed, S. Kannadasan, M. Coumar**
- MEDI 107.** Synthesis and pharmacological evaluation of histone deacetylase inhibitors as fetal hemoglobin inducers. **J.L. Dos Santos, A.C. Melchior, P.L. Bosquesi, A.R. Pavan, C. Lanaro, M. Chung, R. Rusinova, R.C. Chelucci, O.S. Andersen, F.F. Costa**
- MEDI 108.** Improved UV detection of peaks during elution with absorbing solvents. **J.E. Silver, D. Johnson, C. Bailey, S. Paeschke, R. Lewis**
- MEDI 109.** Identification of bicyclic hexafluoroisopropyl alcohol sulfonamides as ROR β /ROR γ c inverse agonists. Employing structure-based drug design to improve PXR selectivity. **H. Gong, D.S. Weinstein, Z. Lu, J. Duan, S.M. Stachura, L. Haque, A. Karmarkar, H. Hemagiri, D. Raut, A. Gupta, J. Khan, D. Camac, J. Sack, A.T. Pudzionowski, D. Wu, M. Yarde, D. Shen, V. Borowski, J. Xie, H. Sun, C. D'Arienzo, M. Dabros, M.A. Galella, F. Wang, C.A. Weigelt, Q. Zhao, W. Forster, J.E. Somerville, L.M. Salter-Cid, J.C. Barrish, P.H. Carter, M. Dhar**

- MEDI 110.** Understanding the structure and reactivity of the C-S linkage in biologically active 5-arylthio-5Hchromenopyridines. K.A. Grice, R. Patil, A. Ghosh, J. Paner, M. Guerrero, E. Camacho, P. Sun Cao, A. Niyazi, S. Zainab, R. Sommer, G. Waris, **S. Patil**
- MEDI 111.** Liquid biopsy: The simplest technique for pancreatitis and pancreatic cancer detection. **O. Covarrubias-Zambrano**, M. Kalubowilage, A.P. Malalasekera, H. Wang, S.O. Wendel, D.L. Troyer, S.H. Bossmann
- MEDI 112.** Machine learning consensus scoring improves performance across targets in structure-based virtual screening. S.S. Ericksen, H. Wu, H. Zhang, L. Michael, M. Newton, F.M. Hoffmann, **S.A. Wildman**
- MEDI 113.** Design and synthesis of novel deuterated GABA_A-R- β subtype selective ligands with improved metabolic stability and enhanced bioavailability. **D.E. Knutson**, R. Kodali, M.R. Stephen, R.S. Verma, C. Witzigmann, M.A. Meirelles, N.M. Zahn, A.T. Huber, L. Arnold, M.M. Savic, M. Ernst, W. Sieghart, J.M. Cook
- MEDI 114.** Development of highly potent and selective inhibitors of DNA repair by 8-oxoguanine DNA glycosylase (OGG1). **Y. Tahara**, E.T. Kool
- MEDI 115.** Short and efficient access to very large non-peptidic macrocyclic space and applications to difficult targets. **A. Doemling**
- MEDI 116.** Virtual screening and MCR-based synthesis and characterisation of multiple scaffolds against p53-MDM2. **A. Doemling**
- MEDI 117.** Cystic fibrosis transmembrane conductance regulator protein (CFTR) correctors: Discovery and synthesis on THP series. **B. Liu**, X. Searle, C. Yeung, A. Bogdan, A. Swensen, A. Singh, C. Balut, Y. Fan, A. Manelli, T. Vortherms, C. Tse, P.R. Kym, X. Wang
- MEDI 118.** Addressing the transient subpocket of tRNA-guanine transglycosylase (TGT) with an acetylenic vector. **L. Movsisyan**, C. Hohn, W. Goetzke, E. Hassaan, G. Klebe, F.N. Diederich
- MEDI 119.** Human CAR activators as sensitizers of cyclophosphamide-based treatment for lymphomas. D. Liang, L. Li, **H. wang**, **F. Xue**
- MEDI 120.** Withdrawn.
- MEDI 121.** Quantitative structure-activity relationship applied of a series of 2-anilinobenzamide derivatives as Sirtuin-2 selective compounds hematological cancers candidates. **G.H. Trossini**, G.M. Ferreira, J.G. Magalhães, V.G. Maltarollo, F. Emery
- MEDI 122.** Discovery of novel KDM4B inhibitors to target periodontal disease progression. **J. Kirkpatrick**, J.M. Turner, R. Wilkinson, B. Harbin, K.L. Kirkwood, P.M. Woster
- MEDI 123.** Opportunities for advanced computational modeling to greatly accelerate drug discovery. **R. Abel**, S. Bhat, S. Mondal
- MEDI 124.** New inhibitors of BRD4 identified by combining fragment-based and HTS approaches. P. Borysko, O. Vasylychenko, S. Zozulya, **Y. Moroz**
- MEDI 125.** Antimelanoma studies of novel pyrazole and fused thiazoline-androstenedione derivatives. **C. Williams**, J. Whitt, C. Okolo, M.A. Alam
- MEDI 126.** Design and synthesis of novel OSW-1 scaffolds as precision cancer therapeutic agents. **A.T. Le**, **C. Malinky**, A. Burgett
- MEDI 127.** Design, synthesis, and evaluation of selective inhibitors of mono-(ADP-ribosyl)transferase, PARP-10. **C. McCadden**, R. Grant, A. Thorsell, J. Holecek, R. Lease, T. Karlberg, H. Schuler, D. Ferraris
- MEDI 128.** Design, synthesis and evaluation of PARP14 inhibitors as biological probes for target validation. **K. Upton**, A. Thorsell, T. Karlberg, M. Meyers, J. Holecek, R. Lease, H. Schuler, D. Ferraris
- MEDI 129.** Rational design and synthesis of potent and aqueous soluble bis-amino alcohol dimeric naphthoquinones with activity against acute myeloid leukemia cells. **E. Williams**, **R. Palmer**, B. Carter-Cooper, S. Dash, P. Truong, A. Emadi, R. Lapidus, D. Ferraris
- MEDI 130.** Synthesis and evaluation of novel belactosin A/carfilzomib hybrids as proteasome inhibitors. N.K. Dunlap, **M. Yadab**, C. Moss, K. Sampuda, L. Boyd
- MEDI 131.** Structural modifications of the N-terminal Hx-moiety in HxIP: Effects on DNA binding, cellular uptake, and gene expression. V. Satam, L. Pett, J. Patil, J. Sweers, M. Bowerman, S. Tzou, K. Olson, M. Lee, K. Kiakos, J. Hartley, **M. Lee**
- MEDI 132.** Synthesis of PSB-12054 and its analogs as new potential P2X4 receptor antagonists. M. Wang, **M. Gao**, J.A. Meyer, J.S. Peters, H. Zarrinmayeh, P. Territo, G.D. Hutchins, Q. Zheng
- MEDI 133.** Discovery of novel 5-oxa-2,6-diazaspiro[3.4]oct-6-ene derivatives as potent, selective, and orally available somatostatin receptor subtype 5 (SSTR5) antagonists for treatment of type 2 diabetes mellitus. **H. Hirose**, T. Yamasaki, T. Yamashita, M. Ogino, R. Mizojiri, N. Takakura, S. Morimoto, T. Nakahata, A. Kina, Y.O. Tamura, J. Sugama, H. Yashiro, Y. Muraki, Y. Nakano, A. Hata, T. Odani, Y. Shimizu, S. Iwasaki, M. Watanabe, T. Maekawa, S. Kasai
- MEDI 134.** Discovery of furanone derivatives as potent BRAF inhibitors. **D. Liu**, J. Zhang, R. Shen, L. Yang, J. Wang, L. Zhang, A. Gong, B. Lu, Y. Yan, Q. Sun, H. Wan, P. Yan, L. Zhang, J. Cao, M. Zhang
- MEDI 135.** Amino acids derived multifunctional N-, S-doped carbon dots for biomedical applications. **S. Sagbas**, **C. Silan**, **N. Sahiner**
- MEDI 136.** Adenosine-functionalized biodegradable PLA-B-PEG nanoparticles block osteoarthritis in rats. **X. Liu**
- MEDI 137.** Marine natural product manzamines as novel *Herpes simplex virus* type-1 inhibitors. J.R. Palem, **M. Mudit**, S.V. Hsia, K.A. El Sayed
- MEDI 138.** Design, synthesis and application of novel building blocks to "Escape the Flatland" in medicinal chemistry. **P. Mykhailiuk**, Y. Dmytriv, I. Komarov
- MEDI 139.** [2+2]-Photochemical synthesis and application of bicyclic amines: Advanced building blocks for medicinal chemistry. T. Dryzhenko, A. Denisenko, **P. Mykhailiuk**
- MEDI 140.** Synthesis and application of unnatural Proline analogues: Advanced building blocks for medicinal chemistry. V. Dolovanyuk, I. Kondratov, **P. Mykhailiuk**
- MEDI 141.** *In vitro* drug release studies for the treatment of TNBC and pancreatic cancers from natural derived polymeric micro- and nano-particles. F. Comert Onder, S. Sagbas, M. Ay, B. Ozpolat, **N. Sahiner**
- MEDI 142.** Design, synthesis, and bioactivity of small molecule leads for the treatment of oculo-vascular diseases. **X. Dou**, D. Nath, G. Deng, Y. Shin, J. Ma, A.S. Duerfeldt
- MEDI 143.** Aryl galactosides targeting FmIH antagonists for the treatment of urinary tract infections (UTIs). **A. Maddirala**, V. Kalas, R. Chugani, M.E. Hibbing, J.S. Pinkner, S.J. Hultgren, J.W. Janetka
- MEDI 144.** Coumarin-based analogues of schweinfurthins. **C.M. Schroeder**, P. Dey, J.A. Beutler, D.F. Wiemer
- MEDI 145.** Synthesis and biological evaluation of 2,7-difluoropyronins. **B.E. Walls**, F. Boumelhem, Z. Woydziaik
- MEDI 146.** Discovery of the orally-active irreversible LSD1 inhibitor 1-morpholino-3-(4-(((1R,2S)-2-phenylcyclopropyl)amino)piperidin-1-yl)propan-1-one (MRTX1519) with antitumor activity. **M.A. Marx**, R.M. Aranda, D.M. Briere, J.G. Christensen, L.D. Engstrom, P. Olson, N. Sudhakar, A. Vaisburg, J.W. Winkelman
- MEDI 147.** DYRK1A inhibition simultaneously targets amyloid-beta and tau pathology. **C. Foley**, C. Branca, D. Shaw, R. Belfiore, V. Gokhale, A. Shaw, B. Meechoovet, B. Smith, T. Dunckley, A. Caccamo, S. Oddo, C. Hulme
- MEDI 148.** Pharmaceutical applications of polyethoxyethylglycinamide (PEE-G) dendrimers. **R. Shrestha**, P. Rendle
- MEDI 149.** Hybrid BisQACs: Biscationic quaternary ammonium compounds merging the structures of two commercial antiseptics. **S.A. Schallenger**, R. Kontos, B. Bentley, S. Duggan, K. Morrison, W. Wuest, K.P. Minbiole
- MEDI 150.** Toward the discovery of PET radiotracer for imaging TDP-43 aggregates in FTD and ALS patients. **C. Boudou**, V. Darmency, T. Seredenina, J. Kocher, J. Stoehr, H. Kroth, A. Purohit, D. Paterson, L. Martarello, A. Pfeifer, A. Muhs
- MEDI 151.** Synthesis, structure activity relationship studies and biological evaluation of novel and selective 1H-pyrrolo[2,3-b]pyridine-2-carboxamides as related phosphodiesterase 4B (PDE4B) inhibitors. **A. K Vadukoot**, S. Sharma, C. Hopkins
- MEDI 152.** Bivalent probes to elucidate the mechanism of opioid enhanced neuroAIDS. **B. Falls**, H. Wang, D. Selley, K. Hauser, Y. Zhang
- MEDI 153.** "Magic methyl effect" in medicinal chemistry and methylation of (hetero)arenes. L. Hu, X. Liu, **Y.A. Liu**, X. Liao
- MEDI 154.** Prep LC: How much can I load? **J.E. Silver**, C. Bailey, D. Johnson, S. Paeschke, R. Lewis
- MEDI 155.** Computational analysis and synthesis of potential inhibitors active against Gram-negative bacteria. **R. Roldan**, A.O. Pajarillo, C.P. Embry, M.L. Cafiero, L.W. Peterson
- MEDI 156.** Withdrawn.
- MEDI 157.** Development of glutathione S-transferase (GST) covalent inhibitor. **Y. Shishido**, F. Tomoike, Y. Kimura, K. Kuwata, T. Yano, K. Fukui, H. Fujikawa, Y. Sekido, Y. Murakami-Tonami, T. Kameda, S. Shuto, H. Abe
- MEDI 158.** Synthesis and characterization of poly(Naringin) particles as new biomaterials. **M. Sahiner**, D.A. Blake, N. Sahiner
- MEDI 159.** Triazol-3-yl benzamides as potent and selective inhibitors of human factor XIIa. **R.A. Al-Horani**, D.K. Afosah
- MEDI 160.** Optimization of niclosamide analogs against enzalutamide resistant prostate cancer: Application in medicinal chemistry. **B. Kang**, Q. Zhong, M. Mottamal, M. Bratton, C. zhang, G. Wang, F. Payton-Stewart
- MEDI 161.** Design, synthesis and molecular modeling of new N-4-piperazinyl ciprofloxacin thiazazole derivatives with antimycobacterial activity. H.H. Mohammed, **S.H. Abbas**, E.M. Abdelhafez, G.A. Moustafa, K.N. Dalby, **T.S. Kaoud**, G. Hauk, J.M. Berger, S. Mitarai, M. Arai, G.A. Abu-Rahma
- MEDI 162.** Synthesis of fused and isolated triazoles based on thieno[2,3-d]pyrimidines and the screening of their PDE 5 inhibitory activity. M.A. Ameen, E.K. Ahmed, **M. Ramadan**, K.N. Dalby, **T.S. Kaoud**
- MEDI 163.** Anti-inflammatory properties of synthetic chalcones and Δ^1 -pyrroline-5-carbonitriles. C. Aikens, E. Mazziro, V. Mihaylova, D. Tasheva, B. Mochona, K. Redda, **N.N. Mateeava**
- MEDI 164.** Inhibition of breast cancer cell growth and proliferation by novel synthetic Δ^1 -pyrroline-5-carbonitriles and flavonoids. C. Aikens, V. Mihaylova, D. Tasheva, E. Mazziro, B. Mochona, K. Redda, **N.N. Mateeava**
- MEDI 165.** Synthesis and structure-activity relationship of β -quaternary phenylalanine analogs as LAT1 substrates. **B. Venteicher**, **C. Hall**, J. Campbell, C. Hernandez, A. Flint, H. Chien, K. Giacomini, C. Colas, A. Schlessinger, A.A. Thomas
- MEDI 166.** Optimization of LAT1 affinity for meta-substituted phenylalanine analogs. **S. Springer**, L. Stoner, K. Finke, A. Anthony, A. Flint, J. Bauer, C. Hernandez, H. Chien, K. Giacomini, C. Colas, A. Schlessinger, A.A. Thomas

MEDI 167. Novel quinaline-incorporating 1,2,4-triazole/oxime hybrids inhibit STAT3 phosphorylation and suppress human melanoma cell growth. **D. Abdelhamid**, A.M. Mohassab, H.A. Hassan, M. Abdel-Aziz, K.N. Dalby, **T.S. Kaoud**

MEDI 168. Designing tet enzyme inhibitors to enhance learning and memory. **J. Alp, G. Chua, K. Wassarman**, H. Sun, C.P. Gettens, K. Zengeler, A. Kennedy

MEDI 169. Synthesis of conformationally restricted scaffolds by Double-Mannich reaction of cyclic ketones. **P. Mykhailiuk, Y. Moroz**

MEDI 170. Synthesis of novel unique pyrrolidines by [3+2]-cycloaddition of azomethine ylides with electron-deficient alkenes. **P. Mykhailiuk, Y. Moroz, O. Gavrylenko**

MEDI 171. Rapid access to novel multifunctional spirocyclic cores for drug discovery. **P. Mykhailiuk, Y. Moroz, O. Gavrylenko**

MEDI 172. Approaches to synthetically feasible polyfunctional building blocks. **P. Mykhailiuk, O. Michurin, Y. Moroz**

MEDI 173. ToxPHACTS – Toxicological read across using the Open PHACTS Discovery Platform. **J. Gurinova, B. Knasmueller, L. Richter, D. Digles, G.F. Ecker**

MEDI 174. K4DD-db – An open access resource for data on ligand binding kinetics. **B. Knasmueller, L. Richter, G.F. Ecker**

MEDI 175. Discovery of highly selective LRRK2 inhibitors as tool compounds to assess CNS PET tracer feasibility. **L. Tong, Z. Zeng, G.J. Thomas, W. Li, D. Hesk, B. Wood, M. Ellis**

MEDI 176. Synthesis of amino acid ester prodrugs of BW-AQ-238 as potential inhibitors of MDM2/MDM4 dimerization to induce apoptosis in cancer cells. **A. Anifovose, Z. Yuan, X. Yang, A. Draganov, B. Wang, L. Gu, S. Yi, T. Liu, M. Zhou**

MEDI 177. Biophysical investigation of transcription factor Erg-DNA binding properties and the inhibition of Erg by small molecules. **B. Liu, G.M. Poon, A.A. Farahat, A. Kumar, D.W. Boykin, W. Wilson**

MEDI 178. Discovery of highly potent, selective, covalent inhibitors of JAK3. **J. Kempson, D. O'valle, J. Guo, S. Wroblewski, S. Lin, S. Spengel, J. Duan, B. Jiang, Z. Lu, J. Das, B.V. Yang, J. Hynes, H. Wu, J.S. Tokarski, J. Sack, J. Khan, G.L. Schieven, L. Salter-Cid, A. Fura, Y. Blatt, J.C. Barrish, P.H. Carter, W.J. Pitts**

MEDI 179. Fused thiazoline-androstane derivatives as potential anticancer agents. **C. Okolo, J. Whitt, C. Williams, M.A. Alam**

MEDI 180. High affinity dopamine D4 receptor subtype-selective ligands as molecular tools to study addiction. **C.A. Boateng, M. Day, R. Free, K. Stewart, D. Sibley, T. Keck**

MEDI 181. Sulfonamide motif in NMDA receptor ligands. **S. Summer, D.S. Menaldino, S. Traynelis, D. Liotta**

MEDI 182. Alpha7 nicotinic acetylcholine receptor silent agonists: Exploration of the SAR for NS6740. **M. Pismataro, C. Stokes, R. Papke, N. Horenstein, C.M. Dallanoco**

MEDI 183. Negative allosteric modulators of the cannabinoid receptor 2: Protein modeling, binding site identification and molecular dynamics simulations in the presence of an orthosteric agonist. **P. Pandey, K. Roy, R.J. Doerksen**

MEDI 184. Computational analysis of adduct formation between benzaldehyde derivatives and DNA. **E. Voytsekhovskaya, D.J. Marell, D.R. Quirk Dorr**

MEDI 185. Intuitive workflow to enumerate and explore large virtual libraries. **M.D. Segall, A. Cooke, J. Chisholm, E. Champness, P. Hunt, T. Mansley**

MEDI 186. Dual inhibition of Bcl-2/Mcl-1 and MDM2 with novel β -helix mimetics based on a densely-functionalized isoxazole core. **I.L. Conlon, A. Falat, N. Bowen, S. Fletcher**

MEDI 187. Covalent strategies towards the selective inhibition of the Mcl-1 oncoprotein. **N. Bowen, G. Njoku, M. Sun, W. Yu, A.D. Mackerell, S. Fletcher**

MEDI 188. Structure-based design of dual Bcl-2/Mcl-1 inhibitors. **G.E. Vickers, B. Drennen, S. Fletcher**

MEDI 189. Rational design of spiro-thiazine-based selective BACE1 inhibitors: Targeting the flap to gain selectivity over BACE2. **K. Kusakabe, K. Fujimoto, N. Asada, E. Matsuoka, K. Fuchino, H. Ito, D. Moechars, H. Gijsen**

MEDI 190. Development of novel casein kinase 1d inhibitors for treatment of Alzheimer's disease. **V. Jha, S. Kauloorkar, M. Bratton, C. Gettridge, H.M. Duong, R. Schroeder, J. Sridhar**

MEDI 191. Identification and *in vivo* evaluation of Liver X receptor b-selective agonists for the potential treatment of Alzheimer's disease. **S. Stachel, K.K. Nanda, M.T. Rudd, E. Brnardic, S. Suon, M. Cosden, K. Wessner, C. Zerbinatti, J. DiMuzio, J. Maxwell, J. Uslaner, M. Michener, P. Szczerba, W. Wuelling, Y. Yuan, J. Ballard, M. Holahan, M.T. Bilodeau, J. Renger, D. Klein, V. Uebele, J. Lu, G. Parthasarathy, Z. Wu**

MEDI 192. Novel *in silico* strategies towards optimization of new anthrax antitoxin leads. **C.M. McDermott, E.A. Ambrose**

MEDI 193. Incorporation of tetracycline in water ethanol bentonite dispersions. **M. Bobadilla, E. Moura, M.S. Valenzuela, F. Valenzuela**

MEDI 194. Choline geranate deep eutectic solvents exhibiting unique antimicrobial activity against *Staphylococcus aureus*. **S. Ottavi, K.A. Bidle, D.L. Jacobs**

MEDI 195. Synthesis of anti-cancer drugs to inhibit P-gp pumping action. **M.A. Aljowni**

MEDI 196. Synthesis and optimization of a near-infrared fluorescent choline kinase β inhibitor: Cyclo-JAS239. **R. Humeidi,**

A. Arroyo, S. Osharovich, A.V. Popov, E. Delikatny

MEDI 197. Label-free visualization of peptides and small molecules in tumor explants using mass spectrometry imaging. **B. David, O. Dubrovskiy, J.M. Frasar, L.M. Sanchez, T.W. Moore**

MEDI 198. Synthesis and antimicrobial evaluation of 3-hydroxy-2-oxindole natural products and derivatives. **G.M. Dominguez, M.L. Morshead, J.D. Shapiro, C.P. Lyndaker, M.M. Majirek**

MEDI 199. Withdrawn

MEDI 200. 3-Aminopyrazoles as type I and type II inhibitors for p38 β MAP kinase. **N.J. Vantangoli, D.W. Boerth, S. Rasapalli**

MEDI 201. Optimization of NK-kB inducing kinase inhibitors: A fragment based approach. **N. Scorah, W. Keung, L. Kwok, P. Tanis, M. Sabat, D. Lawson, J. Ermolieff, N. Ishii**

MEDI 202. Janus kinase 1/3 (JAK1/3) inhibitors: Improving selectivity against Rho kinase 1 (ROCK1) in a series of piperidinylaminopyrrolo[1,2-b]pyridazine-3-carboxamides. **M.E. Mertzman, S. Spengel, G. Brown, B.V. Yang, S. Lin, J.S. Tokarski, J.S. Lippy, R.F. Zhang, M.A. Galella, S. Pitt, J. Sack, J. Khan, P.H. Carter, J.C. Barrish, S.G. Nadler, L.M. Salter-Cid, G.L. Schieven, S. Wroblewski, W.J. Pitts**

MEDI 203. Withdrawn

MEDI 204. Identification and optimization of second generation CDK2 inhibitors as otorectants against cisplatin-induced ototoxicity. **R. Hazliit, T. Teitz, J. Min, J. Bonga, D. Currier, T. Chen, Z. Rankovic, J. Zuo**

MEDI 205. Inhibition of *Neisseria meningitidis* by 5'-sulfonamide-nucleoside conjugates. **M. Ghali, V. Lopez, M. Hight, A. Awad**

MEDI 206. Investigating the use of mixed stationary phases for peptide purification via reversed phase flash chromatography. **E. Denton, J.R. Bickler**

MEDI 207. Synthesis and analysis of a folate conjugate for simultaneous capture and detection of cancer cells. **W.A. Henne**

MEDI 208. Development of a *Coxiella burnetii* culturing method for high throughput assay to identify growth inhibitory small molecules. **M. Khan, M. Hale**

MEDI 209. Design and synthesis of hydroxylated 2-phenyl-4,6-dithienyl/furanpyridines as selective topoisomerase II β inhibitors. **P. Katila, G. Bist, T.B. Thapa Magar, A. Shrestha, Y. Kwon, E. Lee**

MEDI 210. Synthesis and characterization of de-sulfonlated product of Rigosertib, a late phase III clinical candidate. **M.R. Mallireddigari, V. Dandu, V. Bharathi, B. Akula, V. Pallela, S.C. Cosenza, C. Ren, M. Maniar, P. Reddy, M. Reddy**

MEDI 211. Molecular dynamics simulations of the epsilon unit in HBV pgRNA. **R.P. Pemberton**

MEDI 212. Near-IR cyanine optical/PDT theranostic for TrkC+ breast cancer. **J.P. Shrestha, K. Burgess**

MEDI 213. SAR study of novel FABP inhibitors as antinociceptive, anti-inflammatory, and anticancer agents. **S. Yan, M. Elmes, M. Awwa, J. Li, K. Ziadkhanpour, M. Kaczocha, D. Deutsch, I. Ojima**

MEDI 214. Chemo-enzymatic synthesis of "clickable" and photoactive NAADP analogs for identification of the NAADP receptor. **P. Su, J. Bretz, T. Asfaha, C. Trabbic, T. Walseth, J. Slama**

MEDI 215. Structure activity relationship studies of indole-containing heterocycles targeting lipid regulation pathways. **H. Xie, K. Yang, G.N. Winston-Mcpherson, W. Tang**

MEDI 216. Targeting lipid regulation pathways by novel small molecules. **K. Yang, H. Xie, G.N. Winston-Mcpherson, D. Stapleton, M. Keller, A. Attie, W. Tang**

MEDI 217. Binding of silymarin flavonignan isomers to human serum albumin: Experimental and computational studies. **D. Hlangothi, K. Anthony, M.A. Saleh**

MEDI 218. Chemoenzymatic synthesis of novel O-linked glycopeptide cancer vaccine candidates. **J. Zhang**

MEDI 219. Synthesis and evaluation of 7-O-aminoalkyl-3',4'-O-trimefylfletins as anti-prostate cancer cell agents. **M. Lee, K. Muthima, X. Li, G. Chen, Q. Chen**

MEDI 220. Nitrogen-containing derivatives of tetramethylquercetins: A new group of anti-prostate cancer agents. **P.S. Rajaram, Z. Jiang, A. Phasakda, A. Rivera, G. Chen, Q. Chen**

MEDI 221. Synthesis of N-(9-acridinyl)-O-phenylhydroxylamines as anti-cancer agents. **C.I. Muldoon, A.L. Johnson, M.D. Mosher**

MEDI 222. Identification of conserved waters in macromolecular structures using ProBIS H2O. **M. Jukic, J. Konc, S. Gobec, D. Janezic**

MEDI 223. Suppressive effect of benzoxazinoids on prostate cancer cells. **B. Bhattarai, P.L. Gregersen, M.T. Skaanild, I.S. Fomsgaard**

MONDAY MORNING

Section A
Ernest N. Morial Convention Center
Rooms 252-254

Impact of Small-Molecule Breakthrough Therapies on Human Health

N.A. Meanwell, P.M. Scola, K. Yeung, Organizers, Presiding

8:30 Introductory Remarks.

8:35 MEDI 224. Breakthrough therapies—FDA perspective. **D. Matecka**

9:10 MEDI 225. Discovery and development of alectinib, a selective and potent ALK inhibitor for treatment of ALK-positive advanced non-small cell lung

[†]Cooperative Cosponsorship

cancer. **K. Kinoshita**

9:45 MEDI 226. Discovery of oliceridine (TRV130), a novel G protein biased ligand at the μ -opioid receptor, for the management of moderate to severe acute pain. **A.L. Crombie**, X. Chen, F. Skobieranda, D.G. Soergal, J. Violin, M. Lark

10:20 MEDI 227. US FDA breakthrough designation: Impact and benefits on the development of TAGRISSO™ (osimertinib). **B. Barlaam**, R. Finlay, R. Ward

10:55 MEDI 228. Targeting the cause of cystic fibrosis: Recent progress. **P. Grootenhuis**

Section B

Ernest N. Morial Convention Center
La Nouvelle Orleans Ballrooms A/B

Recent Advances in the Discovery of Deubiquitinase Inhibitors

E.F. DiMauro, E.R. Strieter, *Organizers, Presiding*

8:30 MEDI 229. Selenocysteine as a latent bioorthogonal probe for deubiquitylating enzymes. **C. Chatterjee**

9:00 MEDI 230. Chemical approach to manipulate the protein degradation machinery for human health. **B. Lee**, R. King, D. Finley

9:30 MEDI 231. Targeting the deubiquitinase STAMBP inhibits NALP7 inflammasome activity. **J. Bednash**, N. Weathington, J. Londino, M. Rojas, D. Gulick, B.B. Chen, R.K. Mallampalli

10:00 Intermission.

10:15 MEDI 232. Targeting DUBs in hematological malignancies. **S. Buhrlage**, E. Weisberg, I. Lamberto, X. Liu, N. Schauer, J. Yang, S. Dhe-Paganon, H. Seo, J. Griffin, V. DeCesare, S. Ritorto, M. Trost

10:45 MEDI 233. Target selection and small molecule development in the DUB space. **M. Clague**

11:15 MEDI 234. Fragment guided path to a selective inhibitor of USP7 and its implications for chain linkage specificity. **T. Maurer**

11:45 MEDI 235. Reactive site-centric chemoproteomics identifies a new class of deubiquitinase enzymes. **I.E. Wertz**

12:15 Concluding Remarks.

Section C

Ernest N. Morial Convention Center
Rooms 255-257

Emerging Therapeutics: Gasotransmitters

L.M. Berreau, P.K. Mascharak, *Organizers*
B. Wang, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 MEDI 236. Releasing and sensing reactive sulfur species. **M. Xian**

8:35 MEDI 237. New strategies for carbonyl sulfide (COS) and hydrogen sulfide (H₂S) delivery. **M.D. Pluth**

9:05 MEDI 238. Discovery and clinical

evaluation of MK-8150, a novel nitric oxide donor with a unique mechanism of nitric oxide release. **A. Ali**

9:35 MEDI 239. Development of novel hydrogen sulfide donors to treat cardiovascular diseases. **D. Lefer**, Z. Li, J. Kang, M. Xian

10:05 Intermission.

10:20 MEDI 240. Carbon monoxide is hepatoprotective through generation of nitric oxide. **L. Otterbein**, D. Gallo, S. Otterbein, X. Ji, B. Wang, B. Zuckerbraun, S. Robson

10:50 MEDI 241. Inhibition of cystathione beta-synthase by CO in human breast cancer cells: Implications in chemotherapeutic drug sensitivity. **P.K. Mascharak**

11:20 MEDI 242. Flavonol-based carbon monoxide releasing molecules. **L.M. Berreau**

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers
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Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

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Large-Scale Applied Molecular Modeling

Sponsored by COMP, Cosponsored by CINF and MEDI

MONDAY AFTERNOON

Section A

Ernest N. Morial Convention Center
Rooms 252-254

Identifying Selective PI3K Inhibitors

G. Phillips, *Organizer, Presiding*

1:30 Introductory Remarks.

1:40 MEDI 243. Identification of alpelisib as a selective inhibitor of PI3K β . **R.A. Fairhurst**, G. Caravatti, V. Guagnano, P. Imbach-Weese, R. Mah, M. Gerspacher, I. Bruce, P. Furet, M. Knapp, C. Fritsch, C. Schnell, F. Blasco, J. Blanz, H. Seiler

2:10 MEDI 244. Discovery of two clinical candidates as isoform selective PI3K inhibitors: AZD8835 a potent and selective inhibitor of PI3K β / β and AZD8186 a potent and selective inhibitor of PI3K β / β for the treatment of cancers. **B. Barlaam**, S. Cosulich, S. Degorce, B. Delouvie, M. Fitzek, H. Germain, S. Green, U. Hancox, C. Harris, K. Hudson, C. Lambert-van der Brempt, M. Lamorlette, A. Le Griffon, J. Lohmann, M. Maudet, R. Morgentlin, G. Ouvre, K. Page, G. Pasquet, M. Pasquet, A. Peru, P. Ple, L. Ruston, T. Saleh, M. Vautier, M. Walker, L. Ward, N. Warin

2:40 MEDI 245. Discovery of isoform-selective inhibitors of PI3K in a series of propeller-shaped compounds. **L. Patel**

2:40 MEDI 245. Discovery of isoform-selective inhibitors of PI3K in a series of propeller-shaped compounds. **L. Patel**

3:10 MEDI 246. Exploration and enhancement of PI3Kdelta selective

compounds: The discovery of Nemiralisib and beyond. **K. Down**

3:40 MEDI 247. Discovery of potent and selective inhibitors of PI3Kgamma and production of a roadmap for selectivity design. **P. Collier**

4:10 MEDI 248. Discovery of taseslisib. **T.P. Heffron**

Section B

Ernest N. Morial Convention Center
La Nouvelle Orleans Ballrooms A/B

Advancing Clinical Candidates from Phenotypic Screening

A.K. Cheung, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 MEDI 249. Chemotype-phenotype-target. **H. Waldmann**

2:05 MEDI 250. Discovery of CFTR modulators for the treatment of cystic fibrosis. **S.S. Hadida-Ruah**

2:35 MEDI 251. *In vivo* translatability: Lessons learned from a phenotypic screen designed to identify small molecules that selectively decrease endogenous c-MYC protein levels in cancer cells. **J.R. Medina**

3:05 Intermission.

3:20 MEDI 252. Phenotypic drug discovery: Probing emerging biology to delivering clinical candidates. **A. Plowright**, J. Lillie, P. Mason, E. Makino

3:50 MEDI 253. From here to there: Recognizing paths leading to treatments for spinal muscular atrophy and other diseases. **M.G. Woll**, G.M. Karp, N.A. Naryshkin, A. Dakka, A.A. Branstrom, J. Narasimhan, L. Cao, Y.C. Moon

4:20 MEDI 254. Proteasome inhibitors: A single cure for multiple kinetoplastid diseases. **A.S. Nagle**, V. Molteni, F. Supek

4:50 Panel Discussion.

Section C

Ernest N. Morial Convention Center
Rooms 255-257

2018 MEDI Young Investigators Symposium

T.E. Priszano, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 MEDI 255. Small molecule disruptors of the GK-GKRP interaction. **K. Ashton**

2:05 MEDI 256. Immune modulation by butyrophilin ligands and their prodrugs. **A.J. Wiemer**

2:35 MEDI 257. Discovery and SAR evolution of a novel class of selective adenosine A_{2A} antagonists for the treatment of Parkinson's disease. **Y. Lim**, G. Gallo, M.M. Lo, E. Metzger, B.R. Whitehead, Q. Deng, H. Wang, Y. Yu, R. Anand, R. Hodgson, L. Hyde, D. Mullins, D. Prelusky, E. Parker, A.W. Stamford, A. Ali

3:05 MEDI 258. Discovery of small molecule and nucleic acid inhibitors of APOBEC3 deaminases. **D.A. Harki**

3:35 MEDI 259. Generating selective inhibitors of methionine-gatekeeper kinases: Case studies on NIK, PAKs and

PKD1. **S.T. Staben**, J. Feng

4:05 MEDI 260. Optimization of non-covalent Nrf2 activators for use in models of chronic wound healing. **T.W. Moore**, B. David, B.G. Richardson, A.D. Jain, L. Chen, L.A. DiPietro, S. Reddy, H. Potteti

4:35 Concluding Remarks.

Advances in Molecular Recognition of Double-Helical DNA & RNA
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International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers

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LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

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Large-Scale Applied Molecular Modeling

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Undergraduate Research Posters Medicinal Chemistry

Sponsored by CHED, Cosponsored by MEDI and SOCED

MONDAY EVENING

Section A

Ernest N. Morial Convention Center
Halls D/E

Sci-Mix

A.W. Stamford, *Organizer*

8:00-10:00

33, 38, 39, 47-48, 63, 101, 104, 114-115, 122, 126-127, 146, 152, 159, 165, 167, 189, 192, 204, 221. See previous listings.

322-325, 330, 332, 338, 347, 349, 353, 358, 384, 389, 400, 409, 411. See subsequent listings.

TUESDAY MORNING

Section A

Ernest N. Morial Convention Center
La Nouvelle Orleans Ballrooms A/B

Remarkable Women of Medicinal Chemistry

Cosponsored by PROF and WCC
P.L. Ornstein, A.S. Ripka, *Organizers, Presiding*

8:30 Introductory Remarks.

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8:35 MEDI 261. There and back again: Therapies for the treatment of obesity and diabetes. **A.E. Weber**

9:10 MEDI 262. From organic chemistry to the discovery of PET ligands. **C.D. Jesudason**

9:45 MEDI 263. Malaria drug discovery: How medicinal chemistry and global responsibility intersect. **S.S. Canan**

10:20 MEDI 264. Novel and atypical DAT inhibitors for the treatment of psychostimulant use disorders. **A.H. Newman**

10:55 MEDI 265. From bench to clinic: The discovery of GDC-0853 a potent, selective and reversible Btk inhibitor. **W.B. Young**

11:30 MEDI 266. Science of medicinal chemistry in the discovery of medicines: From ideas-to-trenches-to-the corner office-to-medicine cabinet. **N.T. Zaveri**

Section B

Ernest N. Morial Convention Center
Rooms 252-254

Eyeing Effective Treatment for Retinal Diseases with Small Molecules

T.P. Heffron, *Organizer, Presiding*

8:30 MEDI 267. Strategies to deliver small molecules to the retina by topical drops: A paradigm shift. **A.K. Mitra**, A. Mandal, K. Cholkar

9:10 MEDI 268. Optimizing ophthalmic drug delivery strategies to enhance efficacy: Modeling, formulation technology, and ^oBCS. **H. Gukasyan**

9:40 MEDI 269. PI3K inhibitors for the treatment of retinal diseases. **T.P. Heffron**

10:10 Intermission.

10:25 MEDI 270. Design, synthesis, and evaluation of nonretinoid retinal binding protein 4 antagonists for the potential treatment of atrophic age-related macular degeneration and Stargardt disease. **C.L. Coffi**, N. Dobri, E. Freeman, M.P. Conlon, P. Chen, D. Stafford, D. Schwarz, K. Golden, L. Zhu, D.B. Kitchen, K. Barnes, B. Racz, Q. Qin, E.L. Michelotti, C.L. Cywin, W.H. Martin, P. Pearson, G. Johnson, K. Petrukhin

10:55 MEDI 271. Structure-based design of small-molecule Factor D inhibitors targeting the alternative complement pathway. **A. Vulpetti**, S. Randl, S. Ruedisser, N. Ostermann, P. Erbel, A. Mac Sweeney, B. Gerhartz, F. Cumin, C. Dalvit, K. Anderson, U.A. Argikar, S. Liao, E. Lorthiois, J.K. Maibaum

11:25 MEDI 272. Drug discovery on a challenging target: inhibiting the alternative complement pathway with small molecule factor B inhibitors. **H. Sellner**

Section C

Ernest N. Morial Convention Center
Rooms 255-257

General Orals

A.W. Stamford, *Organizer*
G. Wang, *Presiding*

8:30 MEDI 273. Synthesis and optimization of novel inhibitors targeting *M. tuberculosis* polyketide synthase 13 thioesterase domain. **R.C. Dhakal**, A. Aggarwal, M.K. Parai, R. Shrestha, A. Acharya, J.C. Sacchetti

8:55 MEDI 274. Orally-active inhibitors of H-PGDS for the treatment of asthma, allergic rhinitis and chronic obstructive pulmonary disease. **S. Thurairatnam**

9:20 MEDI 275. Optimization of the chemical matter and synthesis leading to a ketohexokinase inhibitor clinical candidate. **A.C. Smith**, S.B. Coffey, M.S. Dowling, D.P. Fernando, K. Futatsugi, K. Huard, T.V. Magee, B. Raymer, A. Shavnya, A.S. Tsai, M. Tu, H.M. Wisniewska

9:45 MEDI 276. Withdrawn.

10:10 MEDI 277. RMC-4550: An allosteric inhibitor optimized for *in vivo* studies of SHP2. **A.L. Gill**, N. Aay, A. Buckle, M.A. Goldsmith, A. Jogalekar, G. Kiss, E.S. Koltun, A. Marquez, K. Mellem, K. Mordec, R.J. Nichols, M. Saldojono-Concar, C. Semko, M. Singh, J.A. Smith, N. Tibrewal, C. Tzitzilonis, Z. Wang, D. Wildes, S.E. Wilson, W. Won

10:35 MEDI 278. ASTX660, the first fragment-derived IAP antagonist in the clinic. **C. Griffiths-Jones**

11:00 MEDI 279. Rapid development of potent and selective CBP inhibitors: The impact of a tetrahydroquinoline LPF binder. **S.M. Bronner**

11:25 MEDI 280. Discovery and characterization of ingrezza (valbenazine): A VMAT2 inhibitor approved for the treatment of tardive dyskinesia. **N.D. Harriott**, J.P. Williams, E. Smith, H. Bozgian, D.E. Grigoriadis

11:50 MEDI 281. Strategies and challenges on the GluN2A-selective NMDA PAM program: A perspective on positive allosteric modulator (PAM) drug discovery. **M. Volgraf**

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers
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Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation
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Advances in Molecular Recognition of Double-Helical DNA & RNA
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ACS Award for Computers in Chemical & Pharmaceutical Research: Symposium in honor of Jürgen Bajorath
Sponsored by COMP, Cosponsored by CINF and MEDI

TUESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center

La Nouvelle Orleans Ballrooms A/B

MEDI Awards Symposium

A.W. Stamford, *Organizer*
P.L. Ornstein, *Presiding*

1:30 MEDI 282. Award Address
(George and Christine Sosnovsky Award for Cancer Research Sponsored by the George and Christine Sosnovsky Endowment Fund). Anticancer drug discovery, for pets and people. **P.J. Hergenrother**

2:15 MEDI 283. Award Address
(ACS Award for Team Innovation Sponsored by the ACS Corporation Associates). Discovery and development of Ibrance®, a first-in-class CDK4/6 inhibitor. **P.L. Toogood**, D.W. Fry, N. Do, V.G. Beylin, B.P. Chekal, N.D. Ide, B.P. Jones, H. Zhou

3:00 MEDI 284. Leveraging diverted total synthesis to elucidate the mechanism of action of a pseudomonad-specific antibiotic. **W.M. Wuest**

3:30 MEDI 285. HIV-1 drug discovery: Inhibitors of virus attachment and virion maturation. **N.A. Meanwell**

4:00 MEDI 286. Drug discovery in academia. **M.E. Jung**

4:30 Introduction of Awardee.

4:35 MEDI 287. Award Address
(Alfred Burger Award in Medicinal Chemistry Sponsored by Gilead Science Inc.). Discovery and development of novel therapeutics for treating viral diseases, cancers, and inflammatory disorders. **D. Liotta**

Section B

Ernest N. Morial Convention Center
Rooms 252-254

Boron in Medicinal Chemistry & Chemical Biology

R. Moreira, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 MEDI 288. Towards boron based antibiotics and beta-lactamase inhibitors. **C. Schofield**

2:05 MEDI 289. Translating new chemical space to new function: The case of BN/CC isosterism in biomedical research. **S.Y. Liu**

2:35 MEDI 290. Boron heterocycles: Studies on their properties and applications in drug discovery and chemical biology. **D.G. Hall**, B. Akgun, M. Boghi

3:05 Intermission.

3:20 MEDI 291. Boroscan: An enabling technology for the discovery of bioactive molecules containing boron. **A.K. Yudin**

3:50 MEDI 292. Exploring iminoboronates in the assembly of reversible bioconjugates. **P.M. Gois**

4:20 Concluding Remarks.

Elias J. Corey Award for Outstanding Original Contribution in Organic Synthesis by a Young Investigator: Symposium in honor of Seth B. Herzon

Sponsored by ORGN, Cosponsored by MEDI

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers

Sponsored by POLY, Cosponsored by BIOT, MEDI and PMSE

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

Sponsored by COMP, Cosponsored by CINF, MEDI and PHYS

Discovery of Small Molecules Targeting RNA

Sponsored by ORGN, Cosponsored by CARB and MEDI

ACS Award for Computers in Chemical & Pharmaceutical Research: Symposium in honor of Jürgen Bajorath

Sponsored by COMP, Cosponsored by CINF and MEDI

TUESDAY EVENING

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers

Sponsored by POLY, Cosponsored by BIOT, MEDI and PMSE

Radiopharmaceutical Chemistry

Sponsored by FLUO, Cosponsored by INOR[†], MEDI[†] and NUCL[†]

WEDNESDAY MORNING

Section A

Ernest N. Morial Convention Center
La Nouvelle Orleans Ballrooms A/B

First Time Disclosure of Clinical Candidates

J.B. Schwarz, *Organizer, Presiding*

9:00 MEDI 293. Discovery of AZD0364, a potent and selective oral inhibitor of ERK1/2 that is efficacious in both monotherapy and combination therapy in models of NSCLC. **I. Simpson**, M. Anderton, D.M. Andrews, J. Breed, C. Cook, E. Davies, J.E. Debreczeni, H. Entenas, V. Flemington, F.D. Gibbons, M.A. Graham, P.J. Hopcroft, T. Howard, J. Hudson, C. Jones, C.D. Jones, N. Lindsay, M. Malmgren, M. Osborne, J.E. Pease, S. Pithani, P. Rawlins, K. Roberts, S. St-Gallay, S. Swallow, M. Tonge, R. Ward

9:35 MEDI 294. GDC-0927, a selective estrogen receptor degrader and full antagonist for ER⁺ breast cancer. **X. Wang**

10:10 MEDI 295. Discovery of LSZ102, a potent, orally bioavailable selective estrogen receptor degrader (SERD) for the treatment of estrogen receptor positive breast cancer. **G. Tria**, T. Abrams, J. Baird, H.E. Burks, B. Firestone, L. Gaither, L.G. Hamann, G. He, C.A. Kirby, S. Kim, F. Lombardo, K.J. Macchi, D.P. McDonnell, Y. Mishina, J.D. Norris, J. Nunez, C. Springer, Y. Sun, N.M. Thomsen, C. Wang, J. Wang, B. Yu, C.T. Yip, S. Peukert

10:45 MEDI 296. Discovery of PRN1008: A reversible covalent BTK inhibitor for treatment of autoimmune diseases. **T.D. Owens**

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11:20 MEDI 297. Discovery of BMS-986195: A strategy for identifying a highly potent and selective covalent inhibitor providing rapid inactivation of Bruton's tyrosine kinase (BTK). **S.H. Watterson**, Q. Liu, D.G. Batt, M. Beaudoin Bertrand, W. Guo, H. Gong, S. Ahmad, L. Negash, K. Ngu, M. Pattoli, S. Skala, L. Cheng, M.T. Obermeier, R. Moore, R. Vickery, P.A. Elzinga, J. Dai, L. Disenza, C. D'Arienzo, K.M. Gillooly, T. Taylor, C. Pulicicchio, K.W. McIntyre, M.A. Galella, A. Tebben, J. Li, R. Zhao, D. Smith, R. Rampulla, A.J. Allentoff, M.A. Wallace, K.N. Voronin, A. Mathur, L. Salter-Cid, J.E. Macror, P.H. Carter, A. Fura, J.R. Burke, J.A. Tino

Section B

**Ernest N. Morial Convention Center
Rooms 252-254**

Discovery of Small Molecules Targeting RNA: Where Are We & Where Are We Going?

Cosponsored by CARB and ORGN
S.C. Zimmerman, Organizer
A.E. Hargrove, Organizer, Presiding

8:00 Introductory Remarks.

8:05 MEDI 298. Targeting G-quadruplexes in the Zika virus RNA genome. **C.J. Burrows**, A.M. Fleming, Y. Ding, N. Nguyen

8:30 MEDI 299. Structure and assembly of the U6 snRNP. E.J. Montemayor, A.L. Didychuk, Y. Nomura, G. Sidhu, A. Yake, D. Brow, **S. Butcher**

8:55 MEDI 300. Riboswitches as targets, models, and tools for small molecule-RNA interactions. **M. Hammond**

9:20 MEDI 301. High performance virtual screening by targeting a high-resolution RNA dynamic ensemble. **H.M. Al-Hashimi**

9:45 Intermission.

10:15 MEDI 302. Covalent mRNA labeling using fluorescent self-alkylating ribozymes. T. Ayele, S. Ellipilli, **J.M. Heemstra**

10:40 MEDI 303. Small-molecule covalent probes for study and control of RNA. **E.T. Kool**

11:05 MEDI 304. Structural studies of long non-coding RNAs and riboswitches. **K. Sanbonmatsu**

11:30 MEDI 305. Rational design of cell-permeable, multivalent ligands for repeat disease RNA. Y. Bai, J. Lee, U. Chembazhi, L. Hagler, S. Peng, E. Chan, A. Kalsotra, **S.C. Zimmerman**

11:55 Concluding Remarks.

Radiopharmaceutical Chemistry Fluorine

Sponsored by FLUO, Cosponsored by INOR[‡], MEDI[‡] and NUCL[‡]

Structure-Based Drug Design for GPCRs

Sponsored by COMP, Cosponsored by CINF and MEDI

WEDNESDAY AFTERNOON

Section A

**Ernest N. Morial Convention Center
La Nouvelle Orleans Ballrooms A/B**

First Time Disclosure of Clinical

Candidates

J.B. Schwarz, Organizer, Presiding

1:30 MEDI 306. Invention of INCB054329 and INCB057643, two potent and selective BET inhibitors in clinical trials for oncology. **A.P. Combs**

2:05 MEDI 307. Advances in understanding the relationship of pharmacology to GPCR structure and function: A GPR40 journey from the lab to diabetic patients. **C. Hamdouchi**

2:40 MEDI 308. Design, identification and clinical progression of RV521, an inhibitor of respiratory syncytial virus fusion. **G.S. Cockerill**, A. Bedernjak, D. Brookes, R. Dowe, R. Harland, S.M. Johnson, N. Mathews, M. Paradowski, M. Peebles, C. Scott, M. Steadman, G. Taylor, M. Thom, E. Thomas, S.E. Ward, D. Watterson, P. Young, K. Powell

3:15 MEDI 309. Discovery of VNRX-5133: A broad-spectrum serine- and metallo-beta-lactamase inhibitor (BLI) for carbapenem-resistant bacterial infections ("superbugs"). **C.J. Burns**, B. Liu, G. Chu, R. Trout, R. Jackson, D. McGarry, J. Hamrick, D. Daigle, S. Cusick, D. Pevear, L. Xeri

3:50 MEDI 310. Discovery and synthesis of JNJ-54861911, a novel orally active BACE1 inhibitor. **Y. Koriyama**, A. Hori, S. Yonezawa, T. Yamamoto, Y. Baba, H. Ito, A. Kato, G. Sakaguchi

Section B

**Ernest N. Morial Convention Center
Rooms 252-254**

General Orals

A.W. Stamford, Organizer
S. Cyr, Presiding

1:30 MEDI 311. Amphiphilic heterocyclic sulfonamides as carbonic anhydrase inhibitors with selectivity for tumor-overexpressed isozymes – towards theranostic systems for cancer detection and treatment. **M.A. Ilies**, S. Akocak, U. Mondal, C.T. Supuran

1:50 MEDI 312. Investigating the impact of covalency on PROTAC-mediated degradation of BTK. **H. Lithgow**, C. Tinworth, J.D. Harling, I. Smith, G. Burley

2:10 MEDI 313. Applications of protein-observed ¹⁹F NMR (PrOF NMR) for inhibitor discovery of BET and non-BET bromodomains. **W.C. Pomerantz**

2:30 MEDI 314. Identification of potent, selective, cell-active class 1 histone deacetylase inhibitors lacking a zinc binding group. **D.C. Beshore**

2:50 MEDI 315. LAT1 membrane transporter: reevaluating the meaning of L and A. **A.A. Thomas**, H. Chien, A.A. Zur, K. Giacomini, C. Colas, a. schlessinger, L. Lin, K. Finke, E. Augustyn, S. Springer, L. Stoner, A. Flint, N. Heeren, L. Hansen, A. Anthony, C. Hernandez, B. Venteicher, J. Campbell, C. Hall

3:10 MEDI 316. Inhibition of nutrient acquisition and metabolism in pathogenic bacteria. **T.A. Wencewicz**

3:30 MEDI 317. Phospholipase A₂: A target for the development of anti-inflammatory agents. **V. Mouchlis**, E.A.

Dennis, J. McCamman

3:50 MEDI 318. Fragment-based ligand design of carbohydrate receptor ligands. H. Baukmann, J. Schulze, R. Wawrzinek, J. Aretz, E. Wamhoff, M. Nazare, **C. Rademacher**

4:10 MEDI 319. Targeting myeloid differentiation using potent human dihydroorotate dehydrogenase (hDHODH) inhibitors designed by scaffold hopping using regio substituted hydroxyazole scaffolds. **M.L. Lolli**, S. Sainas, A.C. Pippione, D. Bonanni, M. Giorgis, E. Giraud, E. Lupino, P. Goyal, M. Piccinini, R. Friemann, C. Garino, G. Saglio, A. Cignetti, V. Gaidano, P. Circo, S. Al-Karadaghi, D. Boschi

4:30 MEDI 320. Discovery of benzimidazole derivatives as water-soluble CLK1/4 kinase inhibitors and their anticancer activity. **J. Cheong**, M. Zaffagni, B.R. Zetter, L. Sun

4:50 MEDI 321. Design, synthesis and application of clickable β-secretase photoaffinity probes for (off)-target identification. **C. am Ende**, A. Zuhl, C. Nolan, M.A. Brodney, C. Niessan, K. Atchison, C. Houle, D. Karanian, C. Ambrose, J. Brulet, E. Beck, S. Doran, B.T. O'Neill, C. Change, K.F. Geoghegan, G. West, J. Judkins, X.J. Hou, D. Riddell, E.A. LaChapelle, D.S. Johnson

Radiopharmaceutical Chemistry

Carbon-11 & Radionuclide Production

Sponsored by FLUO, Cosponsored by INOR[‡], MEDI[‡] and NUCL[‡]

Structure-Based Drug Design for GPCRs

Sponsored by COMP, Cosponsored by CINF and MEDI

WEDNESDAY EVENING

Section A

**Ernest N. Morial Convention Center
Hall B1**

General Posters

Cosponsored by ORGN
A.W. Stamford, Organizer

7:00–9:00

MEDI 322. Design, synthesis and biological evaluation of hydrogen persulfide donors. **B. Yu**, Y. Zheng, B. Wang

MEDI 323. Long wavelength visible-light triggered hydrogen sulfide donors. **A. Sharma**, A. PK, H. Chakrapani

MEDI 324. Small molecule based tools for localized delivery of hydrogen sulfide. **P. Chauhan**, P. Bora, R. Govindan, S. Jos, H. Chakrapani

MEDI 325. Augmenting protein stability and function through hydrogen-bond-enhanced halogen bonds. **A.C. Carlsson**, M.R. Scholfield, R.K. Rowe, M.C. Ford, A.T. Alexander, R.A. Mehl, P.S. Ho

MEDI 326. Next generation antibiotics: Progress toward the synthesis of an enzyme-activated nitric oxide-releasing antimicrobial fluorescent prodrug. **H. Hibbard**, M.M. Reynolds

MEDI 327. Discovery and development of novel diazeniumdiolate derivatives as nitric oxide donors. **T.J. Henderson**, A. Ali, M.M. Lo, B.R. Whitehead, L. Yan, P. Huo, D. Cully, K. Mitra, Y. Li, S. Hoerner, M.D. Weisel, L. Yang

MEDI 328. Comparison of NO donors, N-N-di-N'-butyl-1,6-hexanediamine and N-N-di-N'-propyl-1,6-hexanediamine, attenuating thrombogenicity in extracorporeal circuits. **M.M. Jeakle**, T. Johnson, T. Major, M.E. Meyerhoff, R. Bartlett

MEDI 329. Stimuli-activated metal-free CO prodrugs: A general strategy. X. Ji, Z. Pan, L. De La Cruz, **B. Wang**

MEDI 330. Cancer targeted nitric oxide delivery with a fluorescence reporter. **R. Govindan**, M. Bagheri, D.K. Saini, H. Chakrapani

MEDI 331. Organic CO prodrugs activated by endogenous ROS. **Z. Pan**

MEDI 332. Development of sulfur dioxide prodrugs with triggered release and tunable release rate. **W. Wang**, X. Ji, Z. Du, E. El-labbad, K. Ji, B. Wang

MEDI 333. Design, synthesis and biological evaluation of nitrate ester analogs of SCP-1. **M. Das**, N.G. Bazan, M.L. Trudell

MEDI 334. Immunostimulatory mannose derived glycoclusters as potential cancer therapeutics. R. Leino, E. Narvi, V. Kähäri, **J. Rähkila**, J. Markola, E. Veräjänkorva, K. Elenius, R. Ekambaram

MEDI 335. Design, synthesis and evaluation of novel sphingosine kinase 1 inhibitors with improved hydrophilic properties. S. Manore, J.C. Hurlbert, **T. Grattan**

MEDI 336. Fisetin sensitize the head and neck cancer (HNC) cells to radiation treatment via mitochondrial exchange inhibition. **R. Singh**, D. Tailor, D. Nambiar, **S.V. Malhotra**

MEDI 337. Synthesis of heterocyclic bioactive compounds. **M. Collins**, M.L. Henning, K. Elkin, N. Arai, K. Ohgo, D. Gilmore, J. Hershberger

MEDI 338. Discovery of a binding site hot spot for non-steroidal anti-inflammatory drugs on the cellular nucleosome. **A.M. Mfuh**

MEDI 339. Novel fluoroaryl acetamides: orally bioavailable lead compounds for the treatment of medically refractory epilepsy. **A. Dubrovskiy**, A.V. Krivoshein, J.L. Guevara, J. Renfrow, J. Jaimes

MEDI 340. Combined fluorescence and circular dichroism spectroscopic investigations examining the influence of buffer components on the stability and solubility of free and warfarin-bound serum albumins. G. Bishop, **Y. Satterwhite**, **S. Weber**, **R. Williams**, K.M. Bishop, L. Robinson

MEDI 341. Encapsulation of thioguanine anti-cancer drug by adsorption on microporous MOF Basolite A100 and its controlled release. C. Grinnell, **A. Samokhvalov**

MEDI 342. Molecular modelling,

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synthesis and bioactivity of peptide as anti-angiogenic and anti-dengue NS2B/NS3 protease inhibitors. **E.E. Kamarulzaman**, R. Vanderesse, A. Mohd Gazzali, M. Barberi-Heyob, C. Boura, C. Frochof, O. Shawkataly, M. Mohd Rawi, S. Mohamad, H.A. Wahab

MEDI 343. Novel levodopa-PAK-Tempo conjugate (LPTC) protects the heart against ischemia/reperfusion injury via inhibiting mitochondrial fission and oxidative stress. **S. Hou**

MEDI 344. Scaffold Hopping approach for the development of a potent class of allosteric HIV-1 integrase inhibitors. **T. Wilson**, N.T. Cockroft, J. Antwi, P. Koneru, M.J. Kobe, M. Kvaratskhelia, J. Fuchs

MEDI 345. Investigation of synthetic strategies for the development of heterocyclic small molecule HIV-1 integrase inhibitors. **N. Jentsch**, J. Sun, M.G. Donahue, J. Kessl

MEDI 346. Withdrawn.

MEDI 347. Synthesis and biological properties of pyridine-fused cyclotriazadiazolonesulfonamides (CADA) against HIV. **L. Lumangtad**, D. Schols, K. Vermeire, T.W. Bell

MEDI 348. Withdrawn.

MEDI 349. Synthesis and characterization of sulfonium silent agonists of the alpha 7 nicotinic receptor. **M. Quadri**, C. Stokes, A. Gulsevin, A. Felts, K.A. Abboud, R. Papke, N. Horenstein

MEDI 350. Advantages of an ocean of compounds over the usual fishing pond. **Y. Moroz**, C. Detering, O. Savych, C. Lemmen

MEDI 351. Towards selective inhibitors of the astacin proteases Meprin β and β . **D. Ramsbeck**, A. Hamann, K. Tan, D. Schlenzig, S. Schilling, M. Buchholz

MEDI 352. Composition and endogenous biosynthesis of the chemical defense of *Pyrcatomena borealis*. **D.A. Posner**

MEDI 353. Co-crystal technology for drug development. **S. Andree**, C.B. Aakeroy, A. Sinha

MEDI 354. Self-assembling peptide-nanosponges for cell-mediated cytotherapy. **A.S. Yapa**, M. Kalubowilage, H. Wang, P. Thapa, T.B. Shrestha, J. Yu, O. Covarrubias-Zambrano, M. Pyle, D.L. Troyer, S.H. Bossmann

MEDI 355. Bringing β -lactam antibiotics back to life: Strategies for restoring their activity against resistant bacteria. **M.A. Boudreau**

MEDI 356. Synthesis of berberine derivatives as potential antibiotics. **J. Rusnak**, L.M. Mori Quiroz, A. De Los Santos, M. Anyika, M.D. Cliff

MEDI 357. Withdrawn.

MEDI 358. Targeting multiple myeloma: Toxicity elucidation and structural modification of δ -thiopurine and development of new targeting delivery systems. **R. Rafferty**, C.J. Weeramange, V. Hoang, A. Fatino

MEDI 359. Design, synthesis, and pharmacokinetic evaluation of 4-aminopyridones as glutaminase inhibitors of cancer cell metabolism. **J.P. Burke**, M.M. Hamilton, M. Han, Z. Kang, K. Le, Z.J. Herrera, H.E. Shephard, J.P. Bardenhagen, N.E. Rogers, Z. Liu, T. Johnson, Y. Jiang, J.J. Kovacs, M. Geck-Do, G. Draetta, T. Heffernan, C. Toniatti, P. Jones, M.E. Di Francesco, M.J. Sath

MEDI 360. Cucurbit[7]uril based main-chain polymer as drug carrier for supramolecular polymeric chemotherapy. **H. Chen**, Y. Chen, H. Wu, J. Xu, Z. Sun, X. Zhang

MEDI 361. New vacuolar-ATPase inhibitors as antiviral therapies. **A. Lindstrom**, D.P. Petrov, R. Davey, V.J. Davisson

MEDI 362. CRAFT'ing a human serum albumin-ligand screen: A CPMG relaxation-editing approach using ^1H NMR spectroscopy and complete reduction to frequency amplitude table (CRAFT) to characterize ligand binding to human serum albumin. **D.P. Soulsby**

MEDI 363. Discovery of bicyclic carboxamides as hepatitis B virus (HBV) core protein assembly modulators. **Y. Du**, N. Hwang, M.R. Campagna, S. Wu, J. Guo

MEDI 364. Synthesis and biological evaluation of novel long acting muscarinic antagonists. **J.F. Boulos**, **J. Baquier**

MEDI 365. Design and synthesis of thiophene-N-methylbenzimidazole diamidines exploiting the "beta-hole" concept for specific recognition of DNA G-C base pairs. **A.A. Farahat**, A. Kumar, P. Guo, A. Paul, W. Wilson, D.W. Boykin

MEDI 366. Synthesis and biological evaluation of novel tumor-targeting biotin-linker-fluoro-taxoid conjugate. **Y. Jing**, C. Wang, X. Wang, I. Ojima

MEDI 367. Trisubstituted cyclohexanes as dual antagonists of CCR2 and CCR5. **R.J. Cherney**, D.G. Batt, G. Brown, S. Kumar, P. Anjanappa, Y. Zhang, S.S. Ko, A.S. Srivastava, J.V. Duncia, J.B. Santella, D. Gardner, R. Mo, A.V. Rose, J. Chen, J. Pang, S. Xu, M. Dabros, M.A. Galella, A. Mathur, M. Cvijic, J.C. Barrish, S. Mandlekar, Q. Zhao, P.H. Carter

MEDI 368. Regioselective synthesis of N-substituted pyrazoles. **N. Norman**, **T. Mello**, N. Kneitschel, D. Cheon, O. Moeller, A. Huang

MEDI 369. Facile synthesis of fucosylated peptides. **C. Gibbons**

MEDI 370. Nanomedicine for trans-epithelial oral delivery of ivermectin for Zika. **B. Surnar**, S. Dhar

MEDI 371. SAR of novel anti-fungal agents targeting the synthesis of fungal GlcCer. **K. Haranahalli**, Y. Sun, C. Lazzarini, J.E. Zambito, M. Del Poeta, I. Ojima

MEDI 372. Synthesis and biological activity of coumarin-containing prodrugs of a butyrophilin ligand. **N.M. Harmon**, B.J. Foust, C.C. Hsiao, A.J. Wiemer, D.F. Wiemer

MEDI 373. Reactive oxygen species (ROS) triggered 5-fluorouracil prodrugs.

Y. Ai, O. Obianom, Y. Shu, F. Xue

MEDI 374. Identification and optimization of potent and selective RIPK2 inhibitors. **S. Nikhar**, G. Cuny, A. Degterev

MEDI 375. Design and synthesis of substituted 3-(*tert*-butylamino)-2-phenylpropanoate esters as potential dopamine transporter inhibitors. **M. Cooper**, **D. Dukes**, L.A. Bonner

MEDI 376. Synthesis of δ, δ -difluoromethyl halohydrins and their application in the synthesis of β -aminobutyric acid type B (GABA_B) receptor agonists. **M. Sowailah**, R. Hazliit, D.A. Colby

MEDI 377. Development of a practical synthesis of THC and CBD enabling access to novel analogs. **Z. Shultz**, J.W. Leahy, G. Lawrence

MEDI 378. Withdrawn.

MEDI 379. Synthetic study of orally available selective ASIC inhibitor. **K. Fujii**, H. Nakamura, Y. Umezaki, R. Takano, Y. Numata, T. Tanimoto, S. Wakimoto, L. Sitong, M. Izumi, T. Watanabe, T. Deguchi, T. Matsuo, T. Hirayama, S. Marumoto, M. Yoshida

MEDI 380. Emerging synthetic cannabinoids and their primary metabolites. **R.J. McKinnie**, C. Biggers, B. Euceda, T. Darweesh, X. Cao, M.L. Trudell

MEDI 381. Analysis of fluorescent thermal shift screening hits against *Burkholderia pseudomallei* IspF. **S.M. Watkins**, D.L. Grote, C.A. Muller, J.M. Blain, C. Luan, J.R. Horn, T.J. Hagen

MEDI 382. Discovery of tetrahydropyran derivatives as inhibitors of indoleamine 2,3-dioxygenase – *in silico* screen and structure-activity relationship studies. **J. Cheong**, F.E. Jernigan, L. Sun

MEDI 383. Transesterification and bacterial quorum sensing inhibition of β -keto esters. **S.M. Meschwitz**, R. Ruest

MEDI 384. Development of the phyllanthusmin class of natural products: SAR, mechanistic probes, and drug property optimization. **A.C. Huntsman**, A. Young, J.L. Woodard, H. Chai, Y. Ren, M.A. Phelps, A.D. Kinghorn, J.E. Burdette, J. Fuchs

MEDI 385. Lessons taken from the study of HCV-NS3 protease affinity to its NS4A cofactor at different conditions. **M.T. Khayat**, M.E. El-Araby, A.M. Omar, M. El-Faky, S.T. Arold, S. Soror, H. Asfour, A. Khayyat

MEDI 386. Design, synthesis and bio evaluation of novel liver X receptor ligands. **R. Komati**, M. Ndukwe, K. LaMark, K. Payne, M. Bratton, J. Sridhar, K.E. Riley

MEDI 387. Design, synthesis and bio evaluation of amido phthalimides as CDK9 and VEGF inhibitors. **R. Komati**, V.C. Miles, M.M. Ismail, H. McFerrin, J. Sridhar

MEDI 388. Amidophthalimides derivatives as CDK9 and VEGFR inhibitors. **L. Ha**, **F.J. Richard**, R. Komati, J. Sridhar

MEDI 389. PROTACs – Small molecule

induced protein degradation. **M. Pettersson**, C.M. Crews

MEDI 390. Synthesis and biological studies of C1 β -(aminoalkyl)carbapenem antibiotics. T.Q. Nguyen, **M. Alqurafi**, P.W. Thomas, Z. Sun, T. Durand-Reville, R. Iyer, A. Shapiro, A. Miller, N. Al-Kharji, J. Kim, M. Cox, O. Marx, B. Meshram, P. Nguyen, C. Jacobson, T. Kongara, C. Shi, T. Palzkill, W. Fast, R. Tommasi, J.D. Buynak

MEDI 391. Next generation small molecule inhibitors of 5'-Methylthioadenosine nucleosidase (MTN) as novel antimicrobial agents. J.H. Thurston, **L. Wayment**, M. Vitale-Sullivan, A. Tao, K. Cornell, D. Xu

MEDI 392. Synthesis and biological evaluation of new hybrids phthalimide-furoxan derivatives useful in the treatment of Alzheimer's disease. R.C. Chelucci, **D.E. Chiba**, M. Placeres, I.Z. Carlos, J.L. Santos, M. Chung

MEDI 393. Biochemical analysis of Guayacan and Huisache: Two potential medicinal plants for the treatment of diabetes. **M. Jimenez**, H.M. Morales, A. Mar, J. Lara

MEDI 394. Design and synthesis of new dibenzofuranol ether derivatives for human cytochrome P450 design and synthesis of new dibenzofuranol ether derivatives for human cytochrome P450. **M. Hill-Odom**, K. Bongay-Williams, T. Hill, E. Kantrow, N. Goyal, M. Foroozesh

MEDI 395. Identification of inhibitors of the *Pseudomonas aeruginosa* HasA/HasR protein-protein interaction. **G. Centola**, W. Jiang, K. Hom, A.D. Mackerell, A. Wilks, F. Xue

MEDI 396. Synthesis of analogues of nosokopich acid. **T.J. Tetrault**, D. Peña-Romero, M.A. Boudreau

MEDI 397. Examining the interactions of novel furoxans using techniques in chemical biology. **E. Tackie-Yarboi**

MEDI 398. Novel charge-reduced heparin derivatives revealed as direct allosteric inhibitors of thrombin. **E.C. de Souza**, I. Craciun, C.A. Kulkarni, R.J. Kerns

MEDI 399. Structure-based drug design, synthesis, and evaluation of peptidic inhibitors of thrombin-mediated activation of platelets aggregation. **C.C. Clement**

MEDI 400. Incorporation of therapeutic proteins into polyester nanofibers via protein-polyelectrolyte complexes. **A. Mancuso**, A. Sadek, N. Pillarella, K.S. Raja

MEDI 401. Polyester films/implants loaded with insulin-polyelectrolyte particles for the treatment of diabetes. **A. Mancuso**, N. Pillarella, K.S. Raja

MEDI 402. Identification of dual AAK1/GAK inhibitors as host-targeted antiviral agent. **N.R. Kapadia**, B. Zuercher, I. willson

MEDI 403. Chiral optical properties of kavalactones from root extracts of *Kava-kava* assessed by combined experimental and computational methods. **G. Bishop**, L.C. Bishop, L.K. DeShetler, B. Herrington, K.M. Bishop, H. McAlexander

†Cooperative Cosponsorship

MEDI 404. Chloromethyl verdazyls as novel spin probes for biological systems. **D.J. Brook**, A. Herrera

MEDI 405. Differential scanning calorimetry studies reveal the curious influence of buffer salts on the stability and aggregation of serum albumin. **S.I. Ngwudike**, G. Bishop

MEDI 406. Design, synthesis and cytotoxicity of new quinoline/oxime hybrids. S.H. Abbas, M.E. Shoman, K.N. Dalby, **T.S. Kaoud**, **H.A. Hassan**

MEDI 407. Design and synthesis of potent and selective HDAC α inhibitors. B. Vergani, G. Sandrone, D. Modena, F. Leoni, G. Caprini, G. Pavich, M. Lattanzio, M. Marchini, M. Pezzuto, M. Skorupska, P. Cordella, P. Pagani, P. Pozzi, R. Perego, C. Steinkuhler, G. Fossati, **A. Stevenazzi**

MEDI 408. Discovery of hydrazine-bearing selective HDAC inhibitor based on panobinostat: Structure-activity relationship, anti-tumor mechanism and pharmacokinetics study. **X. Li**, **C. Chou**

MEDI 409. Synthesis and biological evaluation of HDAC inhibitors with an imidazole-based metal-binding group. **S.M. Dlamini**, A. Al-Hamashi, A. Lateef, R. Koranne, M. Rashid, W. Taylor, V. Tillekeratne

MEDI 410. Withdrawn.

MEDI 411. Expanding the pharmacological toolkit to study the CXCR4 receptor by developing fluorescent probes. **S. Dekkers**, B. Caspar, S. Hill, S. Briddon, B. Kellam, M. Stocks

MEDI 412. Active-state cannabinoid 1 (CB1) receptor: Protein modeling and comparison to recently published X-ray structures of the inactive-state and active-state CB1 receptors. P. Pandey, A. Aderibigbe, K. Roy, **R.J. Doerksen**

MEDI 413. Identification of novel small-molecule bioactive compounds in Baltic amber. **E.A. Ambrose**, C.M. McDermott, J. Thomforde

THURSDAY MORNING

Radiopharmaceutical Chemistry
Sponsored by FLUO, Cosponsored by INOR[†], MEDI[‡] and NUCL[‡]

THURSDAY AFTERNOON

Radiopharmaceutical Chemistry
Sponsored by FLUO, Cosponsored by INOR[†], MEDI[‡] and NUCL[‡]

NUCL

Division of Nuclear Chemistry and Technology

A. Hixon, Program Chair

OTHER SYMPOSIA OF INTEREST:

Radiopharmaceutical Chemistry
(see FLUO, Tue, Wed, Thu)

SOCIAL EVENTS:

Social Hour, 6:00 PM: Tue

BUSINESS MEETINGS:

NUCL Business Meeting, 5:00 PM: Tue

NUCL Executive Committee Meeting, 5:00 PM: Sun

SUNDAY MORNING

Section A

Embassy Suites New Orleans Fountainbleu Sec 4

Isotope Harvesting at Accelerator Facilities

T.A. Bredeweg, G.F. Peaslee, G. Severin, Organizers, Presiding

8:00 Introductory Remarks.

8:05 NUCL 1. *In situ* isotope harvesting from the beam dump cooling loop at the Facility for Rare Isotope Beams (FRIB) with hollow fiber supported liquid membrane (HFSLM). **M.D. Scott**, L. Sutherland, J. Schorp, J.D. Robertson

8:30 NUCL 2. Feasibility of harvesting radon and noble gas isotopes from the FRIB Beam Dump. **A. Visser**, N.D. Scielzo, S. Sangiorgio, G. Severin

8:55 NUCL 3. Evaluation of solid supports for isotope harvesting at Brookhaven Linac isotope producer (BLIP). **J. Fitzsimmons**, L. Muench, A. Younes, K. Kubbard, D.G. Medvedev, C.S. Cutler

9:20 NUCL 4. Astatine-211 from harvested radon at the upcoming Facility for Rare Isotope Beams. **G. Severin**, P. Abel, H. Clause, A. Visser

9:45 Intermission.

10:05 NUCL 5. Harvesting ⁴⁸V at a radioactive ion beam facility. **C.S. Loveless**, B. Marois, S. Ferran, J. Wilkinson, L.T. Sutherland, G. Severin, J.A. Shusterman, N.D. Scielzo, M.A. Stoyer, D.J. Morrissey, J.D. Robertson, G.F. Peaslee, S.E. Lapi

10:30 NUCL 6. Production yields of ⁵²Fe from symmetric complete fusion-evaporation reactions. **S. McGuinness**, J. Wilkinson, M. Couder, S.E. Lapi, G.F. Peaslee

10:55 NUCL 7. Isotope harvesting of ⁸⁸Zr for neutron-capture cross-section measurements. **J. Shusterman**, N.D. Scielzo, P. Abel, H. Clause, S.E. Lapi, C.S. Loveless, S. McGuinness, E.B. Norman, G.F. Peaslee, J.D. Robertson, G. Severin, D.A. Shaughnessy, M.A. Stoyer, L.T. Sutherland, K. Thomas, A. Tonchev

11:20 NUCL 8. Use of ¹⁴⁹Tb and ¹⁵²Tb in preclinical and clinical investigations: Its mass separation and subsequent application for imaging and therapy. **N. van der Meulen**, U. Koester, K. Johnston, C.E. Vermeulen, C. Umbricht, M. Benesova, R. Hasler, N. Gracheva, R. Schibli, A. Singh, R.P. Baum, C. Mueller

11:45 Concluding Remarks.

SUNDAY AFTERNOON

Section A

Embassy Suites New Orleans Fountainbleu Sec 4

Actinide Complexes & Nanoclusters
Cosponsored by INOR
K.E. Knope, Organizer
T. Forbes, Organizer, Presiding

1:00 Introductory Remarks.

1:05 NUCL 9. Quantum and classical approaches to probe the structural, dynamical and hydration properties of tetravalent actinide elements. **F. Real**, E. Acher, M. Masella, V. Vallet

1:35 NUCL 10. Quantum-mechanical studies of actinide complexes: Benchmarking of new methods, novel complexes and novel reactivity. **S.O. Odoh**, N.K. Dandu

2:05 NUCL 11. Properties of AnO₂⁺ and the pK_a's of aqueous anions in different oxidation states. **D.A. Dixon**, M. Vasiliu, D. Xia, A. Gomez, K.A. Peterson, J.K. Gibson

3:05 Intermission.

3:20 NUCL 12. Topology, stability, solubility, and dynamics of uranyl peroxide cage clusters. **P.C. Burns**

3:50 NUCL 13. Understanding isomerism in peroxide nanocapsules: Are other isomers possible? **P. Miroy**

4:20 NUCL 14. Broad look at the energy landscape of nanoclusters and their transformations. **A. Navrotsky**

MONDAY MORNING

Section A

Embassy Suites New Orleans Fountainbleu Sec 4

Actinide Complexes & Nanoclusters
Cosponsored by INOR
K.E. Knope, Organizer
T. Forbes, Organizer, Presiding

8:30 Introductory Remarks.

8:35 NUCL 15. Aging of actinide solid sources during multi-year exposure to environmental conditions. **B.A. Powell**

9:05 NUCL 16. Tetravalent actinides – from polymeric complexes to nanoparticles. **C. Hennig**

9:35 NUCL 17. Hydration of uranyl fluoride and a novel chemical pathway to uranyl peroxide. **M.C. Kirkegaard**, A. Miskowicz, M. Ambrogio, J. Langford, B. Anderson

10:05 Intermission.

10:20 NUCL 18. Actinide oxide and peroxide nanoclusters: Structure and environmental stability. L.R. Sadeghaski, W. Stoxen, G. Sigmon, **A.E. Hixon**

10:50 NUCL 19. Probing the bonding in dimers of tetravalent cerium and actinide homologues. **V. Vallet**, S.L. Estes, M.R. Antonio, S. Skanthakumar, L. Soderholm

11:20 NUCL 20. Coordination polymer (CP) networks and molecular complexes of tetravalent actinides (Th, U, Np) with aromatic polycarboxylate ligands or polyoxometalate (POM) species. **T. Loiseau**, N.P. Martin, C. Volkringer, S. Duval, J. Maerz, A. Ikeda-Ohno

Section B

Embassy Suites New Orleans Prytania Room

Young Investigators in Nuclear & Radiochemistry

R. Sudowe, Organizer
T.A. Bredeweg, Organizer, Presiding

8:30 Introductory Remarks.

8:35 NUCL 21. Commissioning the EMMA spectrometer at TRIUMF. **N.E. Esker**, B. Davids, M. Alcorta, K. Hudson, M. Williams

8:55 NUCL 22. Separation of Pb, Bi and Po by cation exchange resin. **K. Kmak**, D.A. Shaughnessy, J. Despotopoulos

9:15 NUCL 23. Thermal analysis of lanthanide chelates for nuclear forensics. **S. Shahbazi**

9:35 NUCL 24. Recovering barium from strontium resin using chelating agents. **A. Sorcic**, D. McLain, R. Sudowe

9:55 NUCL 25. Exploring the effect of the diluent on trivalent f-element extraction by the di-alkyl acidic organophosphorus extractant HEH[EHP]. **T. Martin**, K.L. Nash

10:15 Intermission.

10:35 NUCL 26. Comparison the solvent extraction behavior of Re(VII) with Tc(VII). **L. Neill**, G. Parker, D.E. Wall, N. Wall

10:55 NUCL 27. Spectroscopic speciation studies and kinetic investigations on the actinide lanthanide SEPARation process (ALSEP). **G. Picayo**, M.P. Jensen

11:15 NUCL 28. Sodium bismuthate solubility in nitric acid. **P. Prem**, S.P. Mezyk, B. Mincher

11:35 NUCL 29. Investigating formation and competitive exchange kinetics for DTPA complexed Eu ions in aqueous solution. **A. Miller**, K. Larsson, S.P. Mezyk

MONDAY AFTERNOON

Section A

Embassy Suites New Orleans Fountainbleu Sec 4

Actinide Complexes & Nanoclusters
Cosponsored by INOR
K.E. Knope, Organizer
T. Forbes, Organizer, Presiding

1:10 Introductory Remarks.

1:15 NUCL 30. Expanding the structural toolkit to characterize heavy actinide complexes. **R.J. Abergel**

1:45 NUCL 31. Synthesis and reactivity of multimetallic uranium nitrides. **M. Mazzanti**, M. Falcone, L. Chatelain

2:15 NUCL 32. Development of UF₆ research at ICCF: Purification, corrosion and novel compounds. **L. Joffret**, J. Hillbrunner, M. Dubois

2:45 NUCL 33. Hexavalent uranium, neptunium and plutonium nitrate complexes. **R. Wilson**, M.G. Autillo

3:15 Intermission.

3:30 NUCL 34. Supramolecular assembly and tuning of actinyl cations. **C.L. Cahill**, K. Carter, M. Kalaj

[†]Cooperative Cosponsorship

4:00 NUCL 35. Exploring actinyl oxo reactivity: Macrocyclic neptunyl inclusion compounds. **M.C. Basile**, E. Cole, M. Pynch, T. Forbes

4:30 NUCL 36. Complexation of dioxoactinide ions by aqueous-soluble Schiff bases – Effects on solvent extraction. **C.A. Hawkins**, C. Bustillos, R. Copping, I. May, M. Nilsson

Section B

Embassy Suites New Orleans
Prytania Room

Young Investigators in Nuclear & Radiochemistry

T.A. Bredeweg, *Organizer*
R. Sudowe, *Organizer, Presiding*

1:30 NUCL 37. Complexation of technetium(IV) with selected halides. **C. Eiroa Lledo**, L. Lecrivain, D.E. Wall, N. Wall

1:50 NUCL 38. Interrogating the role of water in metal ion extraction into room temperature ionic liquids. **M.L. Rigney**, M.L. Dietz, C.A. Hawkins

2:10 NUCL 39. Effect of matrix constituents on the separation of plutonium and americium from bone samples. **N. Nguyen**, R. Sudowe

2:30 NUCL 40. Sequential extraction techniques to investigate movement and bioavailability of soil contaminants. **I. McNabb**, R. Sudowe

2:50 NUCL 41. Radiolytic degradation of tributyl phosphate in the presence of uranium. **R. Ngelale**, M. Nilsson

3:10 Intermission.

3:30 NUCL 42. Separation of actinium from thorium using polyoxometalates. **J. Hatcher**, A. Younes, J. Fitzsimmons, B.P. Burton-Pye, H. Cicek, C.S. Cutler, L.C. Francesconi

3:50 NUCL 43. Development of a radiotherapeutic nanoparticle for infection. **L.T. Sutherlin**, J.D. Robertson

4:10 NUCL 44. ^{72}As as a candidate for PET imaging: From production to *in vivo* imaging. **V.A. Sanders**, A.J. DeGraffenreid, M. Gao, N. Turkman, J. Kim, C.S. Cutler

4:30 NUCL 45. Synthesis and *in vitro* evaluation of $^{99\text{m}}\text{Tc}/^{186}\text{Re}$ -cyclized somatostatin receptor-targeting peptides for the diagnosis/therapy of neuroendocrine tumors. **G. Makris**, J. Wang, M. Kuchuk, F. Gallazzi, S.S. Jurisson, H.M. Hennkens

4:50 Concluding Remarks.

TUESDAY MORNING

Section A

Embassy Suites New Orleans
Fountainbleu Sec 4

Actinide Complexes & Nanoclusters
Cosponsored by INOR
K.E. Knope, *Organizer*
T. Forbes, *Organizer, Presiding*

9:00 Introductory Remarks.

9:05 NUCL 46. Metal-ion speciation in non-polar solvents: A chemical-separations study. S. Skanthakumar, **L.**

Soderholm, M. Piechowicz, S.L. Estes, R. Chiarizia, U. Ruett

9:35 NUCL 47. Structural and spectroscopic studies of U(VI), Np(VI), and Pu(VI) hydrolysis chemistry. **M.G. Autillo**, R. Wilson

10:05 NUCL 48. Counter-cation control of tetravalent actinide hydrolysis and condensation. **S.L. Estes**, L. Soderholm

10:35 Intermission.

10:50 NUCL 49. Complexation of neptunium with small organic ligands using NMR spectroscopy. **C.D. Pilgrim**, H. Mason, M. Zavarin, W.H. Casey

11:20 NUCL 50. Influence of counter-cations on neptunyl speciation and its redox behavior in chloride media. **G. Jin**, S.L. Estes, B. Qiao

TUESDAY AFTERNOON

Section A

Embassy Suites New Orleans
Fountainbleu Sec 4

Glenn T. Seaborg Award for Nuclear Chemistry: Symposium in honor of Suresh C. Srivastava

C.S. Cutler, *Organizer, Presiding*

1:00 NUCL 51. Advances in radiopharmaceutical chemistry at the BNL Hot Laboratory. **A.B. Packard**

1:45 NUCL 52. Radiometals in diagnostic and therapeutic radiopharmaceutical applications. **S.S. Jurisson**

2:30 NUCL 53. Characterization and *in vivo* evaluation of $^{99\text{m}}\text{Tc}$ and ^{188}Re peptides as potential SPECT imaging and radioimmunotherapy agents. **V.A. Sanders**, J.H. Walsh, D. Iskhakov, D. Abdel-Atti, B. Zeglisi, J.S. Lewis, K. Czerwinski, L.C. Francesconi

3:15 Intermission.

3:30 NUCL 54. New approach for the isolation of ^{225}Ac isotope from proton irradiated Th target. **A. Younes**, J. Hatcher, H. Cicek, B.P. Burton-Pye, J.M. Fitzsimmons, R.J. Abergel, C.S. Cutler, L.C. Francesconi

4:15 NUCL 55. History of the BNL radioisotope research program: Contributions of Suresh C. Srivastava. **L.F. Mausner**

TUESDAY EVENING

Radiopharmaceutical Chemistry

Sponsored by FLUO, Cosponsored by INOR[†], MEDI[†] and NUCL[†]

WEDNESDAY MORNING

Section A

Embassy Suites New Orleans
Fountainbleu Sec 4

Glenn T. Seaborg Award for Nuclear Chemistry: Symposium in honor of Suresh C. Srivastava

C.S. Cutler, *Organizer, Presiding*

8:00 NUCL 56. MU Research Reactor:

A valuable resource for medical radioisotopes. **H.M. Hennkens**

8:45 NUCL 57. Manufacturing and applications of Sn-117m in nuclear medicine. **N. Stevenson**

9:30 NUCL 58. Speciation of technetium in ionic liquids. **J. Hatcher**, B.P. Burton-Pye, J.F. Wishart, L.C. Francesconi

10:15 Intermission.

10:30 NUCL 59. Development of novel theranostics. **C.S. Cutler**

11:15 NUCL 60. Award Address
(Glenn T. Seaborg Award for Nuclear Chemistry Sponsored by the ACS Division of Nuclear Chemistry and Technology). What it was like to hit upon the “theragnostics” paradigm: “A personal journey” at BNL. **S.C. Srivastava**

12:00 Concluding Remarks.

Radiopharmaceutical Chemistry

Fluorine

Sponsored by FLUO, Cosponsored by INOR[†], MEDI[†] and NUCL[†]

WEDNESDAY AFTERNOON

Section A

Embassy Suites New Orleans
Fountainbleu Sec 4

General Topics in Nuclear Chemistry & Technology

L.C. Francesconi, *Organizer, Presiding*

1:00 NUCL 61. Chelator-free radiolabeling of nanoparticles. **C.M. Drain**, M. Wall, T.M. Shaffer, M. Kircher, J. Grimm

1:15 NUCL 62. EDTA-inspired chelating poly-hydroxamate ligands for lanthanide and actinide coordination chemistry and applications. K. Sockwell, **M. Wetzler**

1:30 NUCL 63. Is ^{210}Po a good indicator for anthropogenic radioactivity? **A. Younes**, C. Alliot, M. Mokili, G. Montavon

1:45 NUCL 64. Luminescent determination of aqueous complexation and extractant kinetics for lanthanide ions. **K. Larsson**, S.P. Mezyk

2:00 Intermission.

2:15 NUCL 65. Application of inelastic neutron scattering for uranium oxyfluorides. **A. Miskowicz**, M.C. Kirkegaard, J. Langford, B. Anderson

2:30 NUCL 66. Structural analysis, complexation, and binding selectivity of lanthanides and actinides: A theoretical investigation. **D.A. Penchoff**, C.C. Peterson, J.D. Auxier, G.K. Schweitzer, R.J. Harrison, H.L. Hall

2:45 NUCL 67. Studies of flerovium homologs with thiocrown ethers. **J.D. Despotopulos**, C.A. Valdez, K.J. Moody, D.A. Shaughnessy

3:00 Intermission.

3:15 NUCL 68. Transport properties of binary and ternary asymmetric warm dense plasma mixtures modeled by orbital-free DFT molecular dynamics. **A. White**, C. Ticknor, J.D. Kress, L. Collins, J. Clerouin, P. Arnault, N. Desbiens

3:30 NUCL 69. *Ab initio* study of the

mechanisms and energetics of chlorination on Zr(0001). **E. Kim**, P. Weck, R. Borjas Nevarez, F. Poineau

3:45 NUCL 70. Effect of North Korea’s nuclear test in September 2017 for air radiation dose rates inside cabin flights from Singapore to Narita, Japan. **H. Katsura**

4:00 NUCL 71. Development of a microinjection system form high efficiency addition of dopants to the inner surface of National Ignition Facility capsules: ANDARIST. **J.D. Despotopulos**, D.A. Shaughnessy, K.J. Moody, P.M. Grant, C. Cerjan, C.B. Yeamans

4:15 NUCL 72. Technetium incorporation in scheelite: Insights from first-principles. **E. Kim**, M. Ackerman, P. Weck, W. Chernesky, K. Czerwinski

Radiopharmaceutical Chemistry

Carbon-11 & Radionuclide Production

Sponsored by FLUO, Cosponsored by INOR[†], MEDI[†] and NUCL[†]

WEDNESDAY EVENING

Section A

Ernest N. Morial Convention Center
Hall D

Computational Methods for Lanthanides & Actinides: Theory & Applications

D.A. Penchoff, *Organizer*

6:00–8:00

NUCL 73. Predicting vibrational spectra of uranyl hydrates. **M.C. Kirkegaard**, A. Miskowicz, A. Shields, B. Anderson

NUCL 74. Coupled cluster studies of intermolecular interactions involving actinide dioxide cations: Cation-cation interactions (CCIs) and complexes with small molecules (CO and N₂). **R. Feng**, K.A. Peterson

NUCL 75. Properties and covalency of high oxidation state AnF₆ complexes. **Z. Lee**, M. Vasiliu, A.C. Hartley, J. Kessel, A. Eberly, **D.A. Dixon**

NUCL 76. Active thermochemical tables: A novel approach to understanding actinide chemistry. **S.R. Battley**, D.H. Bross, B. Ruscic, K.A. Peterson

Section A

Ernest N. Morial Convention Center
Hall D

General Topics in Nuclear Chemistry & Technology

L.C. Francesconi, *Organizer*

6:00–8:00

NUCL 77. Continued advancements in the radiochemistry program at the University of Iowa. **T. Forbes**

NUCL 78. New ligands for the selective binding and extraction of light lanthanides. **M.R. Healy**, S. Jansone-Popova, V.S. Bryantsev, B.A. Moyer

NUCL 79. Iodine saturated absorption spectrometer for laser frequency calibration. **S. Pineda**, A. Klose, C. Kujawa, K. Minamisono, N. Everett, R.

[†]Cooperative Cosponsorship

Powel, D. Garand

NUCL 80. Actinide science at the University of Notre Dame. **A.E. Hixon**

NUCL 81. Synthesis and optical/scintillating properties of transparent ceramics. **R. Balderas, Y. Mao**

NUCL 82. Determination of radioactive krypton (Kr-85) in air. **Y. Ko, H. Kim, S. Choi, J. Lim, G. Choi, W. Lee**

NUCL 83. Determination of radioactivity of uranium and thorium in environmental samples by using fusion and sequential separation method, and its evaluation using key validation parameters. **Y. Ko, W. Kim, J. Lim, G. Choi, K. Chung, M. Kang, W. Lee**

NUCL 84. Investigating the impact of gamma radiation on rare-earth hafnate nanocrystals. **V. Trummel, M. Pokhrel, D.E. Wall, Y. Mao**

NUCL 85. Radiochemistry at Colorado State University. **R. Sudowe**

THURSDAY MORNING

Section A

Embassy Suites New Orleans
Fountainbleu Sec 4

Computational Methods for Lanthanides & Actinides: Theory & Applications

D.A. Penchoff, *Organizer*
C.C. Peterson, *Presiding*

8:30 Introductory Remarks.

8:45 NUCL 86. Eliminating basis-set incompleteness error in relativistic chemical computations. **R.J. Harrison**

9:15 NUCL 87. Characterization of Es, Fm, Cf separations: A comparison of experimental and computational efforts. **J.D. Auxier, D.A. Penchoff, M.S. Quint, J. Garrison, H.L. Hall**

9:35 Intermission.

9:45 NUCL 88. Composite *ab initio* thermochemistry for f-block elements: Is kcal/mol accuracy achievable? **K.A. Peterson, D.A. Dixon, S.R. Battey, D. Bross, R. Feng, B. Finney, R. Hermanson, Q. Lu**

10:05 NUCL 89. Relativistic *ab initio* accurate minimal basis sets for the lanthanides. **G. Schoendorff, A.C. West, M.W. Schmidt, K. Ruedenberg, M.S. Gordon**

10:25 NUCL 90. Combining minimal basis set localizations with strong correlation approaches towards *ab initio* lanthanide chemistry. **A.C. West, G. Schoendorff**

10:45 Intermission.

10:55 NUCL 91. Understanding structural and thermochemical properties of actinide-containing compounds. **C.C. Peterson**

11:15 NUCL 92. *Ab initio* thermochemistry of transuranium molecules: Halides of U, Np, and Pu. **B. Finney, K.A. Peterson**

11:35 NUCL 93. Understanding the electronic structure and chemical bonding of f-element coordination compounds. **J.**

Su, E.R. Batista, P. Yang

11:55 Concluding Remarks.

Radiopharmaceutical Chemistry
Sponsored by FLUO, Cosponsored by INOR[†], MEDI[‡] and NUCL[‡]

THURSDAY AFTERNOON

Section A

Embassy Suites New Orleans
Fountainbleu Sec 4

Computational Methods for Lanthanides & Actinides: Theory & Applications

D.A. Penchoff, *Organizer*
C.C. Peterson, *Presiding*

1:30 Introductory Remarks.

1:45 NUCL 94. Local configuration of excess oxygen in UO_{2+x} from the first-principles molecular dynamics. **J. Wang**

2:05 NUCL 95. Crystal structure prediction: Using genetic algorithms and DFT to search for novel stable and metastable uranium oxides. **A. Shields, A. Miskowicz, B. Anderson**

2:25 NUCL 96. Mechanistic models for uranium sorption on iron minerals: Comparing their parametrization and surface species. **F. Bok, A. Richter, V. Brendler**

2:45 Intermission.

2:55 NUCL 97. Electronic structure of uranium arene interactions. **B. Vlasisavljevich**

3:15 NUCL 98. Hydrolysis reactions of actinide oxides and actinide oxides nitrates. **M. Vasiliiu, H. Arnold, K.A. Peterson, J.K. Gibson, D.A. Dixon**

3:35 NUCL 99. Computational study of a novel Schiff-base ligand–uranyl complex: Characterization of physical and chemical properties. **A.A. Ridings, C. Hawkins, T. Yu**

3:55 NUCL 100. Structure and bonding of lanthanide hydroxides Ln–OH (Ln=La–Lu). **H. Harb, L.M. Thompson, H.P. Hratchian**

4:15 Concluding Remarks.

Radiopharmaceutical Chemistry
Sponsored by FLUO, Cosponsored by INOR[†], MEDI[‡] and NUCL[‡]

ORGN

Division of Organic Chemistry

R. Broene and S. Silverman, Program Chairs

OTHER SYMPOSIA OF INTEREST:

ACS Award for Encouraging Women into Careers in the Chemical Sciences

(see WCC, Tue)

ACS Award in Organometallic Chemistry: Symposium in honor of Clifford P. Kubiak (see INOR, Sun, Mon)

Homogeneous Catalysis for Applied Organic Synthesis (see

CATL, Mon, Tue)

Recent Advances in Catalytic Carbohydrate Reaction Development (see CARB, Tue, Wed)

SUNDAY MORNING

Section A

Ernest N. Morial Convention Center
La Nouvelle Orleans Ballroom C

Earle B. Barnes Award for Leadership in Chemical Research Management: Symposium in honor of Margaret M. Faul

Cosponsored by WCC
K.B. Hansen, *Organizer*
S. Walker, *Presiding*

8:00 ORGN 1. New enantioselective Pauson–Khand-type reactions. **K.M. Brummond**

8:40 ORGN 2. Developing a bioconjugation platform for hybrid modalities. **J.A. Murry**

9:20 ORGN 3. Recent developments in strategies and tactics towards complex secondary metabolites as enabling tools for the study of natural products biology. **E.M. Carreira**

10:00 ORGN 4. Fully continuous multi-step synthesis of drug substance under GMP conditions. **S.A. May**

10:40 ORGN 5. Catalyst-controlled site-selective and enantioselective C–H functionalization. **H.M. Davies**

11:20 Introduction of Awardee.

11:25 ORGN 6. Award Address (Earle B. Barnes Award for Leadership in Chemical Research Management Sponsored by The Dow Chemical Company Foundation). Perspective on the evolution of process development innovation in the biocentury to enable delivery of novel therapies to patients. **M. Faul**

Section B

Ernest N. Morial Convention Center
R02

Frontiers in Synthetic Organic Photochemistry

Financially supported by Chem (Cell Press), ChemPhotoChem, STREM, Biogen, Boehringer-Ingelheim, ChemComm/ChemSci
T.P. Yoon, Organizer, Presiding

8:00 Introductory Remarks.

8:05 ORGN 7. Using light to unlock new enzyme function. **T. Hyster**

8:35 ORGN 8. Decomposition of photocatalytically generated perfluoroaryl radical anions; a powerful synthetic tool for accessing multifluorinated arenes. **J.D. Weaver**

9:05 ORGN 9. Organic transformations via excited state proton transfer. **K. Hanson, A. Das, S. Ayad, V. Posey**

9:35 Intermission.

9:50 ORGN 10. Remote oxo-functionalization of aliphatic amines via photocatalysis. **D.M. Schultz**

10:20 ORGN 11. Chemical synthesis of polycyclobutane-containing natural products. **N.Z. Burns**

Section C

Ernest N. Morial Convention Center
R01

Biologically Related Molecules & Processes

R.D. Broene, *Organizer*
K.J. Clear, *Presiding*

8:00 ORGN 12. Differentiating isomeric glucuronide drug metabolites via gas phase ion/molecule reactions. **Z. Yu, J. Kong, E. Niyonsaba, M. Easton, X. Ma, R. Yerabolu, D. Ding, H. Zhu, H. Sheng, T. Jarrell, X. Zhang, H.I. Kentamaa**

8:20 ORGN 13. High affinity fluorescent catecholamine sensor: Applications to monitoring norepinephrine exocytosis. **L. Zhang, X.A. Liu, K.D. Gillis, T.E. Glass**

8:40 ORGN 14. 5-Pyrimidine and 8-purine nucleosides modified with unsubstituted 1,2,3-triazol-4-yl: Synthesis and fluorescent properties. **Z. Wen, P. Tuttle, A. Vasilyeva, A. Tangar, J. Miksovskaya, S.F. Wnuk**

9:00 ORGN 15. Nano hoops in cells: A new class of cellular imaging agents. **B.M. White, T.E. Kawashima, R. Jasti**

9:20 ORGN 16. Substituted 1-cyanoisindoles as fluorescent core in the design of labeled strigolactone analogs. **M.A. Van Overveldt, T. Heugebaert, C.V. Stevens**

9:40 ORGN 17. Heteroditopic receptors for molecular recognition and sensing of anionic lipids. **K.J. Clear**

10:00 ORGN 18. Mechanistic studies on the monoamine oxidase-B catalyzed oxidation of a cyclic tertiary allylamine analog of MPTP using a flavin chemical model. **A. Nakamura, N. Castagnoli, J. Tanko**

10:20 ORGN 19. Visible-light-mediated oxidative demethylation of N⁶-methyl adenines. **L. Cheng**

10:40 ORGN 20. Oka fragmentation of the Breslow intermediate is a radical process. **M. McIntosh**

Section D

Ernest N. Morial Convention Center
R04

Asymmetric Reactions & Syntheses

R.D. Broene, *Organizer*
M.B. Tran-Dube, *Presiding*

8:00 ORGN 21. Catalyst controlled diastereoselective reduction of ribonucleosides as PRMT5 inhibitors for the treatment of cancer. **M.B. Tran-Dube, R. Patman, S.A. Scales, F. Wang, J.F. Braganza, L. Bernier, N. Sach, J. Tatlock, E. Rui, R. Kumpf, M. McTigue, M. Wylthes, I.J. McAlpine**

8:20 ORGN 22. Enantioselective photoredox catalysis enabled by proton-coupled electron transfer: Development of a concise, asymmetric synthesis of pyrrolindoline alkaloids. **E.C. Gentry, L.J. Rono, R. Matsuura, M. Hale, R.R. Knowles**

[†]Cooperative Cosponsorship

8:40 ORGN 23. Unprecedented one-pot diastereoselective/asymmetric route for the access of diverse collections of chromeno[4,3-a]pyrrole scaffolds. **T.H. Altel**, S.M. Sieburth

9:00 ORGN 24. Cyclic sulfoximines: Useful building blocks for the expedient synthesis of cyclic sulfinamides and 3-pyrrolines. **J. Ward**, L. Walton, R.A. Stockman

9:20 ORGN 25. Stereodivergent allylation of heteroarylacetates and heteroarylacetamides by synergistic iridium and copper catalysis. **X. Jiang**, J.F. Hartwig

9:40 ORGN 26. Direct Ru(II)-pheox catalyzed asymmetric cyclopropanation of diazomethylphosphonates with *N*-ethylaniline derivatives. **T.T. Le**, S. Chanthamath, K. Shibatomii, S. Iwasa

10:00 ORGN 27. Stereoselective allylic alkylation of β,β -unsaturated β -amino nitriles: Synthetic homoenolate equivalents. **T.B. Wright**, B.W. Turnbull, P. Evans

10:20 ORGN 28. Development of an ideal asymmetric synthesis for B1's 11 β -HSD 1 inhibitor. **B. Qu**, X. Wei

Section E

Ernest N. Morial Convention Center R05

Metal-Mediated Reactions & Syntheses

R.D. Broene, Organizer
B.V. Popp, Presiding

8:00 ORGN 29. Anionic "ligandless" palladium complexes for cross-coupling catalysis. F. Schroeter, **T. Strassner**

8:20 ORGN 30. Withdrawn

8:40 ORGN 31. Methods to reduce Pd(II) precatalysts to Pd(0) for cross-coupling reactions. **H. Hu**, K.H. Shaughnessy

9:00 ORGN 32. Copper-catalyzed cascade strategy for the synthesis of biologically active tetracyclic isoindolo[1,2-b]quinazolinones and 2-arylquinazolines. **S. Ichake**, C. Yao

9:20 ORGN 33. Revealing the activity of π -acid catalysts using a 7-alkynyl cycloheptatriene. **M. Vayer**, V. Gandon, B. Christophe

9:40 ORGN 34. Discovery of a copper-mediated organoboron aryl Ritter reaction. **A.J. Watson**

10:00 ORGN 35. Free the boronic acids! Allyl- and allenylboronic acids in organic synthesis. **K. Szabo**

10:20 ORGN 36. Synthesis of stereodefined cyclic allylboronic acids and their application on the copper-catalyzed stereoselective coupling with β -diazoketones. **D. Wang**, K. Szabo

10:40 ORGN 37. One regio- and stereoisomeric product in Pd-catalyzed stereospecific couplings of unactivated alkylboronic acids. **J.W. Lehmann**, I.T. Crouch, D.J. Blair, M. Trobe, J. Li, P. Wang, M.D. Burke

11:00 ORGN 38. Catalytic reductive

vinylidene transfer reactions. **S. Pal**, Y. Zhou, C. Uyeda

11:20 ORGN 39. *En masse* analysis yields prioritized blocks and bonds for natural product synthesis. **A.M. Palazzolo**, S. Tonddast-Navaei, C.L. Simons, N.T. Russell, J. Peng, J. Skolnick, M.D. Burke

11:40 ORGN 40. Organometallic reductive functionalization reactions of alkenes with CO₂. **B.V. Popp**

Section F

Ernest N. Morial Convention Center R03

New Reactions & Methodology

R.D. Broene, Organizer
A.T. Londregan, Presiding

8:00 ORGN 41. Unique reactivity of nitrile-stabilized ammonium ylide as masked C=N synthon: An efficient route to access biologically important pyridopyrimidin-4-imines/ones. **M. Saini**, D. Sumkaria, V. Chaudhary, S.K. Guchhait

8:20 ORGN 42. Mild, general and regioselective synthesis of 2-aminopyridines from pyridine *N*-oxides via 2-pyridylpyridinium salts. **A.T. Hoye**, H. Xiong

8:40 ORGN 43. Novel methods for the synthesis of sulfonimidamides: New pharmacophores for the medicinal chemist's toolbox. **F. Izzo**, R. Stockman, U. Luecking

9:00 ORGN 44. New synthetic methods used in the discovery of small molecule PCSK9 inhibitors. **A.T. Londregan**

9:20 ORGN 45. Understanding and interrupting the Fischer azaindolization reaction. **B.J. Simmons**, N.K. Garg

9:40 ORGN 46. Novel method for convenient one-pot two-step synthesis of acylated ureas, carbamates, thiocarbamates and related compounds. **J. Stec**, A. Garcia Hernandez, G. Grooms, A. El-Alfy

10:00 ORGN 47. Synthesis of imines and 1,3-amino alcohols via a hydrogen borrowing strategy. **R.E. Whittaker**

10:20 ORGN 48. Cyanide-mediated nitrile-to-nitrile cyclocondensation towards efficient synthesis of polysubstituted pyrroles. **S. Sisodiya**, Y.V. Shah, N. Hura, M. Saini, V. Chaudhary, S.K. Guchhait

10:40 ORGN 49. Asymmetric synthesis of nitrogen heterocycles via iminium ion initiated cyclizations. **M.G. Donahue**

11:00 ORGN 50. Stereoselective synthesis of fused bis- β -lactams by catalytic Mukaiyama Mannich reaction of imines and 2,5-bis(trimethylsilyloxy)furan. **S.W. Laws**, M. Shuyu, B. List, J.T. Shaw

11:20 ORGN 51. Tetrazine-induced release reactions. **R.M. Franzini**, M. Xu, J. Tu

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science,

Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

SUNDAY AFTERNOON

Section A

Ernest N. Morial Convention Center La Nouvelle Orleans Ballroom C

Herbert C. Brown Award for Creative Research in Synthetic Methods: Symposium in honor of Gregory C. Fu

Financially supported by Boehringer Ingelheim, STREM A.R. Howell, Organizer, Presiding

1:00 Introductory Remarks.

1:10 ORGN 52. Molecular surgery via C-H oxidation. **M. White**

1:55 ORGN 53. Turning simplicity into complexity via Ni-catalyzed coupling reactions. **R. Martin**

2:40 ORGN 54. New facets of asymmetric catalysis with helical macromolecular catalysts featuring dynamic chirality. **M. Suginome**

3:25 ORGN 55. Development and applications of selective olefin metathesis catalysts. **R.H. Grubbs**

4:10 ORGN 56. Award Address (Herbert C. Brown Award for Creative Research in Synthetic Methods Sponsored by the Purdue Borane Research Fund and the Herbert C. Brown Award Endowment). Nucleophilic substitution reactions: A radical alternative to S_N1 and S_N2 reactions. **G.C. Fu**

Section B

Ernest N. Morial Convention Center R02

Frontiers in Synthetic Organic Photochemistry

Financially supported by Chem (Cell Press), ChemPhotoChem, STREM, Biogen, Boehringer-Ingelheim, ChemComm/ChemSci T.P. Yoon, Organizer, Presiding

1:20 Introductory Remarks.

1:25 ORGN 57. Synthetic applications of photoredox-mediated ring-opening metathesis polymerization. **A.J. Boydston**

1:55 ORGN 58. Harnessing metal-free photochemistry for synthesis of materials. **J. Read De Alaniz**

2:25 ORGN 59. β C-H functionalization via radical relay chaperones. **D.A. Nagib**

2:55 Intermission.

3:10 ORGN 60. Activating inert bonds via N-centered radicals. **C. Nevado**

3:40 ORGN 61. Photochemical dearomative functionalization with arenophiles. **D. Sarlah**

4:10 ORGN 62. Proton-coupled electron transfer in organic synthesis. **R.R. Knowles**

4:40 Concluding Remarks.

Section C

Ernest N. Morial Convention Center R01

Biologically Related Molecules & Processes

R.D. Broene, Organizer
D. Bandyopadhyay, Presiding

1:00 ORGN 63. Modular and diastereoselective bi-directional one-pot routes for the rapid access of constrained collections of b-carbolino-benzoxazepine scaffolds. **T.H. Altel**

1:20 ORGN 64. Exploiting the acinetobactin siderophore system as an antivirulence target in pathogenic *Acinetobacter baumannii*. **J.A. Shapiro**, T.J. Bohac, T.A. Wenczewicz

1:40 ORGN 65. Synthetic strategies enabling magnetic isotopes enrichment for parahydrogen based hyperpolarization. **R.V. Shchepin**, N. Chukanov, K. Kovtunov, I. Kopytug, E.Y. Chekmenev

2:00 ORGN 66. Unexpected changes in reactivity arising from fluorine substitution in the synthesis of BACE inhibitors. **M. Mandal**, A. Buevich, H. Wang, R. Mazzola, J.P. Caldwell, J. Cumming, M. Kennedy, P. Orth, A. Brunskill

2:20 ORGN 67. Targeting bacterial drug resistance: Design, synthesis and evaluation of monocyclic 3-amino-1-carboxymethyl- β -lactams as potential inhibitors of Penicillin-binding proteins. **L. Decuyper**, S. Deketelaere, M. Jukić, I. Sosić, E. Sauvage, B. Joris, S. Gobec, M. Dhooche

2:40 ORGN 68. Synthesis and biological screening of peracylated glucosyl aurones. **A. Kafle**, S. Handy

3:00 ORGN 69. Synthesis and evaluation of a focused analog library with β -lactam antibiotic potentiation activity in methicillin-resistant *Staphylococcus aureus*. **R. Ulrich**, J. O'Brien, A.J. Wommack, M.S. Blackledge

3:20 ORGN 70. Synthesis and antitumor activity of mimics of the tetrahydrofuran containing acetogenins. **P. Gonzalez**, A. Ramdular, D.R. Mootoo

3:40 ORGN 71. Adventures in carbohydrate chemistry: Acetal-free carbohydrates, and the total synthesis of immunologically active glycolipids. **J.F. Trant**, S. Sadraei, M. Reynolds, E. Igboke

4:00 ORGN 72. Synthesis of rocaglate analogues for target identification photoaffinity probes. **N. Vallavajou**, A.B. Beeler, J.A. Porco

4:20 ORGN 73. Heme carbene reacts differently from native heme enzymes in C-H functionalization. R. Khade, **Y. Zhang**

4:40 ORGN 74. Discovery of new bioactive small molecules and approaches at new chemical screening libraries. **R. Rafferty**

Section D

Ernest N. Morial Convention Center R04

Asymmetric Reactions & Syntheses

[†]Cooperative Cosponsorship

R.D. Broene, *Organizer*
J.L. Bolliger, *Presiding*

1:00 ORGN 75. Enantioselective total synthesis of polychlorinated natural products. **G. McKenna**, M.L. Landry, N.Z. Burns

1:20 ORGN 76. Synthesis of sesquiterpene-tropolones. **C.Y. Bemis**, C. Ungarean, D. Sarlah

1:40 ORGN 77. Asymmetric synthesis of trifluoromethyl-substituted cyclopropanes via myoglobin-catalyzed transfer of trifluoromethylcarbene. **A. Tinoco**, R. Fasan

2:00 ORGN 78. Synthesis enabled design of new GPR40 full agonists: A collaborative approach between process and medicinal chemistry. **R. Orr**

2:20 ORGN 79. Total synthesis of baulamycins A & B. **A. Steele**, G. Enrouf, Y. Eun Lee, W. Wuest

2:40 ORGN 80. Synthesis of unsymmetrical perylene tetracarboxylic derivatives with liquid crystalline phase. **X. Zhao**

3:00 ORGN 81. High enantioselective aldol reaction catalyzed by a one-handed helical poly(phenylacetylene) bearing L-hydroxyproline pendants in aqueous solvent. **C. Zhang**, S. Bo, Y. Qiu, F. Wang, Y. Wang, T. Satoh

3:20 ORGN 82. DCC: A modular approach to bifunctional organocatalysts. **J.L. Bolliger**, L. Ardon Munoz

Section E

Ernest N. Morial Convention Center R05

Metal-Mediated Reactions & Syntheses

R.D. Broene, *Organizer*
J.R. Green, *Presiding*

1:00 ORGN 83. TMS-protected alkynes as selective cross coupling partners in Ti catalyzed [2+2+1] pyrrole synthesis. **H. Chiu**, I. Tonks

1:20 ORGN 84. Molybdenum salan complexes as catalysts for deoxydehydration of vicinal diols. **N.J. Wagner**, A. John, S. Gibbons-Stovall, C. Navarro

1:40 ORGN 85. Tungsten-promoted dearomatization of benzene: A regio and stereoselective route to functionalized cyclohexenes. **K. Wilson**, J. Smith, W. Harman

2:00 ORGN 86. Iron-catalyzed synthesis of cyclopropanes by *in-situ* generation and decomposition of electron-rich diazo compounds. **E.M. Allouche**, A. Al-Saleh, A.B. Charette

2:20 ORGN 87. Intermediates and reactivity in iron-catalyzed cross-couplings of alkynyl Grignard reagents with alkyl halides. **J.L. Kneebone**, W.W. Brennessel, M.L. Neidig

2:40 ORGN 88. Highly efficient removal of water soluble NHC-Ru catalyst by host-guest interaction. **C. Kim**, H. Chung

3:00 ORGN 89. Ruthenium-catalyzed C–H hydroxylation of amines: Reaction development and mechanistic considerations. **J. Mack**, J. Du Bois, M.S. Sigman

3:20 ORGN 90. Alkynedicobalt mediated vinyllogous Nazarov reactions. **S. Almbayekh**, **J.R. Green**

3:40 ORGN 91. Application of a chiral binaphthyl-based scaffold for dirhodium(II) biscarboxylate ligand with β -quaternary carbon centers. **P. Chen**, K. Setthakarn, J. May

4:00 ORGN 92. Leveraging metal-carbenes for assembling complexity. **I. Sharma**

4:20 ORGN 93. Catalytic use of low-valent cationic gallium(I) complexes π -acids. **B. Christophe**

Section F

Ernest N. Morial Convention Center R03

New Reactions & Methodology

R.D. Broene, *Organizer*
A. Bugarin, *Presiding*

1:00 ORGN 94. Withdrawn

1:20 ORGN 95. Enantioselective Au(III) catalysis. **P. Bohan**, D. Toste

1:40 ORGN 96. Interrupted, aerobic oxidative Heck reaction involving selective C–C bond scission for synthesis of 1,3-dienes and polyenes. **N. McAlpine**, L. Wang, B. Carrow

2:00 ORGN 97. Cobalt-catalyzed carbonylative cross-coupling of alkyl tosylates and dienes: Stereospecific synthesis of dienones at low pressure. **B.T. Sargent**, E.J. Alexanian

2:20 ORGN 98. Regioselective Simmons-Smith type cyclopropanations of polyalkenes under catalyst control. **J. Werth**, C. Uyeda

2:40 ORGN 99. Nickel catalyzed intermolecular, three-component carboacylation of alkenes via amide C–N bond activation. **A.A. Kadam**, L.M. Stanley

3:00 ORGN 100. Formal β -C–H functionalization of amines by Pd catalyzed allylation of 2-azaallyl anions generated from amines and a quinone. **L.M. Mori Quiroz**, S.S. Londhe, M.D. Cliff

3:20 ORGN 101. Development of unique functional group interconversions. **A. Bugarin**

3:40 ORGN 102. Transforming primary benzylic amines into di(hetero) arylmethanes: Nickel-catalyzed Suzuki–Miyaura cross-couplings of benzylic amine derivatives via C–N bond activation. **J. Liao**, W. Guan, J. Tomlin, M. Garnsey, M.P. Watson

4:00 ORGN 103. Negishi alkylation of alkyl pyridinium salts: Alkyl-alkyl cross-couplings via C–N bond activation of alkyl amine derivatives. **S. Plunkett**, C. Basch, S.O. Santana, M.P. Watson

LGBTQ+ Graduate Student & Postdoctoral Scholar Research

Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDIF, ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

SUNDAY EVENING

Section A

Ernest N. Morial Convention Center Hall D

Asymmetric Reactions & Syntheses

S.M. Silverman, *Organizer*

5:30–7:30

ORGN 104. Withdrawn

ORGN 105. Catalytic enantioselective phosphorylation of an FTY720 model diol. **E. Ouellette**, B.R. Sculimbrene

ORGN 106. Improved stereoselectivity in the synthesis of cyclopropyl peptidomimetics using quinine-based catalysts. N.K. Dunlap, **T.J. Orr**

ORGN 107. Biocatalysis: Investigating the reaction profile of promiscuous amine dehydrogenases. **K. Smith**, **S. Davenport**, **A. Vargas**, B. Bommarius, A.S. Bommarius, **B.D. Feske**

ORGN 108. Synthesis of enamine resistant substrates for an amine dehydrogenase library. **A. Vargas**, **S.M. Johnston**, **P. Nguyen**, B. Bommarius, A.S. Bommarius, **B.D. Feske**

ORGN 109. Preparation of chiral aziridines through a copper-catalyzed asymmetric reduction of 2*H*-azirines. **R. Turro**, T. Weigel, J. Unger

ORGN 110. Biocatalytic asymmetric reduction of substituted 2-tetralones. **M.M. Musa**, O. Bsharat, M. Takahashi, S.M. Hamdan, C. Vieille, S.A. Oladepo

ORGN 111. Computational investigation on the facial selectivity and enantioselectivity of oxallyl cation catalysis. **C.Q. He**, P. Yu, C. Lam, K.N. Houk

ORGN 112. Rhodium-catalyzed enantioselective [4+2] cycloadditions of vinylcarbenes with dienes. **B. Zhang**, H.M. Davies

ORGN 113. Combined DFT and experimental study of the base and acid catalyzed oxo-Michael reaction in THP synthesis: Reinterpretation of the selectivity-determining factors. **D. Csokas**, R.O. Ramabhadran, A. Ho, R.W. Bates

ORGN 114. Asymmetric catalyzed cycloaddition via copper-allenylidene process for preparation of tetrahydroquinolines fused with δ -lactone moiety. H. Chen, X. Lu, X. Xia, **X. Wu**

ORGN 115. Synthesis of chiral heterocyclic compounds from enantiomerically rich sulfa-Michael adducts. **D. Tözendemir**, C. Tanyeli

ORGN 116. Synthesis and evaluation of new imidazolidinone catalysts for the

alpha-sulfamidation of aldehydes. T. Broerman, D.L. Martinec, S.A. Lowe, **T.C. Coombs**

ORGN 117. Asymmetric [3+2] cycloadditions of azomethine ylides generated from chiral sulfonamide precursors. **D. O'Connor**, R. Stockman

ORGN 118. Development of a dynamic kinetic resolution of aryl-naphthoquinone atropisomers via a cinchona alkaloid catalyzed nucleophilic addition of thiophenols. S.M. Maddox, **G.A. Dawson**, J. Gustafson

ORGN 119. Asymmetric organocatalytic addition of β -azido ketones to isatin-derived ketimines. **S. Karahan**, C. Tanyeli

ORGN 120. Preparation of 3-endo-benzylisobornylamine and related compounds. **A.J. Dahl**, **C.J. Hartwick**, D.E. Lewis

ORGN 121. Synergistic catalysis: A novel approach to enantioselective reactions. **W. Bio-Sawe**, H. Subramanian, M.P. Sibi

ORGN 122. Expanding the Felkin-Anh model: A study of the stereoselectivity of imines. **B. Rich**, L.C. Moore, A. Lo, J.T. Shaw

ORGN 123. Atroposelective dynamic kinetic resolution of diaryl ether naphthoquinones through alkylation. **A.N. Dinh**, R. Noorbehesht, **A. Jackson**, J. Gustafson

ORGN 124. Accessible path to forming a range of asymmetric rhodamine derivatives. C.J. Stephenson, **L.V. Odum**, **V. Cinnater**, **K. Cleveland**, D. Rich, M. Bollinger

ORGN 125. Withdrawn

ORGN 126. Carboxylic acid activation: Investigation of an enantioselective iodolactonization of 1,4-cyclohexadienes. **H. Lee**, M.T. Knowe, J.N. Johnston

ORGN 127. Peptoid catalysts for the enantioselective trifluoromethylation of carbonyls. **S. DeCarlo**, B.C. Gorske

Section A

Ernest N. Morial Convention Center Hall D

CH Activation

S.M. Silverman, *Organizer*

5:30–7:30

ORGN 128. Copper-catalyzed intramolecular oxidative C(sp³)-H functionalization for the synthesis of heteroaromatics. **K. Nozawa-Kumada**, S. Saga, S. Kurosu, Y. Kondo

ORGN 129. Stereoselective 3-component catalytic addition of C–H bonds to C=C and polarized π -bonds. **J.A. Boerth**, J. Hummel, J.A. Ellman

ORGN 130. Platinum catalyzed double acylation of 2-(aryloxy)pyridines via direct C–H activation. **E. Javed**, **S. Huo**, D. McAteer, L. Huo

ORGN 131. Directed Cp*Rh(III)-catalyzed fluorosulfonylvinylolation of arenes. **M.P. Huestis**

[†]Cooperative Cosponsorship

ORGN 132. Allylic C–H etherification and esterification of 1,2-trans-disubstituted olefins. **T. Farmer**, S. Blakey

ORGN 133. Development of Rh(III) Cp* catalyzed allylic C–H amination via π -allyl intermediates. **J.S. Burman**, S. Blakey

ORGN 134. Tunable differentiation of tertiary C–H bonds in intramolecular transition metal-catalyzed nitrene transfer reactions. **J.R. Corbin**, J.M. Schomaker

ORGN 135. Mechanistic studies of Rh(III) catalyzed allylic C–H amination. **D.C. Salgueiro**, S. Blakey, R.J. Harris

ORGN 136. Withdrawn

ORGN 137. Cyanoborylation and nitrile-directed C–H activation as a versatile combined approach to C–H functionalization. **A.Q. Ansel**, W. Zhao, J. Montgomery

ORGN 138. Synthesis of unsymmetrical 2,6-diarylaniline derivatives. **S. Kwak**, O. Daugulis

ORGN 139. Directing group assisted C–H amidation of arenes. **K. Das**, P. Kilaru, P. Zhao

ORGN 140. N-heterocycles synthesis via C–H functionalization using transition metal. **S. Acharya**

Section A
Ernest N. Morial Convention Center
Hall D

Metal-Mediated Reactions & Syntheses

S.M. Silverman, *Organizer*

5:30–7:30

ORGN 141. Development of a practical and scalable synthesis of a Glucokinase activator. **Y. Yamashita**, Y. Morinaga, M. Kasai, T. Hashimoto, Y. Takahama, A. Ohigashi, S. Yonishi, M. Akazome

ORGN 142. Cyclization using alkene and acylphosphonate under Co catalysis. **H. Hori**, S. Arai, A. Nishida

ORGN 143. Formal aromaticity-transfer for palladium-catalyzed coupling between phenols and pyrrolidines/indolines. **Z. Qiu**, J. Li, C. Li

ORGN 144. Organocopper reagents that behave as functionalized acyl anions. **G.W. Ebert**, J. Ebert

ORGN 145. Synthesis and catalytic application of asymmetrically substituted 1,3-diphosphines. **B.R. Headford**, K.H. Shaughnessy

ORGN 146. Withdrawn

ORGN 147. Conversion of primary amines to symmetrical secondary and tertiary amines using a Co-Rh heterobimetallic nanocatalyst. **Y.K. Chung**, H. Chung

ORGN 148. Platinum-graphene catalyst for the solventless hydrosilylation of olefins. **C. Kong**, S. Gilliland, B. Clark, F. Gupton

ORGN 149. Exploring axial coordination of ligands in dirhodium (II) paddlewheel complexes in Si–H insertion reactions. **W. Sheffield**, A. Darko

ORGN 150. Palladium-catalyzed carbonylative cross-coupling reaction between aryl(heteroaryl) iodides and tricyclopropylbismuth: Expedient access to aryl cyclopropylketones. **E. Benoit**, J. Dansereau, A. Gagnon

ORGN 151. Mechanistic investigations of the copper-catalyzed stereoselective cross-coupling of cyclic allylboronic acids with δ -diazoketones. **D. Wang**, K. Szabo

ORGN 152. C–H functionalization via lithium amide zincate base-mediated deprotonative zincation. **K. Bitting**, Q. Wang

ORGN 153. Divergent transmetalation to palladium from boron vs. tin reagent. **S. Shreiber**, J. Russell, S.R. Neufeldt

ORGN 154. Recent advantages in gold I/III catalyzed alkyne activations. **S. Zhang**, J. Wang, X. Shi

ORGN 155. Radical-ionic and ionic-radical functionalizations of cobalt-complexed acetylenic bis-ethers. **S. Gershelis**, G.G. Melikyan

ORGN 156. Allylic triad as a dichotomous reaction site in cobalt-mediated radical transformations of 1,4-enynes. **S. Guarina**, G.G. Melikyan

ORGN 157. Carbon-carbon bond formation in intramolecular setting: Cobalt-mediated stereoselective synthesis of cyclohexanes and tetralins. **E.Y. Artashyan**, **M.K. Parunyan**, G.G. Melikyan

ORGN 158. Spectroscopic characterization of diiodomethylzinc iodide: Application to the stereoselective synthesis and functionalization of iodocyclopropanes. **E.M. Allouche**, S. Taillemaud, A.B. Charette

ORGN 159. Synthesis of cyclic conjugated diyne through gold-catalyzed alkyne oxidative coupling. **C. Wei**, **X. Shi**

ORGN 160. Nicholas reactions of organotrifluoroborates. **B. St. Onge**, J. Battersby, J.R. Green

ORGN 161. Carbon-Carbon bond forming reactions mediated by gold(I/III) redox events. **S. Kim**, D. Toste

ORGN 162. Metal-mediated synthesis of 2-amino free-reducing sugars as glycodiversification building blocks. **V. Huang**, **J. Lam**, C.M. Rojas

ORGN 163. Stabilization of dirhodium paddlewheel carbenoids through tethered axial coordination. **D. Cressy**, K.B. Idrees, L. Lopez, A. Darko

ORGN 164. Molybdenum-catalyzed regioselective synthesis of 3-substituted indoles. **N. Ummidisetti**, R. Srivastava

ORGN 165. Highly diastereoselective (E)-trisubstituted alkenes containing cyclopropyl and trimethylsilyl methyl moieties via organoboranes. **N.G. Bhat**

ORGN 166. Peri-coupling of organometallic reagents for the synthesis of perylenes and oligorylenes. **I. Perry**, J. Rawson, L. Holt, J. Markiewicz

ORGN 167. Highly diastereoselective synthesis of (Z)-trisubstituted alkenes containing trimethylgermyl and

(1,3-dioxan-2-ylethyl) moieties via organoboranes. **N.G. Bhat**

ORGN 168. Controlled Kumada catalyst-transfer polymerization of a fluorinated donor-acceptor conjugated monomer. **C. Roselli**, P.R. Payne, M. Brookhart, W. You, M.R. Gagne

ORGN 169. Synthesis and characterization of beta- and meso-functionalized carbohydrate-porphyrin conjugates (CPC's). **M.C. Bennion**, D. Dennis, M. Burch, A. Henderson, M.R. Parris, N. Abualein, L. Russel, **N.L. Snyder**, **J.V. Ruppel**

ORGN 170. Boracarboxylation of vinyl arenes with redox-neutral copper catalysis: Expanding substrate and boron reagent scope and improving catalyst efficiency. **S. Knowlden**, **T.M. Perrone**, A. Gregory, N. Ziemer, B.V. Popp

ORGN 171. Novel decarboxylative C–C bond formation via metallaphotoredox catalysis. **T. Wang**, J. Kautzky, R.W. Evans, D.W. MacMillan

ORGN 172. Enantioselective allylic amination using a heterobimetallic catalyst. **C. Ence**

ORGN 173. Catalyst-dependent hydroazidation of 5-ethynyl pyrimidine nucleosides: Formation of vinyl azides versus triazoles. **P. Tuttle**, Z. Wen, A. Vasilyeva, S.F. Whuk

ORGN 174. Efficient hydroformylation of 1,1,3-trisubstituted allenes. **J. Eshon**

ORGN 175. Two-step derivatization of fluconazole via radical fragmentation of a Breslow-type intermediate. **J. Kubik**, J. Rivero, C. Canote, J. Sonnentag, D. McNabb, J. Avery, M. McIntosh

ORGN 176. Withdrawn

ORGN 177. Synthesis and coordination of various phenylisocyanide ligands to a cobalt precatalyst for dimerization of linear alpha olefins. R.D. Broene, **J.H. Morris**

ORGN 178. Thienopyrroledione-based photosensitizers for high voltage dye-sensitized solar cells. **A. Peddapuram**

Section A
Ernest N. Morial Convention Center
Hall D

Photoredox Chemistry

S.M. Silverman, *Organizer*

5:30–7:30

ORGN 179. Withdrawn

ORGN 180. Catalytic Birch reduction via photocatalytic C–F functionalization: An alternative approach to multifluorinated arenes. **M. Khaled**, J. Day, J.D. Weaver

ORGN 181. Formal Giese addition of C–H nucleophiles enabled by visible light mediated triplet catalysis. **G. Lee**, S. Hong

ORGN 182. Photo-induced transition metal catalyzed regio- and E/Z- selective hydroalkylation of activated alkynes. **S. Go**, G. Lee, S. Hong

ORGN 183. New cross coupling reactions of alkyl halides. **D.J. Kornfilt**,

D.W. MacMillan

ORGN 184. Photoredox-catalyzed isotopic labeling of pharmaceutical compounds. **Y. Loh**, K. Nagao, A. Hoover, D. Hesik, N. Rivera, S.L. Colletti, I. Davies, D.W. MacMillan

ORGN 185. Withdrawn

ORGN 186. Revisiting metallaphotoredox cross electrophile coupling for the construction of challenging C–C bonds. **S. Cardinal**, D.W. MacMillan

ORGN 187. Visible-light mediated C–F bond formation. **G. Lovett**, D.W. MacMillan

ORGN 188. Selective sp³ C–H alkylation via polarity-match-based cross-coupling. C. Le, **Y. Liang**, R.W. Evans, X. Li, D.W. MacMillan

ORGN 189. Metallaphotoredox catalysis for the construction of synthetically important C–C bonds. **V. Bacauanu**, M. Kondo, D. Fernandez, D.W. MacMillan

ORGN 190. New C–C and C–X bond forming reactions enabled by photoredox catalysis. **P. Viereck**, D.W. MacMillan

ORGN 191. Withdrawn

ORGN 192. C–N bond formation via the merger of photocatalysis and base metal catalysis. **J. Mohr**, D.W. MacMillan

ORGN 193. Selective hydrogen atom abstraction via the induction of hydricity: The direct β -arylation of alcohols via photoredox, HAT and nickel catalysis. **J. Twilton**, M. Christensen, D. DiRocco, R. Ruck, I.W. Davies, D.W. MacMillan

ORGN 194. Photoredox-catalyzed β -amino C–H bond functionalization. **K. Nagao**, Y. Loh, A. Hoover, D. Hesik, N. Rivera, S.L. Colletti, I. Davies, D.W. MacMillan

ORGN 195. Direct aldehyde C–H arylation and alkylation via metallaphotoredox catalysis. **X. Zhang**, D.W. MacMillan

ORGN 196. Metallaphotoredox catalysis for novel C–C bond formation. **P.J. Sarver**

ORGN 197. Metal-free visible light C–H alkylation of heteroarenes using hypervalent iodine dicarboxylates. **J. Genovino**, Y. Lian, Y. Zhang

ORGN 198. Metallaphotoredox-catalyzed cross-coupling of carboxylic acids with alkyl halides. **R. Smith**, C. Johnston, S. Allmendinger, D.W. MacMillan

ORGN 199. Photoinduced oxidative cyclization reactions for the preparation of complex ring systems. **C. Taylor**, A. Alshreimi, P. De Lijsen

ORGN 200. Metallaphotoredox catalysis for the synthesis of unnatural amino acids. **T. Faraggi**, C. Rouget-Virbel, D.W. MacMillan

ORGN 201. Withdrawn

ORGN 202. Metallaphotoredox-mediated synthesis of unnatural

[†]Cooperative Cosponsorship

phenylalanines. **C.A. Rouget Virbel**, T. Faraggi, D.W. MacMillan

ORGN 203. Isotopic labeling enabled by metallaphotoredox catalysis. **R. Pipal**, S. Ren, P. Zhang, D. Hesik, I. Davies, D.W. MacMillan

ORGN 204. Application of photoisomerization for the synthesis of enantioenriched β -aryloxyesters. **E. Swift**, S. Shekhar

MONDAY MORNING

Section A

Ernest N. Morial Convention Center
La Nouvelle Orleans Ballroom C

Twenty Years of Organo- & Photoredox Catalysis

Gabor A. Somorjai Award for Creative Research in Catalysis: Symposium in honor of David W.C. MacMillan

S.M. Silverman, *Organizer*
R.R. Knowles, *Presiding*

8:00 Introductory Remarks.

8:05 ORGN 205. Design of catalysts using pentacarboxycyclopentadienes (PCCPs). **T.H. Lambert**

8:30 ORGN 206. A few of my favorite rings: Catalysis inspired by cyclic structures. **V.M. Dong**

8:55 ORGN 207. Importance of long-range electrostatics in drug discovery: Discovery of selective SYK/Zap70 dual inhibitor MK-8457 for the treatment of rheumatoid arthritis. **A. Northrup**

9:20 ORGN 208. C-H and C-O functionalization via radical chaperones. **D.A. Nagib**

9:45 ORGN 209. Development of new reactions using radical anion intermediates. **N. Jui**

10:10 ORGN 210. Dual catalysis strategies for site selective functionalization of azaheterocycles. **J. Van Humbeck**

10:35 ORGN 211. Selective functionalization of pyridines and diazines via heterocyclic phosphonium salts. **A. McNally**

11:00 Introduction of Awardee.

11:05 ORGN 212. Award Address (Gabor A. Somorjai Award for Creative Research in Catalysis Sponsored by the Gabor A. and Judith K. Somorjai Endowment Fund). New photoredox reactions. **D.W. MacMillan**

Section B

Ernest N. Morial Convention Center
R02

Successful Products & Models of Undergraduate-Based Research: Good Science, Better Scientists

Financially supported by Denison University, Bruker AXS, Inc.
J.J. Reczek, K.A. Wheeler, *Organizers*,
Presiding

8:20 Introductory Remarks.

8:25 ORGN 213. Synthesis, analysis, and devices: Designing diversity of

appeal in organic materials research with undergraduates. **J.J. Reczek**

8:50 ORGN 214. Adventures in undergraduate research: The development of glowing polymers for disease detection. **C.B. Cooley**

9:15 ORGN 215. Intramolecular chiral relay at stereogenic nitrogen: The design, synthesis, and application of oxadiazinones as chiral auxiliaries: Perspective in conducting research at an institution that offers a BS and MS degree in chemistry. **S.R. Hitchcock**

9:40 ORGN 216. Case studies in solid-state chemistry from undergraduate students in the pharmaceutical industry. **M.B. Hickey**

10:05 Intermission.

10:20 ORGN 217. Pi-expanded coumarin crankshafts and propellers as aryl-aryl molecular geometry switches. **B.J. Dahl**

10:45 ORGN 218. Better life, better science: Intern/co-op program in pharmaceutical development at biogen. M.L. Peterson, **J. Xu**, K. Vasudevan

11:10 ORGN 219. Importance of effective mentoring in undergraduate research in organic chemistry. **K.M. Morgan**, K.E. Johanson, M. Foroozesh, T.S. Coston

11:35 ORGN 220. Lewis acid mediated activation of aryl and alkyl sulfonyl fluorides towards sulfonamides. **N.D. Ball**, C.P. Woroch, M. Ruzsna, L. Cleary, P. Mukherjee, C. am Ende, M.R. Reese, J.W. Tucker, J.M. Humphrey, R.W. Franzese, S.M. Etuk, S.C. Kwan

Section C

Ernest N. Morial Convention Center
R01

Biologically Related Molecules & Processes

R.D. Broene, *Organizer*
S. Choi, *Presiding*

8:00 ORGN 221. New zampanolide mimic with a stable side chain: Synthesis and antiproliferative evaluation. **Q. Chen**, G. Chen, R. Wang, B. Yue, M. Gonzalez

8:20 ORGN 222. Biophysical basis for the high-affinity binding of a vancomycin-resistant cell wall peptide byoritavancin. S. Bowden, S. Tang, C. Joseph, **S. Choi**

8:40 ORGN 223. Development of small molecule therapeutics for the resurrection and reactivation of acetylcholinesterase. **A.J. Franjesevic**, Q. Zhuang, B. Scarpitti, J. Tabbaa, S. Davis, N. Rigel, C. Watt, C.S. Callam, C.M. Hadad

9:00 ORGN 224. Reaction-based chemiluminescent probe for peroxynitrite detection in living cells. **J. Cao**, A.R. Lippert

9:20 ORGN 225. Ester- and amide-based MultiQACs: Multicationic soft antimicrobial agents. **R. Allen**, M. Jennings, M. Mitchell, S. Al-Khalifa, W. Wuest, K.P. Minbiole

9:40 ORGN 226. Development of ligands for serotonin 2A and 2C receptors. **Y. Yang**

10:00 ORGN 227. Strain-promoted double-click functionalised stapled peptides for inhibiting protein-protein interactions. **K. Sharma**, D.R. Spring

10:20 ORGN 228. Second generation oxoecicosanoid receptor antagonists: Increased potency and improved pharmacokinetics. **S. Chourey**, Q. Ye, C. Reddy, R. Wang, S. Gravel, C. Cossette, I. Slobodchikova, **D. Vuckovic**, **W.S. Powell**, J. Rokach

10:40 ORGN 229. Parabens find utility in more than just everyday products. **A.A. Yeagley**

11:00 ORGN 230. Hydrogen bonding with fluorine. **J.I. Day**, J.D. Weaver

11:20 ORGN 231. Protection of the benzoxaborole functionality: Synthesis and functionalization of zwitterionic benzoxaborole complexes. **J. Gamrat**, G. Mancini, S. Burke, J.W. Tomsho

11:40 ORGN 232. Glycofullerenes: Synthetic strategies for inhibiting Ebola virus infection. **N. Martin**

Section D

Ernest N. Morial Convention Center
R04

Asymmetric Reactions & Syntheses

R.D. Broene, *Organizer*
M. McIntosh, *Presiding*

9:00 ORGN 233. Enantioselective synthesis of allylic fluorides via iridium-catalyzed dynamic kinetic asymmetric transformations of racemic allylic trichloroacetimidates with Et₃N-3HF. **A. Sorlin**, J. Mixdorf, H.M. Nguyen

9:20 ORGN 234. Enhanced catalyst system from copper and silanediols. Y. Guan, **J. Attard**, A. Mattson

9:40 ORGN 235. Recent advance on enantioselective synthesis of allenes. **S. Ma**

10:00 ORGN 236. Asymmetric β -arylation of amino acids. **D.J. Leonard**, J. Ward, J. Clayden

10:20 ORGN 237. Enantioselective catalysis with a unique silanediol and copper combination. **Y. Guan**, J. Attard, A. Mattson

10:40 ORGN 238. Development of a nucleophilic dynamic kinetic resolution of aryl-naphthoquinone atropisomers. **S.M. Maddox**, G.A. Dawson, J. Gustafson

11:00 ORGN 239. Enantioselective hydration of aminonitriles mediated by aldose sugars. **A.J. Wagner**, D.Y. Zubarev, A. Aspuru-Guzik, D.G. Blackmond

11:20 ORGN 240. Medium-sized heterocycles: Stereoselective synthesis and their unique transformations. **Y. Zhao**

Section E

Ernest N. Morial Convention Center
R05

Materials, Devices & Switches

R.D. Broene, *Organizer*
S.C. Blackstock, *Presiding*

8:40 ORGN 241. Understanding perturbations to mechanochemical reaction paths for the engineering of force-responsive materials. **A. Kelly**, P.M. Zimmerman

9:00 ORGN 242. Optically reconfigurable charge-transfer liquid crystals. M. Van Winkle, D.A. Scrymgeour, **B. Kaehr**, J.J. Reczek

9:20 ORGN 243. Benzyalkylsilane molecular rectifiers with electron donating and electron withdrawing terminal groups. **A.D. Broadnax**, Z.A. Lamport, A. DelaCourt, B. Scharmann, O.D. Jurchescu, M.E. Welker

9:40 ORGN 244. Designed nanotubes formed by the dynamic assembly of imine-linked macrocycles. **A. Chavez**, C. Sun, M. Shen, M. Olvera De La Cruz, W. Dichtel

10:00 ORGN 245. Optics-free, non-contact microfluidics with graphene nano-island strain sensors. **C. Dhong**, S.J. Edmunds, D.J. Lipomi

10:20 ORGN 246. Graphene nanoribbon superstructures: Strategies for massive absorptivity. **S. Peurifoy**

10:40 ORGN 247. Redox-assisted self-assembly of π -conjugated chromophores provides function-enhanced superstructures. **O. Jean-Hubert**, K. Liu, A. Levy, C. Liu

11:00 ORGN 248. Photo-electro responsive materials using redox auxiliary catalysis. **S.C. Blackstock**

11:20 ORGN 249. Enhancing catalytic turnover in the redox auxiliary mediated Z \rightarrow E azobenzene switching. **D. Warner**, S.C. Blackstock

Section F

Ernest N. Morial Convention Center
R03

New Reactions & Methodology

R.D. Broene, *Organizer*
P.A. Vadola, *Presiding*

8:20 ORGN 250. Aryne reactions with element-element sigma bonds. **M. Mesgar**, J. Nguyen-Le, O. Daugulis

8:40 ORGN 251. Lewis base activation of benzyl boronic acid pinacol ester for nucleophilic additions. **T.J. Barker**, M.R. Hollerbach

9:00 ORGN 252. Homoconjugate addition of organoboron nucleophiles to activated cyclopropanes. **T.N. Nguyen**, J. May

9:20 ORGN 253. Harnessing the reactivity of strained allene intermediates. **J. Barber**, N.K. Garg

9:40 ORGN 254. Dearomative spirocyclization of N-aryl alkylamides for the synthesis of spirolactams. **P.A. Vadola**, T.L. Vacala, P.R. Carlson, A. Arreola-Hester, E.W. Makhoul, C.G. Williams

10:00 ORGN 255. Mild and environmentally benign reactivity of a novel, highly concentrated, organic HCl reagent for 1,2-alkene difunctionalization. **R. Ebule**, G.B. Hammond, B. Xu

10:20 ORGN 256. Application of the enyne Cope rearrangement in terpenoid natural product synthesis. **S. Scott**, A.J. Grenning

10:40 ORGN 257. Amino ketones from alkenes & amides by electronic control of the Kulinkovich-de Meijere reaction. B.P. Derstine, P.B. Finn, **S.M. Sieburth**

11:00 ORGN 258. Development of novel benzyloxymethyl protecting groups and their application to the stereoselective glycosylation. **K. Torikai**, T. Sato, Y. Joh, M. Karak, T. Oishi, M. Suenaga

11:20 ORGN 259. Novel multicomponent reaction chemistries from the Domling laboratory. **A. Doemling**

11:40 ORGN 260. Non-scorpionate tris(pyrazolyl)methane and related ligands via the reaction of 3-amino- or 3-hydroxypyrazole with aldehydes and ketones. **B.M. Ahmed**, N. Rudell, I. Soto, G. Mezei

MONDAY AFTERNOON

Section A

**Ernest N. Morial Convention Center
La Nouvelle Orleans Ballroom C**

ACS Award for Affordable Green Chemistry: Symposium in honor of B. Frank Guppton & D. Tyler McQuade

R.E. Maleczka, *Organizer*
A. Longstreet, *Presiding*

1:00 ORGN 261. On being green: Can flow chemistry help? **S. Ley**

1:30 ORGN 262. Use of continuous flow technology for the synthesis of active pharmaceutical ingredients. **C. Kappe**

2:00 ORGN 263. Development of scalable and cost-effective API synthesis through chemical innovation. **C.H. Senanayake**

2:30 ORGN 264. Flow hydrogenation of pharmaceutical intermediates. **J. Hawkins**

3:00 ORGN 265. Modular assembly systems for the production of affordable medications in continuous flow. **P.H. Seeberger**

3:30 ORGN 266. Chemistry: Throwing a curve in the value chain. **J.B. Manley**

4:00 ORGN 267. Award Address (ACS Award for Affordable Green Chemistry Sponsored by The Dow Chemical Company and endowed by Rohm and Haas Company). Realizing efficient synthesis of critical medicines by combining mechanistic organic chemistry and continuous methods. **D.T. McQuade**

4:30 ORGN 268. Award Address (ACS Award for Affordable Green Chemistry Sponsored by The Dow Chemical Company and endowed by Rohm and Haas Company). Access to global healthcare through process intensification of active pharmaceutical ingredients. **F. Guppton**

Section B

**Ernest N. Morial Convention Center
R02**

James Flack Norris Award in

[†]Cooperative Cosponsorship

TECH-292

Physical Organic Chemistry: Symposium in honor of Cynthia J. Burrows

Cosponsored by WCC
M.K. Boyd, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 ORGN 269. Expanded porphyrins: Adventures in aromaticity, antiaromaticity, and semi-aromaticity. **J.L. Sessler**

1:40 ORGN 270. Synthetic chiral carbon nanoforms. **N. Martin**

2:15 ORGN 271. Developing modern physical organic analysis tools. **M.S. Sigman**

2:50 ORGN 272. Mechanistic studies on DNA damage. **M.M. Greenberg**

3:25 ORGN 273. DNA repair, organic chemistry & cancer: It's all about the base. **S.S. David**

4:00 ORGN 274. Award Address (James Flack Norris Award in Physical Organic Chemistry Sponsored by the ACS Northeastern Section). Physical organic chemistry on the genome. **C.J. Burrows**

Section C

**Ernest N. Morial Convention Center
R01**

At the Frontier of Stereoselective Alkene Halofunctionalization
Cosponsored by ORGN
Financially supported by Thieme
J.N. Johnston, *Organizer, Presiding*

1:00 ORGN 275. Amino difunctionalization of alkenes using nitrogen-heteroatom bonds. **Q. Wang**

1:40 ORGN 276. Iodine-based reagents for alkene functionalizations. **T. Wirth**

2:20 ORGN 277. Recent advances in organocatalytic bromination reactions. **Y. Yeung**

3:00 ORGN 278. New halogenation strategies for the generation of unusual reactivities and selectivities. **T. Gulder**

3:40 ORGN 279. Asymmetric alkene and arene halofunctionalization reactions in meroterpenoid biosynthesis. **B.S. Moore**

4:20 ORGN 280. Catalytic, enantioselective Syn dichlorination. **S.E. Denmark**

Section D

**Ernest N. Morial Convention Center
R04**

Molecular Recognition & Self-Assembly

R.D. Broene, *Organizer*
J.L. Fantini, *Presiding*

1:20 ORGN 281. Peptides and peptidomimetics as anion receptors in aqueous solutions. **K. Jolliffe**

1:40 ORGN 282. Iodide speciation tuned by cyanostar self-assembly. **E.M. Fatila**, C. Benson, W. Zhao, M. Pink, J. Karty, A.H. Flood

2:00 ORGN 283. Molecular recognition

in biomimetic membrane systems. **L. Perez**, R.J. Hooley

2:20 ORGN 284. Functionalized calixarenes: Synthesis, characterization and anion sensing applications. **N. Edwards**, I. Gearba, D.M. Schnable, F. Liu

2:40 ORGN 285. Pyrene-box capsules for adaptive encapsulation and structure determination of unstable or non-crystalline biogenic compounds. **M. Barboiu**

3:00 ORGN 286. Thermodynamics of PAMAM-carboxylate interactions using isothermal titration calorimetry. **N. White**, K.C. Glisson, M. Bonizzoni

3:20 ORGN 287. Thermal, crystallographic and spectroscopic studies on enantiomerically pure and racemic allylated mannoses showing self-assembling properties. **I. Mattsson**, M. Lahtinen, A. Peuronen, T. Saloranta-Simell, R. Leino

3:40 ORGN 288. Prescribed molecular recognition via shape mimicry. **K.A. Wheeler**, L.S. Cantrell, E.N. Pinter, I.C. Tinsley, B.L. Wagner

4:00 ORGN 289. Tetrasulfonatocalixarenes grafted at the methylene bridge position to multiwall carbon nanotubes for interaction with acetylcholine. **J.L. Fantini**, J.D. Sundberg, J. De La Torre, K. Sinniah

Section E

**Ernest N. Morial Convention Center
R05**

Materials, Devices & Switches

R.D. Broene, *Organizer*
M.R. Bryce, *Presiding*

1:20 ORGN 290. Improvement of charge mobilities for conjugated molecules and polymers through modifications of side alkyl chains. **D. Zhang**

1:40 ORGN 291. Autonomous materials: Triggered transience and targeted delivery. **A.M. Feinberg**, J.S. Moore

2:00 ORGN 292. NIR fluorescent indolizine-squaraine and indolizine-cyanine dyes. **J.N. Gayton**, L.E. McNamara, A. Huckaba, T. Rill, E.A. Sharpe, S. Autry, N. Hammer, J.H. Delcamp

2:20 ORGN 293. Stable water-soluble imaging probes based on upconverting nanoparticles functionalized with Janus-type dendrimers. **S. Plunkett**, M. El Khatib, I. Sencan, J. Collins, S. Sakadzic, S. Vinogradov

2:40 ORGN 294. New organic materials for thermally activated delayed fluorescence and light-emitting devices. **M.R. Bryce**

3:00 ORGN 295. Tailoring hole-transporting materials for perovskites solar cells. **A. Molina-Ontoria**, J. Urieta-Mora, I. Garcia-Benito, I. Zimmermann, J. Aragón, E. Orfí, M. Nazeeruddin, **N. Martin**

3:20 ORGN 296. Panchromatic photoresponsive dye-sensitized solar cell devices using thieno[3,4-b]thiophene-

based photosensitizers. **P. Brogdon**, H. Cheema, J.H. Delcamp

3:40 ORGN 297. High voltage molecular engineered organic sensitizer-iron redox shuttle pair: 1.4 V DSC and 3.2 V SSM-DSC devices. **R.R. Rodrigues**, H. Cheema, J.H. Delcamp

4:00 ORGN 298. Building molecules with a programmable molecular robot. **S. Kassem**, A. Lee, D.A. Leigh, V. Marcos, L. Palmer, S. Pisano

Section F

**Ernest N. Morial Convention Center
R03**

Twenty Years of Organo- & Photoredox Catalysis

S.M. Silverman, *Organizer*
N. Goodwin, *Presiding*

1:00 ORGN 299. Oxidative functionalizations via visible light photoredox catalysis. **T.P. Yoon**

1:25 ORGN 300. Firmenich's quest towards sustainable synthetic ingredients. **M. Reiter**

1:50 ORGN 301. Discovery of a potent, selective and orally bioavailable RORc inverse agonist GNE-1032: Driving out PXR activation on an atypical norbornane scaffold. **J. Zbieg**, J. Crawford, O. Rene, S.M. Bronner, W. Lee

2:15 ORGN 302. Interdiction at a protein-protein interface: Structure-based design of the Mcl-1 inhibitor AMG 176. **S.P. Brown**

2:40 ORGN 303. Utilization of an active site mutant receptor for the identification of potent and selective atypical 5-HT_{2C} receptor agonists. **J. Carpenter**, Y. Wang, G. Wu, J. Feng, X. Ye, C.L. Morales, M. Broekema, K.A. Rossi, K.J. Miller, B.J. Murphy, G. Wu, S.E. Malmstrom, A.V. Azzara, P.M. Sher, J.M. Fevig, A. Alt, R.L. Bertekap, M.J. Cullen, T. Harper, K. Foster, E. Luk, Q. Xiang, M.F. Grubb, J.A. Robl, D.A. Wacker

3:05 ORGN 304. Rethinking amidation chemistry: Development of a mild and direct lactamization protocol for the synthesis of pyridopyrazine-1,6-diones. **D.A. Rankin**

3:30 ORGN 305. Oxidative C-H functionalization. **S. Blakely**

3:55 ORGN 306. New transformations in synthesis via organic photoredox catalysis. **D.A. Nicewicz**

4:20 ORGN 307. Targeting the Kelch domain of KEAP1: A fragment-based discovery approach to identifying small molecule activators of Nrf2. **N.C. Goodwin**

4:40 ORGN 308. Recent advances in olefin amination. **R.R. Knowles**

Advances in Molecular Recognition of Double-Helical DNA & RNA
Sponsored by CARB, Cosponsored by MEDI and ORGN

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

Homogeneous Catalysis for Applied Organic Synthesis

Sponsored by CATL, Cosponsored by INOR and ORGN[‡]

Homogeneous Catalysis for Applied Organic Synthesis

Sponsored by CATL, Cosponsored by INOR and ORGN[‡]

At the Frontier of Stereoselective Alkene Halofunctionalization

Cosponsored by ORGN

MONDAY EVENING

Section A

Ernest N. Morial Convention Center
Halls D/E

Sci-Mix

S.M. Silverman, *Organizer*

8:00–10:00

112, 121, 123, 125-129, 131, 133-134, 136-137, 144, 152, 158, 160, 162, 168, 172, 176-177, 183, 193, 204.
See previous listings.

409, 418-419, 424, 429, 434, 436, 442, 446-447, 449, 454, 458-459, 461-462, 467, 470-471, 473, 484, 490, 494, 498, 507-508, 510, 512, 515, 621, 628, 632, 634, 641, 647, 661, 687, 693, 699-701, 703, 705, 715, 725, 732, 741. See subsequent listings.

TUESDAY MORNING

Section A

Ernest N. Morial Convention Center
La Nouvelle Orleans Ballroom C

Josef Michl ACS Award in Photochemistry: Symposium in honor of Jack Saltiel

M.K. Boyd, E.C. McLaughlin, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ORGN 309. Alkyne photochemistry for double DNA-cleavage and for the uncaging of aldehydes. **I. Alabugin**

8:40 ORGN 310. Moving charge through duplex DNA: Injection, separation, transport and trapping. **F.D. Lewis**, R. Young, M.R. Wasielewski

9:15 ORGN 311. Chameleon materials: Imidazole imidazolium substituted polythiophenes. Photophysical properties, photochemistry and biological activity. **D.G. Whitten**, J. Zhang, D. Brown

9:50 ORGN 312. Medium matters: Merging photochemistry with supramolecular-, nano- and green chemistry. **V. Ramamurthy**

10:25 ORGN 313. Interrogating the

photochemistry of caged functional groups: Hidden mechanistic variations. **R.S. Givens**

11:00 ORGN 314. **Award Address** (Josef Michl ACS Award in Photochemistry Sponsored by the Josef Michl Award Endowment). Trapping twisted intermediates in cis-trans photoisomerization. **J. Saltiel**, S. Gupta

Section B

Ernest N. Morial Convention Center
R02

Complex Synthetic Chemistry with Simple Starting Materials

U.K. Tambar, *Organizer, Presiding*

8:00 ORGN 315. Redox catalysis strategies for complex molecules. **C. Stephenson**

8:30 ORGN 316. Constructing C–N and C–O bonds with spatial control. **J. Read De Alaniz**

9:00 ORGN 317. Construction of highly strained molecular hoops, bells, and cylinders. **R. Jasti**

9:30 ORGN 318. Natural products in the atmosphere. **R.J. Thomson**

10:00 ORGN 319. New methods for carbonyl-olefin metathesis. **C. Schindler**

10:30 ORGN 320. Wielding the power of social media for scientific scholarship and advocacy. **T.I. Asino**

Section C

Ernest N. Morial Convention Center
R01

Heterocycles & Aromatics

R.D. Broene, *Organizer*
K. Miller, *Presiding*

8:20 ORGN 321. Synthesis of quinoline-5,8-dione containing isoxazoles and isoxazolines. **R.E. Sammelson**, R. Ravanfar, M.J. Campbell, S. Stump, H.D. Beall

8:40 ORGN 322. Oxindole as a versatile scaffold: A promising heterocycle for the development of potent anti-cancer active agents. **A. Barakat**, H.M. Ghawas, M.S. Islam, A. Al-Majid, F. El-Senduny, F. Badria

9:00 ORGN 323. Application of the transition-metal free cross coupling of sulfonylhydrazones and boronic acids to the total synthesis of avrainvilleol. **K. Miller**

9:20 ORGN 324. Discovery of copper-activated heterocyclic compounds as new therapeutic strategy for combating gram-positive bacteria. **M. Zhang**, A. Delpe Acharige, M. Kalubowilage, F. Walschendorf, S.H. Bossmann

9:40 ORGN 325. Dearomatization strategies in the synthesis of complex heterocyclic natural products. **J. George**

10:00 ORGN 326. Synthesis of tri-substituted quinolines as drug candidates for HIV-1 integrase inhibition. **A. Hart**, N.G. Jentsch, J. Hume, J.A. Pigza, J. Kessl, J. Sun, M.G. Donahue

10:20 ORGN 327. Modular

diversification of heteroaromatic complexant scaffolds for separations using metal-mediated coupling strategies. **J.D. Carrick**

10:40 ORGN 328. Catalytic use of a calcium-based Lewis acid for the synthesis of heterocyclic compounds. **V. Gandon**

Section D

Ernest N. Morial Convention Center
R04

Molecular Recognition & Self-Assembly

R.D. Broene, *Organizer*
B.W. Purse, *Presiding*

8:40 ORGN 329. Reverse Hofmeister effects in synthetic hosts. **J.H. Jordan**, C.L. Gibb, W. Yao, A. Wishard, B.C. Gibb

9:00 ORGN 330.

Electrochemiluminescent chemodosimetric probes for selective detection of biological and environmental targets. H. Kim, S. Kim, K. Kim, **J.I. Hong**

9:20 ORGN 331. Molecular recognition and sensing of nucleotides with a dinuclear copper(II) complex in water. **A. Hossain**, M. Rhaman, D.R. Powell

9:40 ORGN 332. Fluorescent-based biosensors for detection of human serum albumin protein. **R. Choudhury**

10:00 ORGN 333. Minimal oligonucleotide length required for the assembly of the cowpea chlorotic mottle virus. S. Maassen, M. de Rooter, **J.J. Cornelissen**

10:20 ORGN 334. Kinetics of formation of the host-guest complex of zwitterionic viologen with cucurbit[7]uril. **Y. Zheng**, A.E. Kaifer

10:40 ORGN 335. MAMBA[n]arenes: Functionally diverse amide-bridged container molecules. **J.W. Meisel**, A.D. Hamilton

11:00 ORGN 336. Withdrawn

Section E

Ernest N. Morial Convention Center
R05

New Reactions & Methodology

R.D. Broene, *Organizer*
C. Brindle, *Presiding*

8:20 ORGN 337. New insights into the production of platform chemicals from biomass using deep eutectic solvents. **T. Istasse**, M. Kammoun, A. Richel

8:40 ORGN 338. Regioselective, solvent- and metal-free approach to access 3-Se/S-chromones from the cyclization of enamiones employing I₂/DMSO as an eco-friendly catalytic oxidation system. **J. Khan**, **S. Saba**, A.R. Schneider, T.L. Luciano, M.S. Franco, **A.L. Braga**

9:00 ORGN 339. Recent advances in halogen bond catalysis. **P.H. Toy**

9:20 ORGN 340. Synthesis and deployment of enantiomerically pure 3-substituted-piperazine-2-acetic acid esters as templates for FBLD. **S. Guduru**,

C. Santini, D.W. Young

9:40 ORGN 341. Synthesis of novel bicyclic amines and their application for drug discovery. **P. Mykhailiuk**

10:00 ORGN 342. Stereoselective synthesis of tri- and tetrasubstituted β,β -difluoro- β -oxo alkenes by free-radical reaction of iododifluoromethyl ketones. J. Wu, J. Liang, D. Wang, **F.H. Wu**

10:20 ORGN 343. Dynamic kinetic resolution of tetrasubstituted olefins. **J. Majhi**, B.W. Turnbull, H. Ryu, J. Park, M. Baik, P. Evans

10:40 ORGN 344. Difluorocyclopropanation of functionalized alkenes using CF₃SiMe₂-Nal system. **S. Ryabukhin**, P. Nosik, O. Grygorenko, D. Volochnyuk

11:00 ORGN 345. Purification of mixtures using bisulfite: Facile separation of aldehydes and ketones through reversible bisulfite adduct formation. **C. Brindle**

Section F

Ernest N. Morial Convention Center
R03

Photoredox Chemistry

R.D. Broene, *Organizer*
T. Knauber, *Presiding*

8:00 ORGN 346. Copper-based complexes for photocatalysis. **S.K. Collins**

8:20 ORGN 347. Development of a Ru/Ni dual catalytic desulfurative photoredox Csp²-Csp³ cross-coupling. **T. Knauber**

8:40 ORGN 348. Visible-light promoted C-S, C-N, and C-C bond-forming reactions: Applications and mechanistic studies. **M.S. Oderinde**, J.W. Johannes, M. Frenette, P. Nuhant, O. Fadeyi, J. Genovino

9:00 ORGN 349. Light harvesting for rapid and selective reactions: Click chemistry with strain-loadable alkenes. **K. Singh**, C. Fennell, E. Coutasias, R. Latifi, S. Hartson, J.D. Weaver

9:20 ORGN 350. Withdrawn

9:40 ORGN 351. Cross-electrophile coupling of activated alkyl halides and aryl halides via metallaphotoredox catalysis. **T.Q. Chen**, D.W. MacMillan

10:00 ORGN 352. Activation of aryl halides towards cross-coupling technology via metallaphotoredox catalysis. **C. Le**, T.Q. Chen, T. Liang, D.W. MacMillan

10:20 ORGN 353. Photocatalytic generation of 2-azoly radicals: Intermediates for the azolylation of arenes and heteroarenes via C-H functionalization. **A. Arora**, J.D. Weaver

10:40 ORGN 354. Metallaphotoredox catalysts for late stage functionalization. **J. Kautzky**, T. Wang, R.W. Evans, D.W. MacMillan

11:00 ORGN 355. C–H arylation via the merger of photoredox, hydrogen atom transfer and nickel catalysis. **M.H. Shaw**, V.W. Shurtleff, J.A. Terrett, J.D. Cuthbertson, D.W. MacMillan

[‡]Cooperative Cosponsorship

11:20 ORGN 356. New strategies for C—C bond formation enabled by metallaphotoredox catalysis. **I. Perry**, T. Brewer, D.W. MacMillan

11:40 ORGN 357. Oxidative [1,2]-Brook rearrangements exploiting single-electron transfer: Photoredox-catalyzed alkylations and arylations. **Y. Deng**, Q. Liu, A.B. Smith

Recent Advances in Catalytic Carbohydrate Reaction Development

Sponsored by CARB, Cosponsored by ORGN

ACS Award for Encouraging Women into Careers in the Chemical Sciences

Symposium in Honor of Rebecca Ruck

Sponsored by WCC, Cosponsored by ORGN, PROF and YCC[†]

Homogeneous Catalysis for Applied Organic Synthesis

Sponsored by CATL, Cosponsored by INOR and ORGN[†]

Homogeneous Catalysis for Applied Organic Synthesis

Sponsored by CATL, Cosponsored by INOR and ORGN[†]

Advances in Molecular Recognition of Double-Helical DNA & RNA

Sponsored by CARB, Cosponsored by MEDI and ORGN

TUESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center
La Nouvelle Orleans Ballroom C

Elias J. Corey Award for Outstanding Original Contribution in Organic Synthesis by a Young Investigator: Symposium in honor of Seth B. Herzon

Cosponsored by MEDI
S.M. Sieburth, *Organizer, Presiding*

1:00 ORGN 358. Selective catalytic reactions in complex molecular environments inspired by natural products. **S.J. Miller**

1:50 ORGN 359. Bringing the full power of chemical synthesis to bear on the discovery of new antibiotics. **A.G. Myers**

2:40 ORGN 360. Translational chemistry. **P.S. Baran**

3:30 Introduction of Awardee.

3:35 ORGN 361. Award Address (Elias J. Corey Award for Outstanding Original Contribution in Organic Synthesis by a Young Investigator Sponsored by the Pfizer Endowment Fund). Synthesis and study of isolated and predicted natural products. **S. Herzon**

Section B

Ernest N. Morial Convention Center
R02

Discovery of Small Molecules

[†]Cooperative Cosponsorship

Targeting RNA

Cosponsored by CARB and MEDI
S.C. Zimmerman, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 ORGN 362. Aminoglycoside binding to ribosomal RNAs: New compounds and new targets. **C.S. Chow**

1:30 ORGN 363. High-throughput platform assay technology for the discovery of pre-microRNA-selective small molecule probes. **A.L. Garner**

1:55 ORGN 364. Discovery and application of cheminformatics-derived principles for small molecule:RNA targeting. B. Morgan, J.E. Forte, A. Donlic, N.N. Patwardhan, **A.E. Hargrove**

2:20 ORGN 365. Targeting HIV-1 Rev response element with branched peptides. **W.L. Santos**

2:45 Intermission.

3:15 ORGN 366. Targeting structurally and functionally diverse RNAs with druglike small molecules. **J.S. Schneekloth**

3:40 ORGN 367. Isomorphous and isofunctional fluorescent nucleosides and nucleotides for studying RNA-centric processes. **Y. Tor**

4:05 ORGN 368. Pervasive role for structure in ncRNA and mRNA function. **K.M. Weeks**

4:30 ORGN 369. To splice or not to splice: Can small molecules answer the question? **M.G. Woll**, G.M. Karp, N.A. Naryshkin, C.R. Troita, M. Weetall, A. Bhattacharyya, A. Dakka, K.A. Effenberger

4:55 Concluding Remarks.

Section C

Ernest N. Morial Convention Center
R01

Heterocycles & Aromatics

R.D. Broene, *Organizer*
M.R. Nahm Garrett, *Presiding*

1:20 ORGN 370. Competitive photoinduced energy and electron transfer in porphyrin-fullerene triad. **Y. Hu**, M. Thomas, R. Jinadasa, F. D'Souza, H. Wang

1:40 ORGN 371. Synthesis of tetracenes: A possible means of achieving renewable energy. **M.R. Nahm Garrett**, S. Woodward

2:00 ORGN 372. Constructing extended pi-conjugated systems using dynamic bonds. **L. Fang**

2:20 ORGN 373. Ladder-type π -conjugated molecules and macromolecules featuring boron-nitrogen coordinate bonds. **C. Zhu**, L. Fang

2:40 ORGN 374. Aurones: Opening doors to a whole new yellow. **J. Schmitt**, S. Handy

3:00 ORGN 375. Tridecacyclene: Synthesis, properties, and aromaticity of a congested cyclooctatetraene. **A. Whalley**

3:20 ORGN 376. Synthetic strategies relative to rearrangements featured in the palladium catalyzed arene-triflate ring

closing reaction. **G.S. Pour**, R. Ly, K.D. Trieu, D.C. Fairchild, A. Burnstine-Townley, D.A. Vazquez-Molina, A.D. Campiglia, J.K. Harper, F.J. Uribe-Romo

3:40 ORGN 377. New red-photocleavable dyes with high aqueous efficiency. **X. Wang**, J.A. Kalow

Section D

Ernest N. Morial Convention Center
R04

Molecular Recognition & Self-Assembly

R.D. Broene, *Organizer*
M. Best, *Presiding*

1:20 ORGN 378. pH-switched self-assembly of a self-complementary supramolecular motif in polar solvent. **X. Duan**, J.W. Canary

1:40 ORGN 379. Stimuli-responsive anion-based supramolecular polymers. **W. Zhao**, B. Qiao, A.H. Flood

2:00 ORGN 380. Dynamic communication through reorganizable hydrogen bond networks. **D. Tilly**, D.T. Morris, J. Ward, J. Clayden

2:20 ORGN 381. G-quadruplex formation from H8 modified guanosine derivatives: From structure to function. **Y. He**, X. Shi

2:40 ORGN 382. *In situ* synthesis of dynamic phospholipid membranes. **A. Seoane Fernandez**, R.J. Brea, A. Fuertes, N.K. Devaraj

3:00 ORGN 383. Continual reproduction of self-assembling peptide nanomaterials. **R.J. Brea Fernández**, N.K. Devaraj

3:20 ORGN 384. Strategies for triggering liposome membrane fusion and content release. **M. Best**, J. Lou, A.M. Beyer, S. Whitehead, A.J. Carr, X. Zhang, S. Alam, S.I. Mattern-Schain, A.J. Watson

3:40 ORGN 385. Meta-stable homoleptic complexes as a supramolecular springboard for the formation of heterocomplexes. **P.M. Bogie**, L.R. Holloway, C. Ngai, Y. Lyon, R. Julian, R.J. Hooley

Section E

Ernest N. Morial Convention Center
R05

Physical Organic Chemistry: Calculations, Mechanisms, Photochemistry & High-Energy Species

R.D. Broene, *Organizer*
P. Wiget, *Presiding*

1:00 ORGN 386. Gas-phase reactivity study of aromatic biradicals containing both β - and π -type radical sites. **X. Ma**, Z. Yu, J.J. Nash, H.I. Kentamaa

1:20 ORGN 387. Halocarbenes may deplete atmospheric ozone. **A. Mamantov**

1:40 ORGN 388. Experimental and computational synergy for sustainable chemical recycling. **G.O. Jones**

2:00 ORGN 389. Mechanisms of molecular-iodine-catalyzed reactions. **M.**

Breugst, D. von der Heiden, E. Detmar

2:20 ORGN 390. Long-range donor-acceptor effects in heterocyclic medium-sized rings: Structural analysis, perlin effects, and anchimeric assistance. **P. Wiget**

2:40 ORGN 391. Anilinium salts in methylation reactions: An experimental and computational study. **M. Reid**

3:00 ORGN 392. Theoretical studies of mechanisms and selectivities of metal-catalyzed fluorination reactions. **F. Himo**

3:20 ORGN 393. Helical conformations in per- and polyfluorinated substances: Origins, energies, and stability. D.J. Van Hoomissen, M. Pagenkopf, **S. Vyas**

3:40 ORGN 394. Synthesis and experimental evaluation of cationic gold (I) carbene complexes relevant to gold (I) catalysis. **R. Carden**, N. Lam, N. Stevenson, R. Widenhoefer

4:00 ORGN 395. Reaction mechanism as a novel approach to tune the site selectivity of transition metal catalyzed intramolecular nitrene transfer: An example using silver complexes. **T. Yang**, J.F. Berry

4:20 ORGN 396. Gas phase benzyl, tropylium cations rearrangement reinvestigated using accurate mass quadrupole time of flight gas chromatography mass spectrometry (GCQTOF). T. Nguyen, M. Aparicio, **M.A. Saleh**

4:40 ORGN 397. Unveiling the photochemistry of diamidocarbenes. **T.W. Hudnall**, T.A. Perera

Section F

Ernest N. Morial Convention Center
R03

Photoredox Chemistry

R.D. Broene, *Organizer*
J.D. Weaver, *Presiding*

1:00 ORGN 398. Photoredox-mediated ring-opening metathesis polymerization: Methods, scope, and scalability. **L.M. Pascual**, A.J. Boydston, P. Lu, V. Kensy, D.C. Lee, N. Alrashdi

1:20 ORGN 399. Withdrawn

1:40 ORGN 400. Direct aryl C—H amination using primary amines via organic photoredox catalysis. **A. Levens**, K. Margrey, D.A. Nicewicz

2:00 ORGN 401. Cation radical accelerated nucleophilic aromatic substitution via organic photoredox catalysis. **N. Tay**, D.A. Nicewicz

2:20 ORGN 402. Structure-property relationships for tailoring phenoxazines as reducing photoredox catalysts. **B. McCarthy**

2:40 ORGN 403. Development of light absorbing organic molecules for photoredox catalysis. **M.V. Bobo**, A.K. Vannucci

3:00 ORGN 404. Iterative photocatalytic C-H functionalization; rapid and programmable access to oligoarenes. **J.D. Weaver**

3:20 ORGN 405. Spin-center shift-enabled direct enantioselective alpha-benzylation of aldehydes with alcohols. **E.D. Nacsá**, D.W. MacMillan

3:40 ORGN 406. Decarboxylative alkylation for site-selective bioconjugation of native proteins via oxidation potentials. **S. Bloom**

4:00 ORGN 407. Strain induced couplings mediated by visible light. **K. Singh**, W. Trinh, J.D. Weaver

4:20 ORGN 408. Mechanistic analysis of photocatalytic cross-coupling reactions. **N. Till**, M. Shaw, E. Corcoran

Recent Advances in Catalytic Carbohydrate Reaction Development

Sponsored by CARB, Cosponsored by ORGN

Homogeneous Catalysis for Applied Organic Synthesis

Sponsored by CATL, Cosponsored by INOR and ORGN[†]

TUESDAY EVENING

Section A

Ernest N. Morial Convention Center Hall D

Biologically Related Molecules & Processes

S.M. Silverman, Organizer

5:30–7:30

ORGN 409. Spiroindole analogues as a new class of anti-cancer and anti-inflammatory active agents. **G.L. Elarag**, E. El Ashry, M. Said, E. El Tamany, S. Yousuf, M. Choudhary, A. Barakat

ORGN 410. Synthesis of a novel small molecule inhibitor of D14-type strigolactone receptors. **S.F. Kim**, R. Takise, M. Yoshimura, S. Hagihara, K. Itami

ORGN 411. Development of DNA-compatible Suzuki-Miyaura reaction in aqueous media. **J. Li**, H. Huang

ORGN 412. Drug design, synthesis, and characterization of photo-isomerizable drugs with novel application in pharmaceutical and biochemical research. **M. Kazmierczak**, C. Streu, Z. Dill

ORGN 413. Understanding the function of active site residues and an ordered loop of an *Oryza sativa* tyrosine aminomutase towards parsing its mutase and lyase activities. **G.K. Attanayake**, T. Walter, K.D. Walker

ORGN 414. Progress toward the synthesis of an azo-derivative of a hedgehog signaling pathway inhibitor. **Z. Dill**, C. Streu

ORGN 415. Toward a total synthesis of a spin labeled phosphoramidon derivative and TEMPO conjugation of ilomastat for the creation of EPR chemical probes. **M. Nazario**, D.A. Hunt, D.J. Hirsh

ORGN 416. New compound, *N*-(*n*-anisyl)ethyl-*N*-Methylcinnamamide extracted from *Zanthoxylum clava-herculis* tree bark. **Y.H. Kim**, K. Moon, Z. Riley, M. Richardson

ORGN 417. Mitochondrial-targeted

organic photoCORM. **T. Soboleva**, H.J. Esquer, A. Benninghoff, L.M. Berreau

ORGN 418. Synthesis of dimeric naphthalene derivatives for recognition of DNA. **B. Chavez**, **R. Shaktah**, T.G. Minehan

ORGN 419. Preventing outer membrane formation in Gram-negative bacteria: Design and synthesis of inhibitors of LpxC. **A.O. Pajarillo**, R.J. Roldan, C.P. Embry, S.N. Malkowski, G.G. Lamanilao, M.L. Cafiero, L.W. Peterson

ORGN 420. Synthesis of novel catecholic derivatives and evaluation as COMT inhibitors. **G. Kennedy**, A.K. Hatstat, C. Cochrane, M.L. Cafiero, L.W. Peterson

ORGN 421. Reaction based chemiluminescent probe for nitroreductase and hypoxia in vivo. J. Cao, **L.S. Ryan**, A.R. Lippert

ORGN 422. Synthesis of mannose building blocks for preparation of O-mannosylated glycans. **K. Zhao**, J.L. Koviach-Cote

ORGN 423. Design and synthesis of non-nucleoside as potential inhibitors of LpxC. **C. Embry**, R. Roldan, A.O. Pajarillo, M.L. Cafiero, L.W. Peterson

ORGN 424. Synthesis and properties of porphyrin-carbohydrate conjugates for use in photodynamic therapy. **A.V. Delos Reyes**, D.R. Mootoo, P. Gonzalez, N. Bhupathiraju, C.M. Drain

ORGN 425. Isolation and characterization of alkaloids from *Lupinus albilfrons* and *Tecoma capensis*. **C.A. Sanchez**, P.M. Joyner

ORGN 426. Synthesis and characterization of novel 3,5-diaryl- Δ^1 -pyrroline-5-carbonitriles as potential breast cancer cells inhibitors. V. Mihaylova, D. Tasheva, I. Ivanov, **N.N. Mateeva**

ORGN 427. Development of a water soluble antioxidant dendrimer from naturally available vanillin. **H. Brinkman**, C.Y. Lee, A. Ausmus, C. Anamoah, R. O'Connell

ORGN 428. Novel quinolinedione for reductive generation of a visible light-triggered CO-releasing molecule in biological systems. **M. Popova**, T. Soboleva, L.M. Berreau

ORGN 429. Combating drug resistant cancer: Inhibiting glutathione *s*-transferase via ethacrynic acid derivatives. **T.A. Cooley**, I. Janser, T.L. Friebe

ORGN 430. Utilizing protein prenylation to modify EpCAM targeting DARPins with an azide-containing isoprenoid analogue. **S.A. Auger**, Y. Zhang, J. Schaefer, A. Plückthun, M.D. Distefano

ORGN 431. Development of 4-hydroxy-N-propyl-1,8-naphthalimide acyloxymethyl ethers for characterization of esterase activity. **E. Larsen**, R. Johnson

ORGN 432. Synthesis and computational evaluation of vorinostat boron derivatives as potential histone deacetylase inhibitors. **B. Rich**, **E. Goldman**, C. Martin, S. Stoddard, K.A. Brian

ORGN 433. Synthesis of the Xyl-GlcA disaccharide repeat of the m3 O-mannosylated glycan. **C. Merton**, **J.L. Koviach-Cote**

ORGN 434. Penetrating Gram-negative bacteria – unlocking spatial effects upon transport. **P.K. Desman**, T. Nguyen, V. Hoang, Y. Zhang, R.J. Rafferty

ORGN 435. Investigations into blood-brain barrier transport: Effects of physicochemical properties and small molecule chaperone synthesis. **K. Ferguson**, W.W. Hulangamuwa, A. Fatino, R.J. Rafferty

ORGN 436. Bioactive molecule discovery via intermediates of total synthesis. **O. Haney**, V. Hoang, Y. Zhang, P. Desman, R.J. Rafferty

ORGN 437. Marketing the heparinic building blocks for expanding the access to the synthetic heparinoids. **S. Nadji**

ORGN 438. Synthesis and biological activity of novel 1,3-oxazole sulfonamides. **E. Almansrah**, K. Barnes

ORGN 439. Synthesis of more metabolically stable analogs of the bromodomain inhibitor (+)-JQ1 using chemical metabolic soft spot mapping. **K.B. Guzman**, J.C. Williams, S.L. Holmes, P. Jain, F. Li, C. Santini, D.W. Young

ORGN 440. Separation of biofuels from ionic liquids via reversible solubility. **R. Wolsleger**, R.E. Del Sesto

ORGN 441. Stabilizing the collagen triple helix via covalent and non-covalent approaches. **J.M. Keever**, P.D. Banzon, W.E. Allen

ORGN 442. Development of fluorogenic probes for sugar transport analysis. **A. Ferrier**, V.V. Begoyan, M. Tanasova

ORGN 443. Fluorescent derivatives of prostaglandins: Tools for studying anti-cancer activity. **J.L. Stanley**, R. Van Dross, W.E. Allen

ORGN 444. Membrane localization of pyrene-trehalose conjugates (PYRETS). **A.M. Hagwood**, A.M. Kennedy, W.E. Allen

ORGN 445. Does substance P sequester anions in membranes? Implications for cellular [Cl⁻]. **M. Muhammad**, A.L. Sargent, W.E. Allen

ORGN 446. Brominated nucleosides for aromatic substitution: Synthesis and *in vitro* studies. **C.S. Jacobsen**, C.W. McLaughlin

ORGN 447. Nitro-dibenzofuran photoactivatable protecting group with longer wavelength absorption for orthogonal activation of biological thiols. **A.D. Fenton**, **S. Fang**, **M. Hammers**, M.D. Distefano

ORGN 448. Unveiling the conformational preferences of fructose transporters. **V.V. Begoyan**, L.J. Weselinski, M. Tanasova

ORGN 449. Structural optimization of atropisomeric pyrrolopyrimidine RET kinase inhibitors. **S. Toenjes**, **V. Garcia**, J. Gustafson

ORGN 450. Spiro-peroxy-isoxazolines: Halo-peroxidation mediated three step syntheses of potential novel anti-malarial and anti-cancer peroxide analogues. **P. Das**, A. Hamme

ORGN 451. Rational design of stapled peptides to target the CHP1-NHE1 protein-protein interaction. **R. Noorbekhesht**, C.J. Nalbandian, J. Gustafson

ORGN 452. Development of a chemiluminescent probe for nitroxyl. **W. An**

ORGN 453. Formation and testing of ketoacid derivatives as possible treatment for improper leucine metabolism. **V. Cinnater**, A. Ramanathan, C.J. Stephenson

Section A

Ernest N. Morial Convention Center Hall D

Chemistry of Fullerenes, Carbon Nanotubes & Graphene

S.M. Silverman, Organizer

5:30–7:30

ORGN 454. Ni-Pd nanoparticle @ Graphene-nanotube hybrids as robust catalysts in cross-coupling reactions. **Y. Yang**, M. Burkholder, S. Gilliland, C.E. Castano, F. Gupton

ORGN 455. Effect of graphene support on the activity of first-row transition metal clusters for cross-coupling reactions. **Y. Yang**, A.C. Reber, S. Gilliland, C.E. Castano, S.N. Khanna, F. Gupton

ORGN 456. Improved syntheses of cyclopenta[*l,m,n*]phenanthrenes: Precursors for large scale preparation of corannulene. D.J. Marquardt, **P. LaPlant**

Section A

Ernest N. Morial Convention Center Hall D

Flow Chemistry & Continuous Processes

S.M. Silverman, Organizer

5:30–7:30

ORGN 457. Efficient synthesis of antimalarial drug hydroxychloroquine in continuous flow. **H.R. Mangunuru**

ORGN 458. NSERC CREATE program in continuous flow science. **V. Kairouz**, S.K. Collins, A.B. Charette

ORGN 459. Synthesis of primary amine HX salts from halides and ammonium hydroxide in continuous flow chemistry. **A. Bouchard**, C. Audubert, H. Lebel

ORGN 460. Iron-catalyzed amination of thioethers and sulfoxides in continuous flow. **C. Lai**, H. Lebel

ORGN 461. Optimization of hylene MP synthesis for production via microfluidics. **S.M. Torres**, T. Robison, Z.S. Peacock

Section A

Ernest N. Morial Convention Center Hall D

Materials, Devices & Switches

S.M. Silverman, Organizer

[†]Cooperative Cosponsorship

5:30–7:30

ORGN 462. Advances in hypersorbent materials for detection and protection applications. **C.A. Roberts**, R.A. McGill, M.R. Papantonakis, T. Grissom, A. Kusterbeck

ORGN 463. Controlling alignment of donor-acceptor columnar liquid crystals using laser irradiation. **M. Van Winkle**, B. Kaehr, J.J. Reczek

ORGN 464. Propeller-shaped Pi-expanded coumarins as aryl-aryl dihedral angle switches. **S.M. Meyer**, H.A. Hintz, N. Sortedahl, B.J. Dahl

ORGN 465. Oligoethylene glycol solubilized crankshaft lactone molecular switches. **E.M. Charlesworth-Seiler**, J.J. Dressler, Y. Torres, B.J. Dahl

ORGN 466. Synthesis and characterization of electron-donating and electron-accepting perylene diimide derivatives for use in organic photovoltaic devices. **R. de Dios**, S. Archuleta, L. Mier

ORGN 467. Synthesis and characterization of charge transfer complexes of sulfur-rich aromatic compounds. **Q. Qin**, H. Gould

ORGN 468. New unsymmetrical flex-boxes: Flexible viologens cyclophanes. J. Richard, J. Wytka, **C. Boudon**, S. Choua, R. Laurent, **J. Weiss**

ORGN 469. Evidence of iodine binding with thiophene based dyes in DSCs. **A. Baumann**, H. Cheema, L.E. McNamara, S. Nguyen, D.L. Watkins, N. Hammer, J.H. Delcamp

ORGN 470. Synthesis of novel photochromic azobenzene derivatives. **K. Mohamad**

ORGN 471. Molecular switching of tris(azobenzene)amine. **K.S. Strickland**, C.J. Saint-Louis, S.C. Blackstock

ORGN 472. Synthesis and characterization of high-capacity swellable organically-modified silica. **P.A. Bonvallet**, T. Branscum, Z. Thornburg

ORGN 473. Structural effects on the rotational barrier atropisomeric rhodamine derivative. D. Rich, **M. Bollinger**, N.Y. Aleman, **T. Gaston**, L.V. Odom, V. Cinnater, C.J. Stephenson

ORGN 474. Radical substituted phenylene diamines and oligoanilines: Models for organic spintronic systems. **W. Guan**, **I. Kwong**, **Y. Chen**, **Y. Mo**, D.J. Brook

ORGN 475. Synthesis and characterization of imide heteroaromatic polycyclic chromophores. **A. Taylor**, **H.D. Castonguay**, A. Schrock, M.T. Huggins, A. Bolin, B. Brown, C. Saint-Louis

ORGN 476. Effect of donor strength and bulk on thieno [3,4-b]pyrazine-based panchromatic dyes in dye-sensitized solar cells. **N. Liyanage**, H. Cheema, A. Baumann, A. Zylstra, J.H. Delcamp

ORGN 477. Novel ullazine-based organic dyes for dye-sensitized solar cells. **Y. Zhang**, H. Cheema, J.H. Delcamp

Section A

†Cooperative Cosponsorship

TECH-296

Ernest N. Morial Convention Center Hall D**Molecular Recognition & Self-Assembly**

S.M. Silverman, *Organizer*

5:30–7:30

ORGN 478. Naked-eye detection of sulfate by a tripod-based thiourea receptor. **A. Hossain**, M. Emami Khansari, M.H. Hasan, R. Tandon

ORGN 479. Selective post-assembly oxidations of self-assembled complexes containing reactive alkyl chlorides or activated CH groups. **L.R. Holloway**, R.J. Hooley

ORGN 480. Withdrawn

ORGN 481. Preparation of a water soluble metal-organic molecular cube using azo coupling of polyethylene glycol chains. **M.M. Mitchler**, J.D. Thoburn

ORGN 482. Uncharacteristic quasiracemic assemblies derived from tartramide/malamide molecular frameworks. **L.S. Cantrell**, E.N. Pinter, G. Day, K.A. Wheeler

ORGN 483. Sequence-specific folding of cucurbit[8]uril-bound β -hairpin peptides. **H. Clements**, M. Matsumoto

ORGN 484. ATP driven release of an enzyme inhibitor from cucurbit[7]uril using a DNA chimera based signal transducer. **X. Zhou**, P. Pathak, L.D. Isaacs, J. Jayawickramarajah

ORGN 485. Synthesis of an enlarged M_3L_3 metallocube. **E.M. Tiernan**, J.D. Thoburn

ORGN 486. Synthesis of pentahelicene and tetracyanoazulene: Two new aromatic guests for supramolecular metallocage encapsulation. **N.B. Herrington**, J.D. Thoburn

ORGN 487. Synthesis toward a molecular container based on *p-tert-butylcalix*[4]arene with gating features. **D. Balasooriya**, Y. Li, Z. Yan

ORGN 488. Nanohoop ligands: New cylindrical molecular building blocks for metal-organic self-assembly. **J. Van Raden**, S. Louie, R. Jasti

ORGN 489. Synthesis and physical analysis of an interdigitated capsule. **O.M. Munoz**, **J. Saldana**, L.M. Tunstad

ORGN 490. Self-assembly of pentameric macrocycles through alkene metathesis of bis(4-vinylbenzene)methyl derivatives. **J. Romo**, D.D. Cao

ORGN 491. Noncovalent interactions between PAMAM dendrimer analogues and carboxylates. **A.M. Iszler**, N. White, M. Bonizzoni

ORGN 492. Tuning the properties of pyrimidine for halogen bond driven supramolecular assembly. **D. Ngo**, S. Nguyen, T.L. Ellington, A.L. Rheingold, G.S. Tschumper, D.L. Watkins

ORGN 493. Controlling the solid-state self-assembly of [n]cycloparaphenylenes through weak organofluorine interactions. **E. Leonhardt**, J. Van Raden, R. Jasti

Section A**Ernest N. Morial Convention Center Hall D****Nanomaterials**

S.M. Silverman, *Organizer*

5:30–7:30

ORGN 494. C-O bond activation catalyzed by UiO-66 supported Pd-Ni bimetallic nanoparticles. **J. Zhang**, C. Cai

ORGN 495. High performance polymeric nanocomposites from phthalonitrile resin and silane surface modified Ti_3AlC_2 MAX phase nanoparticles. **M. Derradji**, W. Liu

ORGN 496. Electrical conductivity and spectroscopic characterization of modified carbon nanotubes. **J.M. Hahn**

ORGN 497. Palladium nanoparticle-halloysite nanocomposites. Synthesis, characterization and catalytic activity. **J. Hamdi**, A. Blanco, J.B. Wiley, M.L. Trudell

Section A**Ernest N. Morial Convention Center Hall D****Physical Organic Chemistry: Calculations, Mechanisms, Photochemistry & High-Energy Species**

S.M. Silverman, *Organizer*

5:30–7:30

ORGN 498. Untangling the mechanism of chlorocarbene additions to dibenzocyclooctyne. **A. Nadeem**, **A. Urquilla**, **Y. Saperstein**, D.C. Merrer

ORGN 499. Confronting the complexity of nonlinear systems. Acid-dependency of the Fe-catalyzed Belousov-Zhabotinsky oscillating chemical reaction. **E. Zars**, M. Delarosa, C. Chicone, R. Glaser

ORGN 500. Inhibition of CYP11B1 11 β -hydroxylation by *Sutherlandia frutescens*: Theoretical studies of the active site and of steroid oxidation. **C. Hawkins**, **K. Chetney**, R. Glaser, W. Folk

ORGN 501. 2,3,5,6-Tetramethyl-1,4-di(N-nitrosoacetamido)benzene: An unusually stable N-aromatic-N-nitrosamide. **M.B. Houck**, D.R. Powell, D.T. Glatzhofer

ORGN 502. Computational study of regioselective Diels-Alder and diastereoselective Claisen rearrangement transition states. **K. Kron**, D.A. Vosburg, G.W. Daub, R.J. Cave

ORGN 503. Computational studies on regio- and diastereoselection in ketal Claisen rearrangements. G. Phun, **G.W. Daub**, R.J. Cave

ORGN 504. Stabilizing effects in the photochlorination and photobromination of haloalkanes. **A. LaPorte**, N. Mielke, D.J. Rausch, J.A. Bjorklund

ORGN 505. Taming of carbon-free energetic complexes consisting of all-nitrogen pentazole anion, metal cation, and H_2O . **Y. Xu**, M. Lu

ORGN 506. Computational study of 4-isoxazolines, 2-acylaziridines, and

4-oxazolines rearrangements. P.A. Sibbald

ORGN 507. Synthesis and reactions of pentacyclo[4.3.0.0^{2,4}.0^{3,8}.0^{5,7}]non-4-ene. **E. Brutschea**, **L. Bui**, **A. Tallon**, M.A. Forman

ORGN 508. Synthesis of iodinated precursors to pentacyclo[4.3.0.0^{2,4}.0^{3,8}.0^{5,7}]non-4-ene. **I. Armento**, **F. Baccari**, M.A. Forman

ORGN 509. Synthesis of selectively deuterated tetra(benzoyloxy)benzenes for the purpose of elucidating ESI/CID fragmentation pathways. **J.E. McGettigan**, R.R. Hark, D. Kuck

ORGN 510. Measuring the relative strength of intramolecular OH/OH bonds through equilibrium isotope effects (EIEs). **K. Kolahdouzan**, O. Ogba, D.J. O'Leary

ORGN 511. Study of the tunneling-ready-state electronic structures in hydride versus deuteride transfer reactions. **N. Salimrafter**

ORGN 512. Conformational dependence of the mechanism of Michael addition of enones to guanine. **C. Paquin**, D.W. Boerth, V. Sammata

ORGN 513. Testing the isotopically different tunneling-ready-state conformational and electronic structures in hydride transfer reactions. **L. Ma**, Y. Lu

ORGN 514. Advances in the development of redox-active organic molecules as anolytes for grid-scale energy storage. **M.E. Cook**, J. Ruchti, M.S. Sanford, M.S. Sigman, S.D. Minteer

ORGN 515. Empirical and computational studies drive complete understanding of the mechanism of silane-mediated reductions of phosphine oxides. **K. Wang**, J. Buonomo, C.C. Aldrich

ORGN 516. Computational study of heavy-atom tunneling in the Möbius pi-bond shifting in [4n]- and [4n+2] annulenes. **C.S. Michel**, **J. Arbitman**, C. Castro, W.L. Karney

ORGN 517. Primary isotope dependence of the secondary kinetic isotope effects and Hammett correlations in hydride transfer reactions in solution. **S.N. Wilhelm**, P. Rahmani, C. Hall, Y. Lu

ORGN 518. Computational investigation of conical intersections in the photofragmentation of arylmethyl and arylallyl acetates. **T.C. Celius**, B.K. Carpenter

ORGN 519. Competing triplet state [2+2] photodimerization in the solid state using naphthoquinone derivatives. **K. McKay**, D. Shields, S.K. Sarkar, J.A. Krause, A.D. Gudmundsdottir

WEDNESDAY MORNING**Section A****Ernest N. Morial Convention Center La Nouvelle Orleans Ballroom C****ACS Award for Creative Work in Synthetic Organic Chemistry: Symposium in honor of Brian M. Stoltz**

R.D. Broene, *Organizer*
N.K. Garg, *Presiding*

8:00 Introductory Remarks.

8:05 ORGN 520. Necessity is the mother of invention: Natural products and the chemistry they inspire. **S.E. Reisman**

8:45 ORGN 521. Total synthesis of (\pm)-phomoidride D: A 22 year odyssey. J. Leung, A. Bederman, J.T. Njardarson, D.A. Spiegel, G. Murphy, N. Hama, T. Shirahata, B.M. Twenter, P. Dong, I. McDonald, M. Inoue, N. Taniguchi, T. McMahon, N. Tao, C. Schneider, B.M. Stoltz, **J.L. Wood**

9:25 ORGN 522. Catalytic C–H insertion reactions of phenyl carbocations. **H. Nelson**

10:05 ORGN 523. Strategies and methods for chemical synthesis inspired by natural products. **R. Sarpong**

10:45 Introduction of Awardee.

10:50 ORGN 524. Award Address (ACS Award for Creative Work in Synthetic Organic Chemistry Sponsored by MilliporeSigma). Complex natural products as a driving force for discovery in organic chemistry. **B.M. Stoltz**

Section B

Ernest N. Morial Convention Center R02

National Fresenius Award: Symposium in honor of Thomas J. Maimone

S.M. Silverman, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 ORGN 525. New strategies and methods in the synthesis of natural products. **S. Pronin**

8:50 ORGN 526. Synthesis of complex anticancer alkaloids and terpenes. **D. Sarrlah**

9:35 ORGN 527. Total synthesis of neurologically active terpenoid natural products. **T.R. Newhouse**

10:20 ORGN 528. Electrophilic heteroatom rearrangements with N-ligated hypervalent iodine reagents: Synthesis of medium-ring oxygen heterocycles. **S. Wengryniuk**

11:05 Introduction of Awardee.

11:10 ORGN 529. Award Address (National Fresenius Award Sponsored by the Phi Lambda Upsilon, The National Chemistry Honor Society). Synthesis of complex terpenes from simple precursors. **T.J. Maimone**

Section C

Ernest N. Morial Convention Center R01

Heterocycles & Aromatics

R.D. Broene, *Organizer*
J. Li, *Presiding*

8:00 ORGN 530. Transannular cyclization and Iodoacetoxylation approaches to heterocycle peptidomimetics. **W.D. Lubell**, N. Atmuri

8:20 ORGN 531. Synthesis of chiral

nitrogen heterocycles via carbonyl-olefin metathesis. **E.J. Grosso**, B.W. Alexander, C. Schindler

8:40 ORGN 532. Synthesis of functionalized pyrazoles via copper-catalyzed C–N dehydrogenative cross-coupling for prostate cancer therapy by inhibiting tubulin polymerization. **D. Sar**, S.K. Misra, I. Srivastava, D. Pan

9:00 ORGN 533. Synthesis of enantioenriched Isoindolines and dihydropyrroles via intramolecular hydroamination of sulfonamides. **Y.O. Tao**

9:20 ORGN 534. Novel synthesis of benzo[b]thiophenes, thiophenes, and selenophenes using sodium salts. **C.A. Walter**, N. Fallows, **T. Kesharwani**

9:40 ORGN 535. Synthesis of diverse benzo[b]thiophene derivatives via iodine mediated one-pot successive cyclization-alkylation reaction strategy. **C. Cunningham**, K. Whalen, S. Khan, T. Kesharwani

10:00 ORGN 536. Exploring the decarboxylative cross-coupling of biomass carbohydrates derived furans to obtain value-added platform chemicals. **P. Forgione**

10:20 ORGN 537. Mechanochemical synthesis of porphyrins with bulky meso-substituents. **T.D. Hamilton**, Q. Su, D. Cordero

10:40 ORGN 538. cis-Specific synthesis of 1,3-disubstituted tetrahydro- β -carboline from N-sulfonyl N,S-acetals. **J. Li**, S. Luo, Y. Liu, D.F. Ortwine, J. Zbieg, J. Liang, X. Wang

Section D

Ernest N. Morial Convention Center R04

CH Activation

R.D. Broene, *Organizer*
E.J. Phipps, *Presiding*

8:20 ORGN 539. Rhodium-catalyzed intermolecular C–H functionalization as a key step in the synthesis of complex stereodefined arylpyrrolidines. **R.W. Kubiak**, H.M. Davies

8:45 ORGN 540. Catalyst-controlled enantioselective, diastereoselective and site-selective functionalization of unactivated C–H bonds. **W. Liu**, H.M. Davies

9:10 ORGN 541. Computational studies on gold(I)-catalyzed outer sphere functionalizations of C(sp³)-H bonds. **V. Gandon**

9:35 ORGN 542. Cobalt-catalyzed directed functionalization of sp² C–H bonds. **T. Nguyen**, O. Daugulis

10:00 ORGN 543. Thioether-palladium catalysis for efficient oxidative heteroarene C–H functionalization. **L. Wang**, B. Carrow

10:25 ORGN 544. Rh(III)-catalyzed diastereoselective cyclopropanation of allylic alcohols initiated by C–H activation. **E.J. Phipps**, T. Piou, T. Rovis

10:50 ORGN 545. Catalytic δ -C(sp³)-H silylation of alcohols. **A.**

Bunescu, T. Butcher, J.F. Hartwig

11:15 ORGN 546. Copper-mediated domino C–H iodination and nitration of indoles. **C. Jiang**, D. Tu

11:40 ORGN 547. Ligand-promoted rhodium(III)-catalyzed ortho-C–H functionalization. **Y. Lu**

Section E

Ernest N. Morial Convention Center R05

Total Synthesis of Complex Molecules

R.D. Broene, *Organizer*
R. Rafferty, *Presiding*

8:20 ORGN 548. Total synthesis and biological evaluation of new complex alkaloids. **A.H. Antropow**, M. Movassaghi

8:40 ORGN 549. Divergent total syntheses of (\pm)-alstoscholarisines B and C. **J.D. Mason**, S.M. Weinreb

9:00 ORGN 550. Enantioselective total syntheses of akuammiline alkaloids. **L. Morrill**, N.K. Garg

9:20 ORGN 551. Total synthesis of Gelsemium alkaloids via a metal-catalyzed cycloisomerization. **P. Knutson**, E.T. Newcomb, B. Pedersen, E. Ferreira

9:40 ORGN 552. Total synthesis of the alkaloid antibiotic berberine. **A. De Los Santos**, L.M. Mori Quiroz, M.D. Clift

10:00 ORGN 553. Synthetic efforts towards brocazine F & G: Total synthesis and new chemical screening libraries. **W.W. Hulangamuwa**, C. House, R.J. Rafferty

10:20 ORGN 554. Catalyst-controlled oligomerization for the synthesis of polypyrroloindoline natural products. **J. Lipshultz**, D.W. MacMillan, J.J. Badillo, R.J. Comito, C. Jamison

10:40 ORGN 555. Progress towards the total synthesis of parviflorene A, F and G. **M.R. Becker**, K. Rykaczewski, C. Schindler

11:00 ORGN 556. Synthetic studies on the bis-guanidinium toxins 11-saxitoxinethanoic acid and zetekitoxin AB. **D.T. Tang**, J.E. Merit, J. Du Bois

11:20 ORGN 557. Lagunamide C: Efforts in total synthesis, biological evaluation, and drug delivery. **R. Rafferty**, A. Fatino, C. Hanks, Y. Zhang, J. Dallman, K. Eschliman

Section F

Ernest N. Morial Convention Center R03

New Reactions & Methodology

R.D. Broene, *Organizer*
O. Larionov, *Presiding*

8:40 ORGN 558. Functionalization of allylic alcohols via a radical relay chaperone strategy. **K. Nakafuku**, S. Fosu, D.A. Nagib

9:00 ORGN 559. Radical-chaperone mediated C–H mono- and di-

halogenation of alcohols. **E. Wappes**, A. Vanitcha, D.A. Nagib

9:20 ORGN 560. Rapid access to diverse oxazoles via radical C–H amination. **A. Chen**, D.A. Nagib

9:40 ORGN 561. Photocatalytic prenylation of perfluoroarenes. **S. Priya**, J.D. Weaver

10:00 ORGN 562. Development of selective photoinduced transformations for organic synthesis. **O. Larionov**

10:20 ORGN 563. Merging photocatalysis & prenylation. **M. Rathnayake**, J.D. Weaver

10:40 ORGN 564. Withdrawn.

11:00 ORGN 565. Photo- and electrochemical methods for lignin valorization. **G. Magallanes**, I. Bosque Martínez, M. Riguole, M.D. Karkas, C. Stephenson

11:20 ORGN 566. Visible-light-promoted C–S cross-coupling via intermolecular charge transfer. **B. Liu**, C. Lim, G. Miyake

Discovery of Small Molecules Targeting RNA: Where Are We & Where Are We Going?

Sponsored by MEDI, Cosponsored by CARB and ORGN

Recent Advances in Catalytic Carbohydrate Reaction Development

Sponsored by CARB, Cosponsored by ORGN

WEDNESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center La Nouvelle Orleans Ballroom C

Ernest Guenther Award in the Chemistry of Natural Products: Symposium in honor of David R. Williams

C.A. Maryanoff, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 ORGN 567. Reaction cascades for building complex carbocycles and heterocycles from simple precursors. **A.J. Frontier**

1:55 ORGN 568. Total synthesis of complex natural products. **S. Herzon**

2:45 ORGN 569. Vinblastine: Synthetic and mechanistic studies. **D.L. Boger**

3:35 Introduction of Awardee.

3:55 ORGN 570. Award Address (Ernest Guenther Award in the Chemistry of Natural Products Sponsored by Givaudan). Significance of strategy and the origins of discovery in organic synthesis. **D.R. Williams**

4:55 Concluding Remarks.

Section B

Ernest N. Morial Convention Center R02

Flow Chemistry & Continuous Processes

[†]Cooperative Cosponsorship

R.D. Broene, *Organizer*
S.K. Collins, *Presiding*

1:00 ORGN 571. Reaction scale up using flow chemistry in a stereoselective aldol/epoxidation reaction. **J.A. Hansen**, D. Bell, K. Ruark, Y. Sawyer

1:20 ORGN 572. Photochemical dual-catalytic synthesis of alkynyl sulfides. **J. Santandrea**, C. Minozzi, C. Cruché, S.K. Collins

1:40 ORGN 573. On-site on-demand continuous processing: Cyanogen bromide and other chemical generators. **C. Kappe**

2:00 ORGN 574. *In-situ* on-demand production of anhydrous diazomethane using membrane separation technology. **D. Dallinger**, C. Kappe

2:20 ORGN 575. Preparation of polysubstituted cyclopropane derivatives using continuous flow synthesis of alkyl-substituted diazomethane. **A.B. Charette**, P. Rullière, E.M. Allouche, G. Benoit

2:40 ORGN 576. Photochemical intramolecular amination for the synthesis of heterocycles. **S. Parisien-Collette**, C. Cruché, X. Abel-Snape, S.K. Collins

3:00 ORGN 577. Extension of the GBBR: A green, robust, scalable and efficient continuous flow synthesis of fused 3-aminoimidazoheterocycles. **B. Baker**, W. Kerr, D. Poole

3:20 ORGN 578. Combinatorial surface chemistry via massively parallel solution nanophotocatalysis. **D. Valles**, C. Carbonell, A.B. Braunschweig, A. Wong

3:40 ORGN 579. Continuous flow technology in the production of fine chemicals and APIs. **M. Movsisyan**, T. Heugebaert, B.I. Roman, R. Dams, C.V. Stevens

4:00 ORGN 580. Advances and opportunities in flow electrochemistry. **T. Wirth**

4:20 ORGN 581. Continuous flow diazotisation of amines. **C. Audubert**, H. Lebel

4:40 ORGN 582. Development of photochemical processes in continuous flow. **S.K. Collins**

Section C

Ernest N. Morial Convention Center R01

Peptides, Proteins & Amino Acids

R.D. Broene, *Organizer*
M.W. Giuliano, *Presiding*

1:00 ORGN 583. Substrate specificity and mechanism of a class C radical SAM thiazole methyltransferase. **N. Mahanta**, Z. Zhang, G. Hudson, W.A. Van Der Donk, D. Mitchell

1:20 ORGN 584. nano-FTIR: Nanometer-scale near-field spectroscopy for probing protein secondary structure of individual protein complexes. **P. Schäfer**, T. Gokus

1:40 ORGN 585. Investigation of the solution conformations of macrocycles: Applications in the exploration of weak interactions and in drug design. **E.**

Danelius, M. Erdelyi, H. Andersson, P. Jarvoll

2:00 ORGN 586. Combining Staudinger ligation and copper-catalyzed click reactions for the synthesis of heteromultivalent glycomimetics. **T. Freichel**, N.L. Snyder, L. Hartmann

2:20 ORGN 587. [azaPhe⁴]-GHRP-6 azapeptides as CD36 modulators. **W.D. Lubell**, K. Chignen Possi, M. Mulumba, S. Omri, H. Ong, S. Chemtob

2:40 ORGN 588. Driving the efficiency of sortase-mediated ligation through metal-peptide complex formation. **S. Reed**, D. Brzovic, J. Antos

3:00 ORGN 589. Optimization of stapled peptide inhibitors of the estrogen receptor/coactivator interaction. **T.W. Moore**, T. Speltz, C.G. Mayne, J. Danes, S. Fanning, B. David, G. Greene, J.M. Frasar

3:20 ORGN 590. Use of pre-PEGylated Fmoc-Lys and Gln in synthesis of PEGylated peptide analogs of peptide hormone drug candidates with branched or unbranched short, monodisperse PEGs. P. Hamilton, W.L. Weibley, V. Haberman, T.M. Chu, **M. Wetzler**

3:40 ORGN 591. Interplay of sequence and environment in the conformation of human neuropeptides. **M.W. Giuliano**

Section D

Ernest N. Morial Convention Center R04

CH Activation

R.D. Broene, *Organizer*
F. Williams, *Presiding*

1:30 ORGN 592. Electrochemical C-H oxidation of heterocyclic compounds. **M. Dissanayake**, A.K. Vannucci

1:55 ORGN 593. Hydrocarbon C-H insertion reactions of phenyl cations enabled by weakly coordinating anions. B. Shao, **A.L. Bagdasarian**, S. Popov, H. Nelson

2:20 ORGN 594. Simple and clean trifluoromethylation and alkylation of aromatics enabled by light. W. Liu, L. Li, P. Liu, **C. Li**

2:45 ORGN 595. Carbon dioxide as a hybrid directing group for the C-H activation of aliphatic and aromatic amine substrates. **M. Young**

3:10 ORGN 596. Withdrawn

3:35 ORGN 597. Transition metal catalyzed intermolecular C-H amidation of arenes. **P. Kilaru**, K. Das, P. Zhao

4:00 ORGN 598. Investigation of the direct arylation polycondensation of silole-thiophene-S,S-dioxide monomers. **S. Mckinnon**, A. Smith, C. Scott

4:25 ORGN 599. Inter- and intramolecular aryl insertion reactions of borylnitrenes. **F. Williams**

Section E

Ernest N. Morial Convention Center R05

Total Synthesis of Complex Molecules

R.D. Broene, *Organizer*
D. Martin, *Presiding*

1:20 ORGN 600. Progress toward the synthesis of neuroprotective limonoids. **D.B. Martin**, T.J. Clay, T.S. Alexander

1:40 ORGN 601. Studies toward the total synthesis of vitisinol D and evaluation of its analogs as neuroprotective agents. **S. Maki**, W. Bollinger, K. Dawson-Scully, P. Maity, S.D. Lepore

2:00 ORGN 602. Biomimetic synthesis of halogenated meroterpenoids isolated from marine bacteria. **J. George**

2:20 ORGN 603. Efficient synthesis of 1,3-anti-diol containing bioactive natural products and corresponding analogs via modular, pot-economical and library amenable protocols. **S. Javed**, A. Ganguly, G.C. Dissanayake, P.R. Hanson

2:40 ORGN 604. Leveraging electrochemical oxidation for the synthesis of phenylpropanoid natural products. **K.J. Romero**, C. Stephenson

3:00 ORGN 605. Synthesis of aromatic belts from cycloparaphenylenes. **C. Colwell**, T. Schaub, R. Jasti

3:20 ORGN 606. Total synthesis of (-)-azaspiracid-3. **N. Kenton**, D. Adu-Ampratwum, C.J. Forsyth

3:40 ORGN 607. Biomimetic synthesis of homodimeric A and synthetic studies of *Sweritia* natural products. D. Ma, P. He, Y. Liu, **Z. Wang**

4:00 ORGN 608. Studies toward the synthesis of Gnetin H. **S.T. Handy**

Section F

Ernest N. Morial Convention Center R03

New Reactions & Methodology

R.D. Broene, *Organizer*
C. Yeung, *Presiding*

1:00 ORGN 609. Catalytic polarity-reversed couplings of ketyl radicals. **S.M. Rafferty**, L. Wang, J. Lear, D.A. Nagib

1:20 ORGN 610. Regiodivergent functionalization of steroids. M. Charaschanya, **J. Aube**

1:40 ORGN 611. Catalytic C-H amination of alcohols via radical relay chaperones. **L.M. Stateman**, E. Wappes, K. Nakafuku, D.A. Nagib

2:00 ORGN 612. Quantifying Lewis acidity and oxophilicity of Lewis acid metal-ligand complexes for asymmetric catalysis using ³¹P NMR spectroscopy. **J. Jennings**, B.W. Wigman, B.M. Armstrong, A.K. Franz

2:20 ORGN 613. Hydrogen atom transfer from hydrosilanes by Lewis base catalysis. **P. Asgari**, J. Jeon, Y. Hua

2:40 ORGN 614. Understanding and developing reactivity using a data-intensive approach. **A. Christian**, Z. Niemeyer, M.S. Sigman, D. Toste

3:00 ORGN 615. 1,3-Amino alcohol synthesis via a catalytic 3-step cascade. **B. Pierce**, R.E. Whittaker

3:20 ORGN 616. Recent advances in silane reagent design. **J. Buonomo**, C.C. Aldrich

3:40 ORGN 617. Trimethylchlorosilane as water scavenger: 10 years after presentation on 235th ACS National Meeting in New Orleans. **D. Volochnyuk**, S. Ryabukhin

4:00 ORGN 618. Metal- and acid-free C-H formylation of nitrogen heterocycles. **C. Yeung**, J.M. Ganley, M. Christensen, Y. Lam, Z. Peng, A.R. Angeles

WEDNESDAY EVENING

Section A

Ernest N. Morial Convention Center Hall B1

Heterocycles & Aromatics

S.M. Silverman, *Organizer*

7:00-9:00

ORGN 619. Synthesis of differentially substituted pyrido[3,4-b]indoles by Rh(I)-catalysis. **B. Saliba**, M. Gentile, K. Queenan, J. Song, S.P. Mulcahy

ORGN 620. Lewis acid mediated ring opening of 4-ethynyltetrahydrofuroisoxazolines to produce anticipated antimicrobial 5-*α*-halo-4-propargyloisoxazolines. **K.G. Stevens**, **C.J. Jensen**, J.L. Duffy-Matzner

ORGN 621. Iron-catalyzed one pot synthesis of quinazolinones from alcohols and *o*-aminobenzonitriles under aerobic condition. **Y. Hu**, B. Li

ORGN 622. Effect of benzofulvene's exocyclic substitutions on conjugation and aromaticity. **C. Fisher**, **C. Whyte**, A. Glass

ORGN 623. Synthesis and reactivity of C-3 carbohydrate exo-cyclic enones. **H. Arcure**, R. Hohol, Z.J. Witzczak, D.E. Mencer, R. Bielski

ORGN 624. Pyrrolidine ring formation through the Michael addition of haloethylamines to beta-nitrostyrenes. **S. Liang**, D.A. Hunt

ORGN 625. Study of the reaction of 1,2-cyclohexanedione with omega-N-BOC alkyl amines. **J. Kloskowski**, D.A. Hunt

ORGN 626. Synthesis and purification of highly substituted anthraquinones. **M. Stern**, J.J. Reczek

ORGN 627. Condensation reactions of 2-formylbenzoic acid with arenes catalyzed by Brønsted superacids. **T.H. Swihart**, B.N. Nguyen, E.R. Martinez

ORGN 628. Studies of the cyclization reactions of dimethoxyazetidene compounds. **R. Magee**, L.M. Bradley

ORGN 629. Rearrangement of N-methyl palladium(II) and rhodium(III) carbaporphyrins. **A. Latham**, T.D. Lash

ORGN 630. Strategies for the synthesis of azulopyrphyrin dimers. **M.E. Metallo**, T.D. Lash

ORGN 631. Synthesis of spiro-containing

[†]Cooperative Cosponsorship

1,4-oxazepines from *N*-propargylic β -enaminones. **E. Karadeniz**, Y. Kelgokmen, M. Zora

ORGN 632. Influence of 1,2,3-triazole aromaticity on electron spin distribution in annulenotriazole anion radicals. **S.J. Peters**, D.L. Maybell

ORGN 633. Investigations directed towards the synthesis of carbachlorins. **M.A. Noboa**, T.D. Lash

ORGN 634. Transition-metal-free and base-free electrocatalysis of 1*H*-substituted benzimidazoles. **M. Dissanayake**, A.K. Vannucci

ORGN 635. Expedient 'on water' chemoselective green synthesis of 4-aminocoumarin bearing chromeno[4,3-*b*]quinolin-6-ones. **D. Bandyopadhyay**, C. Pena, V.M. Cano

ORGN 636. Chemoselective concurrent synthesis of benzimidazoles and 1,2-disubstituted benzimidazoles: Greener route and *in vitro* anti-cervical cancer evaluation. **D. Bandyopadhyay**, D.R. Garcia, J. Cruz, E. Arredondo-Espinoza, F.E. Olazarán Santibañez, I. Balderas-Rentería

ORGN 637. Bipyridinium tetraester: An air stable radical cation. J. Richard, M. Berville, **C. Boudon**, J. Wytko, S. Choua, T. Baumgartner, M. Stolar, R. Laurent, J. Weiss

ORGN 638. Anchimeric assistance in reactions of *N*-allyl-4-alkylamino-1,8-naphthalimides. **C.J. Hartwick**, **L.E. Martinez**, A.K. Giebink, D.E. Lewis

ORGN 639. Tandem cyclizations of diynals catalyzed by copper(I): Cycloaromatizations via 5-endo cuprate additions to proximal alkynes. T.S. Hughes, **K.M. Allen**

ORGN 640. Preparation of fundamental building blocks of oligoviologens. **W. Hau**, A. Soltis, B. Harvey, K. Bradely, O.V. Morgan, D.W. Scott, R. Morgan

ORGN 641. Synthesis of the [3.1.0] amino acid fragment of a ketohexokinase inhibitor for the treatment of NAFLD/ NASH. **H. Wisniewska**, D.P. Fernando, A.C. Smith, M.S. Dowling, A. Shavnya, A.S. Tsai, L. Samp, J. Mustakis

ORGN 642. Total synthesis of hippadine and protosine: Intramolecular de Mayo photocyclization. **C.I. Ochoa**, D.E. Minter

ORGN 643. Development of a synthetic strategy for the preparation of various para-functionalized aromatic substituents on a tri-substituted quinoline as drug candidates for HIV-1 integrase inhibition. **J. Hume**, N. Jentsch, A. Hart, J.A. Pigza, J. Sun, J. Kessl, M.G. Donahue

ORGN 644. Microwave-assisted synthesis of nitrogen heterocycles from substituted cyclic sulfates. **J.A. Chastant**, O. Do, M.L. Trudell

ORGN 645. Magnetic anisotropy of rotationally hindered nitrosoarenes. **S.A. Kelley**, C.E. Owens, S. Reach, S.C. Blackstock

ORGN 646. Synthesis and evaluation of nitrogen heterocycles for the antimicrobial activity. **S. Murru**, **K. Tran**, R. Bista

ORGN 647. 1-methyl-3-iodo-7-azaindole derivative synthesis novelized. **A. Phillips**, K. Naran, T. Kesharwani

Section A
Ernest N. Morial Convention Center
Hall E

New Reactions & Methodology

S.M. Silverman, Organizer

7:00–9:00

ORGN 648. Two-round functionalization of pyrrolidine to synthesize unsymmetrically 2,5-disubstituted pyrrolidines. **H. Rong**

ORGN 649. Efficient diastereoselective halo alkene functionalization using thiourea organocatalysts. **P.N. Poindexter**, J.J. Kiddle

ORGN 650. Investigation of catalytic epoxidation of alkenes over magnetic ferrite nanoparticles. **F.Y. Fezouni**

ORGN 651. Catalytic epoxidation of olefins over metal oxide nanoparticles. **J. Al Habsi**

ORGN 652. Substitution of essential oils at the C3 Site of cefotaxime to test antibiotic effectiveness. **B. Hunt**, A. Maroney, S.A. Brouet

ORGN 653. Redox-triggered β -C-H functionalizations of pyrrolidin-3-ol. **C. Yi**

ORGN 654. Diastereo- and site-selective synthesis of 1,3-amino alcohols via azaallyl anion ring-opening of epoxides. **P.E. Daniel**

ORGN 655. Mechanochemistry, a useful tool for the chemist's tool kit – application in medicinal chemistry @ AbbVie. **H. Geneste**, E. Colson, F. Regner, S. Triebel

ORGN 656. Novel syntheses of (Z)- β -amino β -substituted- β,β -unsaturated amides via rearrangement- replacement and Suzuki reactions. **X. Liu**, Y. Han, Q. Lin

ORGN 657. π -Conjugated triazenes: Intermediates that undergo oxidation and substitution reactions. **H. Barragan Peyrani**, A. Bugarin

ORGN 658. Microwave-assisted hydrogenation of aldehydes and ketones using frustrated Lewis pairs. **E.M. Valentin**, L. Robertson, Y. Miao

ORGN 659. Synthetic studies of polymers from half-esters obtained by practical selective monohydrolysis reaction. J. Shi, **S. Niwayama**

ORGN 660. General method for 1,2-bis(arylthio)arene synthesis via aryne intermediate. M. Mesgar, **J. Nguyen-Le**, O. Daugulis

ORGN 661. Withdrawn

ORGN 662. Tethered-zwitterionic-1,3-diaza-Claisen rearrangements of *in-situ* generated carbodiimides afford highly-substituted cyclic guanidines. **M. Luedtke**, J.D. Walker, J. Madalengoitia

ORGN 663. Preparation, structure, and reactivity of new [dichloroiodo]pyridines. **C.L. Makitalo**, **M. Jarvi**, K.D. Chau Nguyen, A. Yoshimura, V. Nemykin, V.V. Zhdankin

ORGN 664. Oxidative heterocyclization of aldoximes with heterocyclic alkenes mediated by hypervalent iodine reagent. **M. Shea**, K.D. Chau Nguyen, G. Rohde, M. Yusubov, **A. Yoshimura**, V.V. Zhdankin

ORGN 665. Copper-catalyzed hydroamination of heterocyclic amines to vinyl arenes. **S. Park**, S. Kang, Y. Lee

ORGN 666. Novel method for synthesis of allenes through copper-catalyzed propargylic reduction using *N*-heterocyclic carbene. **Y. Kim**, S. Park, Y. Lee

ORGN 667. Transition-metal free, visible-light-promoted C–S cross-coupling reaction. **B. Liu**, C. Lim, G. Miyake

ORGN 668. Halogenation of β -trimethylsilyl- β,β -unsaturated esters. **L.M. Fealy**, M.P. Jennings

ORGN 669. Stereoselective arylative-cyclopropanation process and selective carbon-phosphorus bond formation on anilines. **E. Deruer**, S. Canesi, S. Coulbali

ORGN 670. Purine nucleosides with reactive β -halovinyl and β -keto sulfones at C8 position. **A. Howlader**, S. Suzul, K. Blanco, S.F. Wnuk

ORGN 671. Parallel synthesis of piperazine-based small molecules for fragment-based drug discovery. S. Chamakuri, **K. Tran**, P. Jain, S. Guduru, C. Santini, D.W. Young

ORGN 672. Effect of proximal functionality on the allylic azide equilibrium. **J. Cox**, M.H. Packard, V. Suding, J. Topczewski

ORGN 673. Direct synthesis of 1,2-disulfonyl diazetidines derivatives and their synthetic applications. **J. Istre**

ORGN 674. Biomimetic haliranium-induced polyene cyclizations. **A.M. Arnold**, A. Pothig, T. Gulder

ORGN 675. Nexus of food, energy, and bioactivity: Tomato juice mediated, microwave-assisted green route towards bioactive pyrroles. **D. Bandyopadhyay**, L.M. Salinas, A. Ahmad

ORGN 676. Synthesis of naphthalenes via [4 + 2] cycloaddition of conjugated dienes and 2-pyrone with benzyne. **A. Dubrovskiy**, **M. Scotka**, **G. Jerezano**

ORGN 677. Development of hypervalent iodine guided electrophilic substitution (HIGES) reactions. **L. Dave**, C. Mowdawalla, I. Hyatt

ORGN 678. Novel Cu-catalyzed one-pot synthesis of 2-arylthiochromenones: Advantages of leaving group as an *in-situ* reagent. **S. Subramani**, S. Govindasamy

ORGN 679. Catalytic chalcogenylation under greener conditions: A regioselective, metal- and solvent-free, synthesis of 3-*Se*/S-indole/imidazo[1,2-*a*]pyridines catalysed by KIO_3 . **A.L. Braga**, J. Khan, S. Saba

ORGN 680. Trifluoromethyl- β^6 -tetrafluorosulfonyl-substituted two-carbon building blocks: New tools for the introduction of polar hydrophobicity. **N. Breen**, A. Ikeda, T. Tarasevich, J.T. Welch

ORGN 681. Metal-free chemoselective amide reductions utilizing novel Lewis acidic boron catalysts. **M. Peruzzi**, M.R. Gagne, S.J. Lee

ORGN 682. Titanium-mediated diastereoselective halo-aldol reactions resulting in β -vinyl β -hydroxy esters. **S. Maki**, P. Maity, S. Dougherty, J. Johns, S.D. Lepore

ORGN 683. Developing strategies for stilbene oligomerization based on persistent radical intermediates. **M.S. Gallihier**, C. Stephenson

ORGN 684. Use of *N*-heterocyclic phenols as components in Ugi-Smiles Diels-Alder reactions. **N. Raeofy**, S. Luesse

ORGN 685. Study of regioselective House- Meinwald rearrangement (HMR) of spiro-epoxides. **N. Jeedimalla**, S. Roche

ORGN 686. Reactions of hypervalent iodonium alkynyl triflates with toluenesulfonylmethyl isocyanide (Tos-MIC). **M.E. Medard**, N. David, I.D. Hyatt

ORGN 687. Mechanistic investigation of reactions of bismuth(III) acetylides with organic azides in the copper(I)-catalyzed cycloaddition reaction. **A.L. Nazarova**, V.V. Fokin

ORGN 688. Rapid solution-phase synthesis of peptoids on gram-scale. B.C. Gorske, **S. Conwell**, **S. DeCarlo**, **J. Sharland**

ORGN 689. Exploration of Ugi-Smiles reactions involving oxy-Michael additions. **M. Zangi**, S. Luesse

ORGN 690. $\text{S}_{\text{N}}1$ alkylation of C-nucleophiles in aqueous mixtures: Effect of surfactant. **C. Ballard**

ORGN 691. Synthesis of polybrominated dibenzo-*p*-dioxins and mixed bromo/chloro dibenzo-*p*-dioxins. **A. Singh**, H. Hakk, S.J. Lupton

ORGN 692. Withdrawn

ORGN 693. Synthesis of heteroarylated steroid derivatives through an acid-catalyzed addition and dehydration sequence. T. Metz, **G. Lutovsky**, L.M. Stanley

ORGN 694. Disilanes as an alternative silicon source for copper-catalyzed silylations. **R. Van Hoveln**, B.J. McCarty, B.M. Thomas, T.S. Carpenter, S. Harruff, W.L. Kirkman

ORGN 695. Photoinduced synthesis of thiazolines. **M.E. Michaud**, P.D. Parker, J.G. Pierce

ORGN 696. New reactions of strained allylsilacycles. **E.J. Cummins**, G.W. O'Neil

ORGN 697. Radical relay strategy for β C–H amination of alcohols. **K. Nakafuku**, E. Wappes, D.A. Nagib

ORGN 698. Direct synthesis of *N*-(1-alkoxyvinyl)ammonium salts, an unusual class of *N*-quaternized ketene *N*,*O*-acetals. **A.M. Blades**, **D.L. McConnell**, **J.C. Sonberg**, D. Gomes Rodrigues, P.V. Keyes, C.F. Sullivan, O.M. Simone, J.D.

[†]Cooperative Cosponsorship

Shapiro, B.C. Schafer, C.C. Williams, S. Rachad, C.E. Anthony, J.A. Goodman, M.M. Majirek

ORGN 699. C-H functionalization of alcohols: A single-electron strategy for molecular diversification. **E. Wappes**, A. Vanitcha, D.A. Nagib

ORGN 700. Synthesis of amino acids via catalytic C-H functionalization of alcohols. **L.M. Stateman**, E. Wappes, K. Nakafuku, D.A. Nagib

ORGN 701. Redox-neutral aldehyde couplings. **S.M. Rafferty**, L. Wang, J. Lear, D.A. Nagib

ORGN 702. Synthesis of fluorescent chromone and coumarin derivatives and their application as lead sensors and cell imaging agents. **J.R. Zimmerman**

ORGN 703. Radical coupling of feedstock alcohols and nitriles to access a library of oxazoles. **A. Chen**, D.A. Nagib

ORGN 704. Solvate ionic liquids as green alternatives for molecular solvents. **D. Eyckens**, L.C. Henderson

ORGN 705. Buchwald-Hartwig amination of aryl halides using solid-phase primary and secondary amines. **A. Rajewski**, **M. Embury**, J. Turk

Section A
Ernest N. Morial Convention Center
Hall E

Peptides, Proteins & Amino Acids

S.M. Silverman, *Organizer*

7:00–9:00

ORGN 706. Methionine oxidation leads to novel cross-links in peptide sequences containing methionine and histidine. **I. Prajapati**, O. Mozziconacci, C. Schoneich

ORGN 707. Progress toward a novel synthesis of a glycosylated asparagine residue. **K. Rykaczewski**, **L. Griggs**, J.M. Langenhan

ORGN 708. Conformational properties of *N*-vinyl and alkynyl substituted aromatic amides compounds. **R. Yamasaki**, K. Morita, A. Ito, K. Fukuda, I. Okamoto

ORGN 709. Employing the MeDbz linker to access C-terminally elongated peptides. **R. Stamatin**, C. Arbour, J.L. Stockdill

ORGN 710. Withdrawn

ORGN 711. Synthesis, characterization, and application of an unnatural boron and nitrogen containing isostere of tryptophan. **K.L. Boknevit**, S.Y. Liu

ORGN 712. Potential anticancer depsipeptidic HDAC inhibitors accessed via an optimized solid-phase synthetic approach. **S.H. Smilen**, **E.M. Smith**, **P.A. Banks**, R.B. Fresco, C.T. Herr, R.T. Davison, **J.S. Miller**

ORGN 713. Asymmetric syntheses of conformationally constrained vinylous β -amino acids and their incorporation into mixed backbone oligomers. **H. An**, H. Wu, T.J. Kodadek

ORGN 714. Optimizing the enzyme-like reactivity of a bifunctional helical peptide catalyst. **M.J. Campbell**

[†]Cooperative Cosponsorship

ORGN 715. Proximity-enabled dual catalysis on a bifunctional helical peptide catalyst. **E.S. Weir**, D. Michaelis, M. Kinghorn

ORGN 716. Synthesis of methyl 1*H*-pyrazole-4-carboxylates bearing azetidene, pyrrolidine or piperidine substituents on the heteroaromatic ring. **A. Sackus**, F.A. Slak, G. Ragaite, J. Kuginyte, V. Malinauskiene, A. Kveselyte, G. Matuleviciute, V. Krisciuniene

ORGN 717. Design and synthesis of novel unnatural amino acids and their application in creating antibiotic polypeptides. W. Sams, S. Horiuchi, B. Rich, **K.A. Brien**, R. de la Salud Bea

ORGN 718. Synthesis of mutated peptides and computational evaluation of the FNII domain of the PLA₂R antigen in idiopathic membranous nephritis to determine the epitope regions. **S. Horiuchi**, Z. Parkinson, C. Welsh, S. Stoddard, **K.A. Brien**, R. de la Salud Bea

ORGN 719. Synthesis of mutated peptides and computational evaluation of the CTLD1 domain on the PLA₂R antigen in idiopathic membranous nephritis to determine epitope sites locations. **Z. Parkinson**, S. Horiuchi, C. Hayes, C. Welsh, S. Stoddard, R. de la Salud Bea, K.A. Brien

ORGN 720. Expanding the library of novel unnatural amino acids and their substitution in antibiotic polypeptides. **C. Drummond**, B. Rich, R. de la Salud Bea, K.A. Brien

ORGN 721. Synthesis of β,β -disubstituted amino esters: Expedient assembly of a library of fumigynin analogues. **S.S. Samanta**, S. Roche

ORGN 722. NMR and multivariate statistical study of the Maillard reaction of various sugars. **S. Lee**, J.A. Bjorklund

ORGN 723. Glycation reactions and their application towards ALS identification and treatment. **K. Lewis**, N.C. Tice, D.L. Smith

ORGN 724. Environment-dependent conformational behavior of endomorphin-1. **A.C. Schwartz**, S. Parnham, M.W. Giuliano

ORGN 725. Peptoid/thiopeptoid hybrids as polyproline type II helix mimics. **J. Sharland**, B.C. Gorske

Section A
Ernest N. Morial Convention Center
Hall E

Total Synthesis of Complex Molecules

S.M. Silverman, *Organizer*

7:00–9:00

ORGN 726. Synthesis of cyclic desmosines for elucidation of three dimensional structure of elastin. **D. Tokairin**, K. Ogawa, T. Hayashi, T. Usuki

ORGN 727. Synthesis of terpenoid cores in two steps. **E. Fereydu**, G. Gonzalez, A.J. Grenning

ORGN 728. Analog oriented synthesis of terpenoid cores: toward dolastane and pseudo-guaianolide architectures. **F. Emmetiere**, A.J. Grenning

ORGN 729. Synthesis, anticancer and antileishmanial evaluation of β -phenyl acetylenic fatty acids and analogs. **C. Morales Guzman**, E. Álvarez Benedicto, Z. Torres Martínez, K. Griebenow, R. Balaña Fouce, N.M. Carballeira

ORGN 730. Progress toward the total synthesis of 11-demethoxy-myrtoidine and myrtoidine. **A.M. Kazerouni**, D.E. Mancheno, E.S. Andreanksy, S. Blakey

ORGN 731. Synthetic study of anti-trypanosomal cynaropicrin. **T. Uchiyama**, T. Nakamura, T. Mori, S. Yamaguchi, D.B. Pitna, Y. Yoshimoto, T. Usuki

ORGN 732. Design and synthesis of novel macrolide antibiotics as tools against resistant bacteria. **A. Sanchez**, I. Seiple, Z. Zhang, A.G. Myers

ORGN 733. Total synthesis of pyropheen and campyrones A-C. **K.P. Reber**, H. Burdge

ORGN 734. Steps towards the novel synthesis of pancratistatin-type analogs. **A.P. Montoya**

ORGN 735. Asymmetric total synthesis of the natural product avrainvilleol. **A. Wegener**

ORGN 736. Total synthesis of aryl-naphthalene lactone natural products via Hauser-Kraus annulation and Suzuki-Miyaura cross-coupling reaction. T. Kim, K. Jeong, B. Hwang, Y. Kim, M. Nakata, **J. Ham**

ORGN 737. Synthesis of biological evaluation of phidaniidine analogues as neuroprotective agents. **D. Laws**, D. King, I. Schroeder, K. Rohal, D. Williams, B. Wakefield

ORGN 738. Total synthesis of baulamycins, a new family of siderophore inhibitors. **G. Ernouf**, A. Steele, W. Wuest

ORGN 739. Withdrawn

ORGN 740. Withdrawn

ORGN 741. Total synthesis of clavadin B by direct, early stage guanidinylation. **M.T. Davenport**, **J.A. Dickson**, **M.R. Johnson**, S. Chamberland

ORGN 742. Progress towards the enantioselective total synthesis of a novel metabolite from *Streptomyces venezuelae*. **M. Cunningham**, S. Anketty, M. Slattery, J.M. Rimoldi

ORGN 743. Progress towards the total synthesis of indole-containing natural products using organocatalytic conjugate addition. **S. Oleynichenko**, J. Shih, J. May

ORGN 744. New bioactive agent discovery: Divergent total synthesis. **R. Rafferty**

General Posters

Sponsored by MED1, Cosponsored by ORGN

PHYS

Division of Physical Chemistry

M. Duncan, *Program Chair*

SUNDAY MORNING

Section A
Ernest N. Morial Convention Center
Room 219

Adventures in Density Functional Theory

Fundamental Properties of the Exact Density Functional

Cosponsored by COMP[†]
P. Ayers, W. Yang, *Organizers*
M.P. Levy, *Presiding*

8:30 PHYS 1. Atoms and bonds in molecular electronic wave functions: An intrinsic analysis. **K. Ruedenberg**

8:50 PHYS 2. Summation by educated match: A new, powerful technique to sum divergent series. G. Álvarez, **H.J. Silverstone**

9:10 PHYS 3. Solving the Schrödinger equation of atoms and molecules with the free complement theory. **H. Nakatsuji**

9:30 PHYS 4. Chemical potential, chemical hardness, Fukui function and dual descriptor for interacting systems. **J.L. Gazquez**, M. Franco-Perez, A. Vela

9:50 Intermission.

10:10 PHYS 5. Charge-separation models from the fragment-Hamiltonian approach. **S. Valone**

10:30 PHYS 6. Density functional theory in parameter space and its application to dynamics in condensed phase. **S. Ghosh**

10:50 PHYS 7. Thermodynamical representation of density functional theory. **A. Nagy**

11:10 PHYS 8. Localized orbital scaling correction for systematic elimination of delocalization error in density functional approximations. **W. Yang**

Section B
Ernest N. Morial Convention Center
Room 220

Chirality from Molecules to Materials

Surfaces & Materials

M. Caricato, P.H. Vaccaro, *Organizers*
B. Kahr, *Presiding*

8:30 Introductory Remarks.

8:35 PHYS 9. Structure sensitive chiral surface chemistry: Enantioselectivity on chiral surfaces. **A.J. Gellman**, P. Kondratyuk, M. Payne

9:15 PHYS 10. Chiral materials based on tetrathiafulvalene and metal dithiolene complexes. **N. Avarvari**

9:55 PHYS 11. Understanding spontaneous chiral crystallization. J.E. Carpenter, **M. Gruenwald**

10:15 PHYS 12. Circular differential scattering of plasmonic pinwheels. **K.W. Smith**, H. Zhao, W. Chang, P.J.

Nordlander, S. Link

10:35 Intermission.

10:55 PHYS 13. Chiral inorganic nanostructures. **N. Kotov**

11:35 PHYS 14. Investigations of natural and magnetically induced "chirality" via response theory methods. **S. Coriani**

Section C

Ernest N. Morial Convention Center Room 221

Cold Molecules for Chemistry

Quantum Simulation & Material

K.B. Whaley, Organizer

K. Ni, Organizer, Presiding

8:30 Introductory Remarks.

8:35 PHYS 15. Laser cooling of polyatomic molecules. **J. Doyle**

9:05 PHYS 16. Quantum dipolar spin liquids and Floquet Hopf insulators. **N. Yao**

9:35 PHYS 17. Advances in the preparation of ultracold molecules: Towards a quantum gas of polar $^{23}\text{Na}^{39}\text{K}$ molecules and Zeeman slowing of laser coolable diatomic molecules. T. Schulze, T. Hartmann, K. Voges, A. Zenesini, M. Pezold, P. Kaeberl, M. Siercke, **S. Ospelkaus**

10:05 Intermission.

10:25 PHYS 18. Cold molecules in a lattice: From quantum strings to chemical synthesis. **K. Hazzard**

10:55 PHYS 19. Quantum control of ultracold molecular samples. **H. Naegerl**

11:25 PHYS 20. Predictive electronic structure theory for small molecules. **T. Shiozaki**

11:45 PHYS 21. Molecular ultracold plasma: evolution from a Rydberg gas and arrested relaxation. **J.S. Keller**

Section D

Ernest N. Morial Convention Center Room 214

Physical Chemistry of Ionic Liquids

Functional Ionic Liquids & Applications

Cosponsored by COLL[†]
Financially supported by U.S. Army Research Office
E. Castner, E. Maginn, C.J. Margulis, S.K. Shaw, J.F. Wishart, Organizers
T.L. Greaves, Presiding

8:30 Introductory Remarks.

8:35 PHYS 22. Infrared spectroscopy studies of the hypergolic reaction and decomposition of a dicyanoborohydride ionic liquid. **A.E. Thomas**, S.D. Chambreaux

8:55 PHYS 23. Chemistry and space propulsion applications of room-temperature ionic liquids. **S.D. Chambreaux**, G.L. Vaghjiani, S. Schneider

9:15 PHYS 24. Azole-functionalized boranes: Bringing the tunability of ionic liquids to molecular systems. **R.D. Rogers**

9:35 PHYS 25. On the creation and chemistry of ionic liquids stable in air for months at 300°C. **J.H. Davis**, K.N. West,

B. Rabideau, T.G. Glover, B. Siu, R.A. O'Brien, M. Soltani, C. Cassidy, M. Vo, J. McCants, E.A. Salter, A. Wierzbicki, A.C. Stenson, J.L. McGeehee

10:10 Intermission.

10:25 PHYS 26. Porous ionic liquids: structures and dynamics. **S. Dai**

11:00 PHYS 27. Porous liquids from metal organic frameworks in ionic liquids. **M. Costa Gomes**, L. Pison, C. Cervinka, A. Padua

11:35 PHYS 28. Solvent extraction in ionic liquids: Structuration and aggregation effects on extraction mechanisms. **S. Dourdain**, T. Sukhbaatar, G. Arrachart, S. Pellet-Rostaing

Section E

Ernest N. Morial Convention Center Room 223

Energy & Charge Transfer at Nanoscale Interfaces

Interfaces in Electrochemistry & Catalysis

L. Huang, S.T. Roberts, K.A. Willets, Organizers
W. Chang, M.T. Sheldon, Presiding

8:30 PHYS 29. Exciton transport, coherent delocalization, auger annihilation and optical gain in 2D colloidal quantum wells. **T. Lian**

9:00 PHYS 30. From indirections find directions out. **M.A. Ratner**

9:30 PHYS 31. Ultrafast direct electron transfer at optoelectronic material interfaces. **W. Xiong**, B. Xiang, Y. Li, H. Pham, F. Paesani

10:00 PHYS 32. Surface electron dynamics in hematite ($\beta\text{-Fe}_2\text{O}_3$): Correlation between ultrafast surface electron trapping and small polaron formation. **L. Baker**, J. Husek, A. Cirri, S. Biswas

10:20 Intermission.

10:40 PHYS 33. Elucidating how photoexcited semiconductor nanocrystals drive redox catalysis. **G. Dukovic**

11:10 PHYS 34. Influence of surface-active molecules on reactions at liquid interfaces: Molecular dynamics studies. **I. Benjamin**, J.J. Karnes

11:40 PHYS 35. Controlling energy flow in plasmonic photocatalysis through the design of hybrid plasmonic nanostructures. **S. Linic**, U. Aslam, S. Chavez **12:00 PHYS 36.** Catalytic reactions on FeN_x/C site of Fe, N-functionalized carbon nanotubes as cathode catalyst for hydrogen fuel cells. **F. Gao**, G. Zhao, D. Bagayoko, D. Liu

Section F

Ernest N. Morial Convention Center Room 224

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Cosponsored by COMP[†]
M.S. Gordon, A. Krylov, R. Lindh, Organizers
T.L. Windus, Organizer, Presiding

8:30 PHYS 37. CI2030: The response to NSF's request for information on future needs for advanced cyberinfrastructure. **T.H. Dunning**

9:10 PHYS 38. Scientific evaluation of modern parallel programming models. **J.R. Hammond**

9:50 Intermission.

10:10 PHYS 39. Architecting science applications for exascale. **K. Riley**

10:50 PHYS 40. From legacy to exascale: GAMESS software development practices. **S.S. Leang**, M.S. Gordon

11:30 PHYS 41. Fast evaluation of scalar and vector fields of molecular properties on modern GPU and many-core architectures. **A. Vazquez-Mayagoitia**, R. Hernández-Esparza, J. Garza, R. Vargas

Elucidation of Mechanisms & Kinetics on Surfaces

Mechanisms & Selectivity

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDIF[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials

Sponsored by POLY, Cosponsored by PHYS and PMSE

Electrochemical Double Layer: Modeling, Characterization & Catalysis

Sponsored by CATL, Cosponsored by COMP, ENFL and PHYS

Chemistry of Molecular Electronics Theory

Sponsored by COLL, Cosponsored by PHYS

Marriage of Machine Learning, Knowledge Representation & Chemical Sciences

Data Mining & Frameworks for Chemical Discovery

Sponsored by COMP, Cosponsored by CINF and PHYS

Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments

Sponsored by CATL, Cosponsored by ENFL, INOR and PHYS

Challenge & Opportunity in Lignin Valorization

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

SUNDAY AFTERNOON

Section A

Ernest N. Morial Convention Center Room 219

Adventures in Density Functional Theory

Cosponsored by COMP[†]
P. Ayers, W. Yang, Organizers
J. Perdew, Presiding

1:30 PHYS 42. On the nature of the real part of the electron density and the resulting Fukui functions obtained from complex wave functions of temporary anion states. **R.C. Morrison**

1:50 PHYS 43. Renewed energy density concept as quantum mechanics 100 years of mystery is solved. **A. Tachibana**

2:10 PHYS 44. Pauli principle and the confinement of electron pairs In A symmetric double well potential. **P. Fuentealba**, T. Novoa, C. Cardenas

2:30 PHYS 45. Fluxional behavior and noble gas binding ability of boron clusters. **P. Chattaraj**

2:50 Intermission.

3:10 PHYS 46. The Csl band gap under strong compression. **A. Cedillo**

3:30 PHYS 47. Conceptual density functional theory: Applications in bonding, chemical reactivity and molecular design. **F.J. De Proft**

3:50 PHYS 48. Functional derivatives and differentiability in density-functional theory. **Y.A. Wang**

4:10 PHYS 49. Density functional reactivity theory: Its recent developments and applications. **S. Liu**

Section B

Ernest N. Morial Convention Center Room 220

Chirality from Molecules to Materials

Linear Chiroptical Effects

M. Caricato, P.H. Vaccaro, Organizers
P.L. Polavarapu, Presiding

1:30 PHYS 50. Polarizing light with chiral supramolecular structures. **L. Di Bari**

2:10 PHYS 51. From isolated chiral molecule to the solid: Conformational study by laser spectroscopy and vibrational circular dichroism. **A. Zehnacker**

2:50 PHYS 52. Modeling solvent effects on chiroptical response properties with coupled cluster theory and implicit solvation. **J.C. Howard**, J.C. Womack, J. Dziedzic, C. Skylaris, T. Crawford

3:10 PHYS 53. Mechanical, electrical and magnetic anharmonicity in chiroptical vibrational spectra: The VPT2 approach. **J. Bloino**, A. Baiardi, F. Egidi, M. Fusè

3:30 Intermission.

3:50 PHYS 54. Vibrational circular dichroism spectroscopy as probe for intermolecular interactions. **C. Merten**

4:30 PHYS 55. Theoretical prediction of resonance Raman optical activity spectra. **J.R. Cheeseman**

Section C

Ernest N. Morial Convention Center Room 221

[†]Cooperative Cosponsorship

Cold Molecules for Chemistry

Quantum Computing

K. Ni, K.B. Whaley, *Organizers*
W. Campbell, *Presiding*

1:30 PHYS 56. Quantum information with molecular ions. **K. Brown**

2:00 PHYS 57. Quantum computation using arrays of N polar molecules. **S. Kais, Z. Hu**

2:30 PHYS 58. Ultracold molecular assembly. **J. Hood, L.R. Liu, Y. Yu, J.T. Zhang, K. Wang, Y. Lin, T. Rosenband, K. Ni**

3:00 Intermission.

3:20 PHYS 59. Quantum computing for quantum chemistry: An update from the trenches. **A. Aspuru-Guzik**

3:50 PHYS 60. Harnessing coordination chemistry for the construction of qubits. J.M. Zadrozny, M. Graham, C. Yu, M.S. Fataftah, **D.E. Freedman**

4:20 PHYS 61. Modifying conductivity and material properties of molecular ensembles under light-matter strong coupling. **G. Pupillo**

4:50 PHYS 62. Withdrawn

Section D

Ernest N. Morial Convention Center
Room 214

Physical Chemistry of Ionic Liquids

Functional Ionic Liquids & Applications

Cosponsored by COLL[†]
Financially supported by U.S. Army Research Office
E. Castner, E. Maginn, C.J. Margulis, S.K. Shaw, J.F. Wishart, *Organizers*
R. Hayes, *Presiding*

1:30 PHYS 63. Choline-Amino Acid Based Ionic Liquids – From Solvent Structure to Lignin Dissolution. **H. Jiang, G. Warr, R. Aikin, S. Imberti**

1:50 PHYS 64. Ionic liquids as catalysts for biomass conversion. **K. Takahashi**

2:25 PHYS 65. Comparison of imidazolium- and cholinium-based ionic liquids for biomass pretreatment and "one-pot" conversion technologies. **B.A. Simmons**

3:00 PHYS 66. Pseudoprotic ionic liquids and protic mixtures: Strange cousins of ionic liquids. **M.N. Kobrak**

3:20 Intermission.

3:35 PHYS 67. High throughput and machine learning approaches to characterising stoichiometric and non-stoichiometric protic ionic liquid-water solutions. D. Yalcin, C. Drummond, **T.L. Greaves**

4:10 PHYS 68. Ionic liquid electrolytes for harvesting low-grade waste heat. **J. Pringle, M. Dupont, A. Taheri, D. Al-Masri, D.R. MacFarlane**

4:45 PHYS 69. A detailed study on thermophysical properties of natural deep eutectic solvents via combined experimental and theoretical approaches.

S. Aparicio-Martinez, **M. Atilhan**

Section E

Ernest N. Morial Convention Center
Room 223

Energy & Charge Transfer at Nanoscale Interfaces

Emerging Techniques for Probing Nanoscale Structure & Dynamics

L. Huang, S.T. Roberts, K.A. Willets, *Organizers*
L. Baker, W. Xiong, *Presiding*

1:30 PHYS 70. Multimodal tip-enhanced spectroscopy. **M.B. Raschke**

2:00 PHYS 71. Chemically and structurally correlated carrier and exciton transport in solution-processed semiconductors. A. Hill, C.L. Kennedy, E. Massaro, **E. Grumstrup**

2:30 PHYS 72. Ultrafast two-dimensional infrared spectroscopy of disordered surfactant interfaces. C.P. Baryames, E. Ma, **C.R. Baiz**

2:50 PHYS 73. Optical label- and model-free probe of the surface potential of nano and microscopic objects in aqueous solution. **S. Roke**

3:10 Intermission.

3:30 PHYS 74. Carrier dynamics in plasmonic nanostructures. **S. Link**

3:50 PHYS 75. Imaging the electronic structure of TIPS-pentacene microcrystals using two-dimensional white-light microscopy. **N.M. Kearns, A.C. Jones, J. Ho, J.T. Flach, M.T. Zanni**

4:10 PHYS 76. Femtosecond XUV transient absorption enables carrier- and element-specific measurement of interfacial charge transfer. **J. Vura-Weis**

4:30 PHYS 77. Understanding mislocalization error in plasmon enhanced super-resolution fluorescence microscopy. **H.J. Goldwyn, D.J. Masiello**

4:45 PHYS 78. Band-selective ballistic energy transport in oligomers characterized by relaxation-assisted 2D-IR spectroscopy. **L. Qasim, Y. Yue, A. Kurnosov, A. Burin, I.V. Rubtsov**

5:00 PHYS 79. Statistical mechanical modeling of excitons in condensed phases. **R. Remsing**

Section F

Ernest N. Morial Convention Center
Room 224

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Cosponsored by COMP[†]
A. Krylov, R. Lindh, T.L. Windus, *Organizers*
M.S. Gordon, *Organizer, Presiding*

1:30 PHYS 80. Going from work station computing to exascale computing with the Dirac and Dalton programs. **H. Jensen**

2:10 PHYS 81. Scalability and programming productivity for massively-parallel wavefunction methods. **E. Solomonik**

2:50 PHYS 82. Tensor algebra

systems for high-accuracy many-body formulations. **K. Kowalski, B. Peng**

3:10 Intermission.

3:50 PHYS 83. Toward reduced scaling many-body electronic structure at exascale. **E.F. Valeev**

4:30 PHYS 84. Numerical advances in finite temperature Green's function methods. **D. Zgid, A. Rusakov, S. Isakov**

5:10 PHYS 85. Libtensor: General tensor contraction library for scientific computing on multiple platforms. **A. Krylov**

Section G

Ernest N. Morial Convention Center
Room 225

Quantum Chemistry, Dynamics & Reaction Modeling for Molecules & Materials in Astrophysical Environments

Spectra & Properties

H. Cuppen, D.E. Woon, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 PHYS 86. Accurate structure and spectroscopy of small molecular systems of astrophysical interest. T. Trabelsi, **J.S. Francisco**

2:10 PHYS 87. Quantum-chemical needs from the viewpoint of the Cologne Database for Molecular Spectroscopy. **H.S. Müller**

2:45 PHYS 88. Spectroscopic characterization of key aromatic and heterocyclic molecules: A route toward the origin of life. **C. Puzzarini, V. Barone, J. Bloino, N. Tasinato**

3:05 Intermission.

3:25 PHYS 89. Answering unique spectroscopic and astrochemical problems through quantum chemistry. **R.C. Fortenberry, K.A. Kloska, J.P. Layfield, C.M. Novak, T.J. Lee**

4:00 PHYS 90. Exploring the rotational and far infrared spectra of non-rigid species using highly correlated ab initio methods. **M.S. Senent**

4:35 PHYS 91. Infrared spectra of interstellar complex organic molecules: accurate energies and intensities by an anharmonic perturbative treatment. **J. Bloino, A. Baiardi, C. Puzzarini, V. Barone**

4:55 PHYS 92. Chocolate molecules in space: Utilizing tunable vacuum ultraviolet light for isomer specific detection of complex organic molecules from astrophysical ice analogues. **M. Abplanalp, S. Góbi, A. Bergantini, A.M. Turner, R. Kaiser**

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PREST[†], WCC and YCC

Elucidation of Mechanisms &

Kinetics on Surfaces

Mechanisms at the Atomic Scale

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials

Sponsored by POLY, Cosponsored by PHYS and PMSE

Electrochemical Double Layer: Modeling, Characterization & Catalysis

Sponsored by CATL, Cosponsored by COMP, ENFL and PHYS

Marriage of Machine Learning, Knowledge Representation & Chemical Sciences

Artificial Intelligent Searching of Chemical Space

Sponsored by COMP, Cosponsored by CINF and PHYS

Chemistry of Molecular Electronics

Molecular-Scale Electronics

Sponsored by COLL, Cosponsored by PHYS

Challenge & Opportunity in Lignin Valorization

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

MONDAY MORNING

Section A

Ernest N. Morial Convention Center
Room 219

Adventures in Density Functional Theory

Conceptual Aspects

Cosponsored by COMP[†]
P. Ayers, W. Yang, *Organizers*
M.F. Herman, *Presiding*

8:30 PHYS 93. On variational principles, and exact functional constraints, for ground states and excited states in time-independent density functional theory. **M.P. Levy**

9:00 PHYS 94. Adventures in density functional theory by a wavefunction theorist: A different, powerful perspective. **R. Bartlett, D.S. Ranasinghe, Y. Park, P. Verma, Y. Jin, A. Perera**

9:30 PHYS 95. Active space dependence of energy components and ingredients in multiconfiguration pair-density functional theory. **P. Sharma, D.G. Truhlar, L. Gagliardi**

9:45 Intermission.

10:00 PHYS 96. What Bob Parr has wrought: Quantum mechanics based reaction mechanisms for electrocatalysis. **W.A. Goddard**

10:30 PHYS 97. Where's my oscillator strength? **D.N. Beratan**

11:00 PHYS 98. Advances in orbital-free density functional theory simulations of materials. B. Gonzalez del Rio, W.C. Witt, J.M. Dieterich, **E.A. Carter**

11:30 PHYS 99. Nonlocal kinetic energy functionals by functional integration. **W. Mi, A. Genova, M. Pavanello**

[†]Cooperative Cosponsorship

Section B

Ernest N. Morial Convention Center
Room 220

Chirality from Molecules to Materials**Nonlinear Effects**

M. Caricato, *Organizer*
P.H. Vaccaro, *Organizer, Presiding*

8:30 PHYS 100. Novel chiroptical spectroscopies. **K. Ruud**

9:10 PHYS 101. From the theoretical predictions to the experimental demonstration of two-photon circular dichroism: "Uncovering the nonlinear optical property of chiral molecules". **F. Hernandez**

9:50 PHYS 102. Amplification of chirality in the enantioselective synthesis of intrinsically chiral terbium phosphate nanocrystals. **G. Markovitch**, U. Hananel, A. Ben Moshe

10:10 PHYS 103. High-sensitivity time-resolved circular dichroism spectroscopy as a probe of structure and dynamics of strongly coupled artificial and natural molecular systems. **S. Savikhin**, V. Stadnitskyi, Z. Mitchell, G.S. Orf, R.E. Blankenship

10:30 Intermission.

10:50 PHYS 104. Electronic nonlinear spectroscopies: Theory and experiment working together. **A. Rizzo**

11:30 PHYS 105. Chiral sum frequency generation spectroscopy for protein characterization at interfaces. **E.C. Yan**

Section C

Ernest N. Morial Convention Center
Room 221

Cold Molecules for Chemistry**Cold Collisions & Dynamics**

K. Ni, K.B. Whaley, *Organizers*
K. Hazzard, *Presiding*

8:30 PHYS 106. Slow-electron velocity-map imaging of cryogenically cooled anions (cryo-SEVI). **D.M. Neumark**

9:00 PHYS 107. Chemical reactivity at low temperatures: From potential energy surfaces to rate coefficients. **H. Guo**

9:30 PHYS 108. Collisions of ultracold NaRb molecules. **D. Wang**

10:00 PHYS 109. Universality and chaoticity in ultracold chemical reactions. **J.F. Croft**, C. makrides, M. Li, A. Petrov, B. Kendrick, B. Naduvalath, S. Kotochigova

10:20 Intermission.

10:50 PHYS 110. Four-center reactions of KRb molecules at sub microKelvin. **M. Hu**, Y. Liu, A. Gheorghie, Y. Lin, D. Grimes, K. Ni

11:10 PHYS 111. Molecules as reactive species at a collision energy close to absolute zero. **S. Kotochigova**

Section D

Ernest N. Morial Convention Center
Room 214

Physical Chemistry of Ionic Liquids Electrochemistry and**Electrochemical Interfaces**

Cosponsored by COLL[†]
Financially supported by U.S. Army Research Office
E. Castner, E. Maginn, C.J. Margulis, J.F. Wishart, *Organizers*
S.K. Shaw, *Organizer, Presiding*

8:30 PHYS 112. Electrode-ionic liquids interfaces: Determination of the potential of zero charge and characterization of slower charging processes. **N.M. Vargas-Barbosa**, B. Roling

8:50 PHYS 113. Solvation dynamics of an ionic and a molecular probe in an ionic liquid and an deep eutectic solvent with similar structure. Y. Cui, **D.G. Kuroda**

9:10 PHYS 114. Electrochemistry and electrochemical processing in deep eutectic solvents. **K.S. Ryder**, A.P. Abbott, A. Hillman

9:45 PHYS 115. Tunable and stiff solid electrolyte made from an ionic liquid and a rigid-rod polyanion. **C. Zanelotti**, Y. Wang, S.E. Wollman, D. Yu, R. Kerr, M. Hegde, T.J. Dingemans, M. Forsyth, L.A. Madsen

10:05 Intermission.

10:20 PHYS 116. Magnetic control of ionic liquid ions in the electrical double layer. **R. Hayes**

10:55 PHYS 117. Viscosity dependent dynamics of electrochemically driven molecular reorientations revealed via vibrational spectro-electrochemistry. **A. Horvath**

11:15 PHYS 118. Directing bulk and interface interactions in ionic liquids to modulate ion solvation, conduction and structure in electrochemical systems. **B. Gurkan**, Q. Huang

11:35 PHYS 119. Ion diffusion in ionic liquids in electric fields. R.A. Clark, J. Edel, B. Kirchner, M.K. Kuimova, A.J. McIntosh, M.A. Nawawi, M. von Dörmars, **T. Welton**

Section E

Ernest N. Morial Convention Center
Room 223

Energy & Charge Transfer at Nanoscale Interfaces**Materials for Photon Upconversion & Downconversion**

L. Huang, S.T. Roberts, K.A. Willets, *Organizers*
M.L. Tang, A. Willard, *Presiding*

8:30 PHYS 120. Resolving ultrafast exciton migration in organic solids at the nanoscale. S.B. Penwell, L.D. Ginsberg, R. Noriega, **N.S. Ginsberg**

9:00 PHYS 121. Manipulating energy and spin in hybrid organic-inorganic semiconductors. A.K. Le, J.A. Bender, A.P. Moon, R. Pandey, D.E. Cotton, E.K. Raulerson, B.A. Renard, **S.T. Roberts**

9:30 PHYS 122. Role of charge transfer states and vibronic coupling in singlet fission studied using 2D electronic spectroscopy. **A. Mandal**, M. Chen, E.D. Foszcz, R. Young, M.R. Wasielewski

9:45 PHYS 123. A generalized Ovchinnikov's rule can predict the

biexciton boundedness in covalently linked singlet fission chromophores. V. Abraham, **N. Mayhall**

10:05 Intermission.

10:25 PHYS 124. Mechanisms of triplet pair separation and transport following singlet fission in functionalized pentacenes. **J.B. Asbury**

10:55 PHYS 125. Control of energy flow dynamics between photoactive ligands and semiconductor nanostructures. **J.C. Johnson**, M.C. Beard, J.E. Anthony, D. Kroupa, M. Martinez, D. Arias, J. Blackburn, M. Carroll

11:15 PHYS 126. Functional mode singlet fission theory. **H. Chen**

11:35 PHYS 127. Harvesting triplet excitons from intramolecular singlet fission. **F. Conrad-Burton**, F. Geyer, K. Miyata, C.P. Nuckolls, X. Zhu

11:50 PHYS 128. Aggregation induced vibrational displacements dominate excited state relaxation: Proposed singlet fission active polymers. **B. Datko**, D. Portlock, Z. Zhang, M. Williams, Y. Qin, R. Prasankumar, J.K. Grey

Section F

Ernest N. Morial Convention Center
Room 224

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Cosponsored by COMP[†]
M.S. Gordon, R. Lindh, T.L. Windus, *Organizers*
A. Krylov, *Organizer, Presiding*

8:30 PHYS 129. Challenges in designing algorithms for quantum computers. **J.E. Rice**

9:10 PHYS 130. Exploring new architectures for computational chemistry. **S.V. Moore**

9:50 Intermission.

10:10 PHYS 131. Including energy usage considerations in quantum chemistry computations. **A.P. Rendell**, G. Mitre, A. Varghese, J. Milthorpe

10:50 PHYS 132. Vectorization and high performance quantum chemistry software. **E. Chow**, B. Pritchard

11:30 PHYS 133. Challenges in computing exact correlation energies: Reference functions and parallelization. **P.M. Zimmerman**

Section G

Ernest N. Morial Convention Center
Room 225

Quantum Chemistry, Dynamics & Reaction Modeling for Molecules & Materials in Astrophysical Environments**Spectra & Properties/Gas-Phase Collisions**

H. Cuppen, *Organizer*
D.E. Woon, *Organizer, Presiding*
R.C. Fortenberry, *Presiding*

8:30 PHYS 134. Spectroscopic, theoretical, and observational study of aminomethanol, a predicted interstellar precursor to glycine. **S.L. Widicus**

Weaver, B. Hays, M. McCabe, C. Powers, J. McMillan, S. Zingra

9:05 PHYS 135. Probing magnetic fields with methanol masers and ro-vibrational collision rates for modeling protoplanetary disks. **G.C. Groenenboom**, B. Lankhaar, A. van der Avoird

9:40 PHYS 136. Exploration of the structure and spectrum of CH₂⁺ using diffusion Monte Carlo. **A.B. McCoy**, M.E. Fore

10:00 PHYS 137. Inorganic computational astrochemistry: Rovibrational quartic force fields. **N.J. Deyonker**, R.C. Fortenberry, Q. Cheng

10:20 PHYS 138. Diffuse interstellar bands and the pseudo-Jahn-Teller distortion in C₅₀⁺. S. Ahmadvand, A.O. Lykhin, **S.A. Varganov**

10:40 Intermission.

11:00 PHYS 139. Computing collisional energy exchange: Theory, old and new, and comparison with experiments. **L. Wiesenfeld**

11:35 PHYS 140. Full-dimensional quantum dynamics of CO, CN, SiO, and CS in collisions with H₂. **B. Yang**, P. Zhang, C. Qu, P. Stancil, J.M. Bowman, B. Naduvalath, R. Forrey

12:10 PHYS 141. Mixed quantum/classical theory of molecular collisions: Applications to rotational-vibrational inelastic scattering in astrophysical environments. **D. Babikov**

Elucidation of Mechanisms & Kinetics on Surfaces**Theory**

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Challenge & Opportunity in Lignin Valorization

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

Sponsored by COMP, Cosponsored by CINF, MEDI and PHYS

Marriage of Machine Learning, Knowledge Representation & Chemical Sciences**Applied Machine Learning: Molecular Dynamics, Materials & Virtual Screening**

Sponsored by COMP, Cosponsored by CINF and PHYS

Chemistry of Molecular Electronics**Molecular-Scale Electronics**

Sponsored by COLL, Cosponsored by PHYS

Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments

Sponsored by CATL, Cosponsored by ENFL, INOR and PHYS

Electrochemical Double Layer: Modeling, Characterization & Catalysis

Sponsored by CATL, Cosponsored by COMP, ENFL and PHYS

[†]Cooperative Cosponsorship

MONDAY AFTERNOON

Section A

Ernest N. Morial Convention Center
Room 219

Advantages in Density Functional Theory

Weak Interactions

Cosponsored by COMP[†]
P. Ayers, W. Yang, *Organizers*
E. Gross, *Presiding*

1:30 PHYS 142. Optimized power series approximation for the correlation kernel for highly accurate and generally applicable Kohn-Sham methods based on the adiabatic-connection fluctuation dissipation theorem. **A. Goerling**, J. Erhard

2:00 PHYS 143. Following the path of Mel and John into the time-domain. **N.T. Maitra**

2:30 PHYS 144. Many body techniques for surface energies, interlayer binding energies and structural phase transitions. **A. Ruzsinszky**

3:00 PHYS 145. Generalized optimized effective potential for orbital functionals and self-consistent calculation of random phase approximations. **Y. Jin**, D. Zhang, Z. Chen, N. Su, W. Yang

3:15 Intermission.

3:30 PHYS 146. Single-particle excitation energies from the virial theorem. **A.D. Becke**

4:00 PHYS 147. Dreaming of banishing exact exchange: Semi local functionals as a key to understanding natural light harvesting? **S. Kuemmel**, T. Aschebrock, I. Scheller, T. de Queiroz

4:30 PHYS 148. Weight dependence of the exchange-correlation energy in ensemble density-functional theory. **E. Fromager**

4:45 PHYS 149. Reference determinant dependence of the random phase approximation in 3d transition metal chemistry. **J.E. Bates**, P. Mezei, G.I. Csonka, J. Sun, A. Ruzsinszky

5:00 PHYS 150. Improving the accuracy of inner shell excitation energies and reducing the self-interaction error with ionization potential optimized global hybrid functional. **Y. Jin**, R.J. Bartlett

5:15 PHYS 151. An introduction to projection functional theory: A method for finding excited states. **D.A. Engebretson**

5:30 PHYS 152. Low-lying excited states by constrained DFT. **P. Ramos**, M. Pavanello

Section B

Ernest N. Morial Convention Center
Room 220

Chirality from Molecules to Materials

Supramolecular Chirality

M. Caricato, P.H. Vaccaro, *Organizers*
C. Cappelli, *Presiding*

1:30 PHYS 153. Circular dichroism of multichromophoric biosystems: From structure to dynamics. **B. Mennucci**

2:10 PHYS 154. Host-guest complexes of chiral dimeric zinc porphyrin with achiral diamines: MC and MD simulations. **A.G. Petrovic**, B. Saha, S.P. Rath, N. Berova

2:50 PHYS 155. Exploiting induced chirality in supramolecular DNA assemblies. **M. Surin**

3:10 PHYS 156. Quantitative calculations of protein circular dichroism spectroscopy in the near-ultraviolet. **J.D. Hirst**

3:30 Intermission.

3:50 PHYS 157. Development and application of fragment-based methods for evaluating chiroptical spectra of large molecules. **K. Raghavachari**

4:30 PHYS 158. Simulating the selectivity of amino-acid based chiral selectors. **N.M. Cann**

Section C

Ernest N. Morial Convention Center
Room 221

Cold Molecules for Chemistry

New Cooling & Theoretical Techniques, Larger Molecules

K. Ni, K.B. Whaley, *Organizers*
E.R. Hudson, *Presiding*

1:30 PHYS 159. Direct cooling of polar molecules: Exploring a path to quantum degeneracy. **D. DeMille**, M. Steinecker, Y. Zhu, D. McCarron

2:00 PHYS 160. A strong, stimulated optical force for molecular deceleration. **W. Campbell**, X. Long, S. Yu, A. Jaych

2:30 PHYS 161. Many-body molecular dynamics: Enabling computer simulations with chemical and spectroscopic accuracy from the gas to the condensed phase. **F. Paesani**, P. Bajaj, M. Riera, O. Hamto, S. Brown

3:00 Intermission.

3:20 PHYS 162. High sensitivity microwave spectroscopy and molecular structure determination via cryogenic buffer gas cooling. **D. Patterson**

3:50 PHYS 163. O(³P) + alkene chemistry in helium nanodroplets. **G.E. Douberly**

4:20 PHYS 164. Quantum dynamics of confined molecules. **P. Roy**

Section D

Ernest N. Morial Convention Center
Room 214

Physical Chemistry of Ionic Liquids Electrochemistry and Electrochemical Interfaces

Cosponsored by COLL[†]
Financially supported by U.S. Army Research Office
E. Casner, E. Maginn, C.J. Margulis, S.K. Shaw, J.F. Wishart, *Organizers*
K.S. Ryder, *Presiding*

1:30 PHYS 165. Local electric fields at the interfaces of ionic liquids and metals measured by Stark shift spectroscopy. J. Patrow, **J. Dawlaty**

1:50 PHYS 166. Electrode reactions in ionic liquids. **D.V. Matyushov**

2:25 PHYS 167. Withdrawn

3:00 PHYS 168. Ordered ionic liquid structure observed at terraced graphite interfaces by reflection high-energy electron diffraction. **D. Yang**, C. Wu, X. He

3:20 Intermission.

3:35 PHYS 169. Nitrogen reduction to ammonia in ionic liquids. **D. MacFarlane**

4:10 PHYS 170. Quasi-elastic and inelastic neutron scattering studies of glass-forming ammonium-based ionic liquids at low temperatures. **T. Lima**, Z. Li, M.C. Ribeiro, Y. Zhang

4:30 PHYS 171. Ion structure and dynamics in highly concentrated ionic liquid-alkali metal salt electrolytes. **M. Forsyth**, P. Howlett, F. Chen, D. MacFarlane

Section E

Ernest N. Morial Convention Center
Room 223

Energy & Charge Transfer at Nanoscale Interfaces

Energy Transfer in Biological & Synthetic Systems

L. Huang, S.T. Roberts, K.A. Willets, *Organizers*
C.R. Baiz, A. Mandal, *Presiding*

1:30 PHYS 172. Reducing energy losses and capitalizing on triplet-triplet annihilation at organic donor/acceptor interfaces. **B.P. Rand**

2:00 PHYS 173. Energetic disorder enhances exciton dissociation at the organic donor-acceptor interface. **A. Willard**

2:30 PHYS 174. Elucidating the energy and electron transfer dynamics in a self-assembled bilayer upconversion DSSC. **T. Dilbeck**, J. Wang, Y. Zhou, A. Olsson, K. Hanson

2:45 PHYS 175. Withdrawn

3:00 Intermission.

3:20 PHYS 176. Impact of the membrane-protein interface in photosynthetic light harvesting. **G. Schlau-Cohen**

3:50 PHYS 177. Synthetic biological control of quantum optical phenomena. A. Tsargorodska, G. Kodali, J. Mancini, L. Dutton, C. Hunter, P. Törmä, **G.J. Leggett**

4:10 PHYS 178. Exploring the multiscale design principles of excitation transport and light harvesting in the photosystem II membrane. **D. Bennett**, G.R. Fleming, K. Amarnath

4:25 PHYS 179. Bio-inspired energy conversion in non-equilibrium nanosystems: Electron-transfer coupled precipitation. **C. Kunstmann-Olsen**, M. Brust

4:40 PHYS 180. Understanding the structural evolution in 6,13-bis(triisopropylsilyl)ethynyl pentacene singlet fission through femtosecond stimulated Raman spectroscopy. **S. Kwang**, R.R. Frontiera

4:55 PHYS 181. Resolving inter-chromophoric coupling in tetrakis(perylene diimide) complexes. **D.J. Walwark**, Q. Wu, L. Yu, J.K. Grey

Section F

Ernest N. Morial Convention Center
Room 224

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Cosponsored by COMP[†]
M.S. Gordon, A. Krylov, T.L. Windus, *Organizers*
R. Lindh, *Organizer, Presiding*

1:30 PHYS 182. New developments for matrix-product-state wave functions. **S. Knecht**

2:10 PHYS 183. Advances in the MADNESS parallel programming and numerical environment. **R.J. Harrison**

2:50 PHYS 184. Interoperability infrastructure in Psi4 and QCDB. **L.A. Burns**

3:30 Intermission.

3:50 PHYS 185. Charm++: Necessity of adaptive runtime systems for programming future parallel computers illustrated with NAMD and OpenAtom. **L. Kale**

4:30 PHYS 186. Highly parallel and large scale GW calculations within the OpenAtom software. **S. Ismail-Beigi**

5:10 PHYS 187. Spin-unrestricted second-order Møller-Plesset (MP2) forces for the condensed phase: Massively parallel implementation with application to the hydrated electron. **V. Rybkin**, J. Wilhelm, J. VandeVondele

Section G

Ernest N. Morial Convention Center
Room 225

Quantum Chemistry, Dynamics & Reaction Modeling for Molecules & Materials in Astrophysical Environments

Gas-Phase Reactions

H. Cuppen, *Organizer*
D.E. Woon, *Organizer, Presiding*
D. Talbi, *Presiding*

1:30 PHYS 188. High accuracy ab initio kinetics as a tool for astrochemistry. **S.J. Klippenstein**

2:05 PHYS 189. Nonadiabatic dynamics in warm dense matter and small molecules. **A.V. Akimov**

2:25 PHYS 190. State-of-the-art thermochemical and kinetic computations for complex organic molecules: Gas-phase formation routes in cold interstellar clouds. **V. Barone**, N. Tasinato, J. Bloino, D. Skuteris, C. Puzzarini

2:45 PHYS 191. Kinetic measurements of CO⁺ and CO₂⁺ reactions with N and O atoms for models of planetary atmospheres and the interstellar medium. J. Tenenitz, T. Le, S.G. Ard, N. Shuman, A.A. Viggiano, **J. Melko**

3:05 Intermission.

3:25 PHYS 192. Reaction mechanisms and rate constants of PAH growth in astrophysical environments. **A.M. Mebel**

[†]Cooperative Cosponsorship

4:00 PHYS 193. Dynamics of pure and N-substituted cyclic aromatic hydrocarbon formation in the gas-phase. **P. Bera**, T. Stein, M.P. Head-Gordon, T.J. Lee

4:35 PHYS 194. Modelling dehydrogenation in interstellar PAHs. P. Castellanos, **A. Candian**, H. Linnartz, X. Tielens

Elucidation of Mechanisms & Kinetics on Surfaces

Surface Science

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

Sponsored by COMP, Cosponsored by CINF, MEDI and PHYS

Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials

Frontal Polymerization

Sponsored by POLY, Cosponsored by PHYS and PMSE

Marriage of Machine Learning, Knowledge Representation & Chemical Sciences

Deep Learning for Deep Chemical Understanding

Sponsored by COMP, Cosponsored by CINF and PHYS

Chemistry of Molecular Electronics

Molecular-Scale Electronics

Sponsored by COLL, Cosponsored by PHYS

Activation of Light (C1-C4) Hydrocarbons: Theory & Experiments

Sponsored by CATL, Cosponsored by ENFL, INOR and PHYS

MONDAY EVENING

Section A

Ernest N. Morial Convention Center Halls D/E

Sci-Mix

M.A. Duncan, Organizer

8:00–10:00

PHYS 195. Amino acid ionic liquids that selectively interact with proteins and lipid vesicles. G.A. Caputo, C. Wu, **T.D. Vaden**

PHYS 196. Coarse graining light-harvesting pendant assemblies to investigate the role of motion in energy transfer dynamics. **L. Bowers**, E. Puodziuknaite, J.R. Reynolds, J.M. Papanikolas

PHYS 197. Observation of the Marcus inverted region of electron transfer from asymmetric chemical doping of pristine (n,

m) single-walled carbon nanotubes. **A.T. Liu**, Y. Kunai, M. Strano

PHYS 198. Photophysical studies of emerging organic/2D materials van der Waal heterostructures for plausible electronic applications. **A. Sarkar**, S.K. Pal

PHYS 199. Powering a CO₂ reduction catalyst with visible light through multiple subpicosecond electron transfers from a quantum dot. **S. Lian**, M. Kodaimati, E.A. Weiss

PHYS 200. Two-dimensional excitonic energy relaxation in carbon material revealed by ultrafast two-dimensional vibrational spectroscopy. **J. Wang**

PHYS 201. Direct imaging of ultrafast exciton transport in PCDTBT thin films by transient absorption microscopy.

E. Massaro, A. Hill, C.L. Kennedy, E. Grumstrup

PHYS 202. Correlating singlet fission rate with intermolecular structure in peryleneimide thin films. **A.K. Le**, J.A. Bender, S.T. Roberts

PHYS 203. Water and proton concentration affects the electrocatalytic conversion of carbon dioxide in ionic liquids. **A. Hailu**

PHYS 204. Experimental determination of proton-cation exchange equilibrium constants fundamental to bioenergetics. H. Saeed, **J.W. Lee**

PHYS 205. Redox active deep eutectic solvents: proton-coupled electron transfer tuned two ways. **J.C. Goeltz**, P.J. Smith, L.N. Matsushima

PHYS 206. Reaction-diffusion model to describe the self organization of polycrystalline nanorods. **P. Knoll**, E. Nakouzi, O. Steinbock

PHYS 207. Interplay of ionic liquids and biomolecules: Considering protein structure and membrane permeability. **G.E. Lindberg**

PHYS 208. Synthesis of highly intense albumen-templated fluorescent nanoclusters using metal alloyed materials. **R. Jimenez**, S.P. Karna

PHYS 209. Probing protein-protein interactions in building blocks for supramolecular assemblies via SFG spectroscopy and MD simulations. **H.P. Hendrickson**, W. Liu, B. Rudshiteyn, H. Wang, E.C. Yan, V.S. Batista

PHYS 210. Towards a better understanding of ion mediated DNA-surface interactions: Transition and alkaline earth metal ion interactions with a DNA duplex. **M. Provorse Long**, X. Liu, C. Isborn

PHYS 211. Proton motive force computation revealing latent heat utilization by localized protons at a liquid-biomembrane interface. **J.W. Lee**

PHYS 212. Operando imaging of the transient species from electron transfer at the biointerface. **X. Yu**

TUESDAY MORNING

Section A

Ernest N. Morial Convention Center Room 219

Adventures in Density Functional Theory

Strong Correlation

Cosponsored by COMP[†]
P. Ayers, W. Yang, Organizers
K. Burke, Presiding

8:30 PHYS 213. SCAN density functional: Predictive power of 17 exact constraints. **J.P. Perdew**

9:00 PHYS 214. Structural and ferroelectric properties of prototypical ferroelectric materials: Comparative first-principles investigations. **Y. Zhang**, J. Sun, J.P. Perdew, X. Wu

9:15 PHYS 215. New semilocal density functional and its performance. **J. Tao**

9:45 PHYS 216. The strongly constrained and appropriately normed meta-generalized gradient approximation. **J. Sun**

10:15 Intermission.

10:30 PHYS 217. Recent advances in density functional theories. **D.G. Truhlar**

11:00 PHYS 218. Combinatorial design and assessment of a new double hybrid density functional. N. Mardirossian, **M.P. Head-Gordon**

11:30 PHYS 219. Interrogating the "B05" density functional for non-locality information. **S.G. Dale**, E.R. Johnson, A.D. Becke

Section B

Ernest N. Morial Convention Center Room 220

Chirality from Molecules to Materials

Linear Chiroptical Effects

M. Caricato, P.H. Vaccaro, Organizers
J. Bloino, Presiding

8:30 PHYS 220. Applications of vibrational optical activity in pharmaceutical analysis. **L.A. Nafie**

9:10 PHYS 221. Fully polarizable embedding approach to chiroptical properties of aqueous solutions. **C. Cappelli**

9:50 PHYS 222. Investigating solvation effects on optical rotatory dispersion using the polarizable continuum model. **T. Aharon**, P. Lemler, P.H. Vaccaro, M. Caricato

10:10 PHYS 223. Unraveling intrinsic chiroptical properties: Cavity ring-down polarimetry of small organic molecules. **P. Lemler**, P.H. Vaccaro, C. Craft

10:30 Intermission.

10:50 PHYS 224. The use of chiroptical spectroscopy for identifying mis-identified chiral chemical structures. **P.L. Polavarapu**

11:30 PHYS 225. Non-covalent interactions in chiral molecular clusters: Chirality recognition/transfer/amplification. **Y. Xu**

Section C

Ernest N. Morial Convention Center

Room 221

Cold Molecules for Chemistry

New Chemistry Applications

K. Ni, K.B. Whaley, Organizers
J. Doyle, Presiding

8:30 PHYS 226. New tools to probe cold molecules and their interactions. **J. Ye**

9:00 PHYS 227. Rotationally inelastic scattering of HD ($v=1, j=2$) with H₂ or D₂ near 1 Kelvin. W.E. Perreault, N. Mukherjee, **R.N. Zare**

9:30 PHYS 228. Reaction dynamics and precision spectroscopy using cold samples of H₂ and He₂. M. Beyer, N. Hölsch, L. Semeria, P. Jansen, K. Höveler, J. Deiglmayr, **F. Merkt**

10:00 PHYS 229. Magnetic separation of water spin isomers in a molecular beam. **I. Braud**, J. Vermette, P. Turgeon, P. Ayotte, G. Alexandrowicz

10:20 Intermission.

10:40 PHYS 230. Probes of ion-neutral chemical dynamics with cold and controlled molecules. **S. Willitsch**

11:10 PHYS 231. Probing the internal temperature of cold trapped ion-molecule clusters. **E. Racow**, E. Castracane, S.E. Waller, Y. Yang, C.J. Johnson

11:30 PHYS 232. Low temperature quantum-state-resolved chemistry using physics tools. **E.R. Hudson**

Section D

Ernest N. Morial Convention Center Room 214

Physical Chemistry of Ionic Liquids

Computation, Theory & Simulation

Cosponsored by COLL[†]
Financially supported by U.S. Army Research Office
E. Casner, E. Maginn, C.J. Margulis, S.K. Shaw, J.F. Wishart, Organizers
S. Garrett-Roe, Presiding

8:30 PHYS 233. Large scale molecular simulations to interrogate nanostructuring and transport in transformational solvents for CO₂ capture. **V. Glezakou**, R. Rousseau, M. Nguyen, D.C. Cantu, D. Malhotra, D.J. Heldebrant, P. Koehn, J. Page

8:50 PHYS 234. Role of quadrupolar interactions in the solvation of carbon dioxide in ionic liquids. **S. Corcelli**

9:25 PHYS 235. Structure in conventional and not so conventional aromatic ionic liquids. **K. Shimizu**, J. Canongia Lopes

10:00 PHYS 236. Mesoscale structural and dynamic correlations in ionic liquids sampled by atomistic molecular dynamics simulations. **D. Bedrov**, D. Dong, M. Ebrahimi, J. Vatamanu

10:20 Intermission.

10:35 PHYS 237. What we learn from resolving dispersion and polarization interactions of ionic liquids. **A. Padua**

11:10 PHYS 238. Dynamical and dielectric properties of an ionic liquid using a charge transfer, polarizable model.

[†]Cooperative Cosponsorship

S.W. Rick, C. Schroeder, A.S. Lyons

11:30 PHYS 239. Polarizability effects in ionic liquids. **C. Schröder**

Section E

Ernest N. Morial Convention Center
Room 223

Energy & Charge Transfer at Nanoscale Interfaces

Interfacial Charge Transfer in Emerging Materials

L. Huang, K.A. Willets, *Organizers*
S.T. Roberts, *Organizer, Presiding*
G. Schlau-Cohen, *Presiding*

8:30 PHYS 240. Probing coupled charge transfer and ion transport in nanostructured thin films. **D.S. Ginger**

9:00 PHYS 241. Charge and energy transfer in 2D colloidal semiconductor nanoplatelet quantum wells. B.T. Diroll, C.E. Rowland, I. Fedin, P. Darancet, A.O. Govorov, D.V. Talapin, **R.D. Schaller**

9:30 PHYS 242. Energy transfer dynamics and hot electron generation in Mn-doped CsPbX₃ nanocrystals. **D.H. Son**

9:50 PHYS 243. Evolution of defects at the lead halide perovskite/graphene oxide interfaces by *In situ* spectroscopy. **M. Acik**, I. Park, R.E. Koritala, G. Lee, R. Rosenberg

10:10 Intermission.

10:30 PHYS 244. Charge transfer excitons at van der Waals interfaces. **X. Zhu**

11:00 PHYS 245. Interfacial exciton dynamics in atomically thin semiconductors. **W.A. Tisdale**

11:30 PHYS 246. Highly mobile charge-transfer excitons in two-dimensional tetracene-WSe₂ heterostructures. **T. Zhu**, L. Yuan, Y. Zhao, M. Zhou, Y. Wan, J. Mei, L. Huang

11:45 PHYS 247. Molecular photoelectronics at a rectifying gallium arsenide interface. **A. Vezzoli**, R. Brooke, N. Ferri, S.J. Higgins, W. Schwarzacher, R. Nichols

12:00 PHYS 248. Withdrawn

Section F

Ernest N. Morial Convention Center
Room 224

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Cosponsored by COMP[†]
M.S. Gordon, A. Krylov, R. Lindh, T.L. Windus, *Organizers*
S.S. Leang, *Presiding*

8:30 PHYS 249. Aces4: Computational chemistry with the super instruction architecture. **B. Sanders**

9:10 PHYS 250. The Molecular Sciences Software Institute. **T. Crawford**, C. Clementi, R.J. Harrison, T.L. Head-Gordon, S. Jha, A. Krylov, V.S. Pande, T.L. Windus

9:50 Intermission.

10:10 PHYS 251. Analyzing new HPC system designs and code modernizations

[†]Cooperative Cosponsorship

necessary to utilize them. **L. Carrington**

10:50 PHYS 252. Large-scale parallelization of vibronic coupling calculations. **J.F. Stanton**, S. Rabidoux, V. Eijkhout

11:30 PHYS 253. Application of ANI deep learned potentials to general computational chemistry problems. **J.S. Smith**, K.D. Ranasinghe, C. Devereux, O. Isayev, A.E. Roitberg

Section G

Ernest N. Morial Convention Center
Room 225

Quantum Chemistry, Dynamics & Reaction Modeling for Molecules & Materials in Astrophysical Environments

Gas-Phase Reactions

H. Cuppen, *Organizer*
D.E. Woon, *Organizer, Presiding*
S.J. Klippenstein, *Presiding*

8:30 PHYS 254. Withdrawn

9:05 PHYS 255. Nonadiabatic dynamics of silicon chemistry. **A.H. Chang**, R. Kaiser

9:40 PHYS 256. Reaction rates and mechanism for the reaction of electronically excited sulfur dioxide with alkanes. **J.A. Kroll**, V. Vaida

10:00 PHYS 257. Theoretical investigation of possible formation routes of interstellar SiS. **M. Rosi**, L. Mancini, N. Balucani, N. Fagnas Lago, C. Ceccarelli, B. Le Floch, D. Skouteris, L. Podio, C. Codella, F. Fontani

10:20 Intermission.

10:40 PHYS 258. How to obtain accurate diabatic surfaces governing the dissociative recombination of astrophysical ions. **D. Talbi**, D. Kashinski, P. Hickman

11:15 PHYS 259. Computational study of the formation of prebiotic molecules in the interstellar medium through gas-phase reactions. **A. Largo**, P. Redondo, C. Barrientos, F. Siro Brigiano, Y. Jeanvoine, R. Spezia

11:50 PHYS 260. High accuracy thermochemistry and kinetics of the HCN/HNC system. **K. Lee**, M.C. McCarthy

Elucidation of Mechanisms & Kinetics on Surfaces

Surface Mechanisms

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Dreyfus Prize Symposium

Theory & Computation

Sponsored by MPPG, Cosponsored by COMP[†], PHYS[†] and PRES

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

Sponsored by COMP, Cosponsored by CINF, MEDI and PHYS

Chemistry of Molecular Electronics Monolayers: Tunneling & Function

Sponsored by COLL, Cosponsored by PHYS

Activation of Light (C1-C4)

Hydrocarbons: Theory & Experiments

Sponsored by CATL, Cosponsored by ENFL, INOR and PHYS

Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & In Situ & Operando Methods

Enabling Fundamental Advances in Catalysis & Surface Science

Sponsored by CATL, Cosponsored by ENVR, INOR and PHYS

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

PCET PhotoCatalysis with Inorganic Molecules & Materials

Sponsored by INOR, Cosponsored by PHYS

TUESDAY AFTERNOON

Section A

Ernest N. Morial Convention Center
Rooms 219/220

PHYS Awards Symposium

M.A. Duncan, *Organizer, Presiding*

1:30 PHYS 261. Award Address (Peter Debye Award in Physical Chemistry Sponsored by DuPont). Multiphoton processes and their nanoscale control: Impact on energy and healthcare. **P.N. Prasad**

2:05 PHYS 262. Award Address (ACS Award in Theoretical Chemistry Sponsored by the ACS Division of Physical Chemistry). Theoretical chemistry's role in providing sustainable energy. **E.A. Carter**

2:40 PHYS 263. Award Address (Joel Henry Hildebrand Award in the Theoretical and Experimental Chemistry of Liquids Sponsored by the ExxonMobil Research and Engineering Company). Widom's formula and the utility of chemical modeling in the theory of solutions. **L.R. Pratt**

3:15 Intermission.

3:40 PHYS 264. Award Address (Ahmed Zewail Award in Ultrafast Science and Technology Sponsored by the Ahmed Zewail Endowment Fund established by the Newport Corporation). Ultrafast protection of charge carriers—toward defect tolerant semiconductors. **X. Zhu**

4:15 PHYS 265. Award Address (E. Bright Wilson Award in Spectroscopy Sponsored by the ACS Division of Physical Chemistry). Reversed interfacial fractionation of carbonate and bicarbonate evidenced by X-ray photoemission spectroscopy. **R.J. Saykally**

4:50 PHYS 266. Award Address (Irving Langmuir Award in Chemical Physics Sponsored by the American Chemical Society and the ACS Division of Physical Chemistry). Probing graphene chemistry and electronic structure in two dimensions: A sub-nanometer view. G.W. Flynn, **J. Yardley**

GSSPC: Finding Our Place at the Bottom

Symposium in honor of Richard

Feynman

Sponsored by CHED, Cosponsored by ANYL[†], COLL[†], INOR, PHYS[†], PMSE[†] and PRES[†]

Young Chemists & Water

Sponsored by YCC, Cosponsored by PHYS

Elucidation of Mechanisms & Kinetics on Surfaces

Surface Mechanisms

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Dreyfus Prize Symposium

Theory & Computation

Sponsored by MPPG, Cosponsored by COMP[†], PHYS[†] and PRES

Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation

Sponsored by COMP, Cosponsored by CINF, MEDI and PHYS

Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & In Situ & Operando Methods

Enabling Fundamental Advances in Catalysis & Surface Science

Sponsored by CATL, Cosponsored by ENVR, INOR and PHYS

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

PCET PhotoCatalysis with Inorganic Molecules & Materials

Sponsored by INOR, Cosponsored by PHYS

TUESDAY EVENING

Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials

Sponsored by POLY, Cosponsored by PHYS and PMSE

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

PCET PhotoCatalysis with Inorganic Molecules & Materials

Sponsored by INOR, Cosponsored by PHYS

WEDNESDAY MORNING

Section A

Ernest N. Morial Convention Center
Room 219

Adventures in Density Functional Theory

Materials & Molecular Modelling

Cosponsored by COMP[†]
P. Ayers, W. Yang, *Organizers*
P. Gori-Giorgi, *Presiding*

8:30 PHYS 267. Exact factorization of the N-electron wave function and its relation to density functional theory. **E. Gross**

9:00 PHYS 268. Constrained searches in density functional and wavefunction theories. **A.J. Cohen**, P. Mori-Sanchez

9:30 PHYS 269. Electron densities (still) in search of Hamiltonians. **S.R. Atlas**

10:00 Intermission.

10:15 PHYS 270. Importance of theory in density functional theory. **K. Burke**

10:45 PHYS 271. Calculating the Levy constrained search for the exact functional of density functional theory. **P. Mori-Sanchez**, A.J. Cohen

11:15 PHYS 272. Describing discontinuity in exchange-correlation functional and strong correlation with fractional-spin correction. **N. Su**, C. Li, W. Yang

11:30 PHYS 273. Systematic improvement of approximations with smooth Coulomb potentials. **C.E. Gonzalez**, T. Verstraelen, P. Ayers, A. Savin

Section B

Ernest N. Morial Convention Center Room 220

Chirality from Molecules to Materials

Advanced Techniques

P.H. Vaccaro, *Organizer*
M. Caricato, *Organizer, Presiding*

8:30 PHYS 274. Quantum dynamics of chiral molecules including electroweak parity violation: From high resolution spectroscopy towards fundamental symmetries and asymmetries. **M. Quack**

9:10 PHYS 275. Coherent population transfer in chiral molecules using tailored microwave pulses. **M. Schnell**

9:50 PHYS 276. Streamlining coupled cluster response theory for chiroptical properties. **T. Crawford**

10:10 PHYS 277. Generating chiral fields with achiral silicon nanowire dimers. **B.M. Reinhard**, X. Zhao

10:30 Intermission.

10:50 PHYS 278. Better, faster chiroptical anisotropy. **B.E. Kahr**, A.T. Martin, S.M. Nichols

11:30 PHYS 279. Selected computational studies of optical activity and electronic spectra. **J. Autschbach**

Section C

Ernest N. Morial Convention Center Room 221

Understanding the Complexity of the Nano/Bio Interface with Experiments & Computations

Nanoparticle-Surface Structure & Dynamics

F. Geiger, *Organizer*
C.F. Landes, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 PHYS 280. Proteins on particles. **C.J. Murphy**

9:05 PHYS 281. Molecular dynamics study of human serum albumin protein corona in an inorganic nanoparticle. **D.C.**

Malaspina, J. Farauo

9:25 PHYS 282. Understanding the protein corona one molecule and one nanoparticle at a time. **S. Link**

9:55 Intermission.

10:10 PHYS 283. Influence of proteins on nanoparticle interaction with model biological membranes. **J.A. Pedersen**, E. Melby, C. Allen, I.U. Foreman-Ortiz, C.J. Murphy, R. Hernandez

10:40 PHYS 284. Computational study of interfacial forces driving aggregation of ultrasmall nanoparticles in biofluids. **S.A. Hassan**

11:00 PHYS 285. Thermodynamics study of absorption of blood proteins to carbon nanotubes and exosomes by molecular dynamics simulations. **M. Watanabe**, T. Rickel, Z. Green, J. Lozinski

11:20 PHYS 286. Air/water and mineral/water interfaces characterized by Ab initio molecular dynamics, and related prebiotic chemistry. **M.P. Gaigeot**

Section D

Ernest N. Morial Convention Center Room 214

Physical Chemistry of Ionic Liquids Structure

Cosponsored by COLL[†]
Financially supported by U.S. Army Research Office
E. Castner, E. Maginn, C.J. Margulis, S.K. Shaw, J.F. Wishart, *Organizers*
K. Shimizu, *Presiding*

8:30 PHYS 287. Implications of liquid structure on the vibrational spectra of ionic liquids. **C. Burba**

8:50 PHYS 288. Thermal and neutron scattering studies on alkylammonium-based ionic liquids with plastic-crystalline phases. **O. Yamamuro**, M. Nirei, M. Kofu, M. Matsuki, T. Yamada, T. Madhusudan

9:25 PHYS 289. The Importance of Polarizability in the Solvation of Molecular Solutes in ionic liquids: OHD-RIKES measurements and molecular dynamics simulations on mixtures of CS₂ and ionic liquids. **E.L. Quitevis**, R.M. Lynden-Bell

10:00 PHYS 290. Spectroscopic and calorimetric analysis of multiple ionic liquid phase transitions in bulk and thin film systems. **J. Wrona**, S.K. Shaw

10:20 Intermission.

10:35 PHYS 291. Mesoscopic structural organization in triphasic, fluorinated, room temperature ionic liquids. **O. Russina**

11:10 PHYS 292. Liquid structure and self-assembly in ternary ionic liquid systems. H. Jiang, R. Atkin, **G. Warr**

11:45 PHYS 293. Elucidating the microscopic mechanics of attractive cation-cation interactions in hydroxyl-functionalized ionic liquids by isomer-selective vibrational spectroscopy of the N₂-tagged, gas phase (M⁺)₂NH₂⁺ ternary complexes. **F. Menges**, **H. Zeng**, T. Niemann, A. Strate, R. Ludwig, M.A. Johnson

Section E

Ernest N. Morial Convention Center Room 223

Energy & Charge Transfer at Nanoscale Interfaces

Achieving Energy & Charge Transfer with Plasmonic Systems

L. Huang, S.T. Roberts, K.A. Willets, *Organizers*
R.R. Frontiera, E. Grumstrup, *Presiding*

8:30 PHYS 294. Antenna-reactor complexes for plasmonic photocatalysis. **N.J. Halas**

9:00 PHYS 295. Femtosecond stimulated Raman microscopy of charge transfer on nanometer and micrometer length scales. **R.R. Frontiera**

9:30 PHYS 296. All-Metal optical power conversion via tunneling of plasmonic hot electrons. **M.T. Sheldon**, N. Hogan, S. Wu

9:50 PHYS 297. Strong coupling between surface plasmon polaritons and excitons for silver nanowires. G. Beane, B. Brown, **G.V. Hartland**

10:20 Intermission.

10:40 PHYS 298. Probing the optical responses in metallic, alloyed, and semiconductor nanostructures with fast electron spectroscopy. **D.J. Masiello**

11:10 PHYS 299. Spectro-electrochemical microscopy on single plasmonic nanostructures. **W. Chang**, B.S. Hoener, H. Zhang, T. Heiderscheit, S.R. Kirchner, A.S. De Silva Indrasekara, R. Baiyasi, Y. Cai, P.J. Nordlander, S. Link, C.F. Landes

11:25 PHYS 300. Plasmon rulers as optical transducers for nanoscale charge transfer. S. Lerch, **B.M. Reinhard**

11:45 PHYS 301. Observation of single molecule plasmon-driven electron transfer in isotopically edited 4,4'-bipyridine gold nanosphere oligomers. **E. Sprague-Klein**, M.O. McAnally, D. Zhdanov, A. Zrimsek, V.A. Apkarian, T. Seideman, G.C. Schatz, R.P. Van Duyne

Section F

Ernest N. Morial Convention Center Room 224

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Cosponsored by COMP[†]
M.S. Gordon, A. Krylov, R. Lindh, T.L. Windus, *Organizers*
J. Ivanic, *Presiding*

8:30 PHYS 302. Coupling advanced sampling and quantum simulation methods. **G.A. Galli**

9:10 PHYS 303. The embedded quantum ESPRESSO software package. **M. Pavanello**

9:50 PHYS 304. Parallel computing enables predictive on-the-fly photodynamics simulations. **T. Shiozaki**

10:30 Intermission.

10:50 PHYS 305. Software infrastructure for generating and analyzing large datasets in quantum chemistry. **C.D. Sherrill**, L.A. Burns, D.G. Smith

11:30 PHYS 306. Quantum chemistry on Intel Xeon Phi processors: Opportunities

and challenges. **Z. Rinkevicius**

12:10 PHYS 307. Coupled-cluster methods in single precision. **P. Pokhilko**, A. Krylov, E. Epifanovsky

Section G

Ernest N. Morial Convention Center Room 225

Quantum Chemistry, Dynamics & Reaction Modeling for Molecules & Materials in Astrophysical Environments

Surface Interactions/Grain Chemistry

D.E. Woon, *Organizer*
H. Cuppen, *Organizer, Presiding*
T. Lamberts, *Presiding*

8:30 PHYS 308. Off-lattice microscopic Monte Carlo kinetics models of interstellar and laboratory ices. **R.T. Garrod**

9:05 PHYS 309. A hybrid QM/MM approach to calculate binding energies of radical species on crystalline water ice. **W.C. Sameera**, B. Senevirathne, S. Andersson, G. Nyman

9:40 PHYS 310. Controversial determination of a key parameter to astrochemistry: Adsorption energy. **F. Pauzat**

10:00 PHYS 311. Simulations of energy dissipation and non-thermal desorption on amorphous solid water. **A. Fredon**, H. Cuppen

10:20 Intermission.

10:40 PHYS 312. Role of grain surfaces in astrochemical processes. **A. Rimola**, P. Ugliengo, C. Ceccarelli, **N. Balucani**, **M. Sodupe**

11:15 PHYS 313. Experimental studies on the surface reaction of hydrogen sulfide with deuterium atoms on amorphous solid water at 10 K. **Y. Oba**

11:50 PHYS 314. Reaction experiments on H exposure of solid methanol at low temperatures. **Y. Yarnall**, H. Hidaka, Y. Oba, T. Hama, A. Kouchi, N. Watanabe

Elucidation of Mechanisms & Kinetics on Surfaces

Surface Kinetics

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in Situ & Operando Methods

Catalysis & Surface Science Applied to the Destruction of Threat Agents

Sponsored by CATL, Cosponsored by ENVR, INOR and PHYS

PCET PhotoCatalysis with Inorganic Molecules & Materials

Sponsored by INOR, Cosponsored by PHYS

[†]Cooperative Cosponsorship

Section A

Ernest N. Morial Convention Center
Room 219

Advantages in Density Functional Theory

Excited States/Dynamics

Cosponsored by COMP[†]
P. Ayers, W. Yang, *Organizers*
V.N. Staroverov, *Presiding*

1:30 PHYS 315. Stochastic adventures in density functional theory and beyond. **R.R. Baer**, E. Arnon, Y. Cytter, M. Fabian, B. Schapiro, V. Vlcek, E. Rabani, D. Neuhauser

2:00 PHYS 316. The correlation factor model: Generalizations and applications. **M. Ernzerhof**

2:30 PHYS 317. Fully non-local exchange-correlation functionals from the mathematical structure of the strong-coupling limit of DFT. **P. Gori-Giorgi**, S. Vuckovic

3:00 PHYS 318. Temperature and the strong-interaction limit of density functional theory. **A. Pribram-Jones**

3:15 Intermission.

3:30 PHYS 319. Electron density errors in approximate density functional calculations. **G.I. Csonka**, P. Mezei

4:00 PHYS 320. Orbital-dependent improvements to density-functional approximations: Application to highly charged molecular anions. **M.R. Pederson**, J. Batool

4:30 PHYS 321. Dispersion interactions from the exchange-hole dipole moment. **E.R. Johnson**

5:00 PHYS 322. Noncollinear spins in density functional theory: Ground state formulation, linear response, stability and single particle excited states. **G. Scalmani**, F. Egidi, X. Li, M.J. Frisch

5:15 PHYS 323. DFT functional calibration from highly-accurate energies and densities at different correlation regimes. **E. Matito**

5:30 PHYS 324. Density functional theory for spectroscopy and thermochemistry. **M. Biczysko**

Section B

Ernest N. Morial Convention Center
Room 220

Chirality from Molecules to Materials

Surfaces & Materials

M. Caricato, P.H. Vaccaro, *Organizers*
C. Merten, *Presiding*

1:30 PHYS 325. Exploring chiral space in molecules and materials. **B. Feringa**

2:10 PHYS 326. Helical molecules in flatland: Chiral recognition, spin-filtering and molecular machines. **K. Ernst**

2:50 PHYS 327. Chiral recognition among helical non-planar aromatic hydrocarbons on metal surfaces. **A. Mairena**, L. Zoppi, J. Seibel, M. Parschau, A. Tröster, K. Grenader, A.

Terfort, K. Ernst

3:10 PHYS 328. Optical rotation of diatomic, helical chains as a model for periodic systems. **T.C. Balduf**, T. Aharon, M. Caricato

3:30 Intermission.

3:50 PHYS 329. Chirality in gold and silver nanoclusters. **C.M. Aikens**, N. Karimova

4:30 PHYS 330. Theoretical studies on structure-property relationships in helicene derivatives: Towards a rational design of systems with desired properties. **M. Srebro-Hooper**

Section C

Ernest N. Morial Convention Center
Room 221

Understanding the Complexity of the Nano/Bio Interface with Experiments & Computations

Nanoparticle-Surface Structure & Dynamics

F. Geiger, C.F. Landes, *Organizers*
C. Payne, *Presiding*

1:30 PHYS 331. Simulation-guided design of monolayer-protected nanoparticles. **R. Van Lehn**

2:00 PHYS 332. Investigating the interaction of amyloidogenic proteins with gold nanoparticles by means of atomistic simulations. **S. Corni**

2:20 PHYS 333. Structural analysis by enhanced Raman scattering: Application to lipid membrane structures. **J.H. Hafner**, S. Demers, C. Shirazinejad, G. Isakson, J. Matthews

2:50 Intermission.

3:05 PHYS 334. Surface functionalization and ligand-receptor binding of Au nanorods: Effects of local curvature, polymer chemistry, and polymer architecture. **E. Gonzalez Solveyra**, D.C. Malaspina, I. Szleifer

3:25 PHYS 335. The molecular mechanism of nanodroplet stability. E. Zdrali, Y. Chen, H. Okur, D. Wilkins, **S. Roke**

3:55 PHYS 336. Altering protein crystallization by modulating salt concentration. **M. Olvera De La Cruz**

4:25 PHYS 337. DNA-templated fluorescent gold nanocluster-graphene composite: A multifunctional platform. **K. Perry**, R. Jimenez, S.P. Karna

Section D

Ernest N. Morial Convention Center
Room 214

Physical Chemistry of Ionic Liquids Transport & Dynamics

Cosponsored by COLL[†]
Financially supported by U.S. Army Research Office
E. Castner, E. Maginn, C.J. Margulis, S.K. Shaw, J.F. Wishart, *Organizers*
O. Russina, *Presiding*

1:30 PHYS 338. Simulations of friction on solute motion in ionic liquids. B. Conway, C.A. Rumble, **M. Maroncelli**

2:05 PHYS 339. Ionic liquid mobility on

different time scales as seen from polar, apolar and solute perspectives. **C.J. Margulis**, R.P. Daly, J.C. Araque

2:25 PHYS 340. Influence of mesoscopic confinement on the dynamics of room temperature ionic liquids. **M.D. Fayer**

3:00 PHYS 341. Hydrogen bond dynamics in protic ionic liquids: Ultrafast vibrational spectroscopy of SCN-. **S. Garrett-Roe**

3:35 Intermission.

3:50 PHYS 342. Effects of mesoscopic domain structure on shear viscosity of ionic liquids. **T. Yamaguchi**

4:25 PHYS 343. Molecular origin of enhanced proton conductivity in anhydrous ionic glasses. **Z. Wojnarowska**, L. Tajber, J. Knapik-Kowalczyk, M. Paluch

4:45 PHYS 344. Influence of mesoscale organization on charge transport and dynamics in ionic liquids. **T. Cosby**, Z. Vicars, M. Heres, K. Tsunashima, J. Sangoro

Section E

Ernest N. Morial Convention Center
Room 223

Energy & Charge Transfer at Nanoscale Interfaces

Using Quantum Dots to Direct Charge & Energy Transfer

L. Huang, S.T. Roberts, K.A. Willets, *Organizers*
L. Nienhaus, J. Vura-Weis, *Presiding*

1:30 PHYS 345. Interfacial charge transfer as a probe of the electrostatic potential of a colloidal quantum dot. C. He, **E.A. Weiss**

2:00 PHYS 346. Excited state dynamics at nanoscale interfaces for solar energy harvesting: Time-domain *ab initio* studies. **O.V. Prezhdo**

2:30 PHYS 347. Improving energy migration in nanocrystal solids ligand exchanged with exciton-delocalizing ligands. **M.S. Azzaro**, A. Dodin, D.Y. Zhang, A.P. Willard, S.T. Roberts

2:45 PHYS 348. Interfacial control of colloidal heteronanostructures to control single particle emission in Cd-based and CuIn-based chalcogenide quantum dots. **C.D. Heyes**

3:05 Intermission.

3:25 PHYS 349. Directing triplets across the nanocrystal-molecule interface. **M.L. Tang**, Z. Huang, P. Xia, E. Moses

3:55 PHYS 350. Colloidal semiconductor nanocrystal photocatalysts: Teaching an old dot new tricks. C. Liu, F. Qiu, L. Frenette, R. Burke, **T.D. Krauss**

4:25 PHYS 351. Charge-trapping at the surfaces of nanocrystals vs charge-transfer on the nanoscale. **P. Kambhampati**

4:45 PHYS 352. Biexciton and trion energy transfer from CdSe/CdS giant nanocrystals to Si substrates. T. Guo, S. Sampat, S.M. Rupich, J.A. Hollingsworth, M. Buck, H. Htoon, Y.J. Chabal, Y. Gartstein, **A. Malko**

5:05 PHYS 353. Photoreductive dissolution of cerium oxide nanoparticles upon UV irradiation. **N.W. Pettinger**, S. Froebel, J. Empey, S. Natarajan, B. Wynne, B. Kohler

Section F

Ernest N. Morial Convention Center
Room 224

Quantum Chemical Program Development in a Modern Computer & Programming Environment

Cosponsored by COMP
M.S. Gordon, A. Krylov, R. Lindh, T.L. Windus, *Organizers*
B. Sanders, *Presiding*

1:30 PHYS 354. *LibEFP* as a route to a general explicit and implicit solvent functionality. **L.V. Slipchenko**

2:10 PHYS 355. Enhancing scalability of the effective fragment molecular orbital method: OpenMP parallelization for MAKEFP. **A. Gunina**, M.S. Gordon

2:50 Intermission.

3:10 PHYS 356. Exploiting graphical processing units to enable accurate excited state potential energy surface calculation for large molecules. **F. Liu**, M. Filatov, T.J. Martinez

3:50 PHYS 357. A comprehensive assessment of accuracies and system scaling properties of electron correlation procedures, leading to a new hybrid correlation energy (HyCE) approach. **J. Ivanić**, M.W. Schmidt

4:30 PHYS 358. Multilevel many-body expansion for fragment-based methods. **B. Westheimer**, M.S. Gordon

Section G

Ernest N. Morial Convention Center
Room 225

Quantum Chemistry, Dynamics & Reaction Modeling for Molecules & Materials in Astrophysical Environments

Grain Chemistry / Modeling: Protostellar Disks

D.E. Woon, *Organizer*
H. Cuppen, *Organizer, Presiding*
R.T. Garrod, *Presiding*

1:30 PHYS 359. Reactivity of atoms and molecules on interstellar ice analogs at low temperatures. **T. Lamberts**, J. Kästner

2:05 PHYS 360. Methanol-containing ice mantle on collision with OH: A dust grain reaction through quantum *ab initio* molecular dynamic. **N. Inostroza**

2:40 PHYS 361. Mechanisms of SiO oxidation: Implications for dust formation. **S. Andersson**

3:00 PHYS 362. Trapping of molecular oxygen in cometary ices: solid state modeling. **A. Markovits**

3:20 Intermission.

3:40 PHYS 363. New constraints on the chemistry of planet formation. **E. Bergin**

4:15 PHYS 364. Gaining insights into protoplanetary disk conditions from chemistry. **U. Gorti**

Unconventional Catalysis Targeting Stable Molecules

[†]Cooperative Cosponsorship

Sponsored by CATL, Cosponsored by ENFI, ENVR, INOR and PHYS

Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in In-situ & Operando Methods

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PCET Photocatalysis with Inorganic Molecules & Materials

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WEDNESDAY EVENING

Section A

Ernest N. Morial Convention Center Hall D

PHYS Poster Session

M.A. Duncan, Organizer

7:00–9:00

PHYS 365. Quantum control for chemical reaction of particles at surface. **Q. Wang**

PHYS 366. Direct visualization of hot-carrier transport in hybrid perovskites to overcome the Shockley-Queisser limit. **J. Snider**, L. Huang

PHYS 367. Withdrawn

PHYS 368. Hydrogen permeation properties of a Pd-based metallic glass. **X. Du**

PHYS 369. The Cl₂-Si₁₂C₁₂ molecule from cluster to crystal: Design charge transfer excitonics polymers with siloxane and silane links. **X.F. Duan**, L. Burggraf

PHYS 370. Energy dependent electron transfer dynamics at dye-bridge-semiconductor interface. **J.C. Wang**, K. Violette, M. Sykora, K. Hanson

PHYS 371. Heterodyne-detected vibrational sum frequency generation spectroscopy for buried electrode/electrolyte solution interfaces. **S. Nihonyanagi**, A. Sayama, Y. Ohshima, T. Tahara

PHYS 372. Measurements and analysis of ultrafast transient absorption spectra of YOYO-1 in solutions. **J. Chen**, L. Wang, J.R. Pyle

PHYS 373. Enhanced thermoelectric properties in graphene/bismuth telluride/graphene (Gr/Bi₂Te₃/Gr) heterostructures. **D.S. Choi**, K. Perry, **S.P. Karna**

PHYS 374. Scaling tensor contractions in the post Moore's law computing era. **K. Ibrahim**

PHYS 375. Withdrawn

PHYS 376. Withdrawn

PHYS 377. Excited state dynamics of charge carriers at the interfaces: Insights from nonadiabatic molecular dynamics calculations. **A. Nijamudheen**, A.V. Akimov

PHYS 378. Withdrawn

PHYS 379. Using Fano resonances to

measure and control photonic-plasmonic hybridization. **K.C. Smith**, D.J. Masiello

PHYS 380. Solvent effect and tunneling corrections on the intermolecular proton transfer of the guanine-cytosine and adenine-thymine DNA base pairs: A polarizable continuum model study. **E. Romero**, F. Hernandez

PHYS 381. Large-scale first principles NMR calculations with numeric atom-centered basis sets. **R. Laasner**, W. Huhn, J. Colell, T. Theis, W.S. Warren, V.W. Yu, V. Blum

PHYS 382. GPU-accelerated large-scale electronic structure theory with a first-principles all-electron code. **W.P. Huhn**, B. Lange, V. Yu, S. Lee, M. Yoon, V. Blum

PHYS 383. Withdrawn

PHYS 384. Plasmon enhanced electrochemical dissolution of gold nanorods. **B. Hoener**, S.S. Collins, S.R. Kirchner, W. Wang, S.H. Jebeli, A. Joplin, W. Chang, S. Link, C.F. Landes

PHYS 385. Structural factor in radical enhanced intersystem crossing of BODIPY. **Y. Cao**, Y. Huang, Z. Xu, T. Jin, T. Lian, E. Egap

PHYS 386. Information entropies in single molecule studies. **M.A. Ochoa**

PHYS 387. Probing the (110)-oriented plane of rutile ZnF₂: A DFT investigation. **A. Abbaspour Tamijani**

PHYS 388. Accelerating excited state molecular dynamics using an extended Lagrangian. **J. Bjorgaard**, D. Sheppard, S. Tretiak, A. Niklasson

PHYS 389. Influence of size of nanoparticles on their XRD patterns: Insights from modeling. **A.V. Vorontsov**

PHYS 390. Layered tetragonal zinc chalcogenides for energy-related applications: From photocatalysts for water splitting to cathode materials for Li-Ion batteries. **J. Zhou**

PHYS 391. Photo-carrier generation and separation in two-dimensional vertical and lateral heterostructures. **L. Yuan**, L. Huang

PHYS 392. Exploring the relationship between plasmon damping and luminescence QY in lithographically prepared gold nanorods. **L.J. Tauzin**, Y. Cai, K.W. Smith, W. Chang, C.F. Landes, S. Link

PHYS 393. Charge transfer through surface and bulk midgap states in titanium dioxide and metal titanates: Exciton and water as probes in novel synchronous versus "conventional" luminescence spectroscopy. **A. Samokhvalov**, S. Taylor

PHYS 394. Photoluminescence of gold nanorods: Purcell effect enhanced emission from hot carriers. **Y. Cai**, J.G. Liu, L.J. Tauzin, D. Huang, E.R. Sung, H. Zhang, A. Joplin, C.F. Landes, W. Chang, P.J. Nordlander, S. Link

PHYS 395. Probing structural rearrangements during rubrene singlet fission using femtosecond stimulated Raman spectroscopy. **K. Bera**, C.J. Douglas, R.R. Frontiera

PHYS 396. Measuring buried interfacial electronic structure using heterodyne detected electronic sum frequency generation. **A.P. Moon**, J.A. Bender, D.E. Catton, B.A. Renard, S.T. Roberts

PHYS 397. Directional response from disorder: Exploiting the interplay between nanoscale disorder and non-equilibrium exciton and charge transport. **A. Dodin**, A.P. Willard

PHYS 398. Damping of acoustic vibrations in gold nanowires. **T. Devkota**, K. Yu, G.A. Beane, G.V. Hartland

PHYS 399. Refined potential for LiTFSI-Acetonitrile electrolyte system. **Z. Li**, L. Robertson, I.A. Shkrob, Y. Cao, L. Zhang, J. Moore, Y. Zhang

PHYS 400. Understanding charge transfer from metal oxide nanocrystals to organic semiconductors following LSPR excitation. **M. Blemker**

PHYS 401. Structure-based exciton Hamiltonian and dynamics for the reconstituted wild type CP29 protein antenna complex of the photosystem II. **M. Jassas**, J. Chen, A. Khmelnskiy, A.P. Casazza, S. Santabarbara, R. Jankowiak

PHYS 402. Plasmon damping at the nanoparticle surface. **B. Foerster**, A. Hoggard, K. Kaefer, S. Celiksoy, W. Chang, S. Link, C. Sönnichsen

PHYS 403. Modifying the hybridization of transition metal *d* orbitals with weak external fields. **P. Darapaneni**, A.M. Meyer, K. Lopata, O. Kizilkaya, J.A. Dorman

PHYS 404. Low temperature high resolution spectroscopic and modeling studies of the wild type and mutant FMO antenna from *C. tepidum*. **A. Khmelnskiy**, R. Saer, R.E. Blankenship, R. Jankowiak

PHYS 405. Computational mechanistic insights into the palladium-catalyzed alkylation of selected aldehyde-derived hydrazones. A.D. Bani-Yaseen, **E. Elbashier**, F. ElNaml, N. Odeh

PHYS 406. Quantum framework to resonant energy transfer under the influence of the metal surface evanescent field. **X. Chen**, A. Poudel, M.A. Ratner

PHYS 407. Comparison of the barrier properties of PVD and ALD deposited Ta based materials for Cu diffusion. **K. Muthukumar**, A. Basu, B. Sheu, L. Chen, Z. Wu, R. Shaviv, J.J. Lee, T. Hong Ha, X. Tang

PHYS 408. Advances in rational design of modified proton reduction catalysts. **M. Davis**, C.N. Virca, T. McCormick

PHYS 409. Ultraviolet absorption spectra of charge transfer to solvent transitions for aqueous halide and hydroxide ions in subcritical water. **T.W. Marin**, **I. Janik**

PHYS 410. Dynamic stabilization of metal oxide / liquid water interfaces through water exchange. **G. von Rudorff**, M. McBriarty, J. Stubbs, P.J. Eng, J. Blumberger, K. Rosso

PHYS 411. Structure and dynamics of the hematite(001)-liquid water interface: pKa estimates from thermodynamic integration and hydrogen bond patterns. **G. von**

Rudorff, R. Jakobsen, O. Gittus, K. Rosso, J. Blumberger

PHYS 412. Accelerating hybrid functional-based molecular dynamics simulation through screening of Hartree-Fock exchange forces. **G. von Rudorff**, R. Jakobsen, K. Rosso, J. Blumberger

PHYS 413. A mixed resolution protocol to assess ionic liquid effects on biological system. **A.J. Heyert**, G.E. Lindberg

PHYS 414. ELSI: A unified software interface for Kohn-Sham electronic structure solvers. **V. Yu**, W.P. Huhn, L. Lin, J. Lu, A. Vazquez-Mayagoitia, C. Yang, V. Blum

PHYS 415. Competitive adsorption of environmentally relevant anions on lithium ion battery cathode materials. **D. Jones**, J.W. Bennett, A. Abbaspour Tamijani, S.E. Mason

PHYS 416. Selenium NMR spectroscopy: A versatile probe for biological macromolecules. **S. Rozovsky**

PHYS 417. Untangling the details of surfactant assembly at the nanoemulsion interface. **A. Carpenter**, R. Altman, R. Ciszewski, G.L. Richmond

PHYS 418. Energy and mass transfer analysis of foam fluid in porous media. **S. Liu**

PHYS 419. Withdrawn

PHYS 420. Self-organization of layered inorganic membranes in microfluidic devices. **Q. Wang**, M.R. Bentley, O. Steinbock

PHYS 421. Acoustic interactions of biochar with CO₂ and H₂O: Experimental and theoretical approaches. **T. Zubatiuk**, B. Sajjadi, G.A. Hill, D. Leszczynska, W.W. Chen, J.R. Leszczynski

PHYS 422. Ab Initio calculations of possible heptacoordinate and octacoordinate carbon in ionic hydrocarbon compounds. G. Wang, **A. Rahman**, B. Wang

PHYS 423. Modeling electrolyte mixtures with concentration dependent dielectric permittivity. **H. Chen**, A. Panagiotopoulos

PHYS 424. Psi4NumPy: An interactive quantum chemistry programming environment. D.G. Smith, L.A. Burns, **D. Sirianni**, D.R. Nascimento, A. Kumar, A. James, J.B. Schriber, T. Zhang, B. Zhang, A. Abbott, E. Berquist, M. Lechner, L. dos Anjos Cunha, A.C. Simmonett, J. Turney, F.A. Evangelista, A.E. DePrince, T. Crawford, K. Patkowski, C.D. Sherrill

PHYS 425. Gas phase studies of ionic liquids. **E.L. Collins**, G. Liu, S. Marquez, S. Ciborowski, M. Marshall, Z. Zhu, J. Damewood, A. Buytendyck, J. Graham, K.H. Bowen

PHYS 426. Withdrawn

PHYS 427. Phase transitions and chemical instability of an ionic liquid under high pressure. **L.F. Faria**, M. Medre, R. Bini, M.C. Ribeiro

PHYS 428. Small polaron in zero-dimensional perovskite Cs₄PbBr₆. **J. Yin**, P. Maity, M. De Bastiani, I. Dursun, O.M. Bakr, J.E. Bredas, O.F. Mohammed

[†]Cooperative Cosponsorship

- PHYS 429.** Solvent-ion structure and the thermodynamics of a nitromethane-tetrahydrofuran lithium ion cluster. E. Curotto, **D. Bierwisch**, A. Fodor, M.J. Hyers
- PHYS 430.** Response of differently doped semiconductors to light with orbital angular momentum. **P. Navotnaya**, B. Rolczynski, G.S. Engel
- PHYS 431.** Tuning the photochemical reactivity of electrocyclic reactions using substituents—a non-adiabatic molecular dynamics study. **T.W. Thompson**, E. Tapavicza
- PHYS 432.** Fluorescence lifetime studies of calmodulin-eNOS complexes. **K. Guadalupe**, S. Bailey, C.K. Johnson
- PHYS 433.** Experimental and theoretical investigations of infrared multiple photon dissociation spectra of lysine complexes with Zn^{2+} and Cd^{2+} . **C. Owen**, G. Boles, G. Berden, J. Oomens, P. Armentrout
- PHYS 434.** pH dependent interaction of norfloxacin housed in lysozyme: The protein modulates the prototropic equilibrium of the drug to host the preferred ionized state. **I. Das**, M. Halder
- PHYS 435.** Withdrawn
- PHYS 436.** Absorbance and fluorescence spectra of 5-(benzylidene)pyrimidine-2,4,6-triones. **N. Barashkov**, **T. Sakhno**, A. Mantel, A. Aldongarov, D. Birimzhanova, I. Irgibayeva
- PHYS 437.** Theoretical studies of cytochrome c peroxidase–cytochrome c electron transfer: The role of tryptophan. **X. Ru**, P. Zhang, D.N. Beratan
- PHYS 438.** Photochemical study of Coenzyme B₁₂-dependent enzymes: Theoretical study. **A. Mamun**, P.M. Kozlowski
- PHYS 439.** Mechanism of Alkyl transfer reaction involving Cob(II)Alamin by Alkyl halide: S_N2 or radical mechanism? **A. Ghosh**, P.M. Kozlowski
- PHYS 440.** Molecular dynamics studies of ordering of ionic liquids at interfaces. **W.D. Amith**, J.J. Hettige, **W.V. Karunarathne**, E. Castner, C.J. Margulis
- PHYS 441.** Classical, semi-empirical and first principles dynamic of excess charges in ionic liquids. **F. Wu**, C. Xu, C.J. Margulis
- PHYS 442.** Modeling quantum effects on metabolism rate in deuterated drugs. **C.P. Schultz**, J.W. Mazzuca
- PHYS 443.** Infrared spectroscopic investigation of carbonyl sulfide hydration in superfluid helium nanodroplets. **T.W. Faulkner**, I. Miller, P. Raston
- PHYS 444.** Super atomic nature of Be(NH₃)₄. **I. Ariyaratna**, S. Khan, E. Miliordos
- PHYS 445.** Quantum chemical strategies for determining properties and reaction behavior for astrochemical applications. **D.E. Woon**
- PHYS 446.** New computational methodology for modeling sum frequency spectra of large molecules. **R. Altman**, N.A. Valley, G.L. Richmond
- PHYS 447.** Real time studies of triglyceride thermal cracking chemistry using molecular beams. **I. Alhroob**, E. Kozliak, **A. Kubatova**, **M. Sulkes**
- PHYS 448.** Multiconfiguration pair-density functional theory: Theory and applications to spin-multiplicity splitting, transition metal bond energies, and the abyss of delocalization error. **J.L. Bao**, D.G. Truhlar, L. Gagliardi
- PHYS 449.** Ab-initio calculations on the ground and excited electronic states of palladium monoxides, PdO^{0/+/-}. **N. Almeida**
- PHYS 450.** Acrylic and propiolic sulfuric anhydrides: Formation, microwave characterization, and theoretical calculations. **C.J. Smith**, A. Huff, R.B. Mackenzie, K.R. Leopold
- PHYS 451.** Proton-coupled electron transfer and substituent effects in catechol-based deep eutectic solvents: Gross and fine tuning of redox activity. **P.J. Smith**, J.C. Goeltz
- PHYS 452.** Phase transitions of ionic liquids in nanoconfinement. **F. Sorourifar**, G. Jeanmairet, M. Salanne, B. Rotenberg, B. Coasne
- PHYS 453.** Theoretical investigation of monomers self-assembly through hydrogen-bonding and π -stacking. **M. Boraghi**, J. I-Chia Wu
- PHYS 454.** Internal rotation and monohydration of carboxylic sulfuric anhydrides. **A.K. Huff**, C.J. Smith, R.B. Mackenzie, K.R. Leopold
- PHYS 455.** In-situ second-harmonic generation of gold nanoparticle growth and ultrafast reflectivity on La_{0.47}Sr_{0.33}MnO₃/SrTiO₃. **R. Khoury**, J.C. Ransinghe, J. Taylor, M. Saghayezhian, A.S. Dikkumbura, W. Plummer, L.H. Haber
- PHYS 456.** Role of the first excited state of atomic oxygen (¹D) in the formation of "hypervalent" iodine-oxygen compounds and the oxidation mechanism of alkenes by such species. **N. Khan**
- PHYS 457.** Linking pH, temperature, K⁺ concentration and conformation for the DNA i-motif. C.R. Fraire, T. Nguyen, S. Sullivan, S. Tittle, E. Bazan, **R.D. Sheardy**
- PHYS 458.** Ultrafast excited state transport and decay dynamics in cesium lead mixed-halide perovskites. **C.L. Kennedy**, A. Hill, E.S. Massaro, E. Grumstrup
- PHYS 459.** Alkyne combustion: Experimental and theoretical studies of formyl radical formation. **M. Drummer**, R.W. Quandt, J.M. Standard
- PHYS 460.** Modeling proton transfer of 5-amino-2-naphthol and 8-amino-2-naphthol. **K. Nelson**, M. Groves, L. Cotter, K. Takematsu
- PHYS 461.** Entangled trajectory Hamiltonian dynamics. **B. Smith**, A.V. Akimov
- PHYS 462.** Characterizing the effect of particle size on deposition in printed human models. J. Kesavan, **V. Altstadt**, J.R. Bottiger, B.L. Laube
- PHYS 463.** Reduction of CO₂ and N₂ using the Li₃F₂ superalkali. **H. Park**, G. Meloni
- PHYS 464.** Synchrotron photoionization study of furan and 2-methylfuran reactions with methylidyne radical (CH) at 298 K. **E. Carrasco**, G. Meloni, K. Smith
- PHYS 465.** Analytic gradient for the effective fragment molecular orbital (EFMO) charge transfer energy. **S. Kim**, P. Xu, C. Berton, M.S. Gordon
- PHYS 466.** Simulations and spectroscopy of interfacial environments in lipid membranes. **M. Valentine**, C.R. Baiz
- PHYS 467.** Comparison of theoretical and experimental electron density distributions of 1-methyl-4-imidazole-2-thione. **S. Hornback**, S. Khan, **E.D. Stevens**
- PHYS 468.** Ultrafast radiationless relaxation dynamics of low-energy near-infrared excited electronic states of Cu(II) and Ir(IV) complexes. **D. Budkina**, S.M. Matveev, C.M. Hicks, V.A. Borin, A.S. Mereshchenko, A.N. Tarnovsky
- PHYS 469.** Astrobiological explorations of amino-substituted nucleobase anions. **A.A. Dobbs**, D.T. Novoa, A.R. Wegener, C. Cole
- PHYS 470.** Long-lived complexes and quantum chaos in ultracold collisions. **J.F. Croft**, B. Naduvalath, B. Kendrick
- PHYS 471.** Applications of two-dimensional white-light spectroscopy utilizing conjugated aromatic systems. **N.R. Fetto**, M.J. Tucker
- PHYS 472.** Development of a coarse-grained model of polypeptides for studying self-assembly in solution. **P. Du**, R. Kumar
- PHYS 473.** A quantitative and spatially-resolved accounting of the performance-bottleneck in high efficiency, planar hybrid perovskite solar cells. **S. Draguta**, J. Christians, J. Luther, M.K. Kuno
- PHYS 474.** Theoretical investigation of cyanopolynes as the coloring agents of Jupiter's Great Red Spot. **C. Davis**, M. Dorko
- PHYS 475.** High-accuracy electronic structure calculations of the acetylperoxy/HO₂ reaction mechanism. **K.T. Kuwata**, M.P. DeVault
- PHYS 476.** Proton transfer in 7-amino-2-naphthol. **L. Cotter**, R. Nelson, K. Takematsu
- PHYS 477.** Model chemistries for ground and excited states: Long-range corrected hybrid density functional theory. **J.L. Sonnenberg**, G. Scalmani, G.W. Trucks, M.J. Frisch, K.B. Wiberg
- PHYS 478.** Observation of ultrafast vibrational energy transfer. **M. Ashner**, W.A. Tisdale
- PHYS 479.** Molecular adsorption and resonance coupling at the colloidal silver-gold core-shell nanoparticle interface. **A.S. Dikkumbura**, H.T. Smith, R.A. Khoury, J.C. Ransinghe, L.H. Haber
- PHYS 480.** Ultrafast transient absorption spectroscopy of porphyrin
- based NanoGUMBOS, silver-gold core-shell and silicon nanoparticles. **J.C. Ransinghe**, T.E. Karam, A.S. Dikkumbura, R.A. Khoury, N. Siraj, I.M. Warner, L.H. Haber
- PHYS 481.** Cation effect on the solvent structure of trifluoroacetamide based deep eutectic solvents. **Y. Cui**, D.G. Kuroda
- PHYS 482.** Acetate ion and its interesting solvation shell. **X. Zhang**, D.G. Kuroda
- PHYS 483.** Structure and dynamics of ion pairs in glymes. **S. Galle Kankanamge**, D.G. Kuroda
- PHYS 484.** Investigation of structure and dynamics of glyme based electrolytes for sodium rechargeable batteries. **K. Li**, S. Galle Kankanamge, P. Du, R. Jorn, R. Kumar, D.G. Kuroda
- PHYS 485.** Sodium binding interactions with the aliphatic amino acids: A guided ion beam and computational study. **H. Pham**
- PHYS 486.** Fragmentation of deprotonated n-methylguanaine anions. **D. Novoa**, A. Wegener, A.A. Dobbs, C. Cole
- PHYS 487.** Separation of chiral molecules by enantio-specific interactions using magnetic surfaces. **E. Capua**, K. Banerjee-Ghosh, F. Tassinari, O. Ben Dor, S. Yochelis, Y. Paltiel, R. Naaman
- PHYS 488.** Microscopic dynamics and thermal properties of glycine betaine solutions. **N. Yamamoto**, N. Murase, M. Kofu, T. Kikuchi, O. Yamamoto
- PHYS 489.** Air/water and silica/water interfaces characterized by Ab Initio Molecular Dynamics. **S. Pezzotti**, D. Galimberti, F. Siro Brigiano, M.P. Gaigeot
- PHYS 490.** Hulburt-Hirschfelder potential for the ground state of Li₂, Na₂, and K₂. **L. Biolsi**
- PHYS 491.** Photophysics and charge localization of azothiazol-dithiophene conjugated polymers. **A. Alsam**, O. Mohammed, N. Hadjichristidis
- PHYS 492.** Spin-controlled electrochemistry using chiral electrodes: Effects on water electrolysis. **F. Tassinari**, W. Mtangi, K. Banerjee-Ghosh, B. Adelizzi, F. Parenti, K. Vankayala, A. Palmans, A. Vargas Jentzsch, C. Fontanesi, A. Mucci, E.W. Meijer, R. Naaman
- PHYS 493.** Withdrawn
- PHYS 494.** Visualizing the dimensionality-dependent evolution of a semiconductor's electronic structure. M.P. McDonald, **R. Chatterjee**, J. Si, B. Jankó, M.K. Kuno
- PHYS 495.** Effect of small perturbations on the Belousov-Zhabotinsky reaction. **M.S. Zahed**, H.M. Hastings
- PHYS 496.** Stabilizing effects in carboraneselenolate self-assembled monolayers. **D.P. Goronzy**, J. Thomas, A.M. Spokoyny, C.A. Mirkin, P.S. Weiss
- PHYS 497.** Spectroscopic study of a C₄H₅ radical: 2-butyln-1-yl. **M. Ellis**, G. Brown, O. Bhatti, L.R. McCunn
- PHYS 498.** Vibrational spectroscopy of a

substituted propargyl radical: 1-butyne-3-yl. **G. Brown**, M. Ellis, O. Bhatti, L.R. McCunn

PHYS 499. Photochemistry of dipyrindylphenanthrene-dioxin-copper complexes. **K. Karabaeva**, D. Budkina, R.M. Wilson, A.N. Tarnovsky, L. Sallans

PHYS 500. Computational investigations of the graphene oxide – liquid interface. **V. Subasinghe Don**, P. Du, R. Kumar

PHYS 501. High-resolution infrared spectroscopy of SC_2S and SC_2S carbon-sulfur clusters. **J.B. Dudek**, S.K. Bentley, T. Salomon, S. Fanghänel, S. Thorwirth

PHYS 502. Chitosan assisted synthesis of silver hexahedrons on disposable pencil graphite electrode: Low-cost sensor for hydrogen peroxide and hydrazine. **P. Sankaranarayanan**, S.M.V.

PHYS 503. Poking surfaces: Absolute, interferometric, complex spectral measurement. **M.J. Shultz**, P.J. Bisson, J.M. Marmolejos, J. Wang

PHYS 504. Understanding material characteristics through fingerprint traits from helium pycnometry. **H.T. Nguyen**, J. Horn, M. Bleakney, S. Hudson, L. Espinal

PHYS 505. Size and solid concentration effects in surface complexation models. **J. Luetzenkirchen**, T. Klacic, T. Preocanin

PHYS 506. Characterization of monovalent and divalent ion interactions in interfacial esters. **E. Ma**

PHYS 507. Femtosecond time-gated absorption spectroscopy (fs-TGAS): Development of a robust method for measuring broadband, background-free absorption spectra. **P.S. Walsh**, H.U. Stauffer, S. Roy, J.R. Gord

PHYS 508. Flying into the future of heat management on the wings of chemical reactions. **A. Widstrom**, A. Katona, B.J. Lear

PHYS 509. Effect of adding sodium chloride on the thermodynamic characterizations of tetra-*n*-butylammonium chloride/water semi-clathrate system. **M. Siddiq**

PHYS 510. Detailed kinetic modeling of biochemical pathways using PySB. **Z. Kamdar**, **R.J. Olsen**, E.C. Pollock

PHYS 511. Ultrafast time-resolved dynamics of singlet fission in diphenylisobenzofuran derivative on film. **M.A. Hermosilla**, V.D. Kleiman, K. Hanson, S.P. Hill, T. Banerjee

PHYS 512. Conformational changes in alpha-synuclein in the presence of aqueous ionic liquids probed with FRET measurements. **B.L. Stinger**, T.D. Vaden

PHYS 513. Analysis of carboplatin and DNA interactions by spectroscopic techniques. **C.R. Fraire**, S.M. Williams, R.D. Sheardy, N. Mirsaleh-Kohan

PHYS 514. Ion transport properties in mixed ionic liquid/carbonate electrolytes for Li-ion batteries. **M. Ebrahiminia**, K. Oldiges, D. Diddens, D. Bedrov

PHYS 515. Strong parallel scaling for sparsity-screened density-fitted integrals on Knights Landing. **M.C. Schieber**, D.G.

Smith, E. Chow, C.D. Sherrill

PHYS 516. Ion dynamics in doubly-charged DABCO-containing copolymers of *n*-butyl acrylate. **M. Harris**, K. Drumme, T.E. Long, J. Sangoro

PHYS 517. Three-body hydrogen bond defects contribute significantly to the dielectric properties of the liquid water-vapor interface. **S. Shin**, A.P. Willard

PHYS 518. Femtosecond extreme ultraviolet transient absorption spectroscopy explorations of bromobenzene. **L. Heald**, S. Sutton, S.G. Sayres

PHYS 519. Understanding how cisplatin and carboplatin modify DNA bases. **T. Nguyen**, S. Wappes, N. Mirsaleh-Kohan

PHYS 520. Kinetic studies of molecular scale heating using the photothermal effect. **E. Van Burns**, B.J. Lear

PHYS 521. Optimizing triplet exciton transfer from lead calcogenide nanocrystals to TIPS-Pentacene ligands for photon upconversion. **E.K. Raulerson**, **J.A. Bender**, X. Li, M.L. Tang, S.T. Roberts

PHYS 522. Solvent-dependence of the phenol-benzene H- π equilibrium constant. **K.J. Feierabend**, B.B. Bowers

PHYS 523. Exploring the structural effects of nedaplatin and carboplatin on a short DNA oligonucleotide. **M. Garrett**, **A. Lanka**, S. Ariyibi, N. Mirsaleh-Kohan

PHYS 524. Energy of the quasi-free electron in CO and HD: Extension of the local Wigner-Seitz model to polar fluids. **C.M. Evans**, J. Hare, G.L. Findley

PHYS 525. Energy of the quasi-free electron in supercritical and near critical CF_4 . **J. Hare**, B. Flor, C.M. Evans, G.L. Findley

PHYS 526. Investigating the mechanism of water loss in cationic clusters containing dicarboxylic acids. **K.A. Nickson**, S.E. Waller, C.J. Johnson

PHYS 527. A spectroscopic and theoretical study of dipole-bound anions of indazole derivatives. **A. Williams**, N. Hammer

PHYS 528. Identifying key charge migration modes with time-dependent density functional theory. **A. Bruner**, S. Hernandez, F. Mauger, P. Abanador, M. Gaarde, K. Schafer, K. Lopata

PHYS 529. Experimental and theoretical investigation of the phase stability of methane and ethane mixtures at temperatures relevant to the outer solar system. **S. Dustrud**, W. Grundy, J. Hanley, G.E. Lindberg

PHYS 530. Studying CO_2 solvent properties by microwave spectroscopic investigation of vinyl fluoride... CO_2 ... CO_2 trimers. **D.B. Kannagara**, R.A. Peebles, S.A. Peebles, B.H. Pate

PHYS 531. Quantum mechanical studies of singlet and triplet chlorine-, bromine-, and iodine-containing fluorocarbenes. **T.J. Arledge**, J.M. Standard

PHYS 532. Implementation of GPU-accelerated molecular dynamics simulations of monoproline chiral

interfaces. **C. Si**, N.M. Cann

PHYS 533. Spectroscopic and computational characterization of a new series of organoboron derivatives for use in Suzuki-Miyaura coupling reactions. **A. Dorris**, T. Vaughan, D.L. Mattern, N. Hammer

PHYS 534. Single molecule spectroscopic studies of squaraine-based donor-acceptor-donor (D-A-D) dyes. **L.A. Hunt**, J.N. Gayton, T. Rill, A. Huckaba, **L.E. McNamara**, J.H. Delcamp, N. Hammer

PHYS 535. Synthesis and photophysical characterization of bipyridyl hybrid oligomers: Examining mixed Furan-thiophene systems using spectroscopy and DFT methods. **A.E. Steen**, S. Nguyen, T.L. Ellington, G.S. Tschumper, D.L. Watkins, N. Hammer

PHYS 536. Can a photoexcited quinoline induce structural changes in a molecular system? **J.R. Hunt**, I. Demianets, J. Dawlaty, T.J. Williams

PHYS 537. Using attenuated total reflectance infrared spectroscopy to monitor changes in substrate upon binding to allosterically activated human liver pyruvate kinase. **R. Brenner**, C.J. Wurrey, A. Fenton

PHYS 538. Ion transport and dynamics in polymerized ionic liquids. **S. Spittle**, M.F. Heres, M. Chen, T.E. Long, J. Sangoro

PHYS 539. Origin of vibrational frequency shifts in strongly bound water clusters. **E. Knodel**, J. Heindel, D.P. Schofield

PHYS 540. Characterization of the photophysical properties of CCC-N-heterocyclic carbene platinum pincer complexes at the single molecule level. **S. Autry**, M. Zhang, E.V. Dornshuld, V. Dixet, T.K. Hollis, C.E. Webster, N. Hammer

PHYS 541. Chemistry in disks. **M. Ruaud**, U. Gorti

PHYS 542. Catalytic activity of platinum nanoparticles upon surface deposition. **M.C. Sherman**

PHYS 543. Plasmonic selective absorbers for all-metal optical power generation. **N. Hogan**, M.T. Sheldon

PHYS 544. Evaluation of enhanced sampling molecular dynamics methods for the creation of solid polymer electrolyte configurations. **L. Younger**, G.E. Lindberg

PHYS 545. Withdrawn

PHYS 546. Power conversion via unidirectional tunneling of plasmonic hot electrons. **S. Wu**, M. Sheldon

PHYS 547. Effect of conformational changes on triplet formation in a heavy heteroatom conjugated polymer: Single polymer molecules and molecular aggregates. **B. Datko**, Z. Fei, M.J. Heeney, J.K. Grey

PHYS 548. Manipulating ionic liquid self-assembly near solid surfaces. **R. Hayes**, K. House

PHYS 549. Real time study of molecular

adsorption and transport at liposomes surfaces monitored by second harmonic generation. **P. Hamal**, H. Nguyen, R. Kumal, R.L. McCarley, L.H. Haber

PHYS 550. Unraveling the photo-dynamics of indigo. **R. Rodriguez**

PHYS 551. Preparation of nanofibers of cellulose from Tara Gum wastes production to the removal of paracetamol as a emerging pollutant (EPs) in water. **S. Ponce**, A. Gutarra, M.S. Peresin, M. Chavarria

PHYS 552. Thermal and thermodynamic behavior of ionic liquids and molten salts with high thermal stability. **B. Siu**, C. Cassity, M. Soltani, M. Vo, J.H. Davis, K.N. West

PHYS 553. Withdrawn

PHYS 554. Preparation and characterization of microcapsulated red phosphorus and its thermal analysis based on non-isothermal kinetic approach. **L. Jie**

PHYS 555. Investigation of oxidation reaction products of 2-phenylethanol using synchrotron photoionization. **A. Otten**, M.L. Wooten, A. Medrano, G. Meloni

PHYS 556. Computational study of single-site catalysts: MgO-supported iridium complexes. **S. Zhang**, D.A. Dixon, B.C. Gates

PHYS 557. Graphene functionalization dynamics in the gas-phase and in solution. **R.M. Brinn**, K.Z. Rinaldi, N. Patel, A. Crowther

PHYS 558. Withdrawn

PHYS 559. Characterization of high-performance fuel injectors for pulsed gas expansions. **A.M. Prophet**, J. Winner, S.W. North, R. Sanchez-Gonzalez

PHYS 560. Tensor network wavefunction methods. **Y. Zhao**

PHYS 561. Mechanism of the loss of C_2H_4 and H_2O in protonated methionine. **J. Le**, J. Johnston, P.B. Armentrout

PHYS 562. Investigating the size-dependent vibrational properties of atomically precise nanostructures. **R. Dzialtko**, A.N. Beecher, M. Greenberg, M.L. Steigerwald, J.S. Owen, A. Crowther

PHYS 563. Predicting phase diagrams via free energy based genetical algorithms. **T. Loeffler**, H. Chan, B. Narayanan, S. Sankaranarayanan

PHYS 564. Raman spectroscopic investigations of DNA-gold hybrid nanoclusters. **G.A. Halingten-Verville**, L. Sumner, K. Laughton, S. Chakraborty, N. Hammer

PHYS 565. Thermo-sensitive chromic materials using thermosensitive polymer and ionic liquids. **S. Gupta**, N. Matsumi

PHYS 566. Solution structure of FXI:FXI dimer and activation mechanism by thrombin: A molecular docking and MD refinement study. **D. Venkateswarlu**

PHYS 567. Investigating the interaction of aryl tetrazolones with anions. **E. Nord**, H. Zhou, S. Rayat

[†]Cooperative Cosponsorship

PHYS 568. Elucidating the flexibility effects on the hydrodynamic volume of hetero-FRET probes using fluorescence correlation spectroscopy and time-resolved fluorescence anisotropy. **N. Anye**, H. Leopold, H. Lee, J. Schwarz, E.D. Sheets, A.A. Heikal

PHYS 569. Hypergeometric resummation of the Møller-Plesset perturbation series for strongly correlated systems. **A. Patel**, N. Abbas, C.E. Gonzalez, P. Ayers

PHYS 570. Motion of the calmodulin/ryanodine receptor complex determined using NMR residual dipolar coupling experiments and molecular dynamics simulations. L. Cooper, P. Grewe, S. Roman, **M.C. Zwier**

PHYS 571. New organic crystals for THz generation. **G.A. Valdivia-Berroeta**, D. Michaelis, J. Johnson

PHYS 572. Mechanism of loss of carbon monoxide and water from protonated methionine. **L. Miller**, B. Bruggeman, J. Johnston, P.B. Armentrout

PHYS 573. Synthesis of thermally stable, reversibly thermochromic ionic liquids. J.H. Davis, **M. Soltani**

PHYS 574. Investigating the thermal stability of halogen containing perarylphosphonium-based ionic liquids. J.H. Davis, **J. McCants**

PHYS 575. Local dynamics of polyisobutylene in solution: An all-atom molecular dynamics study. **H. Ponce**, M.M. Fuson

PHYS 576. Linear infrared and NMR spectroscopies for the determination of short peptide phi and psi angles. **M.A. Kubasik**, C. Foster-Spence, M.C. Rotondaro, J. Dickovick

PHYS 577. Ionic modification of carbon nanomaterials for altering their capacity for interactions with ionic liquids. J.H. Davis, **M. Vo**, M. Soltani

PHYS 578. Post-Marcus electronic transition dynamics via the generalized quantum master equation: A new approach. **E. Mulvihill**, A. Schubert, X. Sun, Y. Lai, E. Geva

PHYS 579. Which functional is best? Small molecule electron donors, electron paramagnetic resonance spectroscopy, and density functional theory. **C. Mallares**, K. Mardis

PHYS 580. Photochromic switching in the plasmonic field of gold nanoparticles. **W. Harmon**, C.J. Otolski, C.G. Elles

PHYS 581. Cationic porphyrin basicity and possible implications in photodynamic therapy. **M. Ballester**, K. Chamarti, L. Sanz

PHYS 582. Real-time electronic dynamics using time-dependent configuration interaction singles/doubles. **T.S. Nguyen**, J. Parkhill

PHYS 583. Porphyrin tautomerization of the 5, 15 dibromo 10, 20 diphenyl porphine and 5 bromo 10, 15, 20 triphenyl porphine using VT HNMR. **M. Ballester**, A. Sangermano, M. McCloskey

PHYS 584. Investigating planarity of

electron donor oligomer by comparison of EPR parameters obtained computationally and experimentally. **K. Wallace**, K.L. Mardis

PHYS 585. Withdrawn

PHYS 586. Detailed study of the formation of sugar derivatives produced from the UV irradiation of astrophysical ice analogs. **M. Nuevo**, G. Cooper, J.M. Saunders, C.E. Buffo, C.K. Materese, S.A. Sandford

PHYS 587. Quantum mechanical calculations on metal-bearing dicarbides and experimental spectroscopic verification. **D.T. Halfen**, M. Burton, N.J. Deyonker, D.J. Clouthier, L.M. Ziurys

PHYS 588. Chemical modeling studies of interstellar cyanomethanimine isomers. **D. Quan**, X. Zhang, E. Herbst, M.T. Webb

PHYS 589. Preparation, characterization and storage of water vapours highly enriched in its ortho-H₂O nuclear spin isomer. **P. Ayotte**, P. Turgeon, J. Vermette, I. Brault, X. Michaut, L. Philippe, M. Bertin, T. Putaud, J. Fillion, G. Alexandrowicz

PHYS 590. Basis set dependence of carbon dioxide polarizability and hyperpolarizability using ab initio methods. **R. Beil**, R.J. Hinde

PHYS 591. Direct vibrational energy transfer in monomeric water probed with ultrafast two dimensional IR spectroscopy. **H. Bian**

PHYS 592. Robust algorithm for reaction path finding and transition state optimization. **X.D. Yang**, P. Ayers

PHYS 593. Evaluation of the Ho + O β HoO⁺ + e⁻ chemi-ionization reaction enthalpy by guided ion beam tandem mass spectrometry and quantum chemistry theoretical methods. **C. Owen**, J. Kim, P.B. Armentrout

PHYS 594. Propargyl alcohol cyclization via synchrotron photoionization. **M. Farley**, G. Meloni

THURSDAY MORNING

Section A
Ernest N. Morial Convention Center
Room 219

Adventures in Density Functional Theory
Cosponsored by COMP[†]
P. Ayers, W. Yang, *Organizers, Presiding*

8:30 PHYS 595. Withdrawn

9:00 PHYS 596. Withdrawn

9:30 PHYS 597. Exact exchange-correlation potentials of two-electron systems and exact Fermi potentials. **V.N. Staroverov**, I.G. Ryabinkin, E. Ospanov

10:00 PHYS 598. Directly patching exchange-correlation energy in density functional theory. **C. Huang**

10:15 Intermission.

10:30 PHYS 599. Making high accuracy affordable through DFT. **G.A. Petersson**

10:45 PHYS 600. Unraveling the electronic structure of organic photovoltaic

donors: Selecting density functionals through electron paramagnetic resonance parameter prediction. **K. Mardis**, J. Niklas, O. Poluektov, C. Mallares, K. Wallace

11:00 PHYS 601. Influence of intramolecular and intermolecular interactions on the sensitivity of energetic materials. **A.L. Shoaf**, C.A. Bayse

11:15 PHYS 602. Towards an Ab initio understanding of the hydrated electron: DFT-based molecular dynamics simulations of water anion clusters. C. Zho, **B.J. Schwartz**

11:30 PHYS 603. Modeling phase equilibria using CP2K software suite. **H. Goel**, N. Rai

11:45 PHYS 604. Utilizing advanced kinetic energy density based ingredients for novel local hybrid mixing functions. **J.W. Furness**, J. Sun

12:00 PHYS 605. Multireference density functional theory with generalized auxiliary systems for ground and excited states. **Z. Chen**, D. Zhang, Y. Jin, Y. Yang, N. Su, W. Yang

Section B
Ernest N. Morial Convention Center
Room 220

Chirality from Molecules to Materials

Electronic Dynamics

M. Caricato, P.H. Vaccaro, *Organizers*
J.R. Cheeseman, *Presiding*

8:30 PHYS 606. Electrons spin and chirality: From molecular spintronics to enantio-recognition. **R. Naaman**

9:10 PHYS 607. Withdrawn

9:50 PHYS 608. Electronic excitation spectra calculation of large systems with a tight-binding based simplified Tamm-Dancoff approximation [sTDA-xTB]. **J. Seibert**, C. Bannwarth, S. Grimme
10:10 PHYS 609. FVNO⁺⁺: Towards a reduced-scaling method for coupled cluster chiroptical properties. **A. Kumar**, T. Crawford

10:30 Intermission.

10:50 PHYS 610. Real-time time-dependent density functional theory for computing electronic circular dichroism band spectra. **X. Li**

11:30 PHYS 611. What can be learnt on gas phase chiral systems by using photoelectron circular dichroism? **L. Nahon**

12:10 Concluding Remarks.

Section C
Ernest N. Morial Convention Center
Room 221

Understanding the Complexity of the Nano/Bio Interface with Experiments & Computations

Nanoparticle-Surface Structure & Dynamics

F. Geiger, C.F. Landes, *Organizers*
P. Jungwirth, *Presiding*

8:30 PHYS 612. Computational analysis

of the nano/bio interface. **Q. Cui**

9:00 PHYS 613. Investigating nanoparticle self-assembly at the nano-membrane interface. **Z. Cournia**

9:20 PHYS 614. Lipid corona formation from nanoparticle interactions with bilayers and membrane: Specific biological outcomes. **F. Geiger**

9:40 Intermission.

9:55 PHYS 615. Deciphering the interplay between ligand-receptor interactions and nanoparticle-cell interactions in lipid-mediated cell binding and uptake. **B.M. Reinhard**, F. Xu, B. Eshaghi, S. Gummuluru

10:25 PHYS 616. Nanoparticle-induced oxidation of the protein corona initiates an oxidative stress response in cells. **C.K. Payne**

10:55 PHYS 617. Nanotopographic control of cytoskeletal dynamics. **J.T. Fourkas**, W. Losert

Section D

Ernest N. Morial Convention Center
Room 214

Physical Chemistry of Ionic Liquids Interfaces & Ionic Liquid Nanoscience

Cosponsored by COLL[†]
Financially supported by U.S. Army Research Office
E. Castner, E. Maginn, C.J. Margulis, S.K. Shaw, J.F. Wishart, *Organizers*
K. Schroeder, *Presiding*

8:30 PHYS 618. Re-structuring of molten inorganic salts and ionic liquids around Nanoparticles: Stable colloidal solutions. **V. Kamysbayev**, V. Srivastava, D.V. Talapin

8:50 PHYS 619. Taking a close look at ionic liquid / support interfaces. **H. Steinruck**

9:25 PHYS 620. Ionic liquid structure in bulk and at interfaces. B. Wu, M. Zhao, M.S. Emerson, Y. Wang, **E. Castner**

9:45 PHYS 621. Structure and screening behaviour of ionic liquids under nanoconfinement. **C.S. Perez Martinez**, S. Perkin

10:05 Intermission.

10:20 PHYS 622. Probing the structure of an ionic liquid interface by reactive atom scattering. E.J. Smoll, S. Purcell, L. D'Andrea, J.M. Slattery, D.W. Bruce, M.L. Costen, K.G. McKendrick, **T.K. Minton**

10:40 PHYS 623. Following reactions in ionic liquids through the outer surface by X-ray photoelectron spectroscopy. **F. Maier**, H. Steinruck

11:15 PHYS 624. Effect of the environmental humidity on the interfacial properties of ionic liquids. **R.M. Espinosa-Marzal**

11:50 PHYS 625. Reversible, micron-scale ordering in ionic liquid films. **R.S. Anareddy**, R. Specht, S.K. Shaw

Section G
Ernest N. Morial Convention Center
Room 225

Quantum Chemistry, Dynamics &

[†]Cooperative Cosponsorship

Reaction Modeling for Molecules & Materials in Astrophysical Environments**Modeling: ISM/Clouds & (Exo) Planetary Atmospheres**

H. Cuppen, D.E. Woon, *Organizers, Presiding*

8:30 PHYS 626. Help is needed: Some current astrochemical problems. **E. Herbst**

9:05 PHYS 627. Astrochemical kinetic models of dark molecular clouds: Statistical methods and TMC-1. **D. Maffucci**, E. Herbst

9:25 PHYS 628. Deuterium fractionation from molecular clouds to protoplanetary disks: Modeling and observation. **L. Majumdar**

9:45 PHYS 629. The unusual dynamics and chemistry in planetary nebulae. **L.M. Ziurys**, D. Schmidt, L.N. Zack, N. Woolf

10:05 PHYS 630. Modeling the chemistry in the complex outflows of supergiant stars. **D. Schmidt**, G. Adande, L.M. Ziurys

10:25 Intermission.

10:45 PHYS 631. Atmospheric chemistry on Venus: An overview of unresolved issues. **F. Mills**, E. Marq, Y. Yung, C. Parkinson, K. Jessup, A. Vandaele

11:20 PHYS 632. Modeling exoplanet atmospheric chemistry in the era of the James Webb Space Telescope. **S. Horst**

11:55 PHYS 633. From the rocky kernel to the exosphere: the journey of alkali in Europa. **Y. Ellinger**

Elucidation of Mechanisms & Kinetics on Surfaces

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Unconventional Catalysis Targeting Stable Molecules

Sponsored by CATL, Cosponsored by ENFL, ENVR, INOR and PHYS

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

THURSDAY AFTERNOON**Section A**

Ernest N. Morial Convention Center Room 219

Adventures in Density Functional Theory

Cosponsored by COMP[†]
P. Ayers, W. Yang, *Organizers*
J.L. Gazquez, *Presiding*

1:30 PHYS 634. Density based electron localization function. **A.E. Mattsson**

2:00 PHYS 635. From chemical information in semilocal functionals to correcting a functional. **J. Contreras-García**

2:30 PHYS 636. Incorporating charge transfer directionality in a global and local charge transfer model. **A. Vela**, U. Orozco-Valencia, J.L. Gazquez

2:45 PHYS 637. The parabolic

interpolation is justified by thermodynamics. **M. Franco-Pérez**, J.L. Gazquez, P. Ayers, A. Vela

3:00 PHYS 638. Conceptual DFT formulated general purpose reactivity indicator for predicting and classifying the reactivity of sites within a molecule. **J.S. Anderson**, P. Ayers

3:15 PHYS 639. Maximum hardness principle applied for solids: Systems, reactions, phenomena. **W. Grochala**

3:30 PHYS 640. Chemical transferability of functional groups follows from the nearsightedness of electronic matter. **S. Fias**, P.F. Geerlings, P. Ayers

3:45 Intermission.

4:00 PHYS 641. Variational information-theoretic atoms-in-molecules. **F. Heidar-Zadeh**, T. Verstraelen, E. Vohringer-Martinez, P. Bultinck, P. Ayers

4:30 PHYS 642. Theory and applications of density-base energy decomposition analysis (DEDA). **Q. Wu**

4:45 PHYS 643. Frustrated Lewis trios and long-range hole interactions. **J. Echeverria**

5:00 PHYS 644. Benchmarking density functional methods for calculation of state energies of first row spin-crossover molecules. **J. Cirera Fernandez**, E. Ruiz

5:15 PHYS 645. Systematic determination of Hubbard *U* for high-throughput DFT calculations. **J.W. Bennett**, S. Spurgeon, I. Metz, B. Hudson, S.E. Mason

5:30 PHYS 646. Simulating ionization-triggered attosecond charge migration with TDDFT. A. Bruner, A. Sissay, S. Hernandez, F. Mauger, P. Abanador, M. Gaarde, K. Schafer, **K. Lopata**

Section C

Ernest N. Morial Convention Center Room 221

Understanding the Complexity of the Nano/Bio Interface with Experiments & Computations**Novel Methods**

C.F. Landes, *Organizer*
F. Geiger, *Organizer, Presiding*

1:30 PHYS 647. Solving the needle in the haystack problem: Novel optical nanoprobe for characterizing the nano-bio interface. **R.J. Hamers**, M.E. Robinson, R.H. Goldsmith, E. Evans, O. Shenderova, J. Ng, K. Kim, J.A. Pedersen

2:00 PHYS 648. Probing interactions between synthetic nanoparticles and model systems of pulmonary surfactant by vibrational sum frequency generation spectroscopy. **Z. Lu**

2:20 PHYS 649. Second harmonic generation studies of nanoparticle-based drug-delivery systems. **L.H. Haber**, R. Kumal, R.A. Khoury, H. Nguyen, J.C. Ransinghe, P. Hamal, A.S. Dikkumbura, H.T. Smith, R.L. McCarley

2:50 PHYS 650. Resolving interfacial protein dynamics by super temporal-resolved microscopy (STReM). **C.F. Landes**

3:10 Intermission.

3:25 PHYS 651. Visualizing catalytic enhancements at metal-metal interfaces and nano-gaps via correlated super-resolution and electron microscopy. **P. Chen**

3:55 PHYS 652. Cell penetration and membrane fusion: Two sides of the same coin. **P. Jungwirth**

4:15 PHYS 653. Characterizing the ligand structure and stoichiometry on quantum dots using NMR spectroscopy. C. Zhang, G. Palui, B. Zeng, **H.M. Mattoussi**

4:35 PHYS 654. Hydrogen bond populations and dynamics in sorbitan surfactant reverse micelles. **C.P. Baryiames**, E. Ma, C.R. Baiz

4:55 Concluding Remarks.

Section D

Ernest N. Morial Convention Center Room 214

Physical Chemistry of Ionic Liquids**Ionic Liquid-Solute-Solvent Interactions**

Cosponsored by COLL[†]
Financially supported by U.S. Army Research Office
E. Castner, E. Maginn, C.J. Margulis, S.K. Shaw, J.F. Wishart, *Organizers*
F. Maier, *Presiding*

1:30 PHYS 655. First principles molecular dynamics study of a deep eutectic solvent: Choline chloride/urea and its mixture with water. E.O. Fetisov, D.B. Harwood, I.W. Kuo, S.E. Warrag, M.C. Kroon, C.J. Peters, **J.I. Siepmann**

1:50 PHYS 656. Ionic liquid nanostructure enables alcohol self assembly. **R. Atkin**, T. Murphy, R. Hayes, S. Imberli, G. Warr

2:25 PHYS 657. From cnidaria to mollusca: Bulk and surface structuration in ionic liquids. **J. Canongia Lopes**, K. Shimizu, A.A. Freitas

3:00 PHYS 658. Intermolecular interactions and vibrational perturbations in 1-ethyl-3-methylimidazolium thiocyanate/water mixtures. C.R. Hutchison, S.N. Johnson, C. Williams, N. Hammer, C.L. Hussey, **G.S. Tschumper**

3:20 Intermission.

3:35 PHYS 659. Surface-active ionic liquids in water: Targeted nanoreactors for synthesis, catalysis and materials preparation. **K. Schroeder**, A. Cognigni, M. Hejazifar, R. Zirbs, C. Schröder

4:10 PHYS 660. Structural organization in protic ionic liquid/molecular liquid mixtures. **A. Triolo**, O. Russina

4:30 PHYS 661. Impact of alcohol size and identity on the dynamics of an imidazolium-based ionic liquid. **T. Miller**, S. Corcelli

4:50 PHYS 662. Effect of gas impurities on the CO₂ uptake in superbase ionic liquids. **R. Taylor**, H. Daly, A. Greer, J. Jacquemin, C. Hardacre

5:10 Concluding Remarks.

Elucidation of Mechanisms & Kinetics on Surfaces

Sponsored by CATL, Cosponsored by COLL, ENVR and PHYS

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

POLY**Division of Polymer Chemistry**

T. Epps, **C. Lipscomb** and **B. Helms**, *Program Chairs*

OTHER SYMPOSIA OF INTEREST:

How to Foster Diversity in the Chemical Sciences (see CMA, Mon)

ACS Award in the Chemistry of Materials: Symposium in honor of Elsa Reichmanis (see PMSE, Tue, Wed)

Polymers with Complex Architecture: From Synthesis to Self-Assembly (see PMSE, Sun, Mon, Tue, Wed)

New Horizons in Sustainable Materials (see CELL, Sun)

Recent Advances in Particulate & Colloid Materials for Biomedical Applications (see COLL, Tue, Wed)

SUNDAY MORNING**Section A**

New Orleans Marriott Canal Street Studio 6

International Symposium on Biorelated Polymers: Tutorial

Cosponsored by PMSE
C. Scholz, *Organizer*
F. Wurm, *Organizer, Presiding*
M. Barz, *Presiding*

7:55 Introductory Remarks.

8:00 POLY 1. Designing polymers for controlled release applications. **K.E. Uhrich**

8:45 POLY 2. Targeting cancer using stimuli-sensitive polymeric micelle. **S. Quader**, **K. Kataoka**

9:30 POLY 3. Modification of hydrophilic polyesters with fatty acids for drug release systems. **J. Kressler**, K. Maeder

10:00 Intermission.

10:30 POLY 4. Biomedical applications of nano-sized polymeric micelles and polyion complexes. **A.V. Kabanov**

11:15 POLY 5. Design of antioxidative nanomedicines. **Y. Nagasaki**

Section B

New Orleans Marriott Canal Street Studio 1

Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials

Cosponsored by PHYS and PMSE
A. Mariani, J.A. Pojman, A. Taylor, *Organizers*
K.F. Fazende, *Presiding*

8:05 Introductory Remarks.

8:15 POLY 6. Nonlinear dynamics and

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polymer systems: An overview. I.R. Epstein, **J.A. Pojman**, A. Taylor

9:00 POLY 7. Withdrawn

9:30 POLY 8. Coupling nonlinear optical dynamics to polymer systems for light-directed evolution of morphology. S. Biria, **I.D. Hosein**

10:00 Intermission.

10:30 POLY 9. Autonomous non-linear chemical control of functional polymer vesicle self-assembly from a 'homogeneous mixture'. **B. Bastakoti**, J. Perez-Mercader

11:00 POLY 10. Out-of-equilibrium self-assemblies and autonomous material systems with programmable lifetimes. **A. Walther**

Section C
New Orleans Marriott Canal Street Studio 4

Structure & Dynamics of Materials via NMR Spectroscopy
New Methods Development

Financially supported by ExxonMobil; Bruker; JEOL; 3M; MR Resources; NMR Service; Rototec-Spintech; Cambridge Isotope; New Era Enterprises

A.D. English, *Organizer*
H. Cheng, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 POLY 11. Development of polymeric MRI agents as theranostics. **K. Thurecht**, A. Fuchs, A. Bapat, Z. Houston

8:30 POLY 12. Characterization of hydrogels with NMR techniques. Y. Jia, C. Malveau, **J.X. Zhu**

8:55 POLY 13. Characterization of patchy nanoparticles by solid-state NMR. **L.G. Reven**, B. Guzman Juarez, K. Kim, A. Abdelaal, S. Allie, V. Toader

9:20 POLY 14. NMR, X-ray and electron crystallography for crystalline polymorphs and salt/cocrystal/continuum issues at natural abundance. **Y. Nishiyama**

9:45 Intermission.

10:00 POLY 15. Application of dipolar-filter based time domain NMR for probing molecular motions, polymer crystallization and polymerization kinetics. **E. Azevedo**

10:25 POLY 16. Integration of nuclear magnetic resonance spectroscopy with microfluidic devices: Materials and other challenges. **M. Utz**

10:50 POLY 17. Distribution of functional monomers in latex particles: PFGNMR study. **K. Beshah**

11:15 POLY 18. Quantitative analysis of polymers using sensitivity enhanced ¹³C NMR spectroscopy. **J. Hou**, Y. He, S. Qiu, P. Sabatino

Section D
New Orleans Marriott Canal Street Studio 5

General Topics: New Synthesis & Characterization of Polymers

B. Barkakaty, D. Garcia, *Organizers*

W.R. Gutekunst, C.K. Simocko, *Presiding*

8:00 POLY 19. High temperature metathesis polymerization: ADMET in the melt state of highly crystalline polymers. **M.H. Bell**, H. Hester, V. Gomez, A. Gallman, K.B. Wagener

8:20 POLY 20. Synthesis of AB and ABA type block copolymers by ring-opening metathesis polymerization of strained 1,9-paracyclophanedienes. **V. Komanduri**, D.R. Kumar, B. Lidster, M.L. Turner

8:40 POLY 21. Variable temperature ring-opening metathesis polymerization of cyclopentene and derivatives. **W.J. Neary**

9:00 POLY 22. Selective acyclic diene metathesis polymerization: New functional groups to create precise alternating and block polymers. **C.K. Simocko**, H. Rauf, H. Yahya, M. Horikawa, J. Chen

9:20 POLY 23. Ring-opening metathesis polymerization-induced self-assembly (ROMPISA) in both aqueous and organic media. **D. Wright**, M. Touve, L. Adamiak, N.C. Gianneschi

9:40 POLY 24. Triblock terpolymers by simultaneous tandem block polymerization. **K. Kluthe**, I. Freudensprung, **M. Klapper**

10:00 POLY 25. Modular functionalization of polymeric β -ketoesters via dynamic enamine chemistry. **M.B. Sims**, L. Bai, J.J. Lessard, B.S. Sumerlin

10:20 POLY 26. Clicking with living ROMP polymers. **W.R. Gutekunst**

10:40 POLY 27. Withdrawn

11:00 POLY 28. Multivariate study of the synthesis of sodium poly(styrene sulfonate) by aqueous atom transfer radical polymerization. **P. Balding**

11:20 POLY 29. Copolymerization of ethylene and polar olefins by heterobimetallic catalysts with phosphine-phosphonate ligands. **Z. Cai**, L. Do

11:40 POLY 30. Thio-bromo "click" approach for modifying materials prepared using ROMP. **C.E. Hobbs**

Section E
New Orleans Marriott Canal Street Studio 10

Polymer Applications & Characterization in Medical Device & Pharmaceutical Industries
Cosponsored by PMSE

Financially supported by Pfizer
J. Slager, *Organizer*
X.M. Liu, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 POLY 31. Ion exchange resins in pharmaceutical formulations and FloVibro™ biorelevant dissolution technology: A unique approach to studying biorelevant drug dissolution. **A. Gehris**

9:05 POLY 32. Drug delivery to the vessel wall with drug coated balloons. **J. Slager**

9:30 POLY 33. Use of high throughput methods in the discovery of novel excipient-solubilizers for drugs with low aqueous solubility. **T.H. Kalantar**, J.

Zhao, M. Ladika, K. Harris, C.J. Tucker, M. Tulchinsky, S.J. Guillaudeu, T. Kuo, B. Bell, J. Kiefer, S. Chen, R.D. Krystosek

10:00 Intermission.

10:30 POLY 34. Enzyme responsive 5-fluorouracil (5-FU) loaded hydrogels based on osalazine derivatives for colon-specific oral drug delivery. **M. Zhengang**, **M. Rui**, **Z. Sun***

11:00 POLY 35. Photograftable zwitterionic polymers resist cell and bacterial adhesion. **B. Leigh**, M. Hansen, A. Guymon

Section F
New Orleans Marriott Canal Street Studio 7

Photochemistry & Polymers

B.P. Fors, D. Konkolewicz, D.L. Patton, *Organizers*
K.M. Miller, D.A. Savin, *Presiding*

8:00 POLY 36. Kinetic differences between primary, secondary, and tertiary alkyl thiols in thiol-ene reactions. **K. Long**, X. Zhang, S. Huang, J. Sinha, M. Podgorski, C. Bowman

8:20 POLY 37. Low energy fabrication of mixed matrix membranes through thiol-ene chemistry. **J.M. Schekman**, V. Vasagar, D. Bossier, S.I. Nazareno

8:40 POLY 38. Withdrawn

9:00 POLY 39. Fabrication of luminescent quantum dot thiol-ene nanocomposites via UV photopolymerization. **D.A. Boyd**

9:30 POLY 40. Successful UV-Curing of epoxy composites. **S. Marco**, R. Liska, N. Klikovits

10:00 Intermission.

10:30 POLY 41. Substituent determined release from polymer microcapsules fabricated via thiol-ene photopolymerization. **D.V. Amato**, D. Amato, W. Martin, S. Swilley, M. Sandoz, D.L. Patton

10:50 POLY 42. Modified thiol-ene networks: Tuning the glass transition temperature and energy damping capabilities of photopolymerized networks. S. Godinez, O. McNair, K.C. Bentz, **D.A. Savin**

11:20 POLY 43. Development of vinyl sulfonate and vinyl sulfonamide: Its implementation in thiol-michael crosslinking polymerization. **J. Sinha**, M. Podgorski, C. Bowman

11:40 POLY 44. Thiol-ene 'click' poly(ionic liquid) networks: Correlating structure with conductive and gas separation properties. A.F. Bratton, S.P. Daymon, R.D. Johnson, H.B. Fannin, **K.M. Miller**

Section G
New Orleans Marriott Canal Street Beauregard

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Cosponsored by ANYL, COLL, COMP, I&EC and PMSE
Financially supported by Wyatt Technology; Anton Paar USA, Inc.; The Dow Chemical Company; Arkema; Solvay D.S. Germack, D.N. Haase, C. Lipscomb,

J. Tsavalas, W. Wu, *Organizers*
J. Bohling, W. Gao, *Organizers, Presiding*

8:00 POLY 45. High biobased content latexes from plant oil-based vinyl monomers in miniemulsion. Z. Demchuk, K. Kingsley, I. Tarnavchuk, V. Kirianchuk, O. Shevchuk, A. Kohut, S. Voronov, **A.S. Voronov**

8:20 POLY 46. Microemulsion preparation of hollow silicone nanoparticles for incorporation in silicone hydrogels. **S.E. Morgan**, Q. Wu, A.L. Fogel

8:50 POLY 47. Improved latex stability made by a novel acrylic zwitterionic emulsion polymerization. **I. El-Hedok**, M. Ali, C. Lipscomb

9:20 POLY 48. Introduction to emulsion polymerization technology: Tutorial. **A.M. Maurice**

10:00 Intermission.

10:30 POLY 49. New developments in latex technology for coatings applications. **M.S. Ahmed**, D. Mestach, A. Steiner, F. Lunzer

11:00 POLY 50. Redox enhanced properties for emulsion polymers. **M. O Shaughnessy**

11:30 POLY 51. From soft latex particles to hard films: Synthetic routes towards achieving contradictory properties. **N. Ballard**, J. Asua

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama
Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

ACS Award in Applied Polymer Science: Symposium in honor Paula T. Hammond
Sponsored by PMSE, Cosponsored by POLY and WCC

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PREST[†], WCC and YCC

SUNDAY AFTERNOON

Section A
New Orleans Marriott Canal Street Studio 6

International Symposium on Biorelated Polymers: Tutorial
Cosponsored by PMSE
F. Wurm, *Organizer*
C. Scholz, *Organizer, Presiding*
Y. Nagasaki, *Presiding*

1:00 POLY 52. Bicontinuous amphiphilic polymer co-networks. **G.N. Tew**

1:45 POLY 53. POZ™-Poly(2-oxazoline) the next generation of polymer therapeutics. **R. Moreadith**

2:30 POLY 54. Polymer surfaces and

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graphene oxide anti-microbials. **R.C. Advincula**

3:00 Intermission.

3:30 POLY 55. Polypept(o)ides: Tailoring polymer properties for diagnosis and therapy. **M. Barz**

4:15 POLY 56. Poly(phosphoester)s: History, syntheses, degradation, bio- and flame-retardant applications. **F. Wurm**

Section B

New Orleans Marriott Canal Street Studio 1

Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials

Cosponsored by PHYS and PMSE
A. Mariani, J.A. Pojman, A. Taylor, *Organizers*
B. Thompson, *Presiding*

1:00 POLY 57. Autocatalysis in depolymerisation: degradation on demand. **A. Taylor**

1:30 POLY 58. Self-organization in precipitation reactions far from the equilibrium. **O. Steinbock**

2:00 POLY 59. DNA strand-displacement buffers. **D. Scalise**, R. Schulman

2:30 POLY 60. Non-equilibrium steady states in supramolecular polymerization. A. Sorrenti, J. Leira-Iglesias, A. Sato, **T.M. Hermans**

3:00 Intermission.

3:30 POLY 61. Designing highly thermostable biocatalysts. C. Choudhury, S. Tu, N. Yadavalli, N. Borodinov, S. Minko, I.A. Luzinov, **O. Kuksenok**

4:00 POLY 62. Controlling the evolution of frontal photopolymerization waves for 3D polymeric patterning. **A. Vitale**, M.G. Hennessy, O.K. Matar, J.T. Cabral

4:30 POLY 63. Potential reactants toward the synthesis of precipitation tubes. **J.J. Pagano**, C.B. Roys, M.J. Rase

Section C

New Orleans Marriott Canal Street Studio 4

Structure & Dynamics of Materials via NMR Spectroscopy

Supramolecules & Membranes

Financially supported by ExxonMobil; Bruker; JEOL; 3M; MR Resources; NMR Service; Rototec-Spintech; Cambridge Isotope; New Era Enterprises
H. Cheng, A.D. English, *Organizers*
K. Saalwaechter, *Presiding*

1:00 POLY 64. The role of chirality in supramolecular organization. **H.W. Spiess**

1:25 POLY 65. Improving precision and stability of self-assembling supramolecular materials using side chains with chiral centers. **R. Graf**

1:50 POLY 66. Solid-state dynamics of dipolar molecular rotors incorporated in supramolecular tripod-triptycene assembly. **K. Yazawa**, F. Ishiwari, T. Fukushima

2:15 POLY 67. Measuring multi-scale

tortuosity in polymer membranes. **L.A. Madsen**, A. Korovich, L.M. Thieu, L. Zhu, K. Chang, G.M. Geise, M.A. Hickner

2:40 Intermission.

2:55 POLY 68. Probing the hydrophilic domain structure and water transport in SDAPP proton exchange membranes. **T.M. Alam**, E.G. Sorte, C.H. Fujimoto, A.L. Frischknecht

3:20 POLY 69. Influence of hydrophobicity on dynamics of water in nano-meter scale space of polymer electrolyte membranes. **O. Han**

3:45 POLY 70. Understanding transport in polymeric separations membranes by combining NMR diffusometry and molecular dynamics simulations. **R. Zhang**, D. Troya, L.A. Madsen

4:10 POLY 71. Investigating multi-scale transport in random copolymer membranes for use in molecular separations. **A. Korovich**, K. Chang, T. Xue, W.A. Morris, L.A. Madsen, G.M. Geise

4:35 Intermission.

4:40 Panel Discussion.

Section D

New Orleans Marriott Canal Street Studio 5

General Topics: New Synthesis & Characterization of Polymers

B. Barkakaty, D. Garcia, *Organizers*
A.M. Alb, B.S. Lokitz, *Presiding*

1:00 POLY 72. Electrical conductivity/resistivity for copolymers carbon composites at cryogenically low temperature. **A. Aldalbahi**

1:20 POLY 73. nano-FTIR: Near-field spectroscopy of polymers at sub200ms per spectrum speed and sub20nm spatial resolution. **P. Schäfer**, T. Gokus

1:40 POLY 74. Applying multi-detector GPC/SEC to complex characterization of drug delivery polymers. **M.R. Pothecary**, C. Schindler, G. Zhang, H. Shen

2:00 POLY 75. Overcoming challenges in high molecular weight (HMW) polymer characterization. **A.M. Alb**

2:20 POLY 76. Network disassembly spectrometry with a non-degradable tracer: counting primary and secondary loops in polymer networks. **J. Wang**, T. Lin, Y. Gu, R. Wang, B.D. Olsen, J.A. Johnson

2:40 POLY 77. Probing the electromechanical response of ionic block copolymers using neutron reflectometry. **B.S. Lokitz**, J. Dugger, R. Kumar, W. Li, M. Chen, T.E. Long, J. Browning

3:00 POLY 78. Characterization of polymer brush properties using silicon photonic microring resonators. **S. Wetzler**, R.C. Bailey

3:20 POLY 79. Spectroscopic investigations of PS-PVDF blends. **E. Ibrahim**, M. Villarreal, M. Monayao, B. Adriana, D. Chipara, K. Lozano, M. Alcoutlabi, J. Hinthorne, M. Chipara

3:40 POLY 80. Effective characterization of oligomers and polymers by electrospay ionization with high-resolution mass

spectrometry: New tool for lignomics. **A. Andrianova**, T. DiProspero, C. Geib, S. Reagen, I.P. Smoliakova, E. Kozliak, A. Kubatova

4:00 POLY 81. Temperature and solvent vapor switching properties of branched carbodiimide polymers. **E.H. De Silva**, C.U. Jayarathna, B.M. Novak

4:20 POLY 82. Route to low odor waterborne architectural coatings. **J. Bohling**, D. Lin, J. Xu, J. Zou, M. Gallagher, P. Doll

4:40 POLY 83. Withdrawn

Section E

New Orleans Marriott Canal Street Studio 10

Polymer Applications & Characterization in Medical Device & Pharmaceutical Industries

Cosponsored by PMSE
Financially supported by Pfizer
X.M. Liu, *Organizer*
J. Slager, *Organizer, Presiding*

1:00 POLY 84. Genomic DNA functionalized 3D printed materials for drug capture. **D. Yee**, M.D. Schulz, C. Blumenfeld, R.H. Grubbs, J.R. Greer

1:30 POLY 85. Pendent HDAC inhibitor SAHA derivatized polymer as a novel prodrug micellar carrier for anticancer drugs. **J. Xu**, J. Sun, S. Li

2:00 POLY 86. Conducting polymers as materials for wearable electronics and its application as biopotential electrodes. **S. Sinha**, Y. Noh, N. Reljin, Y. Guo, G. Treich, K. Chon, G. Sotzing

2:30 POLY 87. Surface modification of silicone catheters to combat device-associated complications. **K. Neoh**, M. Li, J. Bte Rahmat, M.K. Diwakar, E. Kang, E. Chiong, R. Wang

3:00 Intermission.

3:30 POLY 88. Design, synthesis and characterization of HPMA copolymer-niclosamide conjugates and its anticancer effect. **M. Rui**, **M. Zhengang**, **Z. Sun***

4:00 POLY 89. Small angle neutron scattering studies of gelatin as applied to liquid filled gelatin capsules. **J. Bachert**, **E. Chan**, B. Frieberg, R.L. Jones, B. Crawshaw, E. Maziarz, X.M. Liu

Section F

New Orleans Marriott Canal Street Studio 7

Photochemistry & Polymers

B.P. Fors, D. Konkolewicz, D.L. Patton, *Organizers*
D.V. Amato, C. Ellison, *Presiding*

1:00 POLY 90. Photoinitiated copper(I) catalyzed azide-alkyne cycloaddition (CuAAC) reaction for conductive network synthesis. **B. El-Zaatari**, A. Tibbits, C.J. Kloxin

1:20 POLY 91. Photopolymerizable and durable bio-based isosorbide resins for additive manufacturing. **D.N. Lastovickova**

1:40 POLY 92. Photoenforced surface segregation for the synthesis of gradient copolymers. **A. Vitale**, R.M. Bongiovanni

2:00 POLY 93. Living additive manufacturing with trithiocarbonate functionalized polymer networks. J. Lamb, Y. Gu, K. Qin, **J.A. Johnson**

2:30 POLY 94. High performance fibers via simultaneous spinning and photopolymerization. **C.J. Ellison**

3:00 Intermission.

3:30 POLY 95. Photoinitiated CuAAC-methacrylate-based interpenetrating polymer networks. **C.J. Kloxin**

4:00 POLY 96. Light-curable energetic binder synthesis and optimization DOE. **E. Cooke**, E.R. Beckel, A.J. Paraskos, M.N. Jablonski

4:20 POLY 97. UV curing technology – benefits, chemistries and trends. **A. Moeck**

4:40 POLY 98. Effect of molecular weight and degree of functionality on degradation, biocompatibility and 3-D printing of acrylated poly(caprolactone). **B. Green**, J. Thompson, K. Worthington, B. Tucker, A. Guymon

Section G

New Orleans Marriott Canal Street Beaugregard

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Cosponsored by ANYL, COLL, COMP, I&EC and PMSE
Financially supported by Wyatt Technology; Anton Paar USA, Inc.; The Dow Chemical Company; Arkema; Solvay J. Bohling, W. Gao, D.S. Germack, C. Lipscomb, W. Wu, *Organizers*
D.N. Haase, J. Tsavalas, *Organizers, Presiding*

1:00 POLY 99. Nanocomposite microgels formed by seeded emulsion polymerization in the presence of radially structured polyelectrolyte microgels. **T. Watanabe**, S. Chihong, K. Murata, T. Kureha, D. Suzuki

1:20 POLY 100. Step-growth dispersion polymerization yielding monodisperse conjugated polymer particles for self-assembled organic lasers. **A.J. Kuehne**

1:40 POLY 101. Radical-mediated thiol-ene emulsion polymerizations. M.N. Arguien, K.J. Cassidy, D.V. Chapman, O.Z. Durham, **D.A. Shipp**

2:00 POLY 102. Polymer nanoparticles for drug delivery by PISA RAFT polymerization. **S. Perrier**

2:20 POLY 103. Polymerization-induced self-assembly in aqueous media: Tutorial. **S.P. Armes**

3:00 Intermission.

3:30 POLY 104. Layer-by-layer self-assembly of polyelectrolytic block copolymer worms on a planar substrate. **N.J. Penfold**, A. Parnell, M. Molina, P. Verstraete, J. Smets, S.P. Armes

3:50 POLY 105. One-pot synthesis of epoxy-functional amphiphilic diblock copolymer nano-objects from a single monomer via polymerisation-induced self-assembly. **F. Hatton**, S.P. Armes

4:10 POLY 106. Tuning the properties of worm gels prepared by RAFT dispersion polymerization in non-polar media. **M.J. Derry**, E. Raphael, S.P. Armes

*Cooperative Cosponsorship

4:30 POLY 107. Exploring the formation and stability of Pickering emulsions stabilised by cross-linked diblock copolymer nanoparticles. **S.J. Hunter**, K. Thompson, J. Lovett, F. Hatton, C. Lindsay, S.P. Armes

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama

Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

ACS Award in Applied Polymer Science: Symposium in honor Paula T. Hammond

Sponsored by PMSE, Cosponsored by POLY and WCC

Cyclic & Topologically Complex Polymers

Sponsored by PMSE, Cosponsored by POLY

MONDAY MORNING

Section A

New Orleans Marriott Canal Street Studio 6

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers

Cosponsored by BIOT, MEDI and PMSE
M.B. Baker, R. Kieftyka, F.A. Leibfarth, *Organizers*
J.B. Matson, *Organizer, Presiding*
J. Barnes, *Presiding*

8:00 POLY 108. Supramolecular biomaterials enabling innovations in drug formulation and delivery. **E.A. Appel**

8:25 POLY 109. Nanofiber wound-dressings for treatment of multidrug-resistant infections. **C.L. McGann**, J. Lundin, L.A. Estrella, J.H. Wynne

8:45 POLY 110. Engineering intelligent hydrogel nanoparticles with tunable release properties. **A.M. Wagner**, N. Al-Sayyad, A.B. Shearer, N. Peppas

9:00 POLY 111. Tunable amino acid based biodegradable polyesteramides for drug delivery. **A.A. Dias**, J. Thies, G. Mihov

9:25 POLY 112. Brush-architected poly(ethylene glycol) for oligonucleotide delivery. **K. Zhang**

9:45 POLY 113. Scalable ROMP polymers with drug delivery applications. **M. Golder**, J.A. Johnson

10:00 Intermission.

10:30 POLY 114. Glycopolymers probes to control immunity. **L.L. Kiessling**

10:55 POLY 115. Antifreeze-protein inspired polymers to enable (therapeutic) cell storage and distribution. **C. Stubbs**, B.

Graham, T. Bailey, D. Fox, P. Scott, **M.I. Gibson**

11:15 POLY 116. Digital manufacturing for biomedical applications. **J. Poelma**, J. Rolland, E. Meyer

11:40 POLY 117. Polypept(o)ides: A novel class of biocompatible polymers based on endogenous amino acids. **M. Barz**

Section B

New Orleans Marriott Canal Street Studio 1

Integrating Polymer Science in the Curriculum

Cosponsored by CHED and PMSE
K.R. Carter, K.A. Cavicchi, S.E. Morgan, *Organizers*
K. Wingo, *Presiding*

8:00 POLY 118. Incorporating polymer science into the high school science classroom – NSF RET at the University of Southern Mississippi. **K. Wingo**, S.E. Morgan

8:15 POLY 119. Seeing the light in polymer science. **J. Sorrell**, B. Davis, Y.C. Simon

8:30 POLY 120. Incorporating polymer solar cell research in the high school classroom. **J. Brownlow**, M. Hall, V. Price-Walton, L. Moore, M. Woellner, S.E. Morgan

8:45 POLY 121. Polymers from potatoes: A Shark Tank challenge. **R.L. Lewis**, R. Hooper, V. Vasagar, R. Ramakrishnan, S.I. Nazarenko

9:00 POLY 122. Shape memory polymers in the classroom. **L. Rutfig**, K.A. Cavicchi

9:15 POLY 123. Classroom lesson on polymer molecular weight and dilute solution viscometry. **A. Cotugno**, N. Zacharia

9:30 POLY 124. Comparing and engineering through epoxy bridge building. **E. Schaub**, M.D. Soucek

9:45 POLY 125. Effect of the size and temperature of silver nanoparticles on their conductivity. **E. Polat**, A. Karim

10:00 Intermission.

10:30 POLY 126. Cross-linking the curriculum with polymer chemistry: A strategy to enhance polymer chemistry instruction in ACS-Certified Programs. **B.P. Quillian**, S.E. Gray, G. Guillet, C.W. Padgett, N. Shank, M. Weiland, S. Zingales

10:45 POLY 127. Preparing students for an industrial environment in a master's-level graduate internship program in polymer science. **D.R. Tyler**, S.E. York

11:00 POLY 128. INTERFACE: The National Science Foundation Graduate Research Traineeship Program at The University of Southern Mississippi. **D.L. Patton**, S.E. Morgan, K. Wingo

11:15 POLY 129. Expanding horizons: National Science Foundation NRT graduate student experiences at the University of Southern Mississippi. **A.L. Fogel**, A.N. Bristol, S.E. Morgan

11:30 POLY 130. Reflections and experiences of current and past NSF NRT Interface Trainees at the University of Southern Mississippi. **D. Amato**, **D.V. Amato**, **C.M. Reese**, **M. Vekasy**, D.L. Patton

11:45 POLY 131. Soft materials for life sciences: A National Science Foundation Graduate Traineeship Program. **K.R. Carter**

Section C

New Orleans Marriott Canal Street Studio 4

Structure & Dynamics of Materials via NMR Spectroscopy

Solid State Structure of Materials

Financially supported by ExxonMobil; Bruker; JEOL; 3M; MR Resources; NMR Service; Rototec-Spintech; Cambridge Isotope; New Era Enterprises
H. Cheng, A.D. English, *Organizers*
J.L. White, *Presiding*

8:00 POLY 132. Solid-state NMR approaches to inorganic materials: From lead-halide perovskites to gallium phosphide. **L. Emsley**

8:25 POLY 133. Relations between amorphous and crystalline chain motions and the morphology of semicrystalline polymers. **R. Kurz**, M. Schaefer, A. Seidlitz, M. Schulz, T. Thurn-Albrecht, **K. Saalwächter**

8:50 POLY 134. Chain tilt and crystallization of ethylene oxide oligomers with mid-chain defects. **D. Reichert**, Y. Golitsyn, M. Pulst, J. Kressler

9:15 POLY 135. Physical structures of semi-crystalline polymers in relation to their functional properties. **V.M. Litvinov**

9:40 POLY 136. Solid state dynamic nuclear polarization for materials study. **F. Aussenac**

10:05 Intermission.

10:20 POLY 137. Solid-state DNP NMR studies of crystalline polymer domains by co-polymerisation with radical monomers. **H. Sardon**, M.E. Verde, P. Ruiz, T. Huynh, D. Mecerreyes, M. Forsyth, **L. O'Dell**

10:45 POLY 138. Organic light-emitting diodes (OLEDs): Design-synthesis-fabrication, multiscale simulation, and DNP-NMR. **H. Kaji**

11:10 POLY 139. Structure determination of organic assemblies by magic angle spinning dynamic nuclear polarization. **G. De Paëpe**

Section D

New Orleans Marriott Canal Street Studio 5

Excellence in Graduate Polymer Research

Polymerization Techniques

Cosponsored by PRES, PROF, SOCED and YCC
Financially supported by POLY Industrial Advisory Board, Tosoh, and Wiley
C. Ellison, T.E. Long, *Organizers*
H. Cheng, C.J. Landry-Coltrain, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 POLY 140. Reversible control of

polymer network topology using external light. **Y. Gu**, E. Alt, X. Li, A. Willard, J.A. Johnson

8:30 POLY 141. Utilizing polyaldehydes in designing optically degradable systems for transient technology. **A. Engler**, O. Phillips, J. Schwartz, G. Gourdin, P. Kohl

8:55 POLY 142. Photochemical regulation of redox-active catalysts: Controlling polyethylene microstructure with visible light. **J. Kaiser**, W. Anderson, B.K. Long

9:20 POLY 143. Material property evolution and mechanics during photopolymerization. **J. Wu**, Z. Zhao, C.M. Hamel, H. Qi

9:45 POLY 144. Mechanism-driven catalyst design for organocatalyzed atom transfer radical polymerization. **M.D. Ryan**, G. Miyake

10:10 Intermission.

10:25 POLY 145. Visible and NIR light photoinduced metal-free atom transfer radical polymerization. **C. Kütahya**, Y. Yagci, J. Gutmann, B. Strehmel

10:50 POLY 146. Neodymium-based catalysts NdCl₃-3L (L = triethyl phosphate (TEP) or tris(2-ethylhexyl) phosphate (TEHP) for ring opening polymerization of β-caprolactone. **Y. Ren**, R. Kularatne, K.E. Washington, M.C. Biewer, M.C. Stefan

11:15 Remarks by ACS President Peter K. Dorhout.

Section E

New Orleans Marriott Canal Street Studio 10

Industrial Innovations in Polymer Science

Cosponsored by I&EC
H.A. Brown, E.B. Murphy, *Organizers, Presiding*
M.B. Abrams, *Presiding*

8:10 Introductory Remarks.

8:20 POLY 147. Molecular design of olefin block copolymers and the impact on elastic performance in health and hygiene. **K. Anderson**, J. Lee, A. Stojilkovic, J. Munro, L. Madenjian

8:40 POLY 148. Demands of the food industry for ever increasing material performance to meet the needs of today's consumers. **M.R. Watts**

9:00 POLY 149. Development of a fully automated small scale emulsion polymerization reactor. **R. Even**, G. Cardoen, L. Rhodes

9:20 POLY 150. Controlled aesthetics in thermoplastics: Modifying surface gloss of vinyl products. **K. Yocca**

9:40 POLY 151. A path to industry. **B. Zarin**

10:00 Intermission.

10:30 POLY 152. Extrusion replicated microcapillary film for managing condensation in food processing facilities. **K. Halverson**, S. Swanson, C. Nelson, D. Slama, J. Stratton, B. Martinez

10:50 POLY 153. Polyolefin contributions and new opportunities to meet societal and environmental needs. **P. Brant**

11:10 Concluding Remarks.

[†]Cooperative Cosponsorship

Section F

New Orleans Marriott Canal Street Studio 7

Photochemistry & Polymers

B.P. Fors, D. Konkolewicz, D.L. Patton, *Organizers*
A.J. Boydston, C. Boyer, *Presiding*

8:00 POLY 154. Visible-light driven RAFT polymerization accelerated by amines. **M. Allegranza**, A. Kloster, Z. DeMartini, Z. Digby, D. Konkolewicz

8:20 POLY 155. Toward engineering macromolecular architectures of polymers through photoredox-mediated metal-free ring-opening metathesis polymerization. **P. Lu**, A.J. Boydston

8:40 POLY 156. Photoredox ring-opening polymerization of O-carboxyanhydrides to synthesize stereoblock polyesters. **R. Tong**

9:00 POLY 157. Photochemical control in ATRP. **K. Matyjaszewski**

9:30 POLY 158. Intramolecular charge transfer in organic photoredox catalysts for organocatalyzed atom transfer radical polymerization. **G. Miyake**

10:00 Intermission.

10:30 POLY 159. Mechanistic studies on photoredox-mediated metal-free ring-opening metathesis polymerization. **A.J. Boydston**

11:00 POLY 160. Using PET-RAFT for polymerization in low volume. **C. Boyer**

11:30 POLY 161. Rise and fall: Poly(phenyl vinyl ketone) photopolymerization and photodegradation under visible and UV radiation. **J.A. Reeves**, M. Allegranza, D. Konkolewicz

Section G

New Orleans Marriott Canal Street Beauregard

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

Financially supported by Wyatt Technology; Anton Paar USA, Inc.; The Dow Chemical Company; Arkema; Solvay J. Bohling, W. Gao, D.S. Germack, D.N. Haase, J. Tsavalas, *Organizers*
C. Lipscomb, W. Wu, *Organizers, Presiding*

8:00 POLY 162. RAFT emulsion polymerization: fundamentals and emerging materials. **Y. Luo**

8:30 POLY 163. Polymer-modified cellulose nanocrystals prepared by nitroxide-mediated polymerization and their use as CO₂-switchable Pickering emulsifiers. **J. Glasing**, J. Bouchard, P.G. Jessop, P. Champagne, M.F. Cunningham

8:50 POLY 164. Withdrawn

9:20 POLY 165. Stimuli-responsive nano-colloids: Tutorial. **M.W. Urban**

10:00 Intermission.

10:30 POLY 166. Temperature and pH responsive colloidal diblock copolymer brushes prepared via SI-PIMP. L. Cao, K. Chen, **X. Guo**

10:50 POLY 167. Light-stimulated permanent shape reconfiguration in crosslinked polymer surfaces and microparticles. **L. Cox**, X. Sun, C. Wang, N. Sowan, J. Killgore, J. Xiao, R. Long, H. Wu, C. Bowman, **Y. Ding**

11:10 POLY 168. Control of particle shape and internal morphology: Polymer self-assembly and monomer feed based approaches. **P.B. Zetterlund**

11:40 POLY 169. *Ab-initio* emulsion ATRP by interfacial and ion-pair catalysis. **M. Fantin**, **K. Matyjaszewski**

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama
Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

ACS Award in Polymer Chemistry: Symposium in honor C. Grant Willson

Sponsored by PMSE, Cosponsored by POLY

Cyclic & Topologically Complex Polymers

Sponsored by PMSE, Cosponsored by POLY

MONDAY AFTERNOON

Section A

New Orleans Marriott Canal Street Studio 6

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers

Cosponsored by BIOT, MEDI and PMSE
M.B. Baker, R. Kielytyka, J.B. Matson, *Organizers*
F.A. Leibfarth, *Organizer, Presiding*
S. Radzinski, *Presiding*

1:00 POLY 170. Seek, destroy and heal: Enzyme-responsive nanoparticles as *In vivo* targeted delivery systems. **N.C. Gianneschi**

1:25 POLY 171. Thermoresponsive worms for expansion and release of human embryonic stem cells. **M. Monteiro**

1:45 POLY 172. Tuning release of signaling molecules by controlling mobility in a micelle core. **J.B. Matson**, J. Foster

2:10 POLY 173. Withdrawn

2:25 POLY 174. Nanostructural design, synthesis and characterization of antimicrobial and cytocompatible polymer surfaces. **K.J. Wynne**, C. Wang, O.Y. Zolotarskaya, X. Wen, D. Johnson

2:45 POLY 175. Bottlebrush nanoreactors for *In situ* synthesis. **J. Foster**, R.K. O'Reilly

3:00 Intermission.

3:30 POLY 176. Materials for drug capture: An approach to reducing the off-target toxicity of chemotherapy. **M.D. Schulz**, S. Oyola-Reynoso, S. Hetts

3:50 POLY 177. New polymer based approaches for biosensing and regenerative medicine. **M. Stevens**

4:15 POLY 178. Investigation of 1,2-oxazines: Dynamic covalent chemistry

and structure-dependent thermal activation. **A.J. Boydston**, C. Lee, D. Church

4:40 POLY 179. Supramacromolecular strategy to combat multidrug-resistant bacteria. **J. Barnes**, X. Li, A. Delawder

Section B

New Orleans Marriott Canal Street Studio 1

Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials

Frontal Polymerization

Cosponsored by PHYS and PMSE
A. Mariani, J.A. Pojman, A. Taylor, *Organizers*
D. McKenzie, *Presiding*

1:00 POLY 180. Frontal polymerization for art and rapid repairs. **J.A. Pojman**

1:25 POLY 181. Dual-cure initiating systems for photoinduced frontal cationic polymerization: application to carbon composite. **X. Allonas**, M. Lecompe, D. Maréchal, A. Criqui

1:50 POLY 182. Frontal polymerization of gels derived from dicyclopentadiene. **E.M. Lloyd**, L.M. Dean, E.B. Mejia, N.R. Sottos, J.S. Moore, S.R. White

2:15 POLY 183. Frontal ring-opening metathesis polymerization for rapid curing of fiber-reinforced composites. **L.M. Dean**, I. Robertson, M. Yourdkhani, P. Centellas, D. Ivanoff, J.S. Moore, S.R. White, N.R. Sottos

2:40 POLY 184. The effect of conductive material to modulate front velocities in self-propagating thermal frontal polymerization systems. **J.A. Pojman**, **C. Weber**

3:00 Intermission.

3:30 POLY 185. Frontal polymerization: A valuable method for obtaining functionally gradient materials. **G. Malucelli**, A. Mariani, D. Nuvoli, V. Alzari, J.A. Pojman

3:55 POLY 186. Behavior of acrylates forming deep-eutectic solvents in thermal frontal polymerizations by free radicals. **J.D. Mota-Morales**, K.F. Fazende, J.A. Pojman

4:20 POLY 187. Polymerization fronts in deep eutectic solvents. **I.A. Quintero**, J. Delgado

Section C

New Orleans Marriott Canal Street Studio 4

Structure & Dynamics of Materials via NMR Spectroscopy

Interfacial & Smart Systems

Financially supported by ExxonMobil; Bruker; JEOL; 3M; MR Resources; NMR Service; Rototec-Spintech; Cambridge Isotope; New Era Enterprises

H. Cheng, *Organizer*
A.D. English, *Organizer, Presiding*

1:00 POLY 188. Simple solids NMR experiments reveal routes to tailored interfaces in copolymers. **J.L. White**

1:25 POLY 189. New insights in bulk

heterojunction interfacial structure from REDOR NMR. **R. Nieuwendaal**

1:50 POLY 190. Behavior of poly(styrene-co-methyl methacrylate-*d*₃) on silica. **F.D. Blum**, M. Maddumaarachchi, U.N. Arua

2:15 POLY 191. NMR assessment of structure and dynamics within metal organic frameworks. **J.A. Reimer**

2:40 Intermission.

2:55 POLY 192. Dynamical processes in self-healing hybrid polymer networks: A solid-state NMR study. **C. Lorthioir**, L. Rozes

3:20 POLY 193. Confined coil-to-globule transition of thermoresponsive polymers as revealed by solid-state NMR. F. Wang, **P. Sun**

3:45 POLY 194. Probe molecules for pulsed-field-gradient diffusion NMR experiments on micelles. **M.D. Lingwood**, B. Schepergerdes, M.S. Medrano, S.J. Bachofer

4:10 POLY 195. Compatibility evaluation of non-woven composite sheet based on silk fibroin and synthetic polymers for tissue engineered material. **Y. Nakazawa**, K. Numata, H. Tajiri, N. Hattori, D. Aytemiz, A. Asano, C.T. Nakazawa

Section D

New Orleans Marriott Canal Street Studio 5

Excellence in Graduate Polymer Research

Synthesis & New Materials

Cosponsored by PRES, PROF, SOCED and YCC
Financially supported by POLY Industrial Advisory Board, Tosoh, and Wiley
H. Cheng, T.E. Long, *Organizers*
C. Ellison, C.J. Landry-Coltrain, *Organizers, Presiding*

1:00 Recognition of Poster Presenters.

1:15 POLY 196. Self-assembly of Pluronic triblock copolymers in a protic ionic liquid and polymerization to create wearable electronics. **R. Chen**, C. Lopez-Barron, N.J. Wagner

1:40 POLY 197. Biodegradable zwitterionic polylactide-based delivery systems for cancer treatment. **H. Sun**, Y. Wu, C. Cheng

2:05 POLY 198. Anionic ring-opening polymerization of azetidene. **L. Reisman**, E.A. Rowe, P. Rupar

2:30 POLY 199. High-spin (S = 1) conjugated copolymer with a paramagnetic ground-state. **A.E. London**, H. Chen, A. Sabuj, N. Rai, M.K. Bowman, J.D. Azoulay

2:55 Intermission.

3:10 POLY 200. Successive and chemoselective post-polymerization modification strategy. **T. Kubo**, C.A. Figg, J. Swartz, K.C. Bentz, K. Powell, M. Tansky, A. Chauhan, D.A. Savin, B.S. Sumerlin

3:35 POLY 201. Controlling the diffusion and solubility of water in epoxy/amine thermosetting polymers. **J. Vergara**, J.J. La Scala, C. Henry, J.M. Sadler, S.K.

[†]Cooperative Cosponsorship

Yadav, G. Palmese

4:00 POLY 202. Structure-property relationships of novel (co)polyesters: From advanced packaging materials to the influence of regiochemistry on cyclics and properties. **R.J. Mondschein**, J.M. Dennis, H. Liu, R. Ramakrishnan, R.H. Colby, S.I. Nazarenko, S.R. Turner, T.E. Long

Section E

New Orleans Marriott Canal Street Studio 10

Industrial Innovations in Polymer Science

Cosponsored by I&EC
H.A. Brown, E.B. Murphy, *Organizers, Presiding*

1:00 Introductory Remarks.

1:10 POLY 203. Enzyme/polymer synergies: An innovative approach to sustainable detergents. **K.M. Knauer**, K.E. Gutowski, D. Hawker

1:30 POLY 204. Chronicling a sustainability journey in durable water repellent technology within the textile market segment. **G.O. Brown**, J.C. Sworen

1:50 Intermission.

2:00 POLY 205. Industrial R&D in functional polymer science: Cross-fertilization and food-water-energy nexus. A. Graillot, **C. Loubat**

2:20 POLY 206. Polymeric-based scale inhibitors for industrial water treatment applications. **K. Young**

2:40 POLY 207. Utilizing polymer chemistry to do more with less: Strategic approaches for more efficient oil well cementing. **M.G. Kellum**

3:00 Intermission.

3:30 POLY 208. Improving efficiency of making thermoset polymers: A new method for ambient cross-linking of polyethylene without heat, radiation, or moisture. **S. Sengupta**, J.M. Cogen, R. Mehta, M. Essehghir

3:50 POLY 209. Constitutionally dynamic polymers as oil well construction materials. **P. Boul**, D.K. Rasner, P.D. Jarowski, C.J. Thaeamlitz

4:10 POLY 210. Development of chemistries to improve Guar Gum efficacy in hydraulic fracturing applications. **P. Abivin**, C.R. Hilliard, Y. Li, R. Prabhu, T. Kuo, C.W. Nelson, D. Khvostichenko, T. Austin, M. Rinken, S. Makarychev-Mikhailov

4:30 Concluding Remarks.

Section F

New Orleans Marriott Canal Street Studio 7

Photochemistry & Polymers

B.P. Fors, D. Konkolewicz, D.L. Patton, *Organizers*
A. Anastasaki, J.J. Xu, *Presiding*

1:00 POLY 211. Photoinduced living polymerization for precision polymer synthesis. **J.J. Xu**

1:30 POLY 212. Exploiting light to push the limits of controlled radical polymerization. R.N. Carmean, C.A. Figg, G. Scheutz, T. Kubo, M.B. Sims, T. Becker,

B.S. Sumerlin

2:00 POLY 213. Developments in aqueous copper(II) photoinduced polymerization of acrylates. **D.M. Haddleton**, G. Jones, R. Whitfield, A. Anastasaki

2:30 POLY 214. Shedding a light on state of the art photo-mediated controlled polymerizations. **A. Anastasaki**, N. Dolinski, I. Lee, C.J. Hawker

3:00 Intermission.

3:30 POLY 215. Photodisruptable layer-by-layer films. **S.W. Thomas**

4:00 POLY 216. Controlling macromolecular synthesis with different colors of light. **C. Barner-Kowollik**

4:30 POLY 217. Wavelength selective photochemistry for simultaneous multi-material printing. **Z.A. Page**, N. Dolinski, B. Callaway, F. Eisenreich, R. Garcia, R. Chavez, D. Bothman, S. Hecht PhD, F. Zok, C.J. Hawker

Section G

New Orleans Marriott Canal Street Beauregard

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Cosponsored by ANYL, COLL, COMP, I&EC and PMSE
Financially supported by Wyatt Technology; Anton Paar USA, Inc.; The Dow Chemical Company; Arkema; Solvay W. Gao, D.N. Haase, C. Lipscomb, J. Tsavalas, W. Wu, *Organizers*
J. Bohling, D.S. Germack, *Organizers, Presiding*

1:00 POLY 218. Monitoring of emulsion polymerization with ACOMP and early results on control. A. Wu, R.D. Montgomery, M.F. Drenski, T. McAfee, **W.F. Reed**

1:30 POLY 219. Mechanism of skin layer formation during drying of latex films. **H. Huang**, D. Ou-Yang, W. Lau, M.S. El-Aasser

1:50 POLY 220. Determination of charge distribution by electrical field-flow fractionation combined with multi-angle light scattering. **A. Meyer**, C. Johann, S. Elsenberg

2:20 POLY 221. Analysis of polymer colloids: Tutorial. **W. Gao**

3:00 Intermission.

3:30 POLY 222. Detection and characterization of single polymeric nanoparticles with surface plasmon resonance imaging microscopy. **R.M. Corn**

4:00 POLY 223. Finding order in glasses: Structures and dynamics of glass-forming polymer colloidal liquids under confinement. B. Zhang, **X. Cheng**

4:30 POLY 224. Utilization of DSC for polymer colloid morphology analysis. **A.K. Tripathi**, J. Tsavalas

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama
Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

ACS Award in Polymer Chemistry: Symposium in honor C. Grant Willson

Sponsored by PMSE, Cosponsored by POLY

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

Lignin: From Fundamentals to New Materials & Applications

Fundamental Understanding of Lignin

Sponsored by CELL, Cosponsored by ENVR and POLY

Cyclic & Topologically Complex Polymers

Sponsored by PMSE, Cosponsored by POLY

Undergraduate Research Posters Polymer Chemistry

Sponsored by CHED, Cosponsored by PMSE, POLY and SOCED

MONDAY EVENING

Section A

Ernest N. Morial Convention Center Halls D/E

Sci-Mix

T.H. Epps, B. Helms, C. Lipscomb, *Organizers*

8:00-10:00

126, 140-142, 144, 196, 199-202, 204-205. See previous listings.

239-240, 244-245, 255, 257-259, 261, 310-312, 314, 326-330, 368, 378, 387, 393-394, 396-398, 400, 402-403, 436, 507-509, 515-517, 525, 537-538, 542, 545, 547, 550-555, 557-563, 566-572, 574, 578-580, 582-583, 641, 809. See subsequent listings.

TUESDAY MORNING

Section A

New Orleans Marriott Canal Street Studio 6

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers

Cosponsored by BIOT, MEDI and PMSE
M.B. Baker, R. Kieltkyka, F.A. Leibfarth, J.B. Matson, *Organizers*
J. Foster, M.D. Schulz, *Presiding*

8:00 POLY 225. Transformation of natural products into functional polymer systems, with guidance by biomedical application targets. **K.L. Wooley**

8:25 POLY 226. Block copolymers of polylactones and poly(propylene fumarate) for 3D printed biological scaffolds. **S.R. Petersen**, J. Wilson, M. Becker

8:40 POLY 227. Development of new polymers for biofabrication: Hydrogels for 3D printing and resins for DLP. **M.B. Baker**

9:05 POLY 228. Hydrolysis-driven controlled drug delivery and tunable adhesive properties via novel therapeutic methacrylic monomers. **Z. Wright**, S.A. Sydlik, B. Holt

9:20 POLY 229. Proteins and polymers: Synergies in bioconjugates and structures. **D. Konkolewicz**, R.C. Page, G. Lorigan, I. Sahu, K. Burridge, M. Lucius, T. Wright, E. Clark, A. Craig, J. Berberich, J. Stewart, H. Fischesser

9:45 POLY 230. Elastin-like peptide nanoparticles for drug delivery to the brain. **J. Pille**, L. van Oppen, S. van Lith, I. Vialshin, R. Raave, D. Gerrits, S. Heskamp, W. Leenders, O. Boermann, R. Brock, J. Smeitink, J. van Hest

10:00 Intermission.

10:30 POLY 231. Bioerodible poly(acetal)-based networks as controlled release matrices. **D.N. Amato**, D.V. Amato, W. Martin, S. Swilley, M. Sandoz, D.L. Patton

10:45 POLY 232. Surface modification of living cells with synthetic polymer nano- and microparticles. **H.A. Klok**

11:10 POLY 233. Charging up cellulose and curdlan: Expanding the potential of polysaccharide based polyelectrolytes for therapeutic delivery applications. **B.L. Nichols**, K.J. Edgar

11:25 POLY 234. Thermoresponsive copolymers for immunotherapy applications. **F. Vohidov**, J.A. Johnson

11:40 POLY 235. Surface-eroding polyanhydrides from thiol-ene polymerizations: A versatile synthetic material for bio-applications. K.R. Tillman, K.L. Poetz, A. Witkowski, R. Meacham, **D.A. Shipp**

Section B

New Orleans Marriott Canal Street Studio 1

Undergraduate Research in Polymer Science

Cosponsored by CHED and PMSE
S.E. Morgan, S.I. Nazarenko, *Organizers*
H. Broadhead, *Organizer, Presiding*

8:00 Introductory Remarks.

8:15 POLY 236. Nontoxic oligomeric flame retardants from the bioacid, itaconic acid. **V. Hill**, B.A. Howell, Y. Daniel

8:30 POLY 237. Flame retardant properties of phosphorous esters from biobased diphenolic acid. **H.A. Fulco**, B.A. Howell

8:45 POLY 238. Shape-memory and self-healing polyanhydrides. **A. Witkowski**, R. Meacham, K.R. Tillman, D.A. Shipp

9:00 POLY 239. Controlling polymer solubility with Diels-Alder chemistry and LCST. **E. Wilborn**, C.G. Gregory, P.J. Costanzo

9:15 POLY 240. Microstructural changes in polyolefin thermoplastic elastomers affect elastic recovery and energy dissipation. **L.A. Maynard**, B. DeButts, J.R. Barone

9:30 POLY 241. Manipulation of molecular topology and composition using Diels-Alder chemistry. **M.S. Meyersohn**, S. Gosting, T. Colt, R. Rhoads, K. Barcus,

†Cooperative Cosponsorship

M. Markmann, P.J. Costanzo

9:45 POLY 242. A pro-antimicrobial network via degradable acetals (PANDA) prepared via thiol-ene photopolymerization. **W. Martin**, D. Amato, D.V. Amato, O. Mavrodi, S. Swilley, K. Parsons, D. Mavrodi, D.L. Patton

10:00 Intermission.

10:30 POLY 243. Bio-based pro-antimicrobial networks synthesized via thiol-ene photopolymerization. **S. Swilley**, D.V. Amato, D.N. Amato, L. Blancett, O. Mavrodi, W. Martin, M. Sandoz, G. Shearer, D. Mavrodi, D.L. Patton

10:45 POLY 244. Surface free energy characterization of biofilm resistant monomers. **V. Ghebranious**, J. Carlisle, S. Oskin, E.B. Henry, W. Wei, T.B. Cavitt

11:00 POLY 245. Surface free energy characterization of an adhesin protein. **S. Oskin**, J. Carlisle, V. Ghebranious, T.B. Cavitt

11:15 POLY 246. Controlling nanoscale organization of thiophene-based conductive polymers with self-assembling peptides. **E.I. James**, L. Jenkins, A. Murphy

11:30 Concluding Remarks.

Section C

New Orleans Marriott Canal Street Studio 4

Structure & Dynamics of Materials via NMR Spectroscopy

Rubbers & Conducting Polymers

Financially supported by ExxonMobil; Bruker; JEOL; 3M; MR Resources; NMR Service; Rototec-Spintech; Cambridge Isotope; New Era Enterprises
H. Cheng, A.D. English, Organizers
S. Kawahara, Presiding

8:00 POLY 247. Poly(3-alkylthiophenes): Chain packing, side chain ordering, and phase composition from solid-state NMR. **M. Hansen**

8:25 POLY 248. Molecular-level order, disorder, and interactions in conjugated polymers and blends from solid-state NMR. **B. Chmelka**, M. Reddy, M. Idso, M. Junk, D. Andrienko, M. Hansen

8:50 POLY 249. Structure and dynamics of proton-conducting materials via solid-state NMR. Z.B. Yan, G. Foran, A.R. MacIntosh, A.P. Young, D.H. Brouwer, **G.R. Goward**

9:15 POLY 250. Elucidation of stabilization pathways of atactic-polyacrylonitrile by solid-state NMR spectroscopy. **T. Miyoshi**

9:40 Intermission.

9:55 POLY 251. Characterizing the structure and dynamics of the rubber and tackifier in pressure sensitive adhesives. **M. McCormick**, Y. Zhang

10:20 POLY 252. Characterization of network structural motifs in siloxane elastomers using magnetic resonance. **A.M. Sawvel**, S.C. Chinn, M. Gee, A. Maiti, H. Mason, R.S. Maxwell, J.P. Lewicki

10:45 POLY 253. Structure of crosslinking junctions of network polymers

through rubber state NMR spectroscopy. **S. Kawahara**

11:10 POLY 254. Sulfur-33 NMR of organosulfur compounds and polymers. **K. Yamada**

Section D

New Orleans Marriott Canal Street Studio 5

Excellence in Graduate Polymer Research

Bio-Related Polymers

Cosponsored by PRES, PROF, SOCED and YCC
Financially supported by POLY Industrial Advisory Board, Tosoh, and Wiley
C. Ellison, T.E. Long, Organizers
H. Cheng, C.J. Landry-Coltrain, Organizers, Presiding

8:00 POLY 255. Synthesis of high-density molecular DNA brushes by direct grafting-through polymerization of oligonucleotides. **X. Tan**, H. Lu, Y. Sun, X. Chen, D. Wang, K. Zhang

8:25 POLY 256. Synthetic, functional thymidine-derived polydeoxyribonucleotide analogues from a six-membered cyclic phosphoester. **Y.T. Tsao**, T.H. Smith, K.L. Wooley

8:50 POLY 257. Correlating animal source to physical and functional properties of gelatin methacrylamide hydrogels. **A.T. Young**, M.A. Daniele

9:15 POLY 258. Assembly of protein assembly at bionanocomposite interphases. **A.M. Grant**, V.V. Tsukruk

9:40 POLY 259. Synthesis of polysaccharide ABA triblock copolymers by one-pot cross-metathesis ring-opening metathesis polymerization. **K. Arrington**, J. Chen, R.J. Mondschein, T.E. Long, K.J. Edgar, J.B. Matson

10:05 Intermission.

10:20 POLY 260. Magnetic field remotely controlled highly-selective biocatalysis. **A. Zakharchenko**, N. Guz, A. Jardij, S. Minko, E. Katz

10:45 POLY 261. Biodegradable polyester elastomers from bio-based lactones. **G. De Hoe**, M. Zumstein, B.J. Tiegs, J. Brutman, K.P. McNeill, M. Sander, G.W. Coates, M.A. Hillmyer

Section E

New Orleans Marriott Canal Street Studio 7

Nobel Laureate Signature Award for Graduate Education in Chemistry: Symposium in honor of Aleksandr Zhukhovitskiy & Jeremiah A. Johnson

J.A. Johnson, A.V. Zhukhovitskiy, Organizers
E. Pentzer, Presiding

8:00 POLY 262. Shape persistent bicyclic [2.2.2] and [2.2.1] building blocks for porous materials. **T.M. Swager**

8:30 POLY 263. From single-site catalysts and supramolecular assemblies to porous organic polymer (POPs): Bridging homogeneous and heterogeneous catalysis. **S.T. Nguyen**

9:00 POLY 264. Organic reactions

inspired by the organometallic chemistry of gold. **D. Toste**

9:30 POLY 265. N-heterocyclic carbenes as ligands for metal surfaces. **C.M. Cruden**

10:00 Intermission.

10:30 POLY 266. External control in ATRP. **K. Matyjaszewski**

11:00 POLY 267. Award Address (Nobel Laureate Signature Award for Graduate Education in Chemistry Sponsored by Avantor™ Performance Materials Inc.). Johnson group research in the post-Zhukhovitskiy era: Extremely stable NHC-functionalized gold nanorods and polyMOCs that switch between phantom and affine behavior. M. Macleod, Y. Gu, **J.A. Johnson**

11:30 POLY 268. Award Address (Nobel Laureate Signature Award for Graduate Education in Chemistry Sponsored by Avantor™ Performance Materials, Inc.). New frontiers for carbenes and metal-organic cages in surface and polymer chemistry. **A.V. Zhukhovitskiy**, I.J. Kobylanski, D. Toste, J.A. Johnson

Section F

New Orleans Marriott Canal Street Studio 10

Polymer Networks: Soft Gels to Stiff Networks

Cosponsored by PHYS, PMSE and SOCED
E. Chan, R.B. Moore, Organizers
S. Kundu, Organizer, Presiding

8:00 POLY 269. Biomolecules for non-biological things: Materials construction through peptide design and solution assembly. **D.J. Pochan**

8:30 POLY 270. Bio-inspired glycopolymer hydrogels for biomedical applications. **S.E. Morgan**, A. Fogel, B.S. Upadhyay, K.A. Stockmal, P.K. Das

9:00 POLY 271. Molecularly imprinted super-aptamer hydrogels for RNA and DNA biosensors. **D. Spivak**, B. Hebert

9:20 POLY 272. β -Sheet nanocrystal-reinforced supramolecular elastomers. **L. Jia**

9:40 POLY 273. Redox-responsive artificial molecular muscles. **J. Barnes**, A.F. Greene, M. Danielson, K.P. Liles, A. Delawder

10:00 Intermission.

10:30 POLY 274. From cartilages to mussel glues: Extreme properties by network design. **X. Zhao**

11:00 POLY 275. Finding value of lignin through chemical and physical cross-linking for versatile applications. N.A. Nguyen, M. Cui, K. Meek, S.H. Barnes, C.C. Bowland, J.K. Keum, **A.K. Naskar**

11:30 POLY 276. Aqueous toughening in crosslinked marine animal proteins. **A.M. Grant**, M. Kreckler, S. Tadepalli, M. Gupta, M. Crosby, P. Dennis, S. Singamaneni, R.R. Naik, V.V. Tsukruk

11:50 POLY 277. Structural evolution of the more-versatile triblock terpolypeptid hydrogels undergo sol-gel transition. **N. Jiang**, G.L. Sternhagen, T. Yu, S. Xuan, Y. Zhang, V.T. John, D. Zhang

Section G

New Orleans Marriott Canal Street Beauregard

General Topics: New Synthesis & Characterization of Polymers

B. Barkakaty, D. Garcia, Organizers
F. Horkay, M. Kovaliov, Presiding

8:00 POLY 278. Brush-first ring-opening metathesis polymerization as a modular and scalable strategy for combination cancer therapy and molecular imaging. **H.V. Nguyen**, N. Gallagher, F. Vohidov, Y. Jiang, K. Kawamoto, H. Zhang, J.C. Barnes, A. Rajca, J.A. Johnson

8:20 POLY 279. "Polysoaps" via RAFT copolymerization forming well-defined, unimeric micelles for water remediation and targeted drug delivery: An old concept with contemporary relevance. **P.D. Pickett**, M.A. Dearborn, K. Stevens, C.L. McCormick

8:40 POLY 280. Synthesis, photophysical and biological studies on conjugated PPE type zwitterionic polymer. **Y. Yang**, K.S. Schanze

9:00 POLY 281. Swelling pressure and compressive behavior of cartilage polymers. **F. Horkay**, P.J. Basser

9:20 POLY 282. Synthesis of novel water soluble semiconducting polyrhodamine. **R.W. Wahalathantrige Don**, C. Scott

9:40 POLY 283. Directed reverse micelle self-assembly of branched amphiphiles: Effect of polymer architecture on aggregation behavior. **K. Kosakowska**, B. Myers, L.B. Lawson, J. Albert, S.M. Grayson

10:00 POLY 284. Polynitroxides to protect against bacterial biofilms. **N.R. Boase**, C. De La Fuente-Nunez, C. Lang, R.E. Hancock, K.E. Fairfull-Smith

10:20 POLY 285. Synthesis of lipase polymer hybrids via the grafting-from approach. **M. Kovaliov**, M. Allegrezza, D. Konkolewicz, S. Averick

10:40 POLY 286. Thermotropic one-handed spiralization of polyacetylenes based on main-chain conformation change from *Cis-transoid* to *Cis-Cisoid*. **L. Lijia**, Y. Wang

11:00 POLY 287. Loop control of gel mechanics. **Y. Gu**, K. Kawamoto, M. Zhong, M. Chen, L. Korley, M.J. Hore, J.A. Johnson

11:20 POLY 288. Unique aqueous self-assembly behavior of a new thermoresponsive diblock copolymer. **S. Byard**, M.J. Derry, M. Williams, R. Kontzedaki, A. Blanzs, S.P. Armes

11:40 POLY 289. Polybenzoxazine based on phenol and *m*-amino phenyl boronic acid. **H. Ipek**, J. Hacıoğlu

Section H

New Orleans Marriott Canal Street Audubon

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Cosponsored by ANYL, COLL, COMP, I&EC and PMSE
Financially supported by Wyatt Technology; Anton Paar USA, Inc.; The Dow Chemical Company; Arkema; Solvay
J. Bohling, D.S. Germack, C. Lipscomb, J.

[†]Cooperative Cosponsorship

Tsavalas, W. Wu, *Organizers*
W. Gao, D.N. Haase, *Organizers*,
Presiding

8:00 POLY 290. Determining the core, corona, and total size of CdSeS/ZnS quantum dots by SEC/QELS and TEM. **A.M. Striegel**, L. Pitkanen

8:30 POLY 291. Synthesis, characterization and some of applications of colloidal microgels from amino acids. **N. Sahiner**, S. Demirci

9:00 POLY 292. LC-MS studies of serum phase chemistry and interfacial behavior of aqueous oligomers during emulsion polymerization. **T. Zhang**, B. McCulloch, W. Gao, R. Even

9:30 POLY 293. Polypeptide composite particles. **P. Russo**, C. Rosu, A.M. Blake, S.S. Balamurugan

10:00 Intermission.

10:30 POLY 294. Investigating the effect of ionic group location in the self-assemblies of sequence-defined peptoid block copolymers. **G.L. Sternhagen**, S. Gupta, G. Schneider, Y. Zhang, V.T. John, D. Zhang

10:55 POLY 295. Withdrawn

11:15 POLY 296. Control of self-assembly of amphiphilic statistical copolymers by their composition. **T. NEal**, M.W. Murray, S.P. Armes, S. Spain, O. Mykhaylyk

11:40 POLY 297. Polymer, particle, vesicle? The new challenge for analytical separation technologies in polymer characterization. **R. Reed**, B. Sabagh, P. Clarke

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama
Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

Lignin: From Fundamentals to New Materials & Applications

Advances in Lignin Characterization

Sponsored by CELL, Cosponsored by ENVR and POLY

Cyclic & Topologically Complex Polymers

Sponsored by PMSE, Cosponsored by POLY

TUESDAY AFTERNOON

Section A

New Orleans Marriott Canal Street Studio 6

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers

Cosponsored by BIOT, MEDI and PMSE
M.B. Baker, R. Kieleyka, F.A. Leibfarth, J.B. Matson, *Organizers*
M. Baker, M. Golder, *Presiding*

1:00 POLY 298. Shear-thinning and self-healing hydrogels for therapeutic delivery. **J.A. Burdick**

1:25 POLY 299. Glycosidase inhibition by "sweet" bottlebrush polymers. **E. Sletten**, R. Loka, H.M. Nguyen

1:40 POLY 300. Development of polymer theranostics to probe the behaviour of nanomaterials in biology. **K. Thurecht**, Y. Zhou, N. Fletcher, Z. Houston

2:05 POLY 301. Withdrawn

2:20 POLY 302. Phase-separating biopolymer conjugates to manipulate cell signaling and healing in cardiovascular tissues. **K.L. Kiick**

2:45 POLY 303. Catechol-functionalized bioinspired synthetic adhesives: Effect of comonomer on mechanical properties. **S. Radzinski**, M. Bartucci, D. Flanagan, J. Lenhart, J.A. Orlicki

3:00 Intermission.

3:30 POLY 304. Biodegradable blockcopolymers as drug carriers in cancer therapy. **M. Klapper**, F. Karagoz

3:50 POLY 305. Partially fluorinated polymers for spatiotemporal mapping of tissue oxygenation. **F.A. Leibfarth**

4:15 POLY 306. Elucidation of glycopolymer aggregation mechanism for determination of structure/binding interactions with amyloid β peptides. **A.N. Bristol**, P.K. Das, D.N. Dean, V. Rangachari, S.E. Morgan

4:30 POLY 307. Monodisperse fucosylated glycooligomers to investigate multivalent binding to LecB. **K. Buecher**, L. Hartmann

4:45 POLY 308. Bio-degradable conjugated polymer particles as biomedical imaging probes. **A.J. Kuhne**

Section B

New Orleans Marriott Canal Street Studio 1

Undergraduate Research in Polymer Science

Cosponsored by CHED and PMSE
H. Broadhead, S.E. Morgan, *Organizers*
S.I. Nazarenko, *Organizer, Presiding*

1:00 POLY 309. Self-assembly of uniform nano pores for membrane transfer to silicon. **D.F. Ehlenberg**, X. Gu, D. Weller

1:15 POLY 310. Synthesis and structural investigation of customizable polyelectrolyte complexes. **A. Herzog-Arbeitman**, J.M. Ting, H. Wu, O. Werba, S. Srivastava, M.V. Tirrell

1:30 POLY 311. Self-healing polyelectrolyte/metal ion materials. **L. Muhlbachler**, H. Zhang, N. Zacharia

1:45 POLY 312. MoS₂ dispersed epoxy vitrimer composite: Role of solvent and surface chemistry of MoS₂ on network formation, mechanics, and stimuli response. **I. Barrett**, J. Ryan, G. Kedziora, J. Moller, R. Berry, D. Nepal

2:00 POLY 313. Rational design of sensitive and selective conjugated polymer based fluorescent sensors for the detection of phosphate. **E. Crater**, A.K. Williams, J. Tropp, J.D. Azoulay

2:15 POLY 314. Novel binder development in binder jet additive manufacturing to improve green part strength. **D. Gilmer**, E. Hong, D. Siddel, A. Merriman, A. Kisliuk, S. Cheng, A.

Elliott, T. Saito

2:30 POLY 315. Scavenging ruthenium in ring-opening metathesis polymerization-based branched polymers. M. Golder, H.V. Nguyen, **J. Grundler**, E. Park, J.A. Johnson

2:45 POLY 316. Synthesis of hyperbranched polymers with post-functionalization specificity. **H. Naguib**, X. Cao, H. Gao

3:00 Intermission.

4:10 Panel Discussion.

Section C

New Orleans Marriott Canal Street Studio 4

Structure & Dynamics of Materials via NMR Spectroscopy

Electrolytes & Polyelectrolytes

Financially supported by ExxonMobil; Bruker; JEOL; 3M; MR Resources; NMR Service; Rototec-Spintech; Cambridge Isotope; New Era Enterprises
H. Cheng, A.D. English, *Organizers*
L.A. Madsen, *Presiding*

1:00 POLY 317. Liquid and solid state NMR investigations of low MW Polyether and non-polyether polymer electrolytes for supercapacitor and battery applications.

S. Greenbaum, M. Gobet, J. Peng, S. Munoz, D. Morales, L. Carbone, J. Hassoun, R.E. Ruther, J. Nanda, M. Zimmerman, R. Leising

1:25 POLY 318. Solid-state NMR investigation of the solid electrolyte interphase on silicon electrodes for lithium ion batteries. **P. Magusin**

1:50 POLY 319. NMR studies of dynamical couplings in ionic liquids and polymer electrolytes. **M. Vogel**, M. Becher

2:15 POLY 320. Towards understanding the ionic conduction in solid state polymer electrolytes—a solid-state NMR study of PEO/Li⁺ complex. **Y. Yao**

2:40 POLY 321. Studying ion transport in polymer electrolytes by NMR methods. **M. Schönhoff**

3:05 Intermission.

3:20 POLY 322. Understanding ion dynamics in conducting polyelectrolytes from angstroms to millimeters. **V. Witherspoon**, R. Nieuwendael, J.L. Schaefer, C.M. Stafford, C. Soles

3:45 POLY 323. Ion dynamics in solid polymer blend electrolytes via inversion of the laplace transform. **L. Smith**, S. Granados Focil

4:10 POLY 324. Solid state ¹³C NMR study of ethylene ionomers: Crystalline phase after heat treatment. **A. Asano**, T. Matsukawa, C.T. Nakazawa

Section D

New Orleans Marriott Canal Street Studio 5

Excellence in Graduate Polymer Research

New Products & Characterization

Cosponsored by PRES, PROF, SOCED and YCC
Financially supported by POLY Industrial Advisory Board, Tosoh, and Wiley

C.J. Landry-Coltrain, T.E. Long, *Organizers*
H. Cheng, C. Ellison, *Organizers*,
Presiding

1:00 POLY 325. Insights into the assembly of polyelectrolyte multilayers and complexes. **H.M. Fares**, J.B. Schlenoff

1:25 POLY 326. Thermal transitions in hydrated PDADMA-PSS complexes. **Y. Zhang**, P. Batys, M. Sammalkorpi, J.L. Lukkenhaus

1:50 POLY 327. Smart epoxy nanofiltration membranes for multicomponent separations. **C. Gilmer**, N.B. Bowden

2:15 POLY 328. Biomimetic mineral coating for nanofiber adsorbents development. **Y. Park**, E. Ford, T. Gardner

2:40 Intermission.

2:55 POLY 329. CNT 'trapping' via non-solvent induced phase separation. **H. Li**, M. Minus

3:20 POLY 330. Wetting transition on metamorphic superomniphobic surfaces. W. Wang, J. Salazar, **H. Vahabi**, A. Joshi-Imre, W. Voit, A. Kota

3:45 POLY 331. Understanding of polymer crystallization at the molecular scale: Topology, kinetics, and molecular weight effects. **S. Wang**, S. Yuan, T. Miyoshi

4:10 Career Panel.

Section E

New Orleans Marriott Canal Street Studio 7

Adaptive Nanogels

Cosponsored by COLL
A. Fernandez-Nieves, L.A. Lyon, W. Richtering, D. Suzuki, *Organizers*
T. Hoare, *Organizer, Presiding*
A. Pich, *Presiding*

1:00 POLY 332. Adaptive nanogels as nanocapsule shells. **K. Landfester**

1:30 POLY 333. Withdrawn

2:00 POLY 334. Adaptable synthetic polymers as protein and peptide affinity ligands. An alternative to the lock and key paradigm. **K.J. Shea**

2:30 POLY 335. Aqueous microgels as reference beads for mass cytometry and supports for enzyme reactions at elevated temperatures. **M. Winnik**

3:00 Intermission.

3:30 POLY 336. Tuning pK_a of Brønsted acids in temperature-responsive hydrogel particles by proton- and ion-imprinting strategy. **Y. Hoshino**

4:00 POLY 337. Microgels as building blocks for tissue regenerative materials. **L. De Laporte**, L.P. Guerzoni, J.C. Rose, D. Gehlen

4:20 POLY 338. Electrochemically-active iron-containing microgels. **F. Plamper**, P. van Rijn, O. Mergel, S. Schneider

4:40 POLY 339. Polyelectrolyte and polyampholyte nanogels: Effect of electrostatics on internal structure, uptake and release of guest-molecules. A. Rudov,

[†]Cooperative Cosponsorship

I. Portnov, A. Pich, W. Richtering, **I. Potemkin**

Section F
New Orleans Marriott Canal Street Studio 10

Polymer Networks: Soft Gels to Stiff Networks

Cosponsored by PHYS, PMSE and SOCED

E. Chan, S. Kundu, *Organizers*
R.B. Moore, *Organizer, Presiding*

1:00 POLY 340. Shear and cavitation rheology of polymer organogels. K.C. Bentz, N. Sultan, S. Walley, **D.A. Savin**

1:30 POLY 341. Rate dependent mechanics of crosslinked polymers. **J.L. Lenhart**, T. Long, D. Knorr, K. Masser, T.W. Sirk, R. Mrozek, J. Andzelm, E. Bain

2:00 POLY 342. Fracture of soft but solvent-free polymer networks. J. Sarapas, E. Rettner, K. Beers, **E. Chan**

2:20 POLY 343. Mechanical properties and failure behavior of alginate hydrogels. **S. Kundu**, S. Hashemnejad, R. Wijayapala, R. Badani Prado, S. Mishra

2:40 POLY 344. Hybrid particle-field approach for simulating inhomogeneous supramolecular polymer networks. **D. Meng**, J. Zong

3:00 Intermission.

3:30 POLY 345. Characterization of the transient networks formed by oligocarbonate-functionalized PEG block polymers. **V. Prabhu**

4:00 POLY 346. Molecular insights into early stage aggregation of molecular mass organic gelators. **N. Rai**, M. Huda

4:30 POLY 347. Can percolation theory account for the aqueous gelation behavior of diblock copolymer worms? **J. Lovett**, M.J. Derry, P. Yang, S.P. Armes

4:50 POLY 348. The role of chain extender in controlling the kinetics of morphology development of polyurethane elastomers. X. Tao, O. Wamuo, W. Zhao, **S.L. Hsu**

Section G
New Orleans Marriott Canal Street Beauregard

General Topics: New Synthesis & Characterization of Polymers

B. Barkakaty, D. Garcia, *Organizers*
A. Karim, D. Siefker, *Presiding*

1:00 POLY 349. Soluble polymer-supported bidentate sulfur ligand for metal sequestering. **H. Bazzi**, D. Chouikhi, M. Al-Hashimi, D.E. Bergbreiter

1:20 POLY 350. Enhancing the selectivity of addition-type polynorbornenes for post-combustion carbon dioxide sequestration. **C. Maroon**, K.R. Gmernicki, N. Belov, Y.P. Yampolskii, S.M. Mahurin, T. Saito, **B.K. Long**

1:40 POLY 351. Accessing functional materials through organocatalyzed post-polymerization modification. **C.P. Easterling**, T. Kubo, Z.M. Orr, J.E. Sanchez, G.E. Fanucci, B.S. Sumerlin

2:00 POLY 352. Ionenes inspired

by high-performance and ultra-high performance polymers. **K.E. O'Harra**, E.M. Devriese, D.M. Noll, G.P. Dennis, M.M. Durbin, E.M. Jackson, J.E. Bara

2:20 POLY 353. Reinforcement of industrial chloroprene rubber by polychloroprene grafted silica nanoparticles. **Z.M. Abbas**, M.M. Mohammadkhani, B.C. Benicewicz

2:40 POLY 354. Facile preparation of a free-standing hydrogen-bonded ladder polymer film. **T. Yuan**, X. Ji, M. Vazquez, L. Fang

3:00 POLY 355. Air-friendly synthesis of well-defined polypeptides by ring-opening polymerization of amino-acid derived N-thiocarboxyanhydrides. **D. Siefker**, J. Cao, D. Zhang

3:20 POLY 356. Impact of alkyne unsaturation on the flame retardant behavior of simple phosphorus diesters. **E. Ostrander**

3:40 POLY 357. Solvent-free formation of functional polymers by repurposing sulfur. C. Westerman, C. Perez, K. Kamp, **C. Jenkins**

4:00 POLY 358. 1-Dopyl-1,2-(4-hydroxyphenyl)ethene as a flame retardant curing agent for epoxy. **G.W. Lienhart**, B.A. Howell

4:20 POLY 359. Design and synthesis of highly stable triblock copolymers for anion exchange membrane fuel cells. **O. Ozcalik**, M.L. Anthamatten

4:40 POLY 360. Poly(vinylidene fluoride) based nanocomposites: Dielectric, piezoelectric, and pressure sensing characteristics. **M.K. Hassan**, A.A. Issa, A. Al-Saygh, D. Ponnamma, M.A. Al-Maadeed, A.S. Luyt

Section H
New Orleans Marriott Canal Street Audubon

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Cosponsored by ANYL, COLL, COMP, I&EC and PMSE
Financially supported by Wyatt Technology; Anton Paar USA, Inc.; The Dow Chemical Company; Arkema; Solvay J. Bohling, W. Gao, D.S. Germack, C. Lipscomb, J. Tsavalas, *Organizers*
D.N. Haase, W. Wu, *Organizers, Presiding*

1:00 POLY 361. Tutorial on modeling multi-phase polymer particle morphology development: Critical role of diffusion. **J. Tsavalas**, A.K. Tripathi, P. Zhang, R.H. Carrier, D.C. Sundberg

1:40 POLY 362. Calculation of oxygen-centered radical reaction rates in emulsion polymerization processes. J.M. Martinez, I. Konstantinov, **S.G. Arturo**, G. Dombrowski

2:00 POLY 363. Self-assembly dynamics and inner morphology of hydrophobically modified hyaluronic acid nanoparticles: Towards design of optimized drug nanocarriers. **D. Svehkarev**, A. Kyrychenko, W. Payne, A. Mohs

2:30 POLY 364. Real-time control and optimization: Demonstration in semi-batch emulsion polymerization. **W. Gerlinger**,

O. Naeem, E. Jahns

3:00 Intermission.

3:30 POLY 365. Z-mer lengths revisited with a modern phase behavior model. **S.G. Arturo**, G. Dombrowski, R. Even, W. Gao, J.M. Martinez, B. McCulloch, T. Zhang

3:50 POLY 366. In situ spectroscopic studies of highly transparent PSMA-PTFEMA diblock copolymer dispersions in non-polar media. **E. Cornel**, S.P. Armes

4:20 POLY 367. Multiblock copolymer nanoparticles synthesized via RAFT aqueous emulsion polymerization using a high-throughput robot. **A. Cockram**, N.S. Williams, M.W. Murray, S.N. Emmett, S.P. Armes

Cellulose & Other Structural Biopolymers: Structure, Formation & Degradation: Anselme Payen Award Symposium in Honor of Junji Sugiyama
Sponsored by CELL, Cosponsored by BIOL, BIOT and POLY

Lignin: From Fundamentals to New Materials & Applications

Lignin Valorization in Biorefineries
Sponsored by CELL, Cosponsored by ENVR and POLY

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems
Sponsored by CELL, Cosponsored by ENVR and POLY

Cyclic & Topologically Complex Polymers
Sponsored by PMSE, Cosponsored by POLY

TUESDAY EVENING

Section A
Ernest N. Morial Convention Center Hall D

Adaptive Nanogels
Cosponsored by COLL
A. Fernandez-Nieves, T. Hoare, L.A. Lyon, W. Richtering, D. Suzuki, *Organizers*

6:00-8:00

POLY 368. Synthesis of micron-sized poly(N-Vinylcaprolactam) microgels by temperature-ramp polymerization. **A. Ksiazkiewicz**, A. Pich

POLY 369. Microfluidically produced microgels with biomedical applications. **A.J. Kuehne**, L. Elling, L. De Laporte, G. Sellge, A. Jans, L. Guerzoni

POLY 370. Hollow charged microgels: Structural investigations by SANS. **S.K. Turnhoff**, A. Scotti, W. Richtering

POLY 371. Design and synthesis of rotaxane crosslinked polymeric microspheres. **S. Hirohsige**, T. Kureha, J. Sawada, D. Aoki, T. Takata, D. Suzuki

POLY 372. Interplay of spatially separated polymeric shells in doubly thermoresponsive microgels in presence and absence of an incompressible core. **M. Brugnoli**, A. Scotti, A. Rudov, A. Gelissen, A. Radulescu, I. Potemkin, W. Richtering

POLY 373. Bioorthogonal preparation of dPG-based nanogels using iEDDA inverse

nanoprecipitation. **A. Oehrl**, R. Haag

POLY 374. Microgels decorated with 2-methoxyethyl acrylate as new building block for biomaterials. **A. Melle**, S. Moli, L. De Laporte, W. Richtering, A. Pich

POLY 375. Withdrawn

POLY 376. Directed immobilization of thermo-responsive functionalized microgels via DNA. **S. Eisold**, C. Molano Lopez, A. Tran, A. Oppermann, D. Wöll, D. Mayer, A. Pich, U. Simon

POLY 377. Distribution of ionizable groups in polyampholyte microgels controls interactions with captured proteins: From blockade and "levitation" to accelerated release. **W. Xu**, A. Pich, I. Potemkin, W. Richtering, A. Rudov, R. Schröder, I. Portnov

POLY 378. Synthesis of hydrogel/solid composite microgels by seeded emulsion polymerization in the presence of polyelectrolytes microgels. **T. Watanabe**, S. Chihong, K. Murata, T. Kureha, D. Suzuki

POLY 379. Monte Carlo simulations of weak polyelectrolyte nanogels: pH-dependence of conformation and ionization. **C. Hofzumahaus**, S. Schneider

POLY 380. Polyelectrolyte microgels oppose electrodeposition. **S. Schneider**, O. Mergel, F. Plamper

POLY 381. Fluorescence microscopy investigation of microgels at interfaces. **E. Siemes**, M. Faulde, A. Jupke, D. Woell

POLY 382. Real-time adsorption behavior of hydrogel microspheres onto solid/liquid interface. **S. Matsui**, T. Uchihashi, D. Suzuki

POLY 383. Investigation of highly charged microgels at flat liquid-liquid interfaces. **M.M. Schmidt**, W. Richtering

POLY 384. Dynamics of large poly(N-isopropyl acrylamide)-based hydrogel microspheres at the air/water interface. **H. Minato**, T. Watanabe, D. Suzuki

POLY 385. Probing the internal heterogeneity of responsive microgels adsorbed to an interface by sharp tip SFM. **M. Schulte**, A. Scotti, A. Gelissen, M. Ahmed, W. Richtering

POLY 386. Thermo-responsive microgels at interfaces: Correlation between microgel softness and monolayer properties. **S. Bochenek**, A. Scotti, W. Richtering

POLY 387. Versatile nanoreactors based on temperature-responsive microgels. **D. Kleinschmidt**

POLY 388. Withdrawn

POLY 389. Molecular separation by stimuli-responsive hydrogel microspheres. **T. Kureha**, K. Hoshio, D. Suzuki

POLY 390. Withdrawn

POLY 391. Dynamic investigations of the cononsolvency of poly-N-isopropylacrylamide microgels. **K. Nothdurft**, T. Brands, A. Bardow, W. Richtering

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POLY 392. Rheology of dense suspensions of temperature-responsive microgel mixtures. **S. Minami**, T. Watanabe, D. Suzuki, K. Urayama

Section A

Ernest N. Morial Convention Center Hall D

Excellence in Graduate Polymer Research

Cosponsored by PRES, PROF, SOCED and YCC
H. Cheng, C. Ellison, C.J. Landry-Coltrain, T.E. Long, *Organizers*

6:00–8:00

POLY 393. Investigation of mechanochemical reactivity of 1,2-oxazines. **V. Kensy**, D.C. Church, A.J. Boydston

POLY 394. Synthesis and melt self-assembly of tapered bottlebrush copolymers. **L. Jiang**, D. Nykypanchuk, A. Ribbe, J. Rzayev

POLY 395. Synthesis of hydrolysis-resistant polyisobutylene-based polyurethanes. **J. Kantor**, E. Collister, J.E. Puskas, M.P. Mallamaci, V.C. Comes

POLY 396. Investigation of PVDF block copolymer architecture and their interface properties. **V. Vasu**

POLY 397. Synthesis of [FeFe]-hydrogenase mimetic metallopolymers via ATRP for robust and O₂ resistant H₂-evolution catalysts. **M. Karayilan**, W.P. Brezinski, D.L. Lichtenberger, R.S. Glass, J. Pyun

POLY 398. Solvent free addition of allyl and vinyl monomers into polysulfides formed by inverse vulcanization. **C. Westerman**, C. Jenkins

POLY 399. Platinum(II) end-capped glycerol/adipic acid poly(ester)s as antitumor prodrugs. **U.G. Huynh**, B.A. Howell

POLY 400. Aqueous-processed, high-capacity electrodes for membrane capacitive deionization (MCDI). **A. Jain**, J. Kim, Q. Li, R. Verduzco

POLY 401. Sulfonated terpolymers as proton exchange membranes for fuel cells: effect of aliphatic groups. **A. Jinju**, K. Miyatake

POLY 402. Recent advances in achieving nanofiller miscibility with polyolefin matrices. **J. Pribyl**, M. Bell, K.B. Wagener, B.C. Benicewicz

POLY 403. Enhanced conjugated polymer nanofiber network formation by synergistic effect of solution shearing and dielectric layer modification. **Z. Yuan**, S. Thomas, C. Buckley, G. Zhang, J.E. Bredas, E. Reichmanis

Section A

Ernest N. Morial Convention Center Hall D

General Topics: New Synthesis & Characterization of Polymers

D. Garcia, *Organizer*

6:00–8:00

POLY 404. Thermal analysis of poly(methylmethacrylate) (PMMA)-graphene oxide(GO) composites. **I.J.A**

Don, F.D. Blum

POLY 405. Thermal analysis of poly(ethyl methacrylate) adsorbed on silica. **R. Azarfam**, U.N. Arua, F.D. Blum

POLY 406. Elucidating end group effects on the degradation of linear polyethylene glycol using matrix assisted laser desorption ionization time of flight (MALDI-TOF) mass spectrometry. **M.E. Payne**, S.M. Grayson

POLY 407. Effect of equivalent weight on the dynamic mechanical relaxations of perfluorosulfonic acid membranes. **M. Novy**, R.B. Moore

POLY 408. Comparative study of dielectric relaxation and electrical conductivity behavior correlated to hydrogen bonding organization between Bis-MPA based hyperbranched polymer and dendrimer. **B. Chen**, J.A. Giesen, M.K. Hassan, S.M. Grayson, S.I. Nazarenko

POLY 409. Responsive DNA-like polymers via the ring opening polymerization of nucleobase appended thiolactones. **S. Mavila**, B. Worrell, T. Goldman, C. Wang, B.D. Fairbanks, D.W. Domaille, S. Pattanayak, M.K. McBride, C. Bowman

POLY 410. Guanidinium-functionalized polymer carriers enable RNAi in resistant insect pests. **K.H. Parsons**, M.H. Mondal, C.L. McCormick, A.S. Flynt

POLY 411. Dendrimer-based probes for investigating size restrictions of stridermal permeability. **K. Kosakowska**, S.L. Kurtz, L.B. Lawson, S.M. Grayson

POLY 412. Meta-linked cationic poly(phenylene ethynylene) conjugated polyelectrolyte featuring a chiral side group: Helical folding and phosphates binding. **Z. Li**, K.S. Schanze

POLY 413. Template-directed synthesis of well-defined polysaccharides. **A. Delawder**, A.F. Greene, X. Li, J. Barnes

POLY 414. RAFT synthesis of ABA-BAB type PS-PVBC triblock copolymers for polyelectrolyte materials. **O. Ozcalik**, M.L. Anthamatten

POLY 415. Hyperbranched bisphosphonate-functional polymers via RAFT self-condensing vinyl polymerization and post-polymerization functionalization. **P.R. Calvo**, K.B. Wagener, B.S. Sumerlin

POLY 416. Thermoresponsive hyperbranched block copolymers via RAFT self-condensing vinyl polymerization. **P.R. Calvo**, K.B. Wagener, B.S. Sumerlin

POLY 417. Effect of pendant groups on fabrication of poly(norbornene imide) single-chain nanoparticles. **R. Chen**, S. Benware, J.J. Lessard, J. Cole, E.B. Berda

POLY 418. Handles for controlled architecture and functionality in single-chain nanoparticles: Cross-linking by intrachain ATRP. **E.R. Bright**, C. Willis, C. Leo, N. Shipley, C.J. LaSalle, A. Hanlon, E.B. Berda

POLY 419. Hydrogenated polyisoprene-g-silica nanoparticles in polyolefin nanocomposites. **M.M. Mohamadkhani**, Z.M. Abbas, B.C. Benicewicz

POLY 420. Synthesizing single-chain nanoparticles: Bio-inspired functionality via isocyanide-based multicomponent reaction chemistry. **E. Reville**, J. Cole, J.J. Lessard, K. Rodriguez, A. Hanlon, J.P. Mancinelli, E.B. Berda

POLY 421. Designing free-radical photoinitiators for practical dark curing. **K. Kim**, J. Sinha, C. Musgrave, J.W. Stansbury

POLY 422. Polymeric chromophore-catalyst assembly for the photocatalytic CO₂ reduction. **Y. Zhao**, S. Kim, Y. Eom, G. Leem, K.S. Schanze

POLY 423. Organocatalytic synthesis of poly(thionolactone)s: New materials abilities from sulfur-containing polylactones. **P. Datta**, I. Kalana, R. Hewawasam, M.K. Kiesewetter

POLY 424. Anion conductive polymers consisting of perfluoroalkylene, fluorenyl, and pendant ammonium groups. **N. Yokota**, H. Ono, J. Miyake, K. Miyatake

POLY 425. Photo controlled two-stage reactive polymer construction and application. **X. Zhang**, S. Huang, W. Xi, K. Long, C. Bowman

POLY 426. A modular approach to semi-fluorinated aromatic ether polymers via step-growth polymerization of fluoroalkenes. **K. Shelar**, K. Mukeba, A. Sygula, D.W. Smith

POLY 427. Xerogel-sequestered transition metal catalysts: A new generation of marine antifouling materials. **C.A. Damon**, M.R. Detty

POLY 428. Self-initiated functionalization of waste tire rubber networks and new composite applications. **E. Caldona**, T. Rosenmayer, D.W. Smith

POLY 429. Structure/property/processing relationships in POSS-modified high temperature thermoplastic composites. **M.B. Woellner**, **R. Shankar**, A.F. Stewart, K.T. Posey, J.D. Lichtenhan, S.E. Morgan

POLY 430. Polyolefins as tools for multivalued carbon nanotubes solubilization. **P.K. Manyam**

POLY 431. Modification of sulfonated syndiotactic polystyrene aerogels through ionic interactions. **X. Li**

POLY 432. Ultrahigh heat-resistance polybenzimidazole/polyamide from *Streptomyces*-derived biomonomers. **A. Nag**, T. Kaneko

POLY 433. Saturated N-heterocyclic cationic polymers: Synthesis and stability. **R. Sun**, Y.A. Elabd

POLY 434. Formation of poly(norbornene) thioacetate and deprotection into polythiols. **C. Barrios**, C. Jenkins

POLY 435. Ring opening polymerization of lactones by a neodymium coordination catalyst. **R. Kularatne**, C. Bulumulla, H. Nguyen, M.C. Stefan

POLY 436. Synthesis of ionically crosslinked polyelectrolytes by homopolymerization of an ion-pair comonomer. **C. Li**

Section A

Ernest N. Morial Convention Center Hall D

Integrating Polymer Science in the Curriculum

Cosponsored by CHED and PMSE
K.R. Carter, K.A. Cavicchi, S.E. Morgan, *Organizers*

6:00–8:00

POLY 437. Integrating polymer chemistry in the Undergraduate Chemistry Department at Hofstra University. **R.P. D'Amelia**

POLY 438. Microwave and neat synthesis of 7-oxanorbornene derivatives for organic chemistry teaching lab: A comparison study. **J. Bazemore**, M. Kelly, L. Phan, **B.P. Quillian**, **S. Zingales**

POLY 439. Towards open and interactive sharing of polymer membrane gas separation data. **J.E. Bara**, **V.F. Scaifani**, **W.R. Raney**

POLY 440. Teaching a polymer chemistry course at a primarily undergraduate institution. **J.C. Furgal**

Section A

Ernest N. Morial Convention Center Hall D

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers

Cosponsored by BIOT, MEDI and PMSE
M.B. Baker, R. Kielykya, F.A. Leibfarth, J.B. Matson, *Organizers*

6:00–8:00

POLY 441. Polyion complex micelle incorporating TiO₂ nanoparticles for effective sonodynamic therapy. **S. Yamamoto**, K. Furukawa, M. Ono, E. Yuba, A. Harada, K. Kono

POLY 442. Mannose residue-introduced pH-sensitive curdlan-modified liposome for antigen presenting cell-specific antigen delivery system. **Y. Fukaya**, E. Yuba, A. Harada, K. Kono

POLY 443. A gene delivery approach using zwitterion-modified dendrimer-entrapped gold nanoparticles for inhibition of cancer cell metastasis. **Z. Xiong**, C. Alves, A. Li, F. Chen, J. Liu, M. Shen, H. Tomas, X. Shi

POLY 444. Liver-specific DDS using liposomes modified with sugar moiety-introduced dendron lipids and pH-responsive polymer-lipids. **Y. Hayashi**, E. Yuba, A. Harada, K. Kono

POLY 445. Cationic poly(peptidophosphoesters) and poly(peptidodisaccharides) for antimicrobial therapy. **D. Pranantyo**, M. Chan Park, K. Neoh, **E. Kang**

POLY 446. Development of multifunctional nanohybrid: antibody-conjugated gold nanorods stabilized by functional dendrimer for targeted photothermal therapy and imaging. **H. Setiawan**, E. Yuba, A. Harada, I. Aoki, K. Kono

POLY 447. Development of hyaluronic acid derivative-modified liposomes as dendritic cell-specific antigen delivery carriers. **M. Miyazaki**, E. Yuba, H. Hayashi, A. Harada, K. Kono

POLY 448. Multifunctional nanohybrids

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composed of functional dendrimer and gold nanorod for photothermal-chemotherapy. **T. Hashimoto**, E. Yuba, A. Harada, K. Kono

POLY 449. Hydrogels based on peg and chitosan-reduced graphene oxide for volumetric muscle loss treatment. **J.F. Petry**, D. Gamba

POLY 450. Polysulfides... a 'break-through' for osteoporosis? **F. El Mohtadi**

POLY 451. Synthesis and characterization of chitosan derivatives for high performance gene delivery. **Q. Wyatt**

POLY 452. Polyglycidol-based hydrogels for applications in regenerative medicine. **B. Loftin**, E. Harth

POLY 453. Terpene-based polymers by step-growth polymerization: Renewable monomers and polymers for biomedical applications. **D. O'Brien**, S.M. Howdle, C. Alexander, R.A. Stockman

POLY 454. Withdrawn

POLY 455. Bioinspired polymer composites for antifouling surface coatings. **I.S. Kurtz**, A. Sathyan, T. Emrick, J.D. Schiffman

POLY 456. Electroactive hydrogels for biomedical applications. **Z. Shi**, G. Yang

POLY 457. Surface plasmon resonance study of interaction between membrane protective block copolymers and supported lipid bilayer. **M. Kim**, M. Vala, S. Oh, F. Bates, B.J. Hackel

POLY 458. Controllable glucose-based bioadhesive through strain-promoted azide-alkyne cycloaddition (SPAAC). **I. Pramudya**, H. Chung

POLY 459. Role of transporter-cargo binding in polymer mediated intracellular protein delivery. **N.D. Posey**, C. Hango, G.N. Tew

POLY 460. Aspect ratio-controllable polyplexes prepared from poly(L-lysine) terminally bearing multi-arm PEG. **A. Harada**, E. Yuba, K. Kono

POLY 461. Rigid, fibrous-structured protein showed superior cell-penetrating activity. **K. Sano**, N. Nakayama, S. Takagaki, T. Takaoka, E. Ota

POLY 462. Conjugated polymers for RNA interference in human primary bronchial cells. P. Manandhar, M. Ahmed, **J. Moon**

POLY 463. Amphiphilic block copolymers, hydrogels, and micelles for the controlled release of HNO. **C. Lee**, D. Church, A.J. Boydston

POLY 464. Construction of core-shell tecto dendrimers based on supramolecular host-guest assembly for enhanced gene delivery. F. Chen, L. Kong, L. Wang, Y. Fan, M. Shen, **X. Shi**

POLY 465. Polymeric mimetics of antimicrobial peptides as anticancer agents. **F. Gao**, J. Piao, L. Hui, Y. Wang, L. Yang

POLY 466. Withdrawn

POLY 467. Radical copolymerization of vinyl ethers and cyclic ketene acetals as a versatile platform to design functional polyesters. **Y. Guillaeneuf**

POLY 468. Variable charge density in siRNA-containing block ionomer complexes: Optimizing complex binding strength, stability, and gene suppression. **K.H. Parsons**, A.S. Flynt, C.L. McCormick

Section A
New Orleans Marriott Canal Street Studio 6

International Symposium on Biorelated Polymers: Renewable Materials

Cosponsored by PMSE
E.W. Cochran, E.C. Hagberg, R.T. Mathers, A. Watts, *Organizers*

6:00-8:00

POLY 469. Washed cottonseed meal-based products as bio-based wood adhesives for non-structural interior applications. **Z. He**, H. Cheng

POLY 470. Preparation of anisotropic physical hydrogels of cyanobacterial super-polysaccharides. **M. Okajima**, T. Kaneko

POLY 471. Developing sustainable acrylates for 3D printing. **R. Goncalves**, R. Ding, T.M. Reineke

POLY 472. Sustainable and degradable epoxy resins containing multifunctional biobased components. **M. Shen**, G. Yang, R. Almallahi, Z. Rizvi, E. Gonzalez, T. Hendrix-Doucette, M.L. Robertson

POLY 473. Therapeutic electrospun natural polymer based fiber scaffolds for biomedical applications. K. Penton, W. Weeks, A. Wilson, Z. Kinler, V.F. Baker, T. Brown, S. Salter, **S.K. Hamilton**

Section A
Ernest N. Morial Convention Center Hall D

Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials

Cosponsored by PHYS and PMSE
A. Mariani, J.A. Pojman, A. Taylor, *Organizers*

6:00-8:00

POLY 474. Withdrawn

POLY 475. Low-temperature frontal polymerization of acrylate-based composites for use in bone repair. **S. Bynum**, C. Morejon-Garcia, M.P. Tullier, J.A. Pojman

POLY 476. Time-lapse materials: Using the enzymatic hydrolysis of urea in polymerization. **D. McKenzie**, J.A. Pojman

POLY 477. Mechanistic insight into alkyl phosphite inhibited frontal ring-opening metathesis polymerization. **G. Rudebusch**, J. Moore

POLY 478. Preparation of acrylic acid-graft-carboxymethyl cellulose superabsorbent hydrogels by frontal polymerization. **S. Li**

POLY 479. Frontal polymerization of deep eutectic solvents composed of acrylic and methacrylic acids. **K.F. Fazende**, J.A. Pojman

POLY 480. Radical-induced cationic frontal polymerization using divinyl ethers. **B. Thompson**, J.A. Pojman

POLY 481. Chemical oscillating particles through encapsulation of the urea-urease reaction. **A. Mai**

Section A
Ernest N. Morial Convention Center Hall D

Photochemistry & Polymers

B.P. Fors, D. Konkolewicz, D.L. Patton, *Organizers*

6:00-8:00

POLY 482. Cyclic versus acyclic acetal-based monomers: Using monomer design and thiol-ene photopolymerization to tailor network architecture and degradation profiles. **W.D. Walker**, D.N. Amato, D.V. Amato, W. Martin, S. Swilley, M. Sandoz, M. Vekasy, D.L. Patton

POLY 483. Utility of photolabile protecting groups in amine functionalized polymers. **W.T. De Alwis**, P. Kurek, D. Konkolewicz

POLY 484. Layered polymer networks with dual-cure mechanisms based on multi-functional benzoxazines. **J. Weigand**, C. Miller, J.S. Wiggins

POLY 485. Application of core modified phenoxazine photoredox catalysts in organocatalyzed atom-transfer radical polymerization. **B. McCarthy**

POLY 486. Photoresponsive surface wrinkling in polymer brush thin films. **C. Reese**, P. Logan, B. Thompson, D.L. Patton

POLY 487. Excited state dynamics and exciton diffusion in platinum-acetylide polymers. **R. He**, R. Acharya, K.S. Schanze

POLY 488. Synthesis of acetal-based multifunctional thiols as building blocks for degradable poly(thioether acetal) thermosets via thiol-ene photopolymerization. **M. Vekasy**, D.N. Amato, D.V. Amato, C.A. Sarantes, W. Walker, D.L. Patton

POLY 489. Synthesis of photo-responsive optically active conjugated polymers and photo-reaction field. **M. Otaki**, H. Goto

Section A
Ernest N. Morial Convention Center Hall D

Polymer Applications & Characterization in Medical Device & Pharmaceutical Industries

Cosponsored by PMSE
Financially supported by Pfizer
X.M. Liu, J. Slager, *Organizers*

6:00-8:00

POLY 490. Effect of branching (star architecture) on poly(D,L-lactide) (PDLLA) degradation and drug delivery. **R. d'Arcy**

POLY 491. Development of antimicrobial-loaded polyurethane films for drug-eluting catheters. **M. Barde**, **M. Davis**, H. Mendis, L. De La Fuente, M. Avad

POLY 492. Novel bacterial anti-adhesion films with polymers derived from natural products. **K. Long**, J. Sinha, C. Bowman

POLY 493. Design of synergistic drug crystallization inhibitors via olefin cross-metathesis of hydrophilic cellulose ethers and bile acid derivatives. **D. Novo**, K.J. Edgar, L. Taylor, L.I. Mosquera-Giraldo

Section A
Ernest N. Morial Convention Center Hall D

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Cosponsored by ANYL, COMP and PMSE
J. Bohling, W. Gao, D.N. Haase, J. Tsavalas, W. Wu, *Organizers*

6:00-8:00

POLY 494. Characterization of acrylic alkali soluble polymer dispersions by asymmetrical flow field-flow fractionation. **G.P. Abramo**, W. Gao, L. Rhodes, J. Park

POLY 495. High-performance polymers for industrial applications. **D.N. Haase**, Z. Fu, A. Bacho, A. Pratt

POLY 496. Chemistry which enabled coatings with polymer pigment self-assembly to become a commercial reality. **J. Bohling**, K. Beshah, M. Clark, A.M. Maurice, W. Gao, S. Brownell, J.R. Reffner

POLY 497. Fundamental understanding of acidic monomer incorporation in acrylates emulsion polymerization. **W. Gao**, **P. Luo**, A.M. Maurice, T. Zhang, W. Young, C. Johann, S. Eلسenberg

Section A
Ernest N. Morial Convention Center Hall D

Polymer Networks: Soft Gels to Stiff Networks

Cosponsored by PHYS, PMSE and SOCED
E. Chan, S. Kundu, R.B. Moore, *Organizers*

6:00-8:00

POLY 498. Analysis of segmental dynamics for rigid crosslinked system using low field NMR. W. Zhao, J. Patel, X. Tao, **S.L. Hsu**

POLY 499. Thermally responsive and conductive PNIPAM hydrogel spheres. **D. Varghese**, D.H. Adamson

POLY 500. How do cross-linking kinetics relate to rheological property evolution in the thermoset coatings? **J. Tilly**, D. Inglefield, R.J. Spontak, S. Khan

POLY 501. Controlled storage and release of elastic energy in crosslinked polymer microparticles. **L. Cox**, W. Li, J. Leng, J. Xiao, **Y. Ding**

POLY 502. Elastic multi-functional poly(ionic liquids) membrane. **B. Li**, P. Cao, S. Zhao, K. Xing, J. Hingu, A.P. Sokolov, T. Saito

POLY 503. Reprocessable cross-linked polyurethanes. **D.J. Fortman**, J. Brutman, R.L. Snyder, M.A. Hillmyer, W. Dichtel

POLY 504. Influence of trifluoromethyl substituents on optical properties of polyimide aerogels. **S.L. Vivod**, M. Meador, C.R. Pugh

POLY 505. Thiol-ene networks containing perfluorinated n-alkanes: Effect of n-alkane length on free-volume and gas permeation. **V. Vasagar**, R. Ramakrishnan, J. Goetz, B.M. Ameduri,

[†]Cooperative Cosponsorship

S.I. Nazarenko

POLY 506. Development of thermally reversible polyimide gels for coating carbon nanotube wires. **R.P. Viggiano**, J.J. Maldonado, B.N. Nguyen, H.N. Guo, L.S. McCorkle, T. Williams, M. Meador

POLY 507. Nanomechanics of thin poly(methacrylic acid) multilayer hydrogels probed by AFM. **K.A. Stockmal**, V.A. Kozlovskaya, E.P. Kharlampieva, S.E. Morgan

POLY 508. Actuation of viologen-based soft materials using a photoredox mechanism. **K. Liles**, A.F. Greene, M. Danielson, A. Wellen, N.D. Colley, J. Fisher, J.C. Barnes

POLY 509. Redox-to-donor-acceptor interconversion of supramolecular hydrogels. **A.F. Greene**, M.K. Danielson, A. Wellen, A. Natraj, N.D. Colley, J.C. Barnes

POLY 510. Synthesis and characterization of composite hydrogel networks for use in high performance concrete. **T.L. Thornell**, M.J. Krafcik, K.A. Erk

POLY 511. Advances in polyester vitrimer design. **J.L. Self**, M. Sanchez Zayas, A. Abdilla, J. Read De Alaniz, C. Bates

POLY 512. Ghost particles: Effect of constrained space on glassy polymer network formation and mechanics. **T. Palmer**, J. Winetrot, J.S. Wiggins

POLY 513. Porous LAdder-polymer networks (PLANs). **S. Che**, L. Fang

POLY 514. Bringing furan/maleimide Diels-Alder HA hydrogel chemistry to physiological conditions, for biomedical applications. **V. Delplace**, A. Amin, M.S. Shoichet

Section A

Ernest N. Morial Convention Center Hall D

Polymer Optoelectronics

J.D. Azoulay, X. Gu, Y.C. Simon, Organizers

6:00–8:00

POLY 515. Correlating molecular structure with the optoelectronic properties of tailored oxoverdazyl radical species. **V. Agarkar**, B.W. Boudouris

POLY 516. Structure-mechanical property of stretchable organic ultra-thin film for electronic applications. **B. Appleby**, **S. Zhang**, X. Gu

POLY 517. Simple and rapid functionalization of conjugated polymers via thiol-ene “click” chemistry. **J. Tropp**, D.V. Amato, D.L. Patton, J. Azoulay

POLY 518. Donor-acceptor polymers with tunable infrared photoresponse. **L. Huang**, A.E. London, T. Ng, J. Azoulay

POLY 519. Structure-function property relationships of narrow bandgap donor-acceptor polymers containing selenium. **N. Eedugurala**, J.D. Azoulay

POLY 520. Interface engineering of air-processed inverted OPV devices via sol-gel processed vanadium oxide hole-extraction layer. **A.R. Benasco**, **J. Richardson**, L. Moore

†Cooperative Cosponsorship

POLY 521. Incorporation of DNA aptamers into conjugated polymer-based optical sensors. **J.O. Peter**

Section A

Ernest N. Morial Convention Center Hall D

Structure & Dynamics of Materials via NMR Spectroscopy

Financially supported by Exxon, NMR Service, Rototec-Spintec

H. Cheng, Organizer

6:00–8:00

POLY 522. Enzyme-catalyzed “click” Michael addition between fluorescein monoacrylate and thiol-functionalized polyethers. **G. Shrikhande**, S. Sen, P. Mulay, J.E. Puskas

POLY 523. Synthesis of thiol-functionalized tetraethylene glycol and poly(ethylene glycol)s via enzyme-catalyzed transesterification. **P. Mulay**, S. Sen, J.E. Puskas

POLY 524. Structural studies of polydisulfide macrocycles by 2D gHMBC NMR. **S. Sen**, V. Dudipala, J.E. Puskas

POLY 525. Chemical degradation of model sulfonated polyphenylene proton exchange membranes. **C. Miller**, E.G. Sorte, T.M. Alam

POLY 526. Miscibility analysis of polymer based ultrafiltration membranes through two dimensional Wdeline Separation solid state NMR spectroscopy. **K. Dixon**, J.D. Oliver, G. Johnston-Hall, R. Wuhrer, P. Castignolles, M. Gaborieau

POLY 527. Understanding polymer dynamics in perfluorosulfonic acid membranes via solid-state NMR. **Z.B. Yan**, A.P. Young, G.R. Goward

POLY 528. ¹⁹F spin diffusion and X-ray scattering analysis of fluoropolymers. **J. Vaughn**, J. Hammons, H. Mason

POLY 529. NMR investigations of dynamics in the different phases of semicrystalline polymers. **M. Schaefer**, R. Kurz, A. Seidlitz, M. Schulz, T. Thurn-Albrecht, K. Saalwaechter

POLY 530. Characterisation of industrial adhesives with (solid-state) NMR spectroscopy. **K. Bhullar**, J.J. Thevarajah, A. Rebmann, S. Cheevers, R. Wuhrer, P. Castignolles, **M. Gaborieau**

POLY 531. Detection of nanoscale phase separation in nanoparticles with mixed ligand shells. **B.I. Guzman Juarez**, K. Kim, A. Abdelaal, S. Allie, V. Toader, L.G. Reven

POLY 532. ²H-NMR, FTIR, and DSC: The structure and dynamics of poly(styrene-*r*-methyl methacrylate-*d*₂) on silica. **U.N. Arua**, M. Maddumaarachchi, F.D. Blum

POLY 533. Effect of water on the structure and dynamics of [3-¹³C] Ser, [3-¹³C] Tyr and [3-¹³C] Ala-Bombyx mori silk fibroin studied with ¹³C solid-state NMR. **A. Nishimura**, H. Matsuda, Y. Tasei, T. Asakura

POLY 534. Chain conformation, packing, and folding structures of poly(L-lactic acid) in glassy state as studied by ¹³C solid-state NMR and selective isotope labeling. **S.**

Yuan, S. Wang, T. Miyoshi

POLY 535. Crystal structure of poly(lactic acid) stereocomplex as studied by ¹³C-¹³C double quantum NMR. **W. Zhou**, S. Wang, S. Yuan, T. Miyoshi

POLY 536. Effect of stereoregularity on local dynamics of hydrogenated polynorbornenes as studied by solid-state NMR. **Y. Makita**, Y. Nakama, S. Hayano, H. Kurosu, T. Miyoshi

Section A

Ernest N. Morial Convention Center Hall D

Undergraduate Research in Polymer Science

Cosponsored by CHED and PMSE
H. Broadhead, S.E. Morgan, S.I. Nazarenko, Organizers

6:00–8:00

POLY 537. Imidazolium-containing thiolene poly(ionic liquid) membrane networks: Conductive and gas separation properties. **A.F. Bratton**, H.B. Fannin, K.M. Miller

POLY 538. Trithiocarbonate disulfides as chain transfer agents. **T. Ruiz Velasco**, D.K. Schneiderman, A. Way, S.J. Rowan

POLY 539. Methylene blue doped polymer films for anaphylaxis treatment: Film morphology and drug dispersal. **H. Fischer**, R.M. Van Horn

POLY 540. Design, synthesis and characterization of polyimides containing pyridine/pyridinium linkages in their backbones. **V. Levine**, M.E. Verde, G.P. Dennis, D. Mecerreyes, J.E. Bara

POLY 541. Synthesis and characterization of a DFDPP-CPDT polymer with ethynyl spacers by means of a Sonogashira coupling. **H.P. Masching**, **C. Benson**, J.L. Duffy-Matzner

POLY 542. Synthesis towards sequence-controlled polypeptides. **C. Morejon-Garcia**, R.A. Letteri, T. Nguyen, Y. Tsao, X. He, K.L. Wooley

POLY 543. Interface optimization of nanoaluminum urethane composite energetic foams. **C. Baxter**, J. Bencomo, J. McCollum, S.T. Iacono

POLY 544. Epoxy based liquid crystal elastomers for shape memory materials. S.T. Iacono, N. Godman, T.J. White, J.M. McCracken, **C. Baxter**

POLY 545. Mechanical testing for stretchable organic thin film for electronic applications. **B. Appleby**, S. Zhang, X. Gu

POLY 546. Dynamic, responsive DNA-like polymers. **T. Goldman**, B.T. Worrell, S. Mavila, C. Bowman

POLY 547. Dynamic thiol-Michael bonds in poly(ionic liquid) polyester networks. **S.P. Daymon**, K.M. Miller

POLY 548. Anionic ring-opening polymerization of activated azetidines. **E.A. Rowe**, L. Reisman, P. Rupar

POLY 549. Fluorinated polyfulvenes for low band gap optical applications. **C. Bestler**, A. Peloquin, G.J. Balaich, **S.T. Iacono**

POLY 550. Determination of equilibrium

water content in bioinspired glycopolymer hydrogel networks. **H.E. George**, B.S. Upadhyay, K.A. Stockmal, S.E. Morgan

POLY 551. Synthesis of anionic acrylamide-based polymers for determination of structure/binding interactions with food-based proteins. **A.N. Davis**, B.E. Payne, A.N. Bristol, S.E. Morgan

POLY 552. Monitoring the effect of crosslink density and amphipathic balance on viscoelastic property evolution in glycopolymer hydrogels using rheology. **B.S. Upadhyay**, A.L. Fogel, S.E. Morgan

POLY 553. Synthesis of *p*-xylene-diisocyanide and polymerization to form poly(2,4-pyrrole-*alt-p*-phenylene). **J.P. Mancinelli**, J. Cole, E.B. Berda

POLY 554. Withdrawn

POLY 555. pH responsive sulfonamide-based polysoaps via RAFT copolymerization for oil remediation and recovery. **K. Stevens**, P.D. Pickett, C.L. McCormick

POLY 556. Highly conductive composites of intrinsically conductive conjugated polymers and carbon nanotubes. **G. LeCroy**, L. Huang, J. Azoulay

POLY 557. Electrospun silk fibroin for use as biomechanical actuators. **S. Maxwell**, S. Severt, J. Bontrager, A. Murphy

POLY 558. Responsive “polysoaps” via RAFT copolymerization to serve as therapeutic drug delivery vehicles. **M.A. Dearborn**, P.D. Pickett, C.L. McCormick

POLY 559. Withdrawn

POLY 560. Endo vs. Exo: Temperature tunable functional building blocks for highly efficient polymer modification. **S. Nguyen**, A. St. Amant, E. Discekici, J. Read De Alaniz, C.J. Hawker

POLY 561. Block crystallization mechanisms of PEO-*b*-PCL as a function of weight fraction and isothermal crystallization temperature. **C.W. Tower**, R.M. Van Horn

POLY 562. Plasma treatment of rough polymer surfaces to achieve increased diffuse reflectance. **K. Ardrey**, A. Erickson, P. Defino, C.S. Coughlin, H. Chintakunta, C. Drake

POLY 563. Cohesion in layered polymer networks prepared by stereolithography. **C. Croshaw**, J. Weigand

POLY 564. Phosphazene-base promoted ring-opening polymerization of 1,2-butylene oxide and ethoxyethyl glycidyl ether initiated by secondary amides. **A. Shishlov**, P. Guégan, N. Illy

POLY 565. Zinc oxide nanoparticle composites from keratin, cellulose and chitosan: Antimicrobial properties and synthesis. **S. Sterling**, J. Nyakuchena, E. Munson, C.D. Tran

POLY 566. Withdrawn

POLY 567. Spheres from flat polymer sheets using only light. **D. Mong'are**, A. Hubbard, J. Genzer, M.D. Dickey

POLY 568. Synthesis of two fluorescent conjugated polymers with urea receptors

as chemical sensors to detect fluoride ions. **A. Bah**, W. Wu, W.E. Bernier, W.E. Jones

POLY 569. Solvent effects of melting behavior of diblock copolymers of equal weight fractions. **D. O'Connor**

POLY 570. Synthesis of single-chain nanoparticles under various ATRC reaction conditions. **C. Leo**, E.R. Bright, C. Willis, A. Hanlon, E.B. Berda

POLY 571. Investigating the relationship between MOF modification and polymer-filler compatibility in thiol-ene based mixed matrix membranes. **G.A. Rodriguez**, J.M. Schekman, Y.C. Simon

POLY 572. Fabrication of polymer nanoparticles via intrachain ring-opening metathesis polymerizations (ROMP). **S. Benware**, R. Chen, J. Cole, E.B. Berda

POLY 573. Microwave assisted synthesis of polysuccinimide and polyaspartic acid for second semester organic chemistry students. N. Madrid, S. Moyer, **B.P. Quillian**, N. Shank

POLY 574. Withdrawn

POLY 575. Poly(Aspartic Acid) PAA in the undergraduate curriculum: A multi-course approach. **M. Weiland**, N. Davis, S.E. Gray, W. Hiester

POLY 576. Thiol-ene photopolymerization as a facile route to pro-antimicrobial polymer networks with degradable acetals. **M. Sandoz**, D. Amato, D.V. Amato, L. Blancett, O. Mavrodi, W. Martin, S. Swilley, K. Parsons, G. Shearer, D. Mavrodi, D.L. Patton

POLY 577. Analyzing the nanomorphology of novel diblock copolymers for potential use as solid polymer electrolytes. **K.N. Gardiner**, D.A. Waldow

POLY 578. Common protocol for coupling reactions of multiple classes of polymeric radicals. E.S. Tillman, **M. Arce**

POLY 579. Investigating the co-assembly behavior of linear amphiphilic triblocks in the fabrication of polymer vesicles. **E. Ghimire**, F. O'Dowd, T. Chidanguro, Y.C. Simon

POLY 580. Synthesis of single-chain nanoparticles through photodimerization of anthracene via triplet-triplet annihilation upconversion. **A. Garrett**, D.R. Blank, T. Chidanguro, J.M. Schekman, X. Yu, N. Ayres, Y.C. Simon

POLY 581. Selective deprotection of cyclopentadiene as a platform for functional polymeric materials. **S. Shankel**, A. St. Amant, E. Discekici, S. Nguyen, J. Read De Alaniz, C.J. Hawker

POLY 582. Analyzing the effect of molecular weight on ionic conductivity of novel solid polymer electrolytes for use in lithium ion batteries. **J. Finney**, D.A. Waldow

POLY 583. Analyzing the surface chemistry of polymer microgels as a function of particle stiffness. **C.A. White**, G.G. Brim, M. Gaines

Joint PMSE-POLY Poster Session

Clay-Polymer Composites:

Nanoclay & Other Natural Nanoparticles

Sponsored by PMSE, Cosponsored by POLY

Joint PMSE-POLY Poster Session

General Posters: New Concepts in Polymeric Materials

Sponsored by PMSE, Cosponsored by POLY

Joint PMSE-POLY Poster Session

Third International Symposium on Polybenzoxazines: Towards Diamond Jubilee of Benzoxazine Chemistry

Sponsored by PMSE, Cosponsored by POLY

WEDNESDAY MORNING

Section A

New Orleans Marriott Canal Street Studio 6

International Symposium on Biorelated Polymers: Renewable Materials

Functionalization & Modification of Renewable Feedstocks

Cosponsored by PMSE
A. Watts, *Organizer*
E.W. Cochran, E.C. Hagberg, R.T. Mathers, *Organizers, Presiding*

8:00 POLY 584. Obvious and non-obvious bioaromatics for polymerization. **S.A. Miller**, M. Rostagno, S. Shen, G. Short, O. Nsengiyumva, F. Diot-Néant

8:40 POLY 585. Lignin-based functional polymers. **H. Liu**, H. Chung

9:00 POLY 586. Novel synthetic routes to polysaccharide-based block copolymers. **J. Chen**, K.J. Edgar

9:20 POLY 587. Cellulose nanocrystals in 3D printing and aerogels: nanocomposite properties. **R.C. Advincula**

10:00 Intermission.

10:30 POLY 588. New bio-related materials based on cardanol. **H. Cheng**, A. Biswas, Z. Liu, C.R. Alves, R.F. Furtado

11:00 POLY 589. Development of new biopolymers from renewable building blocks derived from low-molecular weight hemicelluloses. **L. Puchot**, R. Dieden, D. Da Silva Perez, **Y. Habibi**

11:20 POLY 590. Effect of the N-based ligands in copper complexes for depolymerisation of lignin. **J. Dai**, K. Saito, A. Patti

11:40 POLY 591. Thermoplastics from lignin oligomers and syringic acid derivatives. **L. Longe**, G. Garnier, K. Saito

Section B

New Orleans Marriott Canal Street Studio 1

Polymer Optoelectronics

X. Gu, Y.C. Simon, *Organizers*
J.D. Azoulay, *Organizer, Presiding*

8:00 POLY 592. In-situ materials structure measurements for organic

photovoltaics manufacturing. **D. DeLongchamp**

8:30 POLY 593. Withdrawn

8:50 POLY 594. PTB7-Th-b-PNDI fully conjugated donor-acceptor block copolymers for thermal stability of photovoltaic devices. **Y. Lee**, E. Gomez, Q. Wang

9:10 POLY 595. Synthesis and characterization of benzodithiophene-S,S-tetraoxide based donor-acceptor polymers as organic semiconductors. **S. Adhikari**, D. Kim, T.L. Nelson

9:30 POLY 596. Polymer-acceptor bulk heterojunction solar cells: Establishing relationships among polymer chemical structure, polymer packing, and polymer-acceptor mixing. **J.E. Bredas**

10:00 Intermission.

10:30 POLY 597. Morphology in organic photovoltaics: Importance of intimately mixed donor/acceptor domains. **M. Toney**

11:00 POLY 598. Detectivity of shortwave infrared organic photodiodes. Z. Wu, W. Yao, A. London, J. Azoulay, **T. Ng**

11:30 POLY 599. Ultrafast singlet exciton decay in push-pull polymers. **M. Sfeir**

Section C

New Orleans Marriott Canal Street Studio 4

Structure & Dynamics of Materials via NMR Spectroscopy Rheology, Melts & Gases

Financially supported by ExxonMobil; Bruker; JEOL; 3M; MR Resources; NMR Service; Rototec-Spintech; Cambridge Isotope; New Era Enterprises
H. Cheng, A.D. English, *Organizers*
H. Kaji, *Presiding*

8:00 POLY 600. Quiescent and flow-induced crystallization of polyolefins studied by a novel low-field RheoNMR combination. V. Röntzsch, M.B. Özen, K. Rätzsch, G. Guthausen, **M. Wilhelm**

8:25 POLY 601. Viscoelasticity and structures in chemically and physically dual-crosslinked hydrogels: Insights from rheology and proton multiple-quantum NMR spectroscopy. **R. Zhang**, X. Zou, P. Sun

8:50 POLY 602. Polymers in electric fields and under shear studied by NMR. **U. Scheler**

9:15 POLY 603. Field-cycling NMR as a tool of molecular rheology. **M. Hofmann**, B. Kresse, N. Fatkullin, F. Fujara, E. Rössler

9:40 Intermission.

9:55 POLY 604. Unlinked cyclic polymers and the non-equilibrium melt state of UHMWPE; rheological, crystallization and mechanical response. **S. Rastogi**

10:20 POLY 605. Intermolecular contribution to proton spin-relaxation in polymer melts: New perspectives for experimental study of polymer melt dynamics. **N. Fatkullin**, A. Lozovoi, C.

Mattea, S. Stapf, E. Rössler

10:45 POLY 606. Intermolecular contribution to proton spin-relaxation in polymer melts: New experimental evidence for entanglement dynamics—does reptation really exist? A. Lozovoi, N. Fatkullin, C. Mattea, **S. Stapf**

11:10 POLY 607. NMR observations of the gases in polymers. **H. Yoshimizu**

Section D

New Orleans Marriott Canal Street Studio 2

Polymer Networks: Soft Gels to Stiff Networks

Cosponsored by PHYS, PMSE and SOCED
S. Kundu, R.B. Moore, *Organizers*
E. Chan, *Organizer, Presiding*

8:00 POLY 608. Tough hydrogels for time-programmable shapeshifting. **S. Sheiko**

8:30 POLY 609. Creating tough and healable macroscale “double network” hydrogels. **D.R. King**, R. Takahashi, T. Okumura, T. Sun, J.P. Gong

9:00 POLY 610. Double network hydrogels with high stiffness and ultra-high strength. **M. Grunlan**, A. Means

9:20 POLY 611. Highly resilient two component networks. **G.N. Tew**

9:40 POLY 612. Functional polymers through subcomponent self-assembly. **J. Nitschke**

10:00 Intermission.

10:30 POLY 613. Swelling and mechanical characterization of poly(acrylic acid)-based hydrogel particles used as internal curing agents in cement. **K.A. Erk**, T.L. Thornell, M.J. Krafcik

11:00 POLY 614. Stimuli-responsive supramolecular polymer networks. **C. Weder**

11:20 POLY 615. Emulsion templated hydrogels: Superabsorbents, stimulus-responsive, double-crosslinking, and dual-response. T. Zhang, S. Kovacic, **M.S. Silverstein**

11:40 POLY 616. Development of visible-light responsive and mechanically enhanced UCST double network hydrogels. **Y. Xu**, O. Ghag, P. Sitterle, M. Reimann, P. Chatterjee, E. Nofen, Y. Yu, H. Jiang, L. Dai

Section E

New Orleans Marriott Canal Street Studio 10

Adaptive Nanogels

Cosponsored by COLL
T. Hoare, L.A. Lyon, W. Richtering, D. Suzuki, *Organizers*
A. Fernandez-Nieves, *Organizer, Presiding*
A. Walther, *Presiding*

8:00 POLY 617. Hierarchical mechanics and assembly in hydrogels. **P.J. Yunker**

8:30 POLY 618. Soft responsive microgels at high densities. **P. Schurtenberger**

9:00 POLY 619. Hard and soft

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microgels: Are they different? **W. Richtering**

9:30 POLY 620. Packing and defect tolerance of ultra-low cross-linked microgel assemblies. **L.A. Lyon**, M. Islam, R. Nguyen

10:00 Intermission.

10:30 POLY 621. Angle-independent structural colored materials by black and white components. **Y. Takeoka**

11:00 POLY 622. Hard core – Soft shell microgels for reconfigurable colloidal crystal assemblies. **A.J. Kuehne**, J. Sprakel, D. Go

11:20 POLY 623. Phase behavior in polydisperse microgel suspensions controlled by spontaneous particle deswelling. **U. Gasser**, **A. Scotti**, E.S. Herman, L.A. Lyon, A. Fernandez-Nieves

11:40 POLY 624. pH and temperature dependent swelling studies of core-shell microgels prepared with ultralow crosslinked microgels. **M. Islam**, L.A. Lyon

Section F

New Orleans Marriott Canal Street Studio 7

Photochemistry & Polymers

B.P. Fors, D. Konkolewicz, D.L. Patton, *Organizers*
M. Allegrezza, D. Konkolewicz, *Presiding*

8:00 POLY 625. Recent advancements in optoelectronic materials. **L.M. Campos**

8:30 POLY 626. Withdrawn

8:50 POLY 627. Interrelationships between molecular structure, hierarchical organization, and FMO energies in supramolecular heterojunctions. **A. Levine**, C. Kolodziej, W. Lin, M. Ahmed, C. Burda, A.B. Braunschweig

9:10 POLY 628. Design and synthesis of fluorescent conjugated polyelectrolytes as copper and fluoride sensors. **W. Wu**, A. Bah, W.E. Bernier, W.E. Jones

9:30 POLY 629. Everything under the sun/light in polymers. **Y.C. Simon**

10:00 Intermission.

10:30 POLY 630. Beyond binary: Optical data storage in a quaternary code. **E. Pentzer**, P. Wei, B. Li, A. de Leon

11:00 POLY 631. Pixelated polymers: Directed self assembly of liquid crystalline polymer networks. **T.J. White**, B.R. Donovan, N. Godman, A. Auguste, T. Guin

11:30 POLY 632. Using light to actuate and locally tune the properties of polymers. **M.D. Dickey**, J. Genzer, Y. Liu, R. Mays, D. Davis, R. Mailen

Section G

New Orleans Marriott Canal Street Beaugard

General Topics: New Synthesis & Characterization of Polymers

B. Barkakaty, D. Garcia, *Organizers*
A.N. Bristol, A.K. Naskar, K. Uchimura, *Presiding*

8:00 POLY 633. Iterative exponential

growth synthesis of perfect triazole-based polymers. **Y. Jiang**, M. Golder, H.V. Nguyen, P. Teichen, Y. Shibuya, Y. Wang, M. Zhong, J.C. Barnes, D. Ehrlich, A. Willard, J.A. Johnson

8:20 POLY 634. Molecular design of water-soluble polyimides controlling rigidity and side chains. **T. Kaneko**, S. Sakamoto, T. Kobayashi, S. Dwivedi

8:40 POLY 635. Structure-kinetic relationships for mono(μ -oxo)-dialuminum initiators for epoxide polymerization. **J. Imbrogno**, R.C. Ferrier, N.A. Lynd

9:00 POLY 636. Controlled 2D polymerizations and resultant single crystal covalent organic frameworks. **A.M. Evans**, N. Flanders, L. Parent, R.P. Bisbey, E. Vitaku, N.C. Gianneschi, W. Dichtel

9:20 POLY 637. Block-stereoblock copolymers of poly(β -caprolactone) and poly(lactic acid). **T. Rosen**, I. Goldberg, W. Navarra, V. Venditto, M. Kol

9:40 POLY 638. Conjugated polymers via cyclopentannulation strategies. **K.N. Plunkett**, S. Bheemireddy, M.p. Hautzinger, X. Zhu, S. Somiseti, K. DuBay

10:00 POLY 639. Anionic polymerization of aziridines. **P.C. Mbarushimana**, P.A. Rugar

10:20 POLY 640. Withdrawn

10:40 POLY 641. *Ab initio* thermal conductivity evaluation of polymer systems. **K. Uchimura**, T. Ichibha, R. Maezono, K. Hongo

11:00 POLY 642. Facile synthesis of fluorine-substituted, alternating poly lactides and their amphiphilic block copolymers. **C. Lee**, R. Khalifehzadeh, B.D. Ratner, A.J. Boydston

11:20 POLY 643. Cyclopolymerization of 1,2-dicarbodiimides. **C.U. Jayarathna**, E.H. De Silva, B.M. Novak

11:40 POLY 644. Synthesis and characterization of polyelectrolytes containing tetraarylphosphonium moieties by using diphenylphosphine as commercial building block. **W. Wan**, X. Yang, R. Smith

Section H

New Orleans Marriott Canal Street Audubon

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Cosponsored by ANYL, COLL, COMP, I&EC and PMSE
Financially supported by Wyatt Technology; Anton Paar USA, Inc.; The Dow Chemical Company; Arkema; Solvay J. Bohling, W. Gao, D.N. Haase, J. Tsavalas, W. Wu, *Organizers*
D.S. Germack, C. Lipscomb, *Organizers*, *Presiding*

8:00 POLY 645. Bulk and interfacial properties of acrylic emulsion-based pressure sensitive adhesives via microindentation probe tack. **M. Einsla**, W. Griffith, Q. Wang, M.L. Pacholski, S. Zhang, K.R. Shull

8:30 POLY 646. Withdrawn

9:00 POLY 647. Polymer colloids with improved re-dispersibility in alcohol based formulation. **F. Zeng**, W. Xu, K. Beshah,

L. Bai, B. Yezer,, L. Chen, D. Schmidt, I. Shulman

9:20 POLY 648. Applications of polymer colloids in Waterborne coatings: Influences of composition and process designs on coatings performance properties: Tutorial. **W. Wu**

10:00 Intermission.

10:30 POLY 649. Colloidal particles for green printing technology. **Y. Song**

11:00 POLY 650. Development of photoactive inks for application in organic electronics. **E. Cloutet**

11:30 POLY 651. Property comparison between solvent-based and water-based epoxy-amine clear coatings. **M. Pramanik**, E. Kaya, D. Dellate, M. Blanton, J. Rawlins

Lignin: From Fundamentals to New Materials & Applications

Nanoscaled Materials from Lignin

Sponsored by CELL, Cosponsored by ENVR and POLY

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems
Sponsored by CELL, Cosponsored by ENVR and POLY

Cyclic & Topologically Complex Polymers

Sponsored by PMSE, Cosponsored by POLY

WEDNESDAY AFTERNOON

Section A

New Orleans Marriott Canal Street Studio 6

International Symposium on Biorelated Polymers: Renewable Materials

Synthesis of Renewable Materials

Cosponsored by PMSE
A. Watts, *Organizer*
E.W. Cochran, E.C. Hagberg, R.T. Mathers, *Organizers*, *Presiding*

1:00 POLY 652. Synthesis of renewable polyurethanes derived from isohexides and furans: Stereochemical effects on mechanical and viscoelastic properties. **R.J. Kieber**, S. Silver, J.G. Kennemur

1:20 POLY 653. Withdrawn

1:40 POLY 654. Synthesis of high performance phthalonitrile resins from renewable resources. **M. Derradji**, A. Wang, W. Liu

2:00 POLY 655. Novel biomolecular design of N-boronated polybenzimidazole with single ion conductivity. **A. Nag**, M. Asif, R. Vedarajan, N. Matsumi, T. Kaneko

2:20 POLY 656. Emulsion-templated renewable resource polymers: Open-cell scaffolds and closed-cell encapsulation. L. Avraham, L. Wienstock, I. Berezovska, R. Sanguramath, **M.S. Silverstein**

3:00 Intermission.

3:30 POLY 657. Renewable materials constructed through mimicking biomineralization. **M.R. Hartings**

4:00 POLY 658. Bio-based thiol-ene

polymers for use in battery applications: Synthesis and properties. **E.A. Baroncini**, J.F. Stanzione

4:20 POLY 659. Nature-derived renewable polymers to replace commodity plastics. **O. Nsengiyumva**, E. Sahmetlioglu, H. Nguyen, E. Gokturk, S.A. Miller

Section B

New Orleans Marriott Canal Street Studio 1

Polymer Optoelectronics

J.D. Azoulay, X. Gu, *Organizers*
Y.C. Simon, *Organizer*, *Presiding*

1:00 POLY 660. Development of electro-active inks for organic electronics. **E. Cloutet**

1:20 POLY 661. Strategies for triplet fusion upconversion. **A. Pun**, D.N. Congreve, L.M. Campos

1:40 POLY 662. Towards supramolecular systems for efficient triplet-triplet annihilation photon upconversion. **K. Moth-Poulsen**

2:10 POLY 663. Polypeptide-induced organization of semiconducting polymers into hybrid electroactive materials with enhanced photo-physical properties. **C. Rosu**, P. Russo, E. Reichmanis

2:30 POLY 664. Designing organic mixed conductors for bioelectronic applications. **J. Rivnay**

3:00 Intermission.

3:30 POLY 665. Design considerations for organic thermoelectric materials. **B.C. Schroeder**

4:00 POLY 666. Designing charge-neutral, non-conjugated radical polymers with high electrical conductivity values. **B.W. Boudouris**, V. Agarkar, Y. Joo

4:30 POLY 667. Multifunctional electronic materials for thin film devices. **S. Yoo**, E. Gomez

4:45 POLY 668. Multifunctional charge transfer-based supramolecular materials with tunable thermochromism. **T. Yuan**, M. Olson, L. Fang

Section C

New Orleans Marriott Canal Street Studio 4

Structure & Dynamics of Materials via NMR Spectroscopy

Biobased Materials

Financially supported by ExxonMobil; Bruker; JEOL; 3M; MR Resources; NMR Service; Rototec-Spintech; Cambridge Isotope; New Era Enterprises
H. Cheng, A.D. English, *Organizers*
M. Gaborieau, *Presiding*

1:00 POLY 669. Diffusion and relaxometry NMR to study interactions between carbohydrates in ionic liquids. **M.E. Ries**, T. Budtova, W. Ezzawam

1:25 POLY 670. Starch/sucrose amorphous blends studied by low- and high-resolution solid state NMR. **M. Geppi**, F. Martini, G. Mencarini, G. Badolato-Bönisch, D.J. Hughes, J. Ubbink

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1:50 POLY 671. Insights into the heterogeneity of polysaccharides with solid-state NMR spectroscopy. J.J. Thevarajah, M.P. van Leeuwen, M. Heuls, A. Rouilly, R.M. Ward, E.P. Gilbert, R. Graf, P. Castignolles, **M. Gaborieau**

2:15 POLY 672. NMR analysis of compositionally heterogeneous polysaccharides. **H. Cheng**

2:40 Intermission.

2:55 POLY 673. Solid State NMR at high and low field for the characterization of bioplastics obtained from vegetable wastes. **R. Simonutti**, M. Mauri, G. Perotto

3:20 POLY 674. Analysis of C-H and N-H distances of amino acids and polypeptides by CP-VC method. **H. Kimura**, Y. Tsutsumi, J. Amoureux, A. Shoji

3:45 POLY 675. Characterization of microbial poly(β -glutamic acid) and its polymer complex by solid NMR. **S. Maeda**

4:10 POLY 676. Investigation of polypeptide structure-property relationship by proton (H1)/spin-lattice relaxation time (T1) nuclear magnetic resonance and pulsed gradient spin echo (PGSE). **C. Rosu**, E. Von Meerwall, D. Treleaven, P. Russo

Section D

New Orleans Marriott Canal Street Studio 2

Paul J. Flory Polymer Education Award: Symposium in honor of Timothy P. Lodge

M.D. Ediger, Organizer, Presiding

1:00 POLY 677. Self-assembly of responsive polypeptide block copolymers. **D.A. Savin**

1:30 POLY 678. Complex lyotropic liquid crystalline sphere packings in aqueous dispersions of a diblock polymer. **M.K. Mahanthappa**

2:00 POLY 679. Using physical vapor deposition to produce structured glasses. **M.D. Ediger**

2:30 POLY 680. Hydrogen bonded complex in photo-initiated cationic polymerization of epoxides and oxetanes. **C.Y. Ryu**, S. Park

3:00 Intermission.

3:30 POLY 681. Functional polymeric ionic liquids. **R.A. Segalman**

4:00 POLY 682. Composition-dependent dynamics in polyelectrolyte complex coacervates. **J. Laaser**, F. Morin, J. Huang

4:30 POLY 683. Thermoreversible gelation of methylcellulose: Confounding what we teach in Polymers 101. **T.P. Lodge**, S. Morozova, P. Schmidt, F. Bates

Section E

New Orleans Marriott Canal Street Studio 10

Adaptive Nanogels

Cosponsored by COLL
A. Fernandez-Nieves, T. Hoare, L.A. Lyon, D. Suzuki, Organizers
W. Richtering, Organizer, Presiding
D. Woell, Presiding

1:00 POLY 684. Adhesive microgels. **R.H. Pelton**

1:30 POLY 685. Soft microgels at liquid interfaces: model surfaces and emulsions. **V. Ravaine**

2:00 POLY 686. Functional hydrogel microspheres at the air/water interface. **D. Suzuki**, M. Takizawa, H. Minato, Y. Szazuka

2:30 POLY 687. Interface-mediated self-assembly of multifunctional core-shell microgels. K. Volk, T. Honold, **M. Karg**

3:00 Intermission.

3:30 POLY 688. Smart nanomembranes by electron beam cross-linking of copolymer microgels. **T. Hellweg**

4:00 POLY 689. Macroscopic aqueous foams stabilized by PNIPAM microgels. **M. Kühnhammer**, R. von Klitzing

4:20 POLY 690. Mechanical characterization of single microgels using atomic force microscopy nanoindentation. **J. Nicosia**, D. Chambers, A. Fernandez-Nieves, W. Lam, T. Barker

4:40 POLY 691. Monte Carlo simulations of weak polyampholyte microgels: pH-dependent ionization and volume change. C. Hofzumahaus, C. Strauch, **S. Schneider**

Section F

New Orleans Marriott Canal Street Studio 7

Photochemistry & Polymers

B.P. Fors, D. Konkolewicz, D.L. Patton, Organizers
J.A. Kalow, J.A. Reeves, Presiding

1:00 POLY 692. Photocontrol of crosslink exchange kinetics in hydrogels and vitrimers. **J.A. Kalow**

1:30 POLY 693. Photo-switchable plasticity in (photo)polymerized network polymers. **C. Bowman**, B. Worrell, M.K. McBride, G. Berg, C. Wang, L. Cox

2:00 POLY 694. Photo-sensitive multi-responsive structurally dynamic polymers. **S.J. Rowan**

2:30 POLY 695. Strong underwater adhesion of low modulus polyester adhesives is achieved with photochemical control of cohesive bonds. A. Narayanan, S. Kaur, Q. Liu, A.N. Dhinojwala, **A. Joy**

3:00 Intermission.

3:30 POLY 696. Photochemical grafting of functional copolymers with high abrasion resistance. **J.J. Locklin**

4:00 POLY 697. Driving polymer and surface modification using visible light. **J. Blinco**, P. Lederhose, C. Barner-Kowollik

4:30 POLY 698. Preparation of micro-patterned surfaces by the use of light-sensitive alkoxyamines. **Y. Guillaeneuf**

Section H

New Orleans Marriott Canal Street Audubon

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Cosponsored by ANYL, COLL, COMP, I&EC and PMSE
Financially supported by Wyatt

Technology; Anton Paar USA, Inc.; The Dow Chemical Company; Arkema; Solvay
W. Gao, D.S. Germack, D.N. Haase, C. Lipscomb, W. Wu, Organizers
J. Bohling, J. Tsavalas, Organizers, Presiding

1:00 POLY 699. Opacifying polymer imaging: a new strategy for thermal printing. **A. Hejl**, B. Einsla, C. Chung

1:30 POLY 700. Waterborne coating formulations with poly (vinyl acetate) and acrylic latex blends utilizing design of experiments and high-throughput methodology. **P.S. Majumdar**, M.H. Keefe, K. Alderfer, B. Rowe, K. Oleksiak, M. Toth, K. Henderson, J. Sweeney

2:00 POLY 701. Altering friction reducer viscosities by controlling polymer concentration, brine composition and mixing energy. **C. Aften**

2:30 POLY 702. Post-polymerization molecular weight advancement in the acrylic latex adhesive and its effects on adhesive properties. **K. Schultz**, C. Lipscomb

3:00 Intermission.

4:00 POLY 703. Optimization of polymer-graphene nanoplatelet chemiresistive sensors for detection and discrimination of chemical warfare agents. **M.S. Wiederoder**, M. Weiss, E.C. Nallon, R. Paffenroth, V.P. Schnee, C.J. Bright, S.K. McGraw, J.R. Uzarski

Lignin: From Fundamentals to New Materials & Applications

Carbon Fibers & Chemicals from Lignin

Sponsored by CELL, Cosponsored by ENVR and POLY

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems

Sponsored by CELL, Cosponsored by ENVR and POLY

Cyclic & Topologically Complex Polymers

Sponsored by PMSE, Cosponsored by POLY

WEDNESDAY EVENING

Section A

New Orleans Marriott Canal Street Acadia

POLY/PMSE Plenary & Awards Event

Cosponsored by PMSE[†]
T.H. Epps, Organizer
D. Gerbi, Presiding

5:30 Networking Reception.

6:00 POLY 704. Plenary lecture: Skin-inspired polymer electronic materials and devices. **Z. Bao**

6:40 Awards Presentation.
7:00 Reception.

THURSDAY MORNING

Section A

New Orleans Marriott Canal Street Studio 6

International Symposium on Biorelated Polymers: Renewable Materials

Renewable Polyesters

Cosponsored by PMSE

A. Watts, Organizer
E.W. Cochran, E.C. Hagberg, R.T. Mathers, Organizers, Presiding

8:00 POLY 705. Cellulose ester and biodegradable polyester blends having improved properties. **J.H. Wang**, B. Zhou

8:30 POLY 706. Bio-based carboxylic acids as components of sustainable coating systems. **I. Hevus**, D.C. Webster

8:50 POLY 707. Polymerisation of limonene and β -pinene derived monomers for the synthesis of novel renewable polyesters. **M. Thomsett**, S.M. Howdle, R.A. Stockman

9:10 POLY 708. Attaching multiple B vitamins to polyesters. **R.T. Mathers**

9:40 POLY 709. Preparation and characterization of bio-based polyesters and polycarbonates derived from xylochemicals. **S. Curia**, J. Mauck, A. Bassett, J.F. Stanzione

10:00 Intermission.

10:30 POLY 710. Glyoxylate-containing block copolymer materials. D. Hewitt, **R.B. Grubbs**

11:10 POLY 711. Poly(ethylene terephthalate) mimics based on naturally derived starting material. **G. Short**, H. Donow, H. Nguyen, S.A. Miller

11:30 POLY 712. Characteristic of biodegradable polyester PHBH and water-soluble poly(vinyl alcohol) blend nanofibers. **R.A. Rebia**, T. Tanaka

Section B

New Orleans Marriott Canal Street Studio 1

Polymer Optoelectronics

J.D. Azoulay, Y.C. Simon, Organizers
X. Gu, Organizer, Presiding
J. Tropp, Presiding

8:00 POLY 713. Designing high ductility polymers for stretchable electronics. **C.K. Luscombe**

8:20 POLY 714. Understanding polymer physics of conjugated polymers for future deformable semiconductors. **R. Xie**, R.H. Colby, E. Gomez

8:50 POLY 715. Directly measuring the complete stress-strain response of ultrathin organic electronic films. **X. Gu**, S. Zhang

9:10 POLY 716. Relationships between chain properties of the active layer and performance of polymeric electronic devices. **E. Gomez**

9:40 POLY 717. Hydrogen bonding in semiconducting polymers: Effect on self-assembly and mechanical properties. T. Nguyen, M.U. Ocheje, B.P. Charron, **S. Rondeau-Gagne**

10:00 Intermission.

10:30 POLY 718. Melt-processable semiconducting polymer blends. **J. Mei**

11:00 POLY 719. Printing semiconductor polymers to order: Critical roles of interfaces and fluid flow. **Y. Diao**

11:30 POLY 720. Synthesis of water-soluble ionic elastomers for stretchable

[†]Cooperative Cosponsorship

organic electronics. **L.V. Kayser**, M.D. Russell, A.N. Stein, D.J. Lipomi

Section C
New Orleans Marriott Canal Street
Studio 4

Structure & Dynamics of Materials via NMR Spectroscopy

Biobased Materials

Financially supported by ExxonMobil; Bruker; JEOL; 3M; MR Resources; NMR Service; Rototec-Spintech; Cambridge Isotope; New Era Enterprises
H. Cheng, A.D. English, *Organizers*
Y. Suzuki, *Presiding*

8:00 POLY 721. Structure and dynamics of protein hydrogels. **P.A. Mirau**, M. Gupta, P. Dennis

8:25 POLY 722. Solid-state NMR studies of graphene-based systems and nano-mole-scale protein solid-state NMR using ultra-fast MAS. **Y. Ishii**

8:50 POLY 723. Targeting repeating subunits in elastin with strategic enrichment and solid-state NMR spectroscopy. **K.K. Kumashiro**, K. Ohgo, J. Djajamuliadi, C. Dabalos

9:15 POLY 724. Understanding block-copolymer micelle dynamics and molecular partitioning for tunable cargo encapsulation and delivery. **X. Li**, B.E. Kidd, T.J. Cooksey, M.L. Robertson, L.A. Madsen

9:40 Intermission.

9:55 POLY 725. NMR of silk. T. Asakura, **A. Nishimura**

10:20 POLY 726. Conformation and dynamic properties of silk fibroin in a silk gland. **Y. Suzuki**

10:45 POLY 727. Using magnetic resonance techniques to probe the structure and dynamics in synthetic & natural spider silks. **J.L. Yarger**, X. Shi, C. Guo, A. Lazaric, B. Cherry

11:10 POLY 728. Using NMR to probe the structure, dynamics and assembly of spider silk fibers. D. Onofrei, D. Stengel, G. Valdez, A. Villalba, B. Addison, **G.P. Holland**

Section D
New Orleans Marriott Canal Street
Studio 5

Polymer Networks: Soft Gels to Stiff Networks
Cosponsored by PHYS, PMSE and SOCED

E. Chan, R.B. Moore, *Organizers*
S. Kundu, *Organizer, Presiding*

8:00 POLY 729. Elastomer organogels: Generating motion through crystallization of the swelling solvent. **K.A. Cavicchi**

8:30 POLY 730. Effects of poly(ethylene glycol) grafting density on the thermoreversible formation of a fibrous methylcellulose network. **S. Morozova**, P. Schmidt, F.S. Bates, T.P. Lodge

9:00 POLY 731. Withdrawn

9:20 POLY 732. Metamorphosis within polymer networks: Stress relaxation, network shape control and second-stage functionalization reactions. **M.**

Podgorski, J. Sinha, B. Worrell, C. Bowman

9:40 POLY 733. Polymer networks with reversible and/or exchangeable cross-links: Complete property recovery associated with cross-link density leading to fully reprocessable, recyclable networks and an approach to suppress creep in vitrimers. **J.M. Torkelson**, K. Jin, L. Li, X. Chen

10:00 Intermission.

10:30 POLY 734. Dynamic stimuli-responsive liquid crystal elastomers as actuating adhesives. **D.K. Schneiderman**, F. Etheridge, A. Metlay, S.J. Rowan

10:50 POLY 735. Free volume and gas transport studied in model elastomeric thiol-ene networks: Effect of crosslink density. **R. Ramakrishnan**, V. Vasagar, M.K. Hassan, S.I. Nazarenko

11:10 POLY 736. The coupling of polymer dynamics and water transport in cross-linked polymer membranes. **C.L. Soles**

11:30 POLY 737. Stimuli-responsively porating gels: Melting below glass transition. H. Gupta, N. Kuriakose, K. Lewis, S. Shendre, S. Venkatraman, **J. Texter**

11:50 POLY 738. Mechanistic insights into topological network impact on glass transition temperature. **J. Tsavalas**, P. Zhang, R. Biro

Section E
New Orleans Marriott Canal Street
Studio 10

Adaptive Nanogels

Cosponsored by COLL
A. Fernandez-Nieves, T. Hoare, W. Richtering, D. Suzuki, *Organizers*
L.A. Lyon, *Organizer, Presiding*
L. De Laporte, *Presiding*

8:00 POLY 739. Degradable homogeneous microgels via self-assembly of reactive poly(N-isopropylacrylamide) oligomers. E. Mueller, D. Sivakumaran, R. Alsop, A. Scotti, M. Bleuel, M. Rheinstadter, W. Richtering, **T. Hoare**

8:30 POLY 740. Pathway-controlled complexity of metastable DNA microgels based on sequence-defined multiblock copolymers. **A. Walther**, R. Merindol, S. Loescher

9:00 POLY 741. Responsive and thermo-lockable hydrogels and nanogels. **F.M. Winnik**, X. Zhang, H. Ren, Y. Shi

9:20 POLY 742. Stimuli-responsive supramolecular microgels. **A. Pich**

9:40 POLY 743. Biodegradable and stimuli-responsive autodispersing polyurethanes. H. Gupta, **J. Texter**

10:00 Intermission.

10:30 POLY 744. Withdrawn

11:00 POLY 745. A responsive nanogel probe for ratiometric fluorescent sensing of pH and strain in hydrogels. **B. Saunders**

11:20 POLY 746. Superresolution fluorescence microscopy for the *in situ* visualization of compartmentalized microgels / nanogels. **D. Woell**, A. Oppermann, A. Gelissen, S. Centeno

Benigno, O. Nevskiy, A. Purohit, L. Hoppe Alvarez

11:40 POLY 747. Non-reciprocal shape shifting microgels engine. **M. Ahmed**, H. Zhang, M. Moller

Section F
New Orleans Marriott Canal Street
Studio 7

Photochemistry & Polymers

B.P. Fors, D. Konkolewicz, *Organizers*
D.L. Patton, *Organizer, Presiding*
C.M. Reese, *Presiding*

8:00 POLY 748. Photoactive BODIPY polymer-based systems: Polymersomes for PDT and 2D & 3D micrometric surface patterning. V. Ibrahimova, G. Raffy, C. Fustin, J. Vincent, S. Lecommandoux, **N.D. McClenaghan**

8:20 POLY 749. Design and fabrication of mechanically stable polymer vesicles from crosslinkable linear amphiphilic triblock copolymers. **T. Chidanguro**, F. O'Dowd, Y.C. Simon

8:40 POLY 750. Polymer nanocomposites: In-situ photoconversion to nanoparticles with ketyl radicals. **R.C. Advincula**

9:10 POLY 751. Light-responsive polymersomes for spatially and temporally controlled release. **L. Beaute**, N.D. McClenaghan, S. Lecommandoux

9:30 POLY 752. Making and breaking polymers with light: Blue-light-mediated photoiniferter polymerization and polyketone degradation. **J.B. Matson**, K. Arrington

10:00 Intermission.

10:30 POLY 753. Photochemical release of doxorubicin linked through a thioacetal photocage in folate-targeted polymeric nanostructures. P.T. Wong, S. Tang, J. Cannon, **S. Choi**

10:50 POLY 754. Photochemical combinatorial discovery of antimicrobial polymers. S. Richards, E. Fullam, **M.I. Gibson**

11:20 POLY 755. Regioselective, C-H xanthylation as a platform technology for polyolefin functionalization. **F.A. Leibfarth**, E.J. Alexanian, J. Williamson, W. Czaplanski

Lignin: From Fundamentals to New Materials & Applications

Polymers & Resins from Lignin

Sponsored by CELL, Cosponsored by ENVR and POLY

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems
Sponsored by CELL, Cosponsored by ENVR and POLY

Cyclic & Topologically Complex Polymers

Sponsored by PMSE, Cosponsored by POLY

THURSDAY AFTERNOON

Section A
New Orleans Marriott Canal Street
Studio 6

International Symposium on Biorelated Polymers: Renewable Materials

Properties & Applications of Renewable Materials

Cosponsored by PMSE

A. Watts, *Organizer*
E.W. Cochran, E.C. Hagberg, R.T. Mathers, *Organizers, Presiding*

1:00 POLY 756. Cellulose nanocomposites. **J.P. Youngblood**, Y. Yoo, S. Peng, C. Clarkson

1:30 POLY 757. Effects of cellulose acetate butyrate on the crystallization of polylactic acid. **J. Kuang**, J.H. Wang, Y. Bai

1:50 POLY 758. Splitting of meniscus at air-LC interface of megamolecular polysaccharide and its theoretical evaluation. **G. Joshi**, K. Okeyoshi, M. Okajima, T. Kaneko

2:30 POLY 759. Stimuli responsive materials for personalized implants. **J. Foster**, J. Fallon, M. Bortner

3:00 Intermission.

3:30 POLY 760. Structure-property relationships of bio-based polyamides with super-high mechanical toughness. **Y. Yoshinaka**, S. Tateyama, K. Takada, Y. Funahashi, T. Kaneko

3:50 POLY 761. Bioproduct derived protective layers: Self-exfoliating reactive layers. **K.R. Carter**, Y. Li

4:30 POLY 762. Glycerol-based pressure sensitive adhesives: Synthesis and application. **F. Lin**, B. Claypool, N. Hernandez, A. Buss, E.W. Cochran

Section B
New Orleans Marriott Canal Street
Studio 1

Polymer Optoelectronics

J.D. Azoulay, X. Gu, Y.C. Simon, *Organizers*
A.E. London, D. Weller, *Presiding*

1:00 POLY 763. Polyrhodamine: Towards the design of a new optical chemical sensory material. **C.N. Scott**, R.W. Wahalathantrige Don

1:15 POLY 764. Conjugated polymers containing boron and phosphorus. **P. Ruper**

1:45 POLY 765. Synthesis and optoelectronics of coplanar ladder polymers. **L. Fang**, M. Al-Hashimi

2:15 POLY 766. Synthesis of stable difuran derivatives with p-block elements bridge. **H. Cao**, P. Ruper

2:30 POLY 767. Functionalized graphene nanoribbons as semiconducting materials for organic electronics. **J. Morin**

3:00 Intermission.

3:30 POLY 768. Polarized soft X-ray scattering reveals chain orientation and domain size of conjugated block copolymer lamellae. **J. Litofsky**, M. Aplan, Y. Lee, E. Gomez

3:45 POLY 769. Optoelectronic properties of sequentially-processed, chemically-doped, controlled crystallinity conjugated polymer films. T. Scholes, T.

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Aubry-Komin, **B.J. Schwartz**

4:15 POLY 770. Polarizabilities of π -conjugated polymers revisited: Improved results from broken-symmetry, range-separated DFT. **B.M. Wong**, N.V. Ilawe, M.B. Oviedo

4:30 POLY 771. Using conjugated block copolymers to examine the dependence of charge transfer on conjugation length. **M.P. Aplan**, E. Gomez

4:45 POLY 772. Minimizing beam damage with antioxidants to enable high resolution imaging of conjugated polymers in the electron microscope. **B. Kuei**, E. Gomez

Section C

New Orleans Marriott Canal Street Studio 4

Structure & Dynamics of Materials via NMR Spectroscopy

Solution NMR of Polymers

Financially supported by ExxonMobil; Bruker; JEOL; 3M; MR Resources; NMR Service; Rototec-Spintech; Cambridge Isotope; New Era Enterprises
H. Cheng, A.D. English, *Organizers*
A. Whittaker, *Presiding*

1:00 POLY 773. Polymers from earth and space. **A. Rawal**

1:25 POLY 774. Solution properties of thermally sensitive macromolecules studied by high resolution NMR and MD simulations. C. Zhang, W. Li, L. Liu, J. Reid, S. Bernardi, D.J. Searles, H. Peng, A. Zhang, **A. Whittaker**

1:50 POLY 775. Characterization of photo-initiated living radical polymerization kinetics with *in-situ* NMR spectroscopy. **J. Battiste**, B. Gaddam, A. Lohse

2:15 POLY 776. NMR analysis of the stereoregularity of poly(lactic acid) through the use of selective solvents. **K. Suganuma**, M. Oshimura, T. Hirano, K. Ute, H. Cheng, T. Asakura

2:40 Intermission.

2:55 POLY 777. Multidimensional NMR studies of perfluoropolyether. H. Yin, F. Wu, J. Gu, P.L. Rinaldi, **X. Li**

3:20 POLY 778. Advanced NMR methods for determining sequence distributions in fluoropolymer elastomers. **H. Mason**, J. Vaughn, C. Plavchak, J.P. Lewicki, S.C. Chinn

3:40 POLY 779. Making NMR more accessible. **W. Hu**

4:05 POLY 780. Evaluating co-monomer sequence distribution in brominated syndiotactic polystyrene (sPS-Br) copolymers using ^{13}C NMR spectroscopy. **K.M. Felice**, R.B. Moore

4:25 POLY 781. Structure analysis of blockiness controlled poly(vinyl alcohol-co-vinyl acetate) by NMR. **Y. Kusaka**, M. Senoo, T. Hirano, K. Ute

Section D

New Orleans Marriott Canal Street Studio 5

Polymer Networks: Soft Gels to Stiff Networks

Cosponsored by PHYS, PMSE and SOCED
E. Chan, S. Kundu, *Organizers*
R.B. Moore, *Organizer, Presiding*

1:00 POLY 782. Enhanced elasticity and property modification of poly(acrylic acid) and other polyelectrolytes: Studying and modeling the effects of salts and ionic liquids added during synthesis on material behavior. **A.Y. Walker**, M.A. Vratsanos, N. Bedford, S.K. Kozawa, G.E. Wnek

1:20 POLY 783. Chain conformation in polyelectrolyte complexes, from solids to gels. **H.M. Fares**, Y. Ghossub, J. Delgado, V. Urban, J.B. Schlenoff

1:40 POLY 784. Gels and frameworks comprising of organic linkers and polyanionic clusters via non-covalent bonding towards membranes for filtration and separation. **L. Wu**

2:00 POLY 785. Soft-hard polymer gradient materials based on thermoreversible urea-siloxane networks. **E. Fuersattel**, R. Giesa, H. Schmidt

2:20 POLY 786. Metal-free borane hydrosilylation as a mild route to diverse silicones. **C. Sample**, S. Lee, S. Li, B. Versaw, C.J. Hawker

2:40 POLY 787. Molecular design strategies for recyclable, high-performance networked polymers based on new dynamic covalent bonding motifs. **B. Helms**, P. Christensen

3:00 Intermission.

3:30 POLY 788. Molecular ionic composites: Stiff solids with liquid-like ions inside. **L.A. Madsen**

4:00 POLY 789. Photocured networks from polyisobutylene macromers. **C. Parada**, R.F. Storey

4:20 POLY 790. Influence of processing conditions on morphological features in poly(ether ether ketone) gels and aerogels. **S. Talley**, R.B. Moore

4:40 POLY 791. Withdrawn

Section E

New Orleans Marriott Canal Street Studio 10

Adaptive Nanogels

Cosponsored by COLL
A. Fernandez-Nieves, T. Hoare, L.A. Lyon, W. Richtering, *Organizers*
D. Suzuki, *Organizer, Presiding*
A.J. Kuehne, *Presiding*

1:00 POLY 792. Ultra low crosslinked microgels are ordered in bulk and disordered in two-dimensions. **A. Scotti**, S. Bochenek, M. Brugnoni, M.A. Fernandez-Rodriguez, F. Schulte, J. Houston, A. Gelissen, L. Isa, W. Richtering

1:20 POLY 793. Cationic, anionic, or amphoteric dual pH/temperature-responsive degradable microgels via self-assembly of oligomeric precursor polymers for drug delivery. **E. Mueller**, A. Arezina, D. Sivakumar, T. Hoare

1:40 POLY 794. Hydrophobically-modified poly(oligoethylene glycol methacrylate)-based nanogels for the delivery of anti-psychotic drugs to the brain. **M. Simpson**, Y. Katere, N. Smeets, R. Mishra, T. Hoare

2:00 POLY 795. Peptide-loaded microgels as antimicrobial surface coatings. **L. Nyström**, R. Nordstrom, A.A. Strömstedt, B. Saunders, R. Álvarez-Asencio, M.W. Rutland, M. Malmsten

2:20 POLY 796. Stratified hydrogels and architectural control of temperature response. **W.T. Higgins**, V.A. Kozlovskaya, A. Alford, J. Ankner, E.P. Kharlampieva

2:40 Intermission.

3:10 POLY 797. Poly(acrylic acid) microgels as carriers for antimicrobial peptides. **R. Nordstrom**, L. Nyström, O.C. André, M. Malkoch, A. Umerska, M. Davoudi, A. Schmidtchen, M. Malmsten

3:30 POLY 798. Synthesis and functionalization of polymer nanoparticles. **K. Misichronis**, T. White, H.J. Martin, A.P. Sokolov, M.D. Dadmun, T. Saito

3:50 POLY 799. Hydrogel microspheres for selective separation of halogen compounds. **T. Kureha**, D. Suzuki

Section F

New Orleans Marriott Canal Street Studio 7

Photochemistry & Polymers

B.P. Fors, D. Konkolewicz, D.L. Patton, *Organizers*
D. Konkolewicz, A.M. Spokoiny, *Presiding*

1:00 POLY 800. Controlling photo-induced phase separation through kinetics and polymer architecture. **A. Guymon**, J.P. Scholte

1:30 POLY 801. Light intensity induced phase transitions in graphene oxide doped polyvinylidene fluoride. **O. Paul**, A. Joaquim, M. Eguakun, V. Petranovskii, Y. Barnakov, F. Williams

1:50 POLY 802. Light-controlled phase separation using different monomer compositions of a radical/cationic system. **E. Hasa**, J.L. Jessop, J.W. Stansbury, A. Guymon

2:10 POLY 803. Photoredox chemistry for efficient thiol-alkyne coupling and polymer synthesis. **D. Konkolewicz**, M. Allegranza, A. Thompson, A. Kloster

2:30 POLY 804. Boron cluster photosensitizers and dopants. **A.M. Spokoiny**

3:00 Intermission.

3:30 POLY 805. PhotoRedox catalysts in polymerization reactions: Towards to high performances systems. **J. Lalevee**

4:00 POLY 806. Synthesis and kinetic studies of thiol – ene post-polymerization modification of poly(vinylmethylsiloxane). **S. Chatterjee**, B. You, A.S. Raymond, J.N. Albert

4:20 POLY 807. Thiol-trifluorovinyl ether (TFVE) photopolymerization: An on-demand synthetic route to semi-fluorinated polymer networks. B. Donovan, J. Ballenas, **D.L. Patton**

Section G

New Orleans Marriott Canal Street Beauregard

General Topics: New Synthesis &

Characterization of Polymers

B. Barkakaty, D. Garcia, *Organizers*
G. Saenz, K.A. Stockmal, *Presiding*

1:00 POLY 808. Thermoplastic elastomers from one-component block copolymer grafted nanoparticles via surface-initiated RAFT polymerization. **Y. Huang**, Y. Zheng, A. Sarkar, Y. Xu, M. Stefk, B.C. Benicewicz

1:20 POLY 809. Synthesis of novel biorenewable poly(ether amide)s. **G. Saenz**

1:40 POLY 810. Durable coatings with low ice adhesion. **S.J. Moravsek**

2:00 POLY 811. Blocky bromination of poly(ether ether ketone) in the gel-state as a platform for further functionalization. **L. Anderson**, R.B. Moore

2:20 POLY 812. Combination of anionic ring-opening and condensation reactions for the synthesis of aliphatic-aromatic copolyamides. **C. Bakkali-Hassani**, S. Carloti

2:40 POLY 813. n-Heterocyclic carbene organocatalyzed ring-opening polymerization of n-tosyl aziridines using functional initiators and amino-alcohols as bifunctional and double headed initiators. **C. Bakkali-Hassani**, J. Vignolle, S. Carloti, D. Taton, E. Rieger, F. Wurm

3:00 POLY 814. Withdrawn

Lignin: From Fundamentals to New Materials & Applications

Biochemical Modification of Lignin

Sponsored by CELL, Cosponsored by ENVR and POLY

Valorization of Renewable Resources & Residuals into New Materials & Multiphase Systems

Sponsored by CELL, Cosponsored by ENVR and POLY

PMSE

Division of Polymeric Materials Science and Engineering

M. Becker, **B. Olsen**, **C. Snyder**, **X. Jia** and **A. Norman**, *Program Chairs*

OTHER SYMPOSIA OF INTEREST:

Industrial Innovations in Polymer Science (see I&EC, Mon)

Nobel Laureate Signature Award for Graduate Education in Chemistry: Symposium in honor of Aleksandr Zhukhovitskiy & Jeremiah A. Johnson (see POLY, Tue)

SOCIAL EVENTS:

Reception, 5:30 PM: Wed

BUSINESS MEETINGS:

Executive Meeting, 4:30 PM: Sun

Business Meeting, 5:00 PM: Mon

PMSE-POLY Coordination Meeting, 5:30 PM: Mon

[†]Cooperative Cosponsorship

SUNDAY MORNING

Section A

New Orleans Marriott Canal Street
La Galerie 6

ACS Award in Applied Polymer Science: Symposium in honor Paula T. Hammond

Cosponsored by POLY and WCC
Financially supported by Eastman Chemical Company
L. Korley, N. Zacharia, *Organizers*
J.L. Lutkenhaus, *Organizer, Presiding*

8:00 PMSE 1. Layered biomimetic nanocomposites and property correlations. **N. Kotov**

8:30 PMSE 2. Permeability and selectivity of polyelectrolyte coacervate materials. **N. Zacharia**

9:00 PMSE 3. Amphiphilic multiblock polymers form controlled assemblies to promote oral drug delivery and cellular genome editing. **T.M. Reineke**

9:30 PMSE 4. Protein engineering of multi-functional biomaterials for regenerative medicine. **S.C. Heilshorn**

10:00 PMSE 5. Digital light synthesis to drive additive manufacturing: Convergence of hardware, software and molecular science. **J.M. DeSimone**

10:30 PMSE 6. Melt miscibility and solid-state properties of block copolymers of polyethylene with hydrogenated poly(*x*-norbornene)s. W. Mulhearn, **R.A. Register**

11:00 PMSE 7. Exploring biological barriers with nanoengineered particles. **F. Caruso**

11:30 PMSE 8. Effect of charge and charge distribution on protein-polymer coacervation. **B.D. Olsen**, S. Kim, H. Sureka, C.E. Mills

Section B

New Orleans Marriott Canal Street
La Galerie 4

Supramolecular Crosslink Dynamics & Polymer Materials Mechanics

N. Holten-Andersen, *Organizer*
E.A. Appel, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 PMSE 9. Dynamic bonding in nucleoporin-like protein materials. **B.D. Olsen**, D. Mai, Y. Yang

9:10 PMSE 10. Supramolecular polymers to supramolecular crosslinks: Progress in rational design of dynamic water soluble supramolecular architectures. **M.B. Baker**

9:30 PMSE 11. Biomimetic composite hydrogels with abiotic self-organizing nanofiber network. **L. Xu**, N. Kotov

9:50 PMSE 12. Hierarchical crosslinking and interpenetrated networks in the SLA/DLP 3D printing process. **R.C. Advincula**

10:10 Intermission.

10:25 PMSE 13. Mechanics of polymers with supramolecular cross-links. **C. Weder**

11:00 PMSE 14. pH-regulated viscoelastic properties of mussel-inspired telechelic hydrogel. **S. Cazzell**, N. Holten-Andersen

11:20 PMSE 15. Role of interfacial interactions in the toughening of supramolecular interpenetrating network elastomers. **C. Thompson**, S. Monemian, J. Covello, L. Korley

11:40 PMSE 16. Robust heterogeneous hydrogels based on supermolecular self-assembly with nanocellulose as dynamic crosslinkers. **K. Zhang**

Section C

New Orleans Marriott Canal Street
Studio 3

Polymers with Complex Architecture: From Synthesis to Self-Assembly

Financially supported by NSF, BASF, ExxonMobil, LG MMA, and Wyatt Technology, Department of Chemistry & Biochemistry at Florida State University
C.Y. Ryu, M. Seo, G. Stein, *Organizers*
J.G. Kenemur, *Organizer, Presiding*

8:30 PMSE 17. Bottlebrush copolymers: Morphological control through molecular architecture. **J. Rzyayev**

9:00 PMSE 18. Brush-like elastomers: Super-soft and strain-stiffening. **S. Sheiko**

10:00 Intermission.

10:15 PMSE 19. Bottlebrush polymers as surface active additives in thin polymer films. **H. Mah**, T. Laws, H. Mei, R. Verduzco, G. Stein

10:35 PMSE 20. Synthesis of multifunctional bottlebrush polymers. R. Slegeris, B.A. Ondrusek, **H. Chung**

10:55 PMSE 21. Janus bottlebrush copolymers: A universal strategy enabling access to ultra-small phase separation. **Z. Guo**, A.N. Le, M. Zhong

11:15 PMSE 22. Synthesis of polyimide bottlebrush copolymers. **B. Swanson**, J. Rzyayev

11:35 PMSE 23. Supramolecular assembly of nucleobase-containing bottlebrush polymers. **J. Foster**, Z. Hua, R.K. O'Reilly

Section D

New Orleans Marriott Canal Street
La Galerie 5

Synergy between Computation & Experiment in Accelerated Materials Discovery

S. Takeda, *Organizer*
V.A. Piunova, *Organizer, Presiding*

8:30 PMSE 24. Materials informatics & AI: Examples from polymer materials. **J.W. Pitera**

8:55 PMSE 25. Mission Innovation Challenge 6: A route for accelerated scientific discovery for energy materials. **A. Aspuru-Guzik**

9:20 PMSE 26. Accelerating polymeric database creation. **D. Audus**, R. Tchoua, K. Chard, L. Ward, J. Qin, J. Lequieu, J.J. De Pablo, I. Foster

9:45 PMSE 27. Scoping the polymer genome: The example of rational computation-guided polymer dielectrics design. **R. Ramprasad**

10:10 Intermission.

10:25 PMSE 28. Inverse design of novel polymeric materials through Bayesian machine learning and experimental design algorithms. **R. Yoshida**, G. Lambard, S. Wu, H. Yamada

10:50 PMSE 29. Computational material discovery: Machine learning approach to discover new chemical structures. **S. Takeda**, K. Masuda, H. Hsu, J.B. Heroux, T. Hama, V.A. Piunova, J.W. Pitera, D. Nakano

11:15 PMSE 30. Multiscale design of polymer nanocomposite dielectric materials: Electron traps in interphase regions. **C.M. Breneman**, T. Ratliff, L. Schadler, R. Sundararaman, C. Brinson, A. Lin

11:40 PMSE 31. Integrated experimental and computational high-throughput screening for polymer photocatalysts. C. Meier, L. Turkani, R.S. Sprick, E. Berardo, K. Jelfs, **M.A. Zwijnenburg**, A.I. Cooper

Section E

New Orleans Marriott Canal Street
Studio 2

PMSE-North American Membrane Society (NAMS) Joint Symposium on Surface Science of Membranes for Advanced Separations

Membranes for Water & Ion Transport

Cosponsored by DAC[†]
Financially supported by North American Membrane Society
D. Bhattacharyya, C.M. Stafford, *Organizers*
I.C. Escobar, B.D. Freeman, *Organizers, Presiding*
S.A. Hesse, *Presiding*

8:00 PMSE 32. Performance effects of oxidant and halide concentration on aromatic network polyamide membranes. **J.A. Howarter**, M. Toomey

8:30 PMSE 33. Functional group quantification in polyamide membranes. T.J. Zimudzi, D.F. Sunday, S.V. Orski, E. Chan, M.A. Hickner, **C.M. Stafford**

9:00 PMSE 34. Formation of a crack-free, hybrid skin layer with tunable surface topography on elastomers using gel-liquid infiltration polymerization. **M. Wang**, J.M. Gorham, J. Killgore, M. Omidvar, H. Lin, F. DelRio, L. Cox, Z. Zhang, Y. Ding

9:30 PMSE 35. Variability in surface morphology of polyamide selective layers on thin-film composite membranes. **L.H. Arias Chavez**, S.B. Hornsby, P. Ranjan

10:00 Intermission.

10:30 PMSE 36. Ion specific effects in charged polymers for membrane applications. **G.M. Geise**

11:00 PMSE 37. Functionalized membranes for environmental and chemical synthesis applications. **D. Bhattacharyya**, S. Hernandez, H. Wan, S. Islam, A. Colburn, A. Aher

11:30 PMSE 38. Using electrochemical impedance spectroscopy to probe

permselectivity in model polyamide membranes. D. Shaffer, K.E. Feldman, G.R. Stafford, E. Chan, **C.M. Stafford**

Section F

New Orleans Marriott Canal Street
Studio 8

General Papers: New Concepts in Polymeric Materials

M. Becker, *Organizer*
D.H. Adamson, C. Powell, *Presiding*

8:30 PMSE 39. High refractive index and thermal stability UV-curable novel inorganic-organic acrylate nanocomposites. **K. Liu**, K. Hsieh

8:55 PMSE 40. Polymeric systems for the release of COS and H₂S. **C. Powell**, J. Foster, B. Okyere, M. Theus, J.B. Matson

9:20 PMSE 41. Effect of process pathway on microstructure development in epoxy thermoset resins. **J. Bates**, D. Nepal, H. Koerner, J.S. Wiggins, G. Kedziora, C. Reynolds, S. Tucker, E. Barjasteh

9:45 PMSE 42. Effect degree of oxidation has on graphene oxide polymer nanocomposite properties. **H.V. Kumar**, C.D. Liyanage, V. Vasu, D.H. Adamson

10:10 Intermission.

10:25 PMSE 43. Graphene oxide nanoplatelets embedded polyamide thin films for water desalination. **M. Abbaszadeh**, S. Kundu

10:50 PMSE 44. Self-assembled hexagonal boron nitride as a 3D polymerization scaffold. S.P. Ward, C.M. Chapman, Z. Cui, **D.H. Adamson**

11:15 PMSE 45. Synthesis of polymer particle sunscreens. **D.A. Loy**, N.P. Nanayakkara

11:40 PMSE 46. Controlled polymer synthesis and grafting architectures in continuous flow polymerizations. **R.C. Advincula**

Section G

New Orleans Marriott Canal Street
Studio 9

Clay-Polymer Composites: Nanoclays & Other Natural Nanoparticles

Polymer-Clay Nanocomposites

Financially supported by Applied Minerals, Inc.; Zibo Zhangdian Oriental Chemical Co., Ltd.
N. Kotov, E. Ruiz-Hitzky, A. Takahara, L. Zhang, *Organizers*
Y.M. Lvov, *Organizer, Presiding*

8:00 PMSE 47. Clay-enabled, environmentally-benign flame retardant nanocoatings. **J.C. Grunlan**, R.J. Smith, K. Holder

8:30 PMSE 48. Nanoarchitectonics for functional materials: Nanosheet-capsule, hole-in-cube, cube with antenna, and so on. **K. Ariga**, L. Shrestha

9:00 PMSE 49. Simulation and experimental studies of clay/elastomer nanocomposites. **L. Zhang**, X. Wu, R.

[†]Cooperative Cosponsorship

Wang, J. Liu, Y. Fu, X. Zhou

9:30 PMSE 50. Biodegradable polymer/clay nanocomposites. **C.S. Ha**

10:00 Intermission.

10:10 PMSE 51. Molecularly engineered, light-adaptive self-assembled nacre-mimetics. **A. Walther**

10:40 PMSE 52. High gas barrier and stretchability in hydrogen-bonded multilayer nanobrick wall thin films. **S. Qin, Y. Song, M. Floto, J.C. Grunlan**

11:10 PMSE 53. Drug-clay nanohybrid systems for advanced drug delivery: Emerging research area in nanomedicine. **J. Choy**

International Symposium on Biorelated Polymers: Tutorial

Sponsored by POLY, Cosponsored by PMSE

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROf, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials

Sponsored by POLY, Cosponsored by PHYS and PMSE

Polymer Applications & Characterization in Medical Device & Pharmaceutical Industries

Sponsored by POLY, Cosponsored by PMSE

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

SUNDAY AFTERNOON

Section A

New Orleans Marriott Canal Street La Galerie 6

ACS Award in Applied Polymer Science: Symposium in honor Paula T. Hammond

Cosponsored by POLY and WCC
Financially supported by Eastman Chemical Company
L. Korley, J.L. Lutkenhaus, Organizers
N. Zacharia, Organizer, Presiding

1:30 PMSE 54. Order, disorder and mechanical properties of graft-block copolymers. **F.S. Bates**

2:00 PMSE 55. How water, salt, and pH

universally influence the glass transition in polyelectrolyte complexes. **Y. Zhang, P. Batys, M. Sammalkorpi, J.L. Lutkenhaus**

2:30 PMSE 56. Top-down chemistry: Functional materials by modification of carbon nanomaterials. **T.M. Swager**

3:00 Intermission.

3:15 PMSE 57. Micellar temperature-responsive layer-by-layer assemblies. **S.A. Sukhishvili, A. Kumarimaduvu Palanisamy, V. Albright**

3:45 PMSE 58. Hierarchy-mediated mechanics in peptide-polyurea hybrids. **L. Korley, L.E. Matolyak**

4:15 PMSE 59. Designing soft electronics and their applications in biointerfaces. **Z. Bao**

4:45 PMSE 60. Nanolayered multicomponent particles for targeted tissue transport and combination therapies. **P.T. Hammond**

Section B

New Orleans Marriott Canal Street La Galerie 4

Supramolecular Crosslink Dynamics & Polymer Materials Mechanics

E.A. Appel, Organizer
N. Holten-Andersen, Organizer, Presiding

1:30 PMSE 61. Dynamic crosslinked polymer networks for electronic materials and devices. **Z. Bao**

2:05 PMSE 62. Reprocessable, reprogrammable shape-memory polymer networks via dynamic thia-Michael addition. **K.M. Greenman, S.J. Rowan**

2:25 PMSE 63. Low-molecular-weight, high-mechanical-strength, and solution-processable telechelic polyetherimide end-capped with ureido-pyrimidinone. **K. Cao, G. Liu**

2:45 PMSE 64. Super-stretchable polymeric elastomers with healable property and recoverable functionality. **P. Cao, B. Li, A.P. Sokolov, T. Saito**

3:05 Intermission.

3:20 PMSE 65. Engineering dynamic behavior in protein networks. **L.J. Dooling, D.A. Tirrell**

3:55 PMSE 66. Investigation of supramolecular association dynamics on the deformation mechanics of polymer-grafted nanocomposites. **A. Tibbitts, K. Park, J. Streit, L.F. Drummy, R. Vaia**

4:15 PMSE 67. Reversibly tunable hydrogels by photocontrolling dynamic covalent chemistry. **J. Accardo, J.A. Kalow**

4:35 PMSE 68. Optomechanical coupling for the study of the dynamic mechanical properties of metal-coordinate gels. **I. Mahmad Rasid, B.D. Olsen, N. Holten-Andersen**

4:55 Concluding Remarks.

Section C

New Orleans Marriott Canal Street Studio 3

Polymers with Complex Architecture: From Synthesis to Self-Assembly

Financially supported by NSF, BASF, ExxonMobil, LG MMA, and Wyatt Technology, Department of Chemistry & Biochemistry at Florida State University
J.G. Kenemur, C.Y. Ryu, M. Seo, Organizers
G. Stein, Organizer, Presiding

1:30 PMSE 69. Organization and dynamics of compositionally-tuned polymer grafted nanocomposites. **M. Kilbey, D.P. Street, R.I. Ramirez, J. Sangoro, J.M. Messman**

2:00 PMSE 70. PRISM theory and molecular simulations studies linking polymer architecture to structure and thermodynamics in polymer nanocomposites and polymer solutions. **A. Jayaraman**

2:30 PMSE 71. Molecular and nanostructure engineering of polymer semiconductors. **E. Egag**

3:00 Intermission.

3:15 PMSE 72. Nanoporous polymer syntheses from aqueous lyotropic liquid crystals. **M.K. Mahanthappa**

3:45 PMSE 73. Information-directed assembly of molecular ladders bearing boronate ester rungs. **M. Dunn, T. Wei, T.F. Scott**

4:05 PMSE 74. Sol-gel polymerization to produce hierarchically porous monoliths for fixed bed catalysis. **T.V. Kotbagi, R. Adhikari, J. Hudspeth, M.G. Bakker**

4:25 PMSE 75. Single-digit nanometer designer block copolymers to balance surface free energies in thin films for perpendicular orientation control. **Y. Yoshimura, Y. Nabae, T. Hayakawa**

4:45 PMSE 76. PeptoPlexes: Using tri- or tetrablock copoly-pept(o)ides for the synthesis of non-self-replicating synthetic viruses. **M. Barz**

Section D

New Orleans Marriott Canal Street La Galerie 5

Synergy between Computation & Experiment in Accelerated Materials Discovery

V.A. Piunova, Organizer
S. Takeda, Organizer, Presiding

1:30 PMSE 77. The materials genome initiative: What's happened? What's next? **E.K. Lin**

1:55 PMSE 78. Data mining for electromechanical and phase change properties of over 1000 2D materials. **E.J. Reed**

2:20 PMSE 79. Monte Carlo tree search for designing novel molecules and materials. **K. Tsuda**

2:45 PMSE 80. Accelerated experimental materials discovery through integration with theory and artificial intelligence. **J. Gregoire**

3:10 Intermission.

3:25 PMSE 81. Accelerated discovery of polymers for nucleic acid delivery using combinatorial synthesis and chemical informatics. **K. Rege**

3:50 PMSE 82. Experiment-inspired

modeling to help understand and guide the design of formulations for polymer assisted drug delivery. **W.C. Swope, A. Carr, J.E. Rice, V.A. Piunova**

4:15 PMSE 83. Correlating solvated structure and GPC data for conjugated polymers. **A. Kleinschmidt, S. Root, L.V. Kayser, C. Dhong, D.J. Lipomi**

4:40 PMSE 84. Using computation to guide the development of novel polymeric ligands: Pyridine-terminated poly(3-hexyl thiophene)s to stabilize P3HT/nanocrystal blends. **M. Kilbey, W.M. Kochemba, B. Sumpter**

5:05 PMSE 85. Poly(3-hexylthiophene) synthesis: Understanding nickel-mediated transmetalation with Grignard reagents. **A. Vitek, A. Leone, P.M. Zimmerman, A.J. McNeil**

Section E

New Orleans Marriott Canal Street Studio 2

PMSE-North American Membrane Society (NAMS) Joint Symposium on Surface Science of Membranes for Advanced Separations

Novel Membranes & Membrane Functionalization

Cosponsored by DAC[†]
Financially supported by North American Membrane Society
I.C. Escobar, B.D. Freeman, Organizers
D. Bhattacharyya, C.M. Stafford, Organizers, Presiding

1:15 Introductory Remarks.

1:20 PMSE 86. Toward structure-by-design polymer-brush modified membranes. **J.J. Keating, G. Belfort**

2:00 PMSE 87. Selective modification of membrane pore and external surfaces. **A. Sengupta, A. Vu, X. Qian, S. Wickramasinghe**

2:30 PMSE 88. Preparation of brush-modified membranes via a grafting through brush growth approach. **N.H. Vy, D.H. Adamson**

3:00 Intermission.

3:30 PMSE 89. Block copolymer-directed self-assembly and non-solvent-induced phase separation (SNIPS) derived porous functional materials for advanced separations. **S.A. Hesse, J. Werner, P.A. Beaucage, K. Barreau, K.E. Fritz, U.B. Wiesner**

4:00 PMSE 90. Structure, properties and performance of sulfonated pentablock terpolymer membranes as a function of hydration cycles. **D.V. Truong, G. Stein, H. Ardebili, M. Kammoun**

4:30 PMSE 91. Nanoporous membranes via *in-situ* self-assembly for scalable manufacture. **D. Weller, L. Galuska, X. Gu**

Section F

New Orleans Marriott Canal Street Studio 8

Cyclic & Topologically Complex Polymers

Cosponsored by POLY
Financially supported by MilliporeSigma; Tosoh Biosciences LLC; Zeon Corporation; Toyo Styrene Co., Ltd.; Elsevier
S.M. Grayson, Y. Tezuka, Organizers, Presiding

[†]Cooperative Cosponsorship

1:30 Introductory Remarks.

1:40 PMSE 92. Advances in the synthesis and purification of cyclic polymers. **S.M. Grayson**, F.M. Haque, R. Elupula

2:10 PMSE 93. Towards quantitative macrocyclizations by original synthetic approach and characterization methods. **O.R. Coulembier**, T. Josse

2:40 PMSE 94. Multi-Gram scale synthesis of high molecular weight cyclic polyethylene glycol. C. Hoevelmann, R. Zorn, D. Richter, **J. Allgaier**

3:00 Intermission.

3:10 PMSE 95. Novel ring-closure methods for preparing cyclic polymers. **K. Zhang**

3:40 PMSE 96. Selective cyclic polymer synthesis via topology transformation. **T. Takata**

4:10 PMSE 97. Reprogramming the conformation of single chain nanoparticles. **C. Barner-Kowollik**

4:40 PMSE 98. Novel synthetic pathway for multicyclic poly(δ -caprolactone). Y. Mato, K. Honda, T. Isono, **T. Satoh**

5:10 PMSE 99. Synthesis of cyclic polymers prepared directly from dibrominated precursors. **E.S. Tillman**

Section G

New Orleans Marriott Canal Street Studio 9

Clay-Polymer Composites: Nanoclays & Other Natural Nanoparticles

Polymer-Plate Nanoparticle Composites

Financially supported by Applied Minerals, Inc.; Zibo Zhangdian Oriental Chemical Co., Ltd. N. Kotov, Y.M. Lvov, E. Ruiz-Hitzky, A. Takahara, *Organizers* L. Zhang, *Organizer, Presiding*

1:30 PMSE 100. Multiscale biomimetic nanocomposites. **N. Kotov**

2:00 PMSE 101. Multifunctional nanoparticle-porous polymer foam composites: Applications in chemical decontamination and military medicine. **C.L. McGann**, B. Streifel, S.L. Giles, G.C. Daniels, J. Lundin, J.L. Miranda-Zayas, R. Balow, J.H. Wynne

2:30 PMSE 102. Withdrawn

3:00 PMSE 103. Graphene networks and their conductive nanocomposites. **Z. Yu**

3:30 PMSE 104. Rubber/graphene composites: Interface, hybridization and tire application. **B. Guo**, Z. Yang, S. Wu, Z. Tang, L. Zhang

4:00 PMSE 105. Polymer-clay nanocomposite coatings as efficient, environment-friendly surface pretreatments. **P.C. Suarez Martinez**, J. Robinson, H. An, R.C. Nahas, D. Cinoman, J.L. Lutkenhaus

4:30 PMSE 106. House of card

nanostructuring in nanoclay-graphene in oil-water separators. **R.C. Advincula**

International Symposium on Biorelated Polymers: Tutorial

Sponsored by POLY, Cosponsored by PMSE

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials

Sponsored by POLY, Cosponsored by PHYS and PMSE

Polymer Applications & Characterization in Medical Device & Pharmaceutical Industries

Sponsored by POLY, Cosponsored by PMSE

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

MONDAY MORNING

Section A

New Orleans Marriott Canal Street La Galerie 6

ACS Award in Polymer Chemistry: Willson

Cosponsored by POLY Financially supported by ExxonMobil Chemical Company; IBM M.A. Hillmyer, *Organizer, Presiding*

8:50 Introductory Remarks.

9:00 PMSE 107. Advances in mikroarm star polymer design, synthesis, and self-assembly. **C. Bates**

9:25 PMSE 108. Separation of carbon dioxide and light hydrocarbons using norbornene-based polymeric membranes. **B.K. Long**, C. Maroon, K.R. Gmernicki, M. Higgins, T. Hong, T. Saito, N. Belov, Y.P. Yampolskii

9:50 PMSE 109. What good is monodispersity? Some applications of dendrimers towards mass spectrometry. **S.M. Grayson**

10:15 Intermission.

10:30 PMSE 110. Photochemically directing surface energy driven Marangoni convection to pattern polymer films. **C.J. Ellison**

10:55 PMSE 111. Mono(μ -

oxo)-dialuminum (MOD) initiated polymerization of epoxides to new functional materials. **N.A. Lynd**

11:20 PMSE 112. VOLCAT: The development of a zero-waste catalytic recycling process for post-consumer PET. **R.D. Allen**

11:45 PMSE 113. Detecting and manipulating single DNA biopolymers with fluidic nanochips. **Q. Lin**

Section B

New Orleans Marriott Canal Street La Galerie 4

Advances in Macromolecular Science & Engineering: Symposium in honor of David Schiraldi

Q. Lin, *Organizer* L. Korley, J.K. Pokorski, *Organizers, Presiding*

8:15 PMSE 114. Designing high performance engineering polymers: From polyesters for packaging to polyureas for agriculture. R.J. Mondschein, J.M. Dennis, A.M. Pekkanen, L. Steinberg, M. Hegde, K.A. Valentine, C. Arrington, J. Wolfgang, S.R. Turner, **T.E. Long**

8:45 PMSE 115. Developments in textile, multifunctional, and carbon fibers. **S. Kumar**

9:15 PMSE 116. Cononsolvency of poly(N-isopropylacrylamide) (PNIPAM) and its analogs in water/alcohol mixtures. **M.J. Hore**, X. Lang

9:45 PMSE 117. Fundamental investigations into the cross linking of polyethylene. S.C. Sarngadharan, M. Conley, J. Faris, M. Malone, F.S. Mohammed, C. Winslow, H. Eldridge, J.M. Cogen, B.I. Chaudhary, P. Pollet, **C.L. Liotta**

10:15 Intermission.

10:30 PMSE 118. Oxygen and moisture barrier from polyelectrolyte-clay nanocoatings. **J.C. Grunlan**

11:00 PMSE 119. Unexploited approaches to improved polymer performance. **M. Jaffe**

11:30 PMSE 120. Copolyesters containing 4,4'-biphenylate and 3,4'-biphenylate units. **S.R. Turner**, H.E. Edling, H. Liu, R.J. Mondschein, T.E. Long, H. Sun, D.A. Schiraldi

Section C

New Orleans Marriott Canal Street Studio 3

Polymers with Complex Architecture: From Synthesis to Self-Assembly

Financially supported by NSF, BASF, ExxonMobil, LG MMA, and Wyatt Technology, Department of Chemistry & Biochemistry at Florida State University J.G. Kennemur, C.Y. Ryu, M. Seo, G. Stein, *Organizers* M. Seo, *Organizer, Presiding*

8:00 PMSE 121. Self-assembly of end-functionalized block copolymers. **M. Park**

8:30 PMSE 122. Preferred domain

orientation in block copolymer fibers after solvent annealing. **G. Liu**, Z. Zhou, K. Cao, X. Chen

9:00 PMSE 123. Switchable amphiphile self-assembly implementing molecular selectivity of PMMA triple helix formation. **A. Knight**, J. Ren, C.J. Hawker

9:20 PMSE 124. Versatile synthesis of mikroarm star block polymers. **M. Schulze**, R. Lewis, A. Anastasaki, C. Bates, C.J. Hawker

9:40 PMSE 125. Nanostructured dendrimers: Towards nanowires, nanoparticles, and virus assemblies. **R.C. Advincula**

10:10 Intermission.

10:25 PMSE 126. Synthesis and properties of nanotubes from cyclic peptide / polymer conjugates. **S. Perrier**

10:55 PMSE 127. Understanding the role of secondary structures in determining temperature sensitivity of peptide amphiphiles. **U. Sridhar**, P. Prasad, S. Thayumanavan

11:15 PMSE 128. Microstructure-property relationship of polymeric wormlike micelles in a protic ionic liquid. **R. Chen**, C. Lopez-Barron, N.J. Wagner

11:35 PMSE 129. Topology effect on protein-polymer block copolymers self-assembly. **T. Suguri**, B.D. Olsen

Section D

New Orleans Marriott Canal Street La Galerie 5

Third International Symposium on Polybenzoxazines: Towards Diamond Jubilee of Benzoxazine Chemistry

I. Hamerton, H. Ishida, *Organizers* P. Froimowicz, *Organizer, Presiding* B. Lochab, *Presiding*

8:00 Introductory Remarks.

8:05 PMSE 130. Recent progress and future direction of polybenzoxazine research. **H. Ishida**

8:45 PMSE 131. Low-surface-energy property of polybenzoxazine. **S. Kuo**

9:20 PMSE 132. Phloretic acid as an alternative to the phenolation of aliphatic hydroxyls for the elaboration of polybenzoxazine. A. Trejo-Machin, L. Puchot, R. Quintana, **P. Verge**

9:50 PMSE 133. Novel hyperbranched benzoxazine: Synthesis and properties. **L. Wenbin**, A.Q. Dayo, J. Wang, W. Cai

10:10 Intermission.

10:25 PMSE 134. Polybenzoxazines – precursors of carbon matrices for electrocatalyst immobilization. **C. Andronescu**, S. Barwe, W. Schuhmann

10:55 PMSE 135. Synthesis and properties of new heterocyclic polybenzoxazine thermosets. **N. Ramdani**

11:15 PMSE 136. Polybenzoxazine-silica nanocomposites: Combined polymer-silica layer in the composite. J. Lee, T. Takeichi, **R. Saito**

11:35 PMSE 137. Oxidative ring-fusion

[†]Cooperative Cosponsorship

aromatization and its role to pyrolytic carbonization of polybenzoxazines and other phenolic resins. **N. Leventis**, S. Donthula, H. Majedi Far, S. Mahadik-Khanolkar, C. Mandal, A.M. Saeed, C. Sotiriou-Leventis

Section E
New Orleans Marriott Canal Street Studio 2

PMSE-North American Membrane Society (NAMS) Joint Symposium on Surface Science of Membranes for Advanced Separations

Membranes for Gas & Small-Molecule Separations

Cosponsored by DAC[†]
Financially supported by North American Membrane Society
D. Bhattacharyya, I.C. Escobar, B.D. Freeman, C.M. Stafford, *Organizers*
L.H. Arias Chavez, G. Geise, *Presiding*

8:15 Introductory Remarks.

8:20 PMSE 138. Rubbery organic frameworks-tuning the gas-diffusion through dynamic membranes. **M. Barboiu**

9:00 PMSE 139. Strong adsorption of propylene helps propane/propylene separation through Ag⁺-exchanged X-type zeolite membrane. M. Sakai, Y. Sasaki, **M. Matsukata**

9:30 PMSE 140. CO₂-philic polymer membranes for high flux CO₂ separation. T. Hong, P. Cao, B. Li, C. Smith, S.M. Mahurin, A.P. Sokolov, **T. Saito**

10:00 Intermission.

10:30 PMSE 141. Facile routes to enhance the selectivity of PDMS membrane-based gas separations. **D. Ahn**, **A. Greiner**, J.F. Thompson, A.N. Lichter, J.S. Hrabal

11:00 PMSE 142. Withdrawn

11:30 PMSE 143. Polyimides with phosphaphenanthrene skeleton: Gas permeation study and molecular dynamics simulations. **S. Banerjee**, R. Chatterjee, S. Bisoi, V. Padmanabhan

Section F
New Orleans Marriott Canal Street Studio 8

Cyclic & Topologically Complex Polymers

Cosponsored by POLY
Financially supported by MilliporeSigma; Tosoh Biosciences LLC; Zeon Corporation; Toyo Styrene Co., Ltd.; Elsevier
S.M. Grayson, Y. Tezuka, *Organizers*, *Presiding*

8:00 PMSE 144. Topological polymer chemistry designing macromolecular graph constructions. **Y. Tezuka**

8:30 PMSE 145. Cyclic polymers in polymer networks. J. Wang, B.D. Olsen, **J.A. Johnson**

9:00 PMSE 146. Topologically complex peptides from plants as tools for the development of eco-friendly drugs and agrichemicals. **D. Craik**

9:30 PMSE 147. Cyclization of peptides by multicomponent reactions. **D.G. Rivera**

10:00 Intermission.

10:10 PMSE 148. Solution and bulk properties of densely packed multicyclic polymers. **M. Monteiro**

10:40 PMSE 149. Precision constructions of topological and functional cyclic polymers. **Z. Zhang**, Z. Huang, N. Zhou, X. Zhu

11:10 PMSE 150. Progress in the synthesis and characterization of polyesters to demonstrate unique physical properties. **F.M. Haque**, G. Kelly, A. Bergeson, J. Albert, S.M. Grayson

11:30 PMSE 151. How closed loops impact melt surface fluctuations and surface segregation in blends. **M.D. Foster**

Section G
New Orleans Marriott Canal Street Studio 9

Clay-Polymer Composites: Nanoclays & Other Natural Nanoparticles

Clay Nanotubes & Nanofiber Composites

Financially supported by Applied Minerals, Inc.; Zibo Zhongdian Oriental Chemical Co., Ltd.
N. Kotov, Y.M. Lvov, E. Ruiz-Hitzky, L. Zhang, *Organizers*
A. Takahara, *Organizer*, *Presiding*

8:00 PMSE 152. Withdrawn

8:30 PMSE 153. Halloysite nanotubes as versatile material for conservation of cultural heritage. V. Bertolino, G. Cavallaro, **G. Lazzara**, S. Milio, F. Parisi, R. Fakhruddin

9:00 PMSE 154. Halloysite/biopolymer composites for intracellular drug delivery and tissue engineering platforms. E. Naumenko, I. Guryanov, E. Rozhina, A. Novikov, **R. Fakhruddin**

9:30 PMSE 155. Self-assembly approach in halloysite nanotube composites. **Y.M. Lvov**, V. Vinokurov, R. Fakhruddin

10:00 Intermission.

10:10 PMSE 156. Withdrawn

10:40 PMSE 157. Synthesis of core-shell halloysite-chalcogenides based nanocomposites and its application in photocatalysis. **A. Stavitskaya**, D. Logvinenko, F. Pouresmaeil, Y.A. Darrat, V. Vinokurov

11:10 PMSE 158. Withdrawn

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers

Sponsored by POLY, Cosponsored by BIOT, MEDI and PMSE

Integrating Polymer Science in the Curriculum

Sponsored by POLY, Cosponsored by CHED and PMSE

Innovative Chemistry & Materials for Electrochemical Energy Storage
Sponsored by ENFL, Cosponsored by

CATL, INOR and PMSE

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

MONDAY AFTERNOON

Section A
New Orleans Marriott Canal Street La Galerie 6

ACS Award in Polymer Chemistry: Symposium in honor C. Grant Willson

Cosponsored by POLY
Financially supported by ExxonMobil Chemical Company; IBM
M.A. Hillmyer, *Organizer*, *Presiding*

1:40 PMSE 159. Using bioinspired polypeptides to make hierarchical, chiral structures and functional surfaces. **R.A. Segalman**, E. Davidson, A. Patterson, R.N. Zuckermann

2:05 PMSE 160. Realizing 5.4 nm full pitch lamellar microdomains by a solid-state transformation. **T.P. Russell**, D. Yu, J.K. Maps, H. Kim, J. Choi, J. Rzayev

2:30 PMSE 161. 2D and 3D nanostructures by block copolymer self-assembly. **C.A. Ross**

2:55 Intermission.

3:10 PMSE 162. Metal-free controlled polymerizations. **C.J. Hawker**

3:35 PMSE 163. Synthesis of polymers utilizing ROMP processes. **R.H. Grubbs**

4:00 PMSE 164. Nanoporous thermosets by crosslinking block polymers in the disordered state. **M.A. Hillmyer**

4:25 Introduction of Awardee.
4:30 PMSE 165. Award Address
(ACS Award in Polymer Chemistry Sponsored by the ExxonMobil Chemical Company). Polymer chemistry for microelectronics. **C.G. Willson**

Section B
New Orleans Marriott Canal Street La Galerie 4

Advances in Macromolecular Science & Engineering: Symposium in honor of David Schiraldi

L. Korley, J.K. Pokorski, *Organizers*
Q. Lin, *Organizer*, *Presiding*
R.C. Advincula, *Presiding*

1:30 PMSE 166. Accessing innovative porous polymers through emulsion templating. **M.S. Silverstein**

2:00 PMSE 167. Practical consideration of freeze-dried, low density polymeric composites. **M. Gawryla**

2:30 PMSE 168. Nanomaterials in 3D: A 20-year adventure from mechanically strong polymer-crosslinked aerogels to porous metals and ceramics. **N. Leventis**

3:00 Intermission.

3:15 PMSE 169. Ion transport in charged polymer membranes. **B.D. Freeman**

3:45 PMSE 170. New layered and porous polymeric systems and applications. **E. Baer**

4:15 PMSE 171. From polyester to aerogels, flammability and back. **D.A. Schiraldi**

Section C
New Orleans Marriott Canal Street Studio 3

Polymers with Complex Architecture: From Synthesis to Self-Assembly

Financially supported by NSF, BASF, ExxonMobil, LG MMA, and Wyatt Technology, Department of Chemistry & Biochemistry at Florida State University
J.G. Kenemur, C.Y. Ryu, M. Seo, G. Stein, *Organizers*
G. Liu, *Presiding*

1:30 PMSE 172. Synthesis of highly branched functional polymers by radical (co)polymerization of crosslinkers or inimers. **N.V. Tsarevsky**

2:00 PMSE 173. Nanostructured polymeric materials via polymerization-induced microphase separation towards separation and energy applications. **M. Seo**

2:30 PMSE 174. Synthesis and morphological investigations of complex multiblock copolymers architectures. **R. Gupta**, M. Misra, G. Vanderwoude, A. Shi, F. Escobedo, E. Coughlin

2:50 PMSE 175. Synthesis of multi-block polymer brushes creating nano strings of pearls structures. **Y. Wang**

3:10 Intermission.

3:25 PMSE 176. Polymers with complex porous architectures and complex macromolecular architectures through emulsion templating. S. Israel, T. Zhang, R. Mahroum, S. Feldman, **M.S. Silverstein**

3:55 PMSE 177. Thin film phase behavior and domain spacing of ternary homopolymer/block copolymer blends. **M. Uddin**, B. Lwoya, A. Goodson, A.S. Raymond, J. Albert

4:15 PMSE 178. Experimental and computational exploration of ABCA' tetrablock terpolymer morphologies. **M.R. Radlauer**, A. Arora, M. Matta, K.D. Dorfman, F.S. Bates, M.A. Hillmyer

4:35 PMSE 179. Entropy induced diverse phase transitions of giant surfactant via rigid-rod junctions. **W. Shan**, S.Z. Cheng

4:55 PMSE 180. Mesoscale block copolymers. **D.M. Barber**, T. Emrick, A. Crosby

Section D
New Orleans Marriott Canal Street La Galerie 5

Third International Symposium on Polybenzoxazines: Towards Diamond Jubilee of Benzoxazine Chemistry

P. Froimowicz, I. Hamerton, *Organizers*
H. Ishida, *Organizer*, *Presiding*
S. Kuo, *Presiding*

1:30 PMSE 181. Sustainable

[†]Cooperative Cosponsorship

benzoxazines: Efficient co-monomers for inverse vulcanization. **B. Lochab**, M. Monisha

2:00 PMSE 182. Chemical design of benzoxazine-based systems as a manner for inducing programmable properties into the final polybenzoxazines. **P. Froimowicz**

2:30 PMSE 183. Three-dimensional hierarchical porous carbons derived from polybenzoxazine and their applications in gas storage and supercapacitors. **T. Chaisuwan**, S. Wongkasemjit, N. Manmuanpom

3:00 PMSE 184. Advances in molecular modeling of benzoxazine based thermoset polymers. **T.J. Mustard**, J. Sanders, A. Browning, H. Kwak, C.M. Krauter, S. Christensen, M. Halls

3:30 Intermission.

3:45 PMSE 185. Benzoxazine studies with Gaussian simulation. **T. Heyl**, L. Han, D. Iguchi, P. Gil, V. Sedwick, C. Arza, S. Ohashi, D. Lacks, H. Ishida

4:05 PMSE 186. Understanding the vibrational structure, ring-opening kinetics of oxazine ring, hydrogen bonding system and smart *ortho*-structure molecular design of higher performance polybenzoxazines. **L. Han**, K. Zhang, P. Froimowicz, D. Iguchi, P. Gil, T. Heyl, V. Sedwick, M. Salum, C. Arza, S. Ohashi, D. Lacks, H. Ishida

4:25 PMSE 187. Cardanol as natural source of phenol for preparation of polybenzoxazines thermosets: Effect of the aliphatic side chain on the properties. **R. Ganfoud**, P. Verge, N. Guigo, L. Puchot, N. Sbirrazzuoli

4:45 PMSE 188. Three different approaches to reduce the polymerization temperature of benzoxazines. A. Martos, J. Salabert, M. Soto, K. Koschek, J. Marquet, **R.M. Sebastián**

Section E

New Orleans Marriott Canal Street Studio 2

PMSE-North American Membrane Society (NAMS) Joint Symposium on Surface Science of Membranes for Advanced Separations

Biofouling & Bioseparations

Cosponsored by DAC[†]
Financially supported by North American Membrane Society
D. Bhattacharyya, I.C. Escobar, B.D. Freeman, C.M. Stafford, *Organizers*
Y. Ding, S. Wickramasinghe, *Presiding*

1:30 PMSE 189. Grafting zwitterions onto membrane surface using bioadhesive polydopamine to enhance antifouling properties for wastewater reuse. **H. Lin**, N. Shahkaramipour, C. Cheng

2:00 PMSE 190. Switchable zwitterionic membrane surface chemistry for biofouling control. **S.T. Weinman**, M. Bass, S. Pandit, V. Freger, M. Herzberg, S.M. Husson

2:30 PMSE 191. Novel block copolymer that self-assembles to brush-like monolayer on varied surfaces and slows down biofilm formation. **Y. Kaufman**, C. Ziemba, M. Piatkovsky, D. Priftis, H. Acar, J. Mao, M. Benami, M.V. Tirrell, M. Herzberg

[†]Cooperative Cosponsorship

3:00 Intermission.

3:30 PMSE 192. Surface characterization and chemical cleaning of reverse osmosis membranes from a full-scale water reuse facility: Role of silicates and biofouling on aging. **B. Abada**, S. Chellam

4:00 PMSE 193. High performance electrospun nanofiber membranes for protein purifications. S.R. Wickramasinghe, **X. Qian**, S. Chen

4:30 PMSE 194. Use of confocal microscopy and SEM to study virus capture behavior of Planova hollow fiber virus filters. **H. Nazem-Bokaei**, D. Chen, S.M. O'Donnell, A.L. Zydny

5:00 PMSE 195. Chitosan/hyaluronan coatings tailored for tumor cell adhesion: Influence of the topography and capacitance gradient. **J.M. Neto**, R.A. Bataglioli, S. Pimentel, H.F. De Carvalho, M.M. Beppu

Section F

New Orleans Marriott Canal Street Studio 8

Cyclic & Topologically Complex Polymers

Cosponsored by POLY
Financially supported by MilliporeSigma; Tosoh Biosciences LLC; Zeon Corporation; Toyo Styrene Co., Ltd.; Elsevier
S.M. Grayson, Y. Tezuka, *Organizers*, *Presiding*

1:30 PMSE 196. Theory and simulation of topological non-idealities in polymer networks. **B.D. Olsen**, J.A. Johnson, R. Wang, T. Lin

2:00 PMSE 197. Statistical and hydrodynamic properties of graph-shaped polymers and quaternions. **T. Deguchi**, E. Uehara

2:30 PMSE 198. Theory, simulation, and neutron scattering from cyclic polystyrene and exact linear analogs. **M.J. Hore**, S.M. Grayson, A. Jayaraman, F.M. Haque, T.E. Gartner

2:50 PMSE 199. Dilute solution properties of semiflexible ring polymers. **D. Ida**, T. Yoshizaki

3:10 Intermission.

3:20 PMSE 200. Entanglement in protein structures – knots, lassos and links: Applications in medicine. **J.J. Sulkowska**, P. Dabrowski-Tumanski, W. Niemyska

3:50 PMSE 201. Knot energy, complexity, and mobility of knotted polymers. **J.F. Douglas**, F. Vargas-Lara

4:20 PMSE 202. On chirality of molecular graphs. **K. Shimokawa**

4:50 PMSE 203. Computational studies of poly[*n*]catenanes. **P. Rauscher**, S.J. Rowan, J.J. De Pablo

Section G

New Orleans Marriott Canal Street Studio 9

Clay-Polymer Composites: Nanoclays & Other Natural Nanoparticles

Clay Nanotubes & Nanofiber Composites

Financially supported by Applied Minerals, Inc.; Zibo Zhangdian Oriental Chemical Co., Ltd.
Y.M. Lvov, E. Ruiz-Hitzky, A. Takahara, L. Zhang, *Organizers*
N. Kotov, *Organizer*, *Presiding*

1:30 PMSE 204. Molecular aggregation states and physicochemical properties of (imogolite/polymer) hybrids. **A. Takahara**, Y. Higaki, W. Ma, L. Li

2:00 PMSE 205. Sepiolite-halloysite nanoarchitectures and their role in functional nanocomposites. **P. Aranda**, G. Lo Dico, L. Lisuzzo, B. Wicklein, G. del Real, G. Lazzara, E. Ruiz-Hitzky

2:30 PMSE 206. Biopolymer enhanced stabilization of tubular and flat sheet clays at the oil-water interface: Fundamentals, and applications to environmental remediation. **V.T. John**, O.G. Owoseni, Y. Su, M. Omarova

3:00 PMSE 207. Application of synthesized MOF@Halloysite nanotubes on gas adsorption capacity. **S. Lim**, D. Sohn

3:30 PMSE 208. Clay/hydrogel composites by gamma ray radiation. **D. Sohn**, J. Ryu, J. Kim

4:00 PMSE 209. Sepiolite-mediated transfer of nucleic acids in cells. **F.A. Castro Smirnov**, O. Piétrement, P. Aranda, E. Le Cam, B. Lopez, E. Ruiz-Hitzky

4:20 PMSE 210. Coarse grained force field for polymer clay nanocomposites. **P. Khan**, G. Goel

4:40 PMSE 211. Controlled loading and release of quercetin by natural halloysite nanotubes. **R. Li**, Y. Chen, X. Chen

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers

Sponsored by POLY, Cosponsored by BIOT, MEDI and PMSE

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials

Frontal Polymerization

Sponsored by POLY, Cosponsored by PHYS and PMSE

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

Undergraduate Research Posters

Polymer Chemistry

Sponsored by CHED, Cosponsored by PMSE, POLY and SOCED

MONDAY EVENING

Section A

Ernest N. Morial Convention Center Halls D/E

Sci-Mix

M. Becker, *Organizer*

8:00–10:00

11, 23, 66, 68, 124, 137-138, 145, 148, 150, 160-161, 191, 602. See previous listings.

223, 253, 258, 266, 270, 280, 288, 293, 305, 307, 312, 322, 327, 329, 336, 351-352, 357, 360, 372, 386, 399, 403, 407, 422, 424, 429, 437, 439, 442, 444, 464-465, 474, 488, 494, 542, 555, 562, 573, 578-580, 593. See subsequent listings.

TUESDAY MORNING

Section A

New Orleans Marriott Canal Street La Galerie 6

ACS Award in the Chemistry of Materials: Symposium in honor of Elsa Reichmanis

Novel Materials Design

Cosponsored by WCC
Financially supported by DuPont
Z. Bao, Y. Diao, G. Wang, *Organizers*, *Presiding*

8:30 Introductory Remarks.

8:40 PMSE 212. Block copolymers for high resolution patterning applications. **C.G. Willson**

9:10 PMSE 213. Development of scalable knittable functional polymer yarns. **S. Yang**

9:40 PMSE 214. Sustainable polymeric materials: Education, research and development, and commercialization. **M. Sabahi**, E. Reichmanis

10:10 Intermission.

10:25 PMSE 215. Making smart windows smarter. **Y. Loo**

10:55 PMSE 216. Si-containing polymers for nanoelectronics: From synthesis to applications in high-volume microchip manufacturing. **Q. Lin**

11:25 PMSE 217. Synthesis and phase behavior of highly functional block copolymers. **P. Gopalan**

Section B

New Orleans Marriott Canal Street La Galerie 4

Symposium for Pan-American Science

Financially supported by ACS Brazil Chapter
B.D. Olsen, C. Ornelas, *Organizers*
E. Gomez, *Presiding*

8:30 PMSE 218. Phytoglycogen nanoparticles: Soft colloids from nature. **J. Dutcher**, M. Grossutti, H. Shamana, A. Maxwell, J. Atkinson

9:00 PMSE 219. Equilibrium and kinetic swelling in ultrathin films of phytoglycogen nanoparticles, hyaluronic acid and phytoglycogen:hyaluronic acid mixtures. **M. Grossutti**, K. Charlesworth, E. Bergmann, B. Baylis, J. Dutcher

9:20 PMSE 220. Withdrawn

9:40 PMSE 221. Use of lanolin on collagen films. **V. Martins**

10:00 Intermission.

10:20 PMSE 222. Can layer-by-layer be a good reservoir model for protein release? **L. Catalani**, M.C. Sogayar, A.F. Naves, G. Delechiave, A.C. Carreira, E. Kolanthai

10:50 PMSE 223. Plasma effects on barrier and solubility properties of protein films. **V.P. Romani**, V. Martins, B.D. Olsen, M. Collares, J. Oliveira

11:10 PMSE 224. Synthesis and characterization of lipopeptide nanostructures: application as catalysts for aldol reactions in aqueous medium. **W.A. Alves**

11:40 PMSE 225. Multiplex infrared spectroscopy imaging for monitoring spatially resolved redox chemistry. **F.N. Crespihlo**

Section C

New Orleans Marriott Canal Street Studio 3

Polymers with Complex Architecture: From Synthesis to Self-Assembly

Keynote Speaker Session

Financially supported by NSF, BASF, ExxonMobil, LG MMA, and Wyatt Technology, Department of Chemistry & Biochemistry at Florida State University C.Y. Ryu, G. Stein, *Organizers* J.G. Kennemur, M. Seo, *Organizers, Presiding*

8:30 PMSE 226. Withdrawn.

9:15 PMSE 227. Unique behaviors for molecular bottlebrush block polymers vs. linear analogs: Solution- vs. substrate-mediated assembly behaviors. **K.L. Wooley**

10:00 Intermission.

10:15 PMSE 228. Proton transport through lamellar water channels in chain-folded precisely sulfonated polyethylene. **K.I. Winey**

11:00 PMSE 229. Macromolecular metamorphosis: Stimulus-triggered topological transformations of polymer architecture. H. Sun, C.P. Kabb, Y. Dai, M. Hill, A. Bapat, **B.S. Sumerlin**

Section D

New Orleans Marriott Canal Street La Galerie 5

Third International Symposium on Polybenzoxazines: Towards Diamond Jubilee of Benzoxazine Chemistry

P. Froimowicz, I. Hamerton, H. Ishida, *Organizers* T. Chaisuwan, L. Han, *Presiding*

8:00 PMSE 230. Shape memory polymers based on polybenzoxazine alloys and composites enhancement of recovery stress and thermal properties. **S. Rimdusit**, M. Okhawilai, C. Jubsilp

8:35 PMSE 231. Smart latent catalyst containing α -trifluoroacetamide functional benzoxazine: Precursor for low temperature formation of very high performance polybenzoxazine with low dielectric constant and high thermal stability. K. Zhang, **L. Han**, P. Froimowicz, H. Ishida

8:55 PMSE 232. Synthesis of a bisbenzylideneacetone/bis(4-hydroxyphenyl) propanone -containing benzoxazine and its photo- and thermally-cured thermoset. **C. Lin**, Z. Chen, C. Chen, M. Wang

9:25 PMSE 233. Potential of poly(benzoxazine) as immobilization matrix for microbiosensors. J. Lin, S. Daboss, W. Schuhmann, **C. Kranz**

9:55 Intermission.

10:15 PMSE 234. Preparation and characterization of carbon fiber reinforced amide-co-imide functional polybenzoxazine and polybenzoxazole composites. **C. Ma**, L. Han, Z. Ma, X. Yin, H. Ishida

10:35 PMSE 235. Fiber reinforced polybenzoxazine: From benzoxazine chemistry to lightweight materials. **K. Koschek**, H. Schäfer, J. Werner, M. Soto

11:05 PMSE 236. Tribological and thermal properties of friction composites based on polybenzoxazine. **C. Jubsilp**, S. Rimdusit

11:35 PMSE 237. Benzoxazine-functionalized graphene oxide for synthesis of new nanocomposites. E.E. Biru, **S.A. Garea**, H. Iovu

Section E

New Orleans Marriott Canal Street Studio 2

PMSE-North American Membrane Society (NAMS) Joint Symposium on Surface Science of Membranes for Advanced Separations

MOFs & 2D Membrane Materials

Cosponsored by DAC[†] Financially supported by North American Membrane Society

D. Bhattacharyya, **I.C. Escobar**, **B.D. Freeman**, *Organizers* **C.M. Stafford**, *Organizer, Presiding* **J.A. Howarter**, *Presiding*

8:15 Introductory Remarks.

8:20 PMSE 238. Synthesis of ultrathin metal-organic framework membranes for gas and ion separations. **H. Wang**

9:00 PMSE 239. Evaluating an open metal site MOF for mixed-matrix membranes. **Z.P. Smith**, J. Bachman, T. Li, B. Gludovatz, V. Kusuma, T. Xu, D.P. Hopkinson, R. Ritchie, J.R. Long

9:30 PMSE 240. Graphene oxide-

based desalination membranes. **M.R. Hibbs**, C.D. Mowry, V. Pinon, K.R. Zavadil, A.S. Pimentel, C. Stewart, M.L. Gucik, L. Biedermann

10:00 Intermission.

10:30 PMSE 241. Facile grafting of ionic liquids onto halloysite nanotubes via an atom transfer radical polymerization method. **H. Zhang**, H. Song

11:00 PMSE 242. Graphane based membranes: Water transport. **X. Zhang**

11:30 Concluding Remarks.

Section F

New Orleans Marriott Canal Street Studio 8

Cyclic & Topologically Complex Polymers

Cosponsored by POLY Financially supported by MilliporeSigma; Tosoh Biosciences LLC; Zeon Corporation; Toyo Styrene Co., Ltd.; Elsevier S.M. Grayson, Y. Tezuka, *Organizers, Presiding*

8:30 PMSE 243. Synthesis and characterization commercially relevant cyclic polymers. Z. Miao, W. Niu, T. Kubo, K.C. Bentz, D.A. Savin, B.S. Sumerlin, **A.S. Veige**

9:00 PMSE 244. Macrocyclic conjugated polymers of novel topology. B.J. Lidster, S. Hirata, S. Matsuda, T. Yamamoto, V. Komanduri, D.R. Kumar, M. Vacha, Y. Tezuka, **M.L. Turner**

9:30 PMSE 245. Unusual cyclic polymerization through Suzuki-Miyaura coupling of polyarylene bearing diboronate at both ends with excess dibromoarylene. H. Sugita, Y. Ohta, **T. Yokozawa**

9:50 Intermission.

10:00 PMSE 246. Controlled ring-expansion cationic polymerization: Precise construction of ring-based architectures. **M. Ouchi**

10:30 PMSE 247. Progress towards the synthesis of jellyfish block-copolymers via REP/CRP. **Y.D. Getzler**, S.E. Wright, N. Gutsche, J. Bouquet, W. Cole, M. Itschner

10:50 PMSE 248. Cyclic polylactides via ring-expansion polymerization. H.R. Kricheldorf, F. Scheliga, **S.M. Weidner**

11:20 PMSE 249. Simple and versatile approach to cyclic polymers via lactam mediated ring-opening polymerization of cyclic monomers. C. Shi, F. Du, **Z. Li**

Section G

New Orleans Marriott Canal Street Studio 9

Clay-Polymer Composites: Nanoclays & Other Natural Nanoparticles

Polymer-Nanoparticle Composites

Financially supported by Applied Minerals, Inc.; Zibo Zhangdian Oriental Chemical Co., Ltd.

N. Kotov, **Y.M. Lvov**, **E. Ruiz-Hitzky**, **A. Takahara**, **L. Zhang**, *Organizers* **B. Guo**, *Presiding*

8:00 PMSE 250. Nanocomposite-based

flexible lithium ion batteries for wearable sensor applications. **M. Agarwal**, N. Aliahmad

8:30 PMSE 251. Brick-and-mortar biocomposites from cellulose nanofibrils and clay nanoplatelets. **L. Medina**, L. Berglund

9:00 PMSE 252. Cellulose nanocrystals as renewable nanofillers for polymeric (nano)composites. **J. Raquez**

9:30 PMSE 253. Incorporation of cellulose nanocrystals into poly(ethylene) matrix by polymerization filling. **K.D. Hendren**, P.A. Deck, J. Foster, T.W. Baughman

10:00 Intermission.

10:10 PMSE 254. Loading of indocyanine green within polydopamine-coated laponite nanodisks for targeted cancer photothermal and photodynamic therapy. F. Xu, X. Li, M. Liu, Z. Xiong, **X. Shi**, R. Guo

10:40 PMSE 255. Interfacial effect on crystallization behavior of polyethylene/silica composites. **D. Wang**, W. Zhao, Y. Su

11:10 PMSE 256. Dual mode image nanoprobes used for MR-NIRF imaging. **C. Bai**, Y. Zhang

GSSPC: Finding Our Place at the Bottom

Symposium in honor of Richard Feynman

Sponsored by CHED, Cosponsored by ANYL[†], COLL[†], ENVR[†], INOR, PMSE[†] and PRES[†]

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers

Sponsored by POLY, Cosponsored by BIOT, MEDI and PMSE

Undergraduate Research in Polymer Science

Sponsored by POLY, Cosponsored by CHED and PMSE

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

TUESDAY AFTERNOON

Section A

New Orleans Marriott Canal Street La Galerie 6

ACS Award in the Chemistry of Materials: Symposium in honor of Elsa Reichmanis

Advanced Structure Analysis

[†]Cooperative Cosponsorship

Cosponsored by WCC
Financially supported by DuPont
Z. Bao, Y. Diao, G. Wang, *Organizers*,
Presiding

1:30 PMSE 257. Benefit of a multiscale approach for the investigation of energy storage materials. **E.S. Takeuchi**, A.C. Marschilok, K.J. Takeuchi

2:00 PMSE 258. Smart gel-based materials from design to application via organic-inorganic hybrid technology. **M. Zhu**

2:30 PMSE 259. Twisted structures in lyotropic chromonic liquid crystals: Here, there and everywhere. **M. Srinivasarao**, J. Park, K. Nayani, J. Fu, R. Chang

3:00 Intermission.

3:15 PMSE 260. Polymeric bioactives: Polymers from bioactives and as bioactives. **K.E. Uhrich**

3:45 PMSE 261. Low-hanging fruit for machine learning in materials science: Imaging. **N. Persson**, M. McBride, M. Grover, E. Reichmanis

4:15 PMSE 262. Review of the hiring and promotion of female faculty members at nine prestigious chemistry departments. **V.J. Kuck**

4:45 PMSE 263. Controlled assembly of poly(3-hexylthiophene): From fundamental understanding of conjugated polymer assembly process towards stretchable electronics. **D. Choi**, S. Lee, E. Reichmanis

Section B
New Orleans Marriott Canal Street
La Galerie 4

Symposium for Pan-American Science

Financially supported by ACS Brazil Chapter
C. Ornelas, *Organizer*
B.D. Olsen, *Organizer, Presiding*

1:30 PMSE 264. Development of new well-defined multifunctional dendrimers for nanomedicine applications. **C. Ornelas**, D. Bertuzzi, M. Ramos Jr, C. Braga, T. Becher, A. Porras, D. Souto

2:00 PMSE 265. Nanocomposites applied as photohyperthermia agents: Cancer therapy and toxicity studies. **V. Zucolotto**

2:30 PMSE 266. Fluorescent proteins as emission sensitizing agents in europium nanoparticles bioconjugates. **F.E. Maturi**, C.E. Mills, S.J. Ribeiro, B.D. Olsen

2:50 PMSE 267. Development of new template strategies for the synthesis of polyrotaxanes. A.F. Alcantara, L. Fontana, V. Rigolin, **J.D. Megiatto**

3:10 Intermission.

3:30 PMSE 268. Role of fast polymer dynamics as quantified by inelastic neutron scattering on the mechanical toughness on polymeric materials. **C.L. Soles**

4:00 PMSE 269. Recent instrumentation advances offer new opportunities in electron microscopy of polymers. **E. Gomez**

4:30 PMSE 270. Poly (butylene succinate): Applications from the farm to

the health. **F. Gomes Souza Jr**

5:00 PMSE 271. Novel hybrid polymeric adsorbents for wastewater treatment. **P.V. Toledo**, D.P. Limeira, **D. Petri**

Section C
New Orleans Marriott Canal Street
Studio 3

Polymers with Complex Architecture: From Synthesis to Self-Assembly

Financially supported by NSF, BASF, ExxonMobil, LG MMA, and Wyatt Technology, Department of Chemistry & Biochemistry at Florida State University
J.G. Kenemur, C.Y. Ryu, M. Seo, G. Stein, *Organizers*
H. Chung, *Presiding*

1:30 PMSE 272. Tapered (cone-shaped) polymers by sequential-addition of macromonomers ring-opening metathesis polymerization (SAM-ROMP). **J.B. Matson**, J. Foster, S. Radzinski

2:00 PMSE 273. Stimuli-responsive porous materials by tailoring hybrid-polymer core-shell architectures. **S. Vovinkel**, T. Winter, A. Schlander, M. Gallei

2:20 PMSE 274. Probing structure of temperature-responsive polymersomes assembled from ABA triblock copolymers. **Y. Yang**, A. Alford, V.A. Kozlovskaya, L. He, V. Urban, E.P. Kharlampieva

2:40 PMSE 275. Dynamics of PS₂-PI₂ miktoarm polymers in geometrical confinement. **E. Mapesa**, T. Kinsey, J. Sangoro

3:00 Intermission.

3:15 PMSE 276. Low strain, more gain: Harnessing polypentenamers towards complex precision architectures. **J.G. Kenemur**, W.J. Neary, S. Brits, G. Palui, A. Kendrick

3:45 PMSE 277. *In situ* self-assembly study in bio-based thin films. **C. Brett**, N. Mittal, W. Ohm, D. Soderberg, S. Roth

4:05 PMSE 278. Structure formation of block copolymer based photonic materials and functionalization strategies. **M. Appold**, M. Gallei

4:25 PMSE 279. Supramacromolecular strategy for overcoming antibiotic resistance. **X. Li**, A. Delawder, T. Kincaid, R. Li, A.F. Greene, J.R. Chartock, J.C. Barnes

4:45 PMSE 280. Singlet oxygen degradable micelles for delivery of anticancer drugs. **V. Brega**, S.W. Thomas

Section D
New Orleans Marriott Canal Street
La Galerie 5

Third International Symposium on Polybenzoxazines: Towards Diamond Jubilee of Benzoxazine Chemistry

P. Froimowicz, I. Hamerton, H. Ishida, *Organizers*
S. Chirachanchai, B. Kiskan, *Presiding*

1:30 PMSE 281. Study on the weight loss of benzoxazine during the curing process.

Q. Ran, Y. Gu

2:00 PMSE 282. Alternative routes for the development of benzoxazine resins: A green and sustainable approach. **D. Lomonaco**

2:30 PMSE 283. Withdrawn

3:00 PMSE 284. Structural tuning of polybenzoxazine/epoxy composites with dual crosslinking network for corrosion protection. **C. Zhou**, Z. Xin

3:20 Intermission.

3:40 PMSE 285. Superhydrophobic coatings and separators: Polybenzoxazine nanocomposites. **R.C. Advincula**

4:00 PMSE 286. Polybenzoxazines/POMS composites: Preparation and properties. **R. Xu**, D. Yu

4:20 PMSE 287. High-performance copolymers derived from fully bio-based benzoxazine monomers. **J.R. Oliveira**, L.R. Kotzebue, A. Sales, S.E. Mazzetto, D. Lomonaco

4:40 PMSE 288. Novel glass fabric reinforced polybenzoxazine-silicate composites along with polyvinyl butyral for high service temperature applications. **R. Sriperambudur**

5:00 PMSE 289. Preparation of flexible shape memory polybenzoxazine through chemical structure manipulation and hydrogen bonds control. **S. Zhang**

Section E
New Orleans Marriott Canal Street
Studio 2

Cooperative Research Award: Symposium in honor of D. Bruce Chase & John F. Rabolt

Financially supported by University of Delaware, Department of Materials Science & Engineering
S.C. Jana, D.C. Martin, *Organizers*,
Presiding

1:00 PMSE 290. Photomobility and orientation in azomaterials. **C. Pellerin**, A. Laventure, J. Vapaavuori, R. Sabat, O. Lebel

1:30 PMSE 291. Vibrational spectroscopy and two-dimensional correlation analysis of bioplastics. **I. Noda**, B. Chase, J.F. Rabolt

2:00 PMSE 292. End-of-shift measurement of airborne β -quartz and diesel particulate matter by mid-infrared diffuse transfection spectrometry. D. Parks, A. Miller, **P.R. Griffiths**

2:30 PMSE 293. AFM-IR studies of individual electrospun nanofibers of bio-based poly[(R)-3-hydroxybutyrate-co-(R)-3-hydroxyhexanoate] (PHBHx). **L. Gong**, B. Chase, I. Noda, C.A. Marcott, J.F. Rabolt

3:00 Intermission.

3:30 PMSE 294. Structure and properties of oriented polymer nanofibers. **D.C. Martin**, V. Subramanian, J. Liu, S. Chhatre, B.S. Shim

4:00 PMSE 295. Overcoming the infrared diffraction limit: Submicron spatial resolution IR spectroscopy using a non-

contact optical method. **C.A. Marcott**, E. Dillon, S. Zayats, K. Kjoller, C. Prater

4:30 PMSE 296. Characterization of metastable crystalline polymorphs in electrospun polymer nanofibers using AFM-IR, XRD and selected area electron diffraction (SAED). **J.F. Rabolt**, B. Chase

Section F
New Orleans Marriott Canal Street
Studio 8

Cyclic & Topologically Complex Polymers

Cosponsored by POLY
Financially supported by MilliporeSigma; Tosoh Biosciences LLC; Zeon Corporation; Toyco Styrene Co., Ltd.; Elsevier
S.M. Grayson, Y. Tezuka, *Organizers*,
Presiding

1:30 PMSE 297. Purification and characterization of cyclic polymers. **T. Chang**

2:00 PMSE 298. Separation of cyclic and linear polymers based on selective intercalation into graphite oxide. **F. Barroso-Bujans**, A. Alegria

2:30 PMSE 299. Comparison of critical adsorption points of ring polymers with linear polymers. **Y. Wang**, T. Chang

2:50 Intermission.

3:00 PMSE 300. Pore translocation of knotted DNA. A. Suma, **C. Micheletti**

3:30 PMSE 301. Tandem mass spectrometry approaches for determining polymer structure, sequence, and topology. **C. Wesdemiotis**

4:00 PMSE 302. Single-molecule characterization of topological polymer dynamics. **S. Habuchi**

4:30 PMSE 303. Synthesis and photophysical studies of cyclic poly(p-phenylenevinylene)s by ring-expansion metathesis polymerization of strained 1,9-paracyclophanedienes. B. Lidster, S. Hirata, S. Matsuda, T. Yamamoto, **V. Komanduri**, D.R. Kumar, Y. Tezuka, M. Vacha, M.L. Turner

Section G
New Orleans Marriott Canal Street
Studio 9

Additive Manufacturing of Structures & Functional Devices: Materials, Methods, Models & Testing

Biomaterials & Regenerative Medicine

J. Lewis, C.R. Snyder, *Organizers*
D. Berrigan, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 PMSE 304. Development of resorbable polymer inks for cDLP printing and their use in regenerative medicine. **M. Becker**

2:05 PMSE 305. 3D printed organ models with physical properties of tissue and integrated sensors. **K. Qiu**, M.C. McAlpine

2:25 PMSE 306. Effect of drugs as fillers on the 3D print quality and degradation of a soft amorphous polyester. **A. Joy**, T.

[†]Cooperative Cosponsorship

Jain, I. Isayeva

2:45 PMSE 307. Biodegradable, 3D-printable PEG-PPF hydrogels for tissue repair. **R. Dilla**, J. Wilson, M. Becker

3:05 Intermission.

3:20 PMSE 308. 3D printing of liquid and soft materials: Applications from regenerative medicine to wearable sensing. T. Hinton, A. Lee, A. Hudson, S. Abdollahi, **A.W. Feinberg**

3:50 PMSE 309. Self-assembled 3D-printed Janus scaffolds for the regeneration of interfacial tissues. **S. Camarero-Espinosa**, C. van Blitterswijk

4:10 PMSE 310. Chitosan-pluronic diacrylate hydrogels as 3D printable material for heavy metal ion adsorption. **G. Adikari Appuhamillage**, D.R. Berry, C.E. Benjamin, M.A. Luzuriaga, J.J. Gassensmith, R.A. Smaldone

4:30 PMSE 311. Fabrication of self-cleaning antireflective polymer surfaces by mimicking underside leaf hierarchical surface structures. **S. Mattaparthi**, C. Sharma

4:50 PMSE 312. Low viscosity plant based building blocks for additive manufacturing. **J. Vergara**, K. Pauperowicz, D. Bolarin, S.K. Yadav, J.J. La Scala, G. Palmese

GSSPC: Finding Our Place at the Bottom

Symposium in honor of Richard Feynman

Sponsored by CHED, Cosponsored by ANYL[†], COLL[†], INOR, PHYS[†], PMSE[†] and PRES[†]

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers

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Undergraduate Research in Polymer Science

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Polymer Networks: Soft Gels to Stiff Networks

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Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

TUESDAY EVENING

Section A

Ernest N. Morial Convention Center Hall D

Joint PMSE-POLY Poster Session

Clay-Polymer Composites: Nanoclay & Other Natural

Nanoparticles

Cosponsored by POLY
M. Becker, Organizer

6:00–8:00

PMSE 313. One-step preparation of electrically conductive polyurethane composite by self-assembly of two-dimensional material. **F. Chen**, D.H. Adamson

PMSE 314. Conductive polymer composites from self-assembled graphene networks by photo and microwave induced polymerization. **T. Hui**, D.H. Adamson

PMSE 315. MoS₂ dispersed epoxy composite: Influence of solvent quality and surface chemistry to local chemical network formation and its influence on nanoscale toughening mechanism. **D. Nepal**, J. Ryan, I. Barrett, R. Wheeler, I.E. Pavel Sizemore, G.S. Kedziora, S. Roy, J. Moller, A. Sharits

PMSE 316. Clay nanotube self-assembly on hair surfaces: Formulation for medical and hair color treatments. **A. Panchal**, R. Fakhruddin, Y.M. Lvov

PMSE 317. Bacterial proliferation on clay nanotube Pickering emulsions for oil spill bioremediation. **A. Panchal**, L. Swintoniewski, Y.M. Lvov, T. Yu, D. Zhang, M. Omarova, G. Fakhruddin, V.T. John, D.A. Blake

PMSE 318. Self-assembly of halloysite nanotubes in microchannels for functionalizing microfluidic devices to capture cells. **M. Pickett**, A. Panchal, N.D. Crews, Y.M. Lvov

PMSE 319. Preparation and characterization of exfoliated mica-polyamide 66 nanocomposites using high shear melt processing. **A. Tewatia**, J. Lynch-Branzoi

PMSE 320. Beyond percolation: Exploring the effects of high graphene loading on polymer-graphene composites and *in situ* bulk polymerizations. **S. Ward**, D.H. Adamson

PMSE 321. Synthesis and investigation of amphiphilic polypeptoid- functionalized halloysites nanotubes (HNTs) as stabilizer towards oil spill remediation. **T. Yu**, D. Zhang, L.T. Swintoniewski, D.A. Blake, M. Omarova, V.T. John, A. Panchal, Y.M. Lvov

Section A

Ernest N. Morial Convention Center Hall D

Joint PMSE-POLY Poster Session

General Posters: New Concepts in Polymeric Materials

Cosponsored by POLY
M. Becker, Organizer

6:00–8:00

PMSE 322. Acrylic-polyurethane based graft-interpenetrating polymer networks. **N. Alizadeh**, V. Agrawal, A. Celestine, M. Awad

PMSE 323. Surface immobilization of poly(N-isopropylacrylamide) on polycarbonate by inter-diffusion and basic thermodynamic interactions. **M. Alyami**, B.M. Zhang Newby, A. Alghunaim, E.T. Brink

PMSE 324. Cyanotriphenylamine-based polyimidothioethers as multifunctional materials for fluorescent electrospun fibers, electrochromic, and electrofluorochromic devices. **H. Yen**, C. Chang, G. Liou

PMSE 325. Thermotropic liquid crystalline oligomers with selectively removable moieties for nanofabrication. **M. Aoki**, K. Shimokawa, Y. Nabae, T. Hayakawa

PMSE 326. Ultra-high molecular weight block copolymers for photonic applications in the bulk state. **M. Appold**, L. Proskurjakov, M. Gallei, E. Grune, H. Frey

PMSE 327. Phosphate modified graphene oxide as a mechanically sound, water stable biomaterial capable of controlled release. **A. Arnold**, B. Holt, S.A. Sydlik

PMSE 328. Synthesis and application of polyelectrolyte with super acid group (III): Influence of proton conductivity and gas permeability on PEFC performance. **M. Asano**, M. Fujita, Y. Takeoka, M. Rikukawa

PMSE 329. Infrared actuation-induced simultaneous reconfiguration of surface color and morphology for smart artificial skins. **S. Banisadr**, J. Chen

PMSE 330. Polymeric ionic liquids: Synthetic challenges and lubricant applications. **A. Bapat**, L. Cosimbescu, R. Erck, N. Demas

PMSE 331. Synthesis and characterization of self-assembling ABC triblock co-polypeptides. **B. Barnes**, L. Stein, C. Machado, I. Smith, D.A. Savin

PMSE 332. Structure and drug release properties of layer-by-layer thin films controlled by pH and drug loading strategies. **R.A. Bataglioli**, M.M. Bepko

PMSE 333. Systematic study on effect of raster solvent vapor annealing using dual solvents on morphology of block copolymers under thin film confinement. **S. Behzadinasab**, S. Chatterjee, B. Lwoya, M. Uddin, J.N. Albert

PMSE 334. Thermal and rheological response of metallized PVDF/PMMA composites with nanoscale and microscale aluminum. **J. Bencomo**, J. McCollum, S.T. Iacono

PMSE 335. Thin film stability in linear and cyclic blends of poly(β -caprolactone) (PCL). **A. Bergeson**, G. Kelly, F.M. Haque, S.M. Grayson, J.N. Albert

PMSE 336. Thermally reversible Diels-Alder soft polymers for 3D printing. **D.R. Berry**, R.A. Smaldone

PMSE 337. Withdrawn.

PMSE 338. Synthesis and characterization of low density polymer/graphene nanocomposite foams. **E. Brown**, D.H. Adamson

PMSE 339. Pegylated polybenzoxazine networks with increased thermal stability from miscible blends of tosylated poly(ethylene glycol) and a benzoxazine monomer. **E.A. Brown**, D.A. Rider

PMSE 340. Pyrrole containing semiconducting small molecules and polymers for organic electronics. **C. Bulumulla**, R. Kularatne, R.

Gunawardhana, H. Nguyen, M.C. Biewer, M.C. Stefan

PMSE 341. Reactively blended wheat gluten gels loaded with high molecular weight polyethylene oxide. **J. Caffyn**, R. Mehta, R. Parnas

PMSE 342. Structural characterization of organotin polymers from the antiviral lamivudine and dipeptide diglycine. **C.E. Carraher**, P. Slawek, F. Mosca, M.R. Roner, J.E. Haky

PMSE 343. Synthesis of Group IVB and organotin-containing polyamine esters, polyethers, and polyesters. **C.E. Carraher**, M.R. Roner, E. StFort, N. Ezzell, J. Frank, D. Patel, J.D. Einkauf, F. Russell, A. Moric-Johnson, L.C. Miller, E. Quiles, Z. Rabinowitz, E. Mittelmark

PMSE 344. Exposure predictions for rapid risk assessment of phase-separated additives in medical device polymers. **V. Chandrasekar**, A. Hood, A. Bajaj, T.V. Duncan, J. Zheng, B. Casey, D. Saylor

PMSE 345. Self-assembly of PS-b-PVMS and thiol-modified PS-b-PVMS thin films under various annealing conditions. **S. Chatterjee**, B. Lwoya, J.N. Albert

PMSE 346. Synthesis and properties of oligo(2,6-dimethyl phenylene oxide) s-containing polybenzoxazine with a characteristic of low dissipation factor. C. Lin, K. Lee, **C. Chen**

PMSE 347. Soluble porous organic polymer by imine condensation. **N. Chen**, S. Dai

PMSE 348. Photopatterned polyelectrolyte complexes as shape-directing templates for thermoreversible biopolymer gels. **K. Choudhuri**, U.K. de Silva, Y. Lapitsky

PMSE 349. Withdrawn.

PMSE 350. Sequence-defined metal templation as a strategy for the synthesis of functional materials. **N.D. Colley**, A.F. Greene, J. Fisher, X. Li, J.C. Barnes

PMSE 351. Enhanced ion transport in disordered block copolymers of ammonium-based polymerized ionic liquids. M. Harris, M.F. Heres, **J. Coote**, G. Stein, J. Sangoro

PMSE 352. Controlling the morphology of polyacrylonitrile based carbon fiber precursors by molecular design. **K. Cordell**, J.S. Wiggins

PMSE 353. Architectural core-shell metal catalyst synthesis onto/into clay nanotubes. **Y.A. Darrat**, A. Stavitskaya, V. Vinokurov, C. Colletti, J. McDonald, Y. Lvov

PMSE 354. Halloysite nanotube composites for enhancing lithium-sulfur battery efficiency. **Y.A. Darrat**, Y. Pei, Y. Wang, M. Norwood, Y.M. Lvov, S. Wang

PMSE 355. Connecting block copolymers with scissile mechanophores. **B. Davis**, Y.C. Simon

PMSE 356. Effects of regiochemistry on the properties and gas separation performances of ionic polyimides. **G.P. Dennis**, K.E. O'Harra, J.W. Whitley, E.M. Jackson, **J.E. Bara**

[†]Cooperative Cosponsorship

- PMSE 357.** Synthesis and characterization of PEG-poly(propylene fumarate) hydrogels. **R. Dilla**, J. Wilson, M. Becker
- PMSE 358.** Molecular scale insight into poly(ethylene oxide)/cyclodextrin-based polyrotaxanes. **M. Ebrahimi**, **D. Dong**, D. Bedrov
- PMSE 359.** Investigation on the fabrication of a superhydrophobic surface on solar panels. **P.E. Engen**, L. Dong, M. Scholten, R.S. Majerle
- PMSE 360.** Vapor-phase polymerization of poly(3,4-ethylenedioxythiophene) (PEDOT)/TiO₂ and PEDOT/TiO₂/graphene composite fibers as electrode materials for supercapacitors. **M.T. Fox**, L. Tong, W.E. Jones, W.E. Bernier
- PMSE 361.** Withdrawn.
- PMSE 362.** Co, Fe, Cu catalysts supported on halloysite nanotubes for partial oxidation of aromatic compounds. **A.P. Glotov**, Y. Chudakov, A. Maria, A. Stavitskaya, E. Smirnova, E. Ivanov, V. Vinokurov, Y.M. Lvov
- PMSE 363.** Dissipative particle dynamic (DPD) simulations to predict self-assembly behavior of ternary block copolymer-homopolymer blends. **A. Goodson**, G. Liu, A.S. Raymond, M.S. Rick, H. Ashbaugh, J.N. Albert
- PMSE 364.** VO₂@SiO₂/PNIPAm thermochromic hybrid nanomaterials for smart window. Y. Wang, Y. Gao, L. Li, **X. Guo**
- PMSE 365.** Synthesis and properties of chiral hexa-*peri*-hexabenzocoronenes. **K. Hamal**
- PMSE 366.** Exploring "click" chemistry to synthesize and characterize cyclic polyethers. **F.M. Haque**, S.M. Grayson
- PMSE 367.** Sequential nucleophilic click reaction for functional degradable polymers: Design, synthesis and application. **H. He**, S. Thayumanavan
- PMSE 368.** Fabrication and application of micro-patterned PDMS composite membranes in pervaporation process for ethanol recovery from aqueous solution. **X. He**, T. Wang, J. Chen, J. Li
- PMSE 369.** Melt-processable and nanostructured polyethylene reactor blends entering a new range of mechanical performance and wear resistance. **T. Hees**, R. Mülhaupt
- PMSE 370.** Degradable polymers with antioxidant pendent groups. **L.J. Hill**, C. Jaconette, C. Warlick, H. Sims, B. Hinkley
- PMSE 371.** Synthesis and electrochemical properties of polybenzoxazine-derived nanoporous carbon electrode materials for supercapacitors. **P. Hiranpattanakul**, S. Wongkasemjit, T. Chaisuwan
- PMSE 372.** Synthesis, characterization, and evaluation of non-nucleophilic dispersants for automotive applications. **T. Holbrook**, G. Masson, R.F. Storey
- PMSE 373.** Synthesis and characterization of a novel β -cyclodextrin modified polyacrylamide and its rheological properties in aqueous solutions by hybridizing with silica nanoparticles. **X. Hu**, Y. Ke
- PMSE 374.** Synthesis and catalytic reaction activity of gold nanoparticles/diblock ionomers (V): Effect of molecular weight. **H. Inoue**, M. Fujita, Y. Takeoka, M. Rikukawa
- PMSE 375.** Synthesis and evaluation of polybetaine-type ion gel electrolyte(II) effect of zwitterionic unit on Li-ion conductivity. **J. Ishii**, Y. Takeoka, M. Rikukawa, M. Fujita
- PMSE 376.** Effects of the addition of relatively low MW acidic copolymers on the dispersion of asphaltenes in heavy crude oil. **M. Jo**, H. Lee, **J. Kim**
- PMSE 377.** Thermal-healing behavior of sulfonated polystyrene ionomers neutralized with amines. **M. Jo**, H. Lee, **J. Kim**
- PMSE 378.** Vapor-printed polymers for enhanced solar cell efficiency and lifetime. **W. Jo**, V. Bulovic, K. Gleason
- PMSE 379.** Synthesis, mechanical, and structural properties of piezoelectric polyvinylidene fluoride doped with barium titanate nanoparticles. **A. Joaquim**, O. Paul, R. Turner, R. Parthasarathy, L. Ouyang, Y. Barnakov, F. Williams
- PMSE 380.** Compatibilization of polyester/polyamide blends: Phosphonated polyester ionomer as minor-component compatibilizer with divalent anion. **L. Ju**, J.M. Dennis, K.A. Valentine, T.E. Long, R.B. Moore
- PMSE 381.** Designing nanoporous carbon as adsorbents for CH₄ storage. **N. Kaewaramsri**, S. Wongkasemjit, T. Chaisuwan
- PMSE 382.** Withdrawn
- PMSE 383.** Exploring solution size changes of dendritic and linear equivalent polymers in a range of solvents. **O. Kareem**, S.M. Grayson
- PMSE 384.** Cross-linkable multi-stimuli-responsive hydrogel inks for direct-write 3D printing. **D. Karis**
- PMSE 385.** Propylene/propane separation using efficient carbon membranes derived from polyimide precursors. **C. Karunaweera**, S. Panangala, I.H. Musselman, K.J. Balkus, J.P. Ferraris
- PMSE 386.** Synthesis of tailored amphiphilic graft polymers with a tunable void volume for encapsulation. **C.B. Keller**, M. Ejaz, S.M. Grayson
- PMSE 387.** Fabrication of polyaniline/MoS₂ nanocomposite with increased electrical conductivity for electrochemical capacitors. **Y. Kim**, J. Jang
- PMSE 388.** Synthesis and characterization of cardanol based vinyl ester resins as cross-linker units. **E. Kinaci**, E. Can, J. La Scala, G.R. Palmese
- PMSE 389.** Synthesis and biosensing properties of polythiophene having phosphonium group (III): Interaction with DNA. **F. Kiyoshiro**, M. Fujita, Y. Takeoka, M. Rikukawa
- PMSE 390.** Synthesis of fluorine-containing block copolymers for porous membrane preparation via RAFT. **S. Kurimoto**, R. Nakatani, A. Chandra, Y. Nabae, T. Hayakawa
- PMSE 391.** Synthesis and assembly of (A-branch-B)_n Janus bottlebrush polymers with ultra-small domain size. **A.N. Le**, Z. Guo, M. Zhong
- PMSE 392.** Patchy micelles of diblock copolymers as nanoscale building blocks for supracolloidal chains. **K. LEE**, D. Kang, J. Jeon, K. Kim, S. Jang, H. Kang, B. Sohn
- PMSE 393.** Antifragile interfaces between dental restorative materials and teeth. **S. Leguizamon**, T.F. Scott
- PMSE 394.** Synthesis and properties of unsymmetrical phosphinated benzoxazines. C. Lin, **C. Lin**, C. Chen
- PMSE 395.** Importance of evaluating dynamic encapsulation stability of amphiphilic assemblies in serum. **B. Liu**, S. Thayumanavan
- PMSE 396.** Self-assembly behavior of telechelic polymers with high-dipole moment chain ends. **C.H. Liu**, Y.C. Simon
- PMSE 397.** Conductivity measurement of PEO-LiFSI with co-polymer of PAA and tartaric acid. X. Li, **Y. Liu**, Y. Min
- PMSE 398.** Chemical crosslinked EVOH nanofiber aerogels with superelasticity and superoleophilicity for removal of oils and organic solvents. **J. Lu**, **R. Xiao**
- PMSE 399.** Low cost 3D printed microneedles for transdermal drug delivery. **M.A. Luzuriaga**, D.R. Berry, J.C. Reagan, R.A. Smaldone, J.J. Gassensmith
- PMSE 400.** Nanoporous thin films for use in oil/water separation. **B. Lwoya**, M. Uddin, S. Behzadinasab, S. Chatterjee, J.N. Albert
- PMSE 401.** Nanoporous materials with sub-10 nm pores prepared from a rod-coil diblock copolymer. **X. Lyu**, Z. Shen
- PMSE 402.** Synthesis of highly pH-responsive engineered sugar coated nanoscopic assemblies for biomedical application. **S. Maiti**, R. Bettinge, C. Cogswell, W. Du
- PMSE 403.** Solid state sensing of non-polar VOCs using the bistable expansion and contraction of helical polycarbodiimides. **N.R. Mammootil**, J.F. Reuther, R. Campos, B.M. Novak
- PMSE 404.** Anti-inflammatory effect of drug-eluting electrospun polyisobutylene-based thermoplastic elastomeric fiber mat. **A.T. McClain**, A. Jindal, N.D. Leipzig, J.E. Puskas
- PMSE 405.** Intermolecular interaction of polymer brushes containing phosphorylcholine (PC) and inverse-PC. **S. Mihara**, M. Kobayashi
- PMSE 406.** Modular 3D-printing-enabled platform for the fabrication of living-composite models of human vasculature. **S.C. Millik**, A. Dostie, P. Smith, R. Shafrank, A. Saha, X. Su, A.B. Theberge, A. Nelson
- PMSE 407.** Fabrication of organogels containing fixed and mobile micelles. **K. Mineart**, W. Walker
- PMSE 408.** Effects of peptide backbone modification on the assembly, structure, and properties of chiral gold nanoparticle single helices. **S. Mokashi Puneekar**, C. Liu, A. Merg, N.L. Rosi
- PMSE 409.** Synthesis of poly(phenylene) and poly(thiophene)-based block copolymer ionomers and their characterization. **Y. Nakano**, M. Fujita, Y. Takeoka, M. Rikukawa
- PMSE 410.** Carefully controlled poly(lactic acid) networks through "thiol-ene" cross-linking of β , β ene functionalized PLA polymers and multi-armed thiols. **B. Nicholas**, R.G. Toomey, N. Gallant
- PMSE 411.** Theoretical and experimental approach to predict the formation of crystalline covalent organic frameworks. **G. Occhialini**, S.O. Nielsen, R. Smaldone
- PMSE 412.** Insight into the anionic ring-opening polymerization with tetrabutylammonium azide to produce cyclic polyethers. **J. Ochs**, A. Veloso, F. Barroso-Bujans
- PMSE 413.** Ultrasensitive and selective non-enzymatic FET-type dopamine sensor based on organic conducting materials. **J. Oh**, J. Jang
- PMSE 414.** Adsorption behavior of quaternary-ammonium-containing block copolymer for boron nitride. **T. Okado**
- PMSE 415.** Effects of salts and pH on hydrolytic degradation of poly(L-lactic acid) blends. **H.T. Oyama**, M. Kimura, Y. Nakamura, R. Ogawa
- PMSE 416.** Preparation and self-assembly of liquid crystalline block copolymers constructed through hydrogen bonding. **H. Pan**, **Z. Shen**
- PMSE 417.** Conjugated polymer nanodisks assembled with octanoic acid and their polyurethane nanocomposites with simultaneous thermal storage and antibacterial activity. **J. Park**, D. Lee, K. Oh
- PMSE 418.** Hybrid diamine alloys for increased processability. **M. Patterson**, J.S. Wiggins
- PMSE 419.** Investigation of self-assembly of supramolecular host/guest polymer complexes in water utilizing simultaneous multiple sample lights scattering (SMSLS). **M.E. Payne**, C.W. Jarand, W.F. Reed, S.M. Grayson
- PMSE 420.** Release study for electrospun drug-loaded alginate- and chitosan-based nanofibers for modern wound dressings. **K. Penton**, W. Weeks, T. Brown, Z.K. Kinler, S. Hamilton
- PMSE 421.** Solvent free adhesive polymers synthesized using garlic extract components and elemental sulfur. **C. Perez**, K. Kamp, C. Jenkins
- PMSE 422.** Efficient synthesis of polyamino acid polymers. **E. Ponnusamy**, S. Rana
- PMSE 423.** Synthesis of lithium-ion-conducting solid polymer electrolyte membranes for energy-related applications. **B. Prasad Thapaliya**, C. Do-Thanh, H. Lyu, X. Sun, S. Dai

[†]Cooperative Cosponsorship

PMSE 424. Edge charge neutralization of clay for improved nanocoating gas barrier. **S. Qin**, Y. Song, D. Hagen, J.C. Grunlan

PMSE 425. Withdrawn

PMSE 426. Investigating dendrimer kinetics via the synthesis of bis-MPA branched polymers. **M. Redding**, S.M. Grayson, O. Kareem

PMSE 427. Flow induced crystallization in isotactic polypropylene via simultaneous measurements of modulus, helicity and morphology. **D. Roy**, K. Migler

PMSE 428. New strategies for brush block copolymer synthesis and their application in polymer-based photonic crystals. **M.D. Ryan**, G. Miyake

PMSE 429. Microgels from xanthan gum and locust bean gum for potential biomedical applications. **S. Sagbas**, C. Silan, N. Sahiner

PMSE 430. Synthesis and evaluation of diblock polyelectrolytes (IV): Influence of side chains to glass transition temperature and proton transport properties. **I. Sakamoto**, M. Fujita, Y. Takeoka, M. Rikukawa

PMSE 431. Modeling of PVDF-alumina composites; atomistic simulations for predicting material properties. **F. Saleem**, J. McCollum, B. Rannels, S.T. Iacono

PMSE 432. P-doping poly(3-hexylthiophene) with F4TCNQ in binary solvent mixtures. **M. Sapolsky**, L. Freeman, P. Miller, D.S. Boucher

PMSE 433. Effects of the type of cations on the mechanical properties of ethyl acrylate ionomers thermally healed at room temperature. **I. So**, M. Jo, **J. Kim**

PMSE 434. Synthesis and modification of the surface of copper nanoparticles. N.R. Lima, **F.G. Souza JR**, B. Britto

PMSE 435. Fabrication of nanoporous carbon as an anode for high power lithium-ion battery. **P. Sriboonpeng**, S. Wongkasemjit, T. Chaisuwan

PMSE 436. Amplification and optical reporting of interfacial molecular events using liquid crystals. **U. Sridhar**, K. Iwabata, N.L. Abbott, S. Thayumanavan

PMSE 437. Poly(β -caprolactone) as a polymeric material for orthopaedic implants in the presence of *Staphylococcus aureus*. **M. Steffen**, R.M. Van Horn

PMSE 438. Extrusion based 3D printing of rocket propellant grains. **J. Strutton**, J. McCollum, S.T. Iacono

PMSE 439. Bridging the performance gap: Relating thermomechanical properties to polymer composition in polyester-urethane thermoset coatings. **J. Tilly**, D. Inglefield, S. Khan, R.J. Spontak

PMSE 440. Characterizing nanostructural degradation from accelerated aging in polymer membranes. **M. Toomey**, K. Huang, L. Kearney, A. Shah, J.A. Howarter

PMSE 441. Solventless synthesis of fully bio-based benzoxazine polymers from phloretic acid, polyethylene glycol and furfurylamine. **A. Trejo Machin**, P. Verge, L. Puchot, R. Quintana

PMSE 442. Statistical mechanics of theta-shaped and ring-shaped polymer chains. **E. Uehara**, T. Deguchi

PMSE 443. Tailoring the mechanics and degradation of polyester fibers through manipulating structure and morphology. **K. Van de Voorde**, A.M. Jordan, V. Viswanath, J.K. Pokorski, L. Korley

PMSE 444. Effect of phase separation on water barrier properties in epoxy/amine thermosetting polymers. **J. Vergara**, I. Donahue, J.J. La Scala, J.M. Sadler, S.K. Yadav, G. Palmese

PMSE 445. Tailor-made core-shell particles and shear-induced Assembly for the preparation of isoporous nanostructures. **S. Vowinkel**, M. Gallei

PMSE 446. Preparation and properties of hydroxyl rich microporous polymer. H. Gong, L. Zhao, **J. Wang**

PMSE 447. Fabrication and characterization of poly (2-hydroxyethyl methacrylate)-based hydrogel membranes. **M. Wang**, O. Heinz, J. Martinez, Y. Ding

PMSE 448. Graphene oxide modified poly(piperazine-amide)/PMIA composite nanofiltration membrane with improved flux and antifouling properties. **T. Wang**, X. He, J. Chen, J. Li

PMSE 449. Intramolecular cross-linking of poly(styrene-*b*-lactide)s for decreasing domain sizes in microphase-separated structures. **K. Watanabe**, S. Katsuhara, T. Isono, T. Yamamoto, K. Tajima, T. Satoh

PMSE 450. Elucidating the effects of extended branch architecture in linear-dendritic block copolymers (LDBC). **J.S. Williams**, I. Chandrasiri, D. Abebe, D.L. Watkins

PMSE 451. Integrating prior knowledge and machine learning for efficient design of high thermal conductivity polymers. **S. Wu**, Y. Kondo, I. Kuwajima, G. Lambard, K. Hongo, J. Morikawa, Y. Xu, R. Yoshida

PMSE 452. Comparison of the chain structures between high-speed extrusion coating polyethylene resins by preparative temperature rising elution fractionation and cross-fractionation. **Y. Xue**, S. Bo, X. Ji

PMSE 453. Single-digit nanometer polysiloxane-based block copolymers: Design, synthesis, and perpendicular orientation control. **S. Yamazaki**, R. Odashima, T. Seshimo, Y. Nabae, T. Hayakawa

PMSE 454. Harvesting irregular mechanical energy by triboelectric nanogenerator based on cost-effective thermoplastic polymer nanofiber. **S. Yan**, R. Xiao

PMSE 455. Synthesis of novel polyimides containing pyridine units with good comprehensive properties via copolymerization. **M. Yang**, C. Zhang, Y. Dong, L. Tong

PMSE 456. pH-dependent release of anticancer drug doxorubicin from biocompatible thermoresponsive polymersomes. **Y. Yang**, V.A. Kozlovskaya, F. Liu, K. Ingle, A. Ahmad, G. Halade, E.P. Kharlampieva

PMSE 457. Synthesis and self-

assembly of poly(styrene-*block*-methyl methacrylate) end-capped with oligosaccharide. **K. Yoshida**, S. Tanaka, K. Miyagi, T. Isono, T. Yamamoto, R. Borsali, K. Tajima, T. Satoh

PMSE 458. Effect of fluoroalcohol on atom transfer radical polymerization of styrene bearing electron-donating group. **H. Yoshioka**, K. Yamaguchi, M. Kobayashi

PMSE 459. Preparation of poly(AM-AMPS-NVP)/SiO₂ nanocomposite microspheres with temperature and salinity resistance in deep drilling fluid. **Y. Zhao**, Y. Ke, Y. Pei

Section A
Ernest N. Morial Convention Center Hall D

Joint PMSE-POLY Poster Session

Third International Symposium on Polybenzoxazines: Towards Diamond Jubilee of Benzoxazine Chemistry

Cosponsored by POLY
M. Becker, Organizer

6:00-8:00

PMSE 460. Chemical recycling of polystyrene wastes: An inherently green fire-retardant poly(vinyl benzoxazine) from expanded polystyrene waste. C. Wang, Y. Liu, Z. Tu, **L. Cheng-Mei**

Integrating Polymer Science in the Curriculum

Sponsored by POLY, Cosponsored by CHED and PMSE

International Symposium on Biorelated Polymers: Innovations in Biomedical Polymers

Sponsored by POLY, Cosponsored by BIOT, MED1 and PMSE

International Symposium on Biorelated Polymers: Renewable Materials

Sponsored by POLY, Cosponsored by PMSE

Nonlinear Dynamical Approaches to the Synthesis of Polymeric Materials

Sponsored by POLY, Cosponsored by PHYS and PMSE

Polymer Applications & Characterization in Medical Device & Pharmaceutical Industries

Sponsored by POLY, Cosponsored by PMSE

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COMP and PMSE

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

Undergraduate Research in Polymer Science

Sponsored by POLY, Cosponsored by

CHED and PMSE

WEDNESDAY MORNING

Section A
New Orleans Marriott Canal Street La Galerie 6

ACS Award in the Chemistry of Materials: Symposium in honor of Elsa Reichmanis

Processing-Structure-Property Relationships

Cosponsored by WCC
Financially supported by DuPont
Z. Bao, Y. Diao, G. Wang, Organizers, Presiding

8:30 PMSE 461. Design strategy for efficient thermally activated delayed fluorescence (TADF) organic emitters: From twisted to planar structures. **J.E. Bredas**

9:00 PMSE 462. Quantitation and optimization of process-structure-property relationships in polymer organic electronics. N. Persson, M. McBride, E. Reichmanis, **M. Grover**

9:30 PMSE 463. Directing molecular assembly inspired by living systems. **Y. Diao**

10:00 Intermission.

10:15 PMSE 464. Sulfur in materials science: From polymers to a fully rechargeable lithium battery. **F. Wudl**

10:45 PMSE 465. Plastic semiconductors: How we can exploit blending to manipulate functions? **N. Stingelin**

11:15 PMSE 466. Shear printed conjugated polymers: From microstructure design to integrated soft electronics. **G. Wang**, A. Facchetti, T.J. Marks

Section B
New Orleans Marriott Canal Street La Galerie 4

Symposium for Pan-American Science

Financially supported by ACS Brazil Chapter
B.D. Olsen, Organizer
C. Ornelas, Organizer, Presiding

9:00 PMSE 467. Visualization of sodium deoxycholate supramolecular gels with fluorescence probes. S.G. Talluri, **C. Bohne**

9:30 PMSE 468. Surface modifying cellulose nanofibrils towards multifunctional aerogels. **C.G. Otoni**, J.S. Figueiredo, M. Mariano, J.d. Bernardes, W. Loh

9:50 PMSE 469. Ion-selective and high capacity electrodes for membrane capacitive deionization. A. Jain, J. Kim, K. Zuo, Q. Li, **R. Verduzco**

10:20 PMSE 470. Recent advancements in polyelectrolytes. **L.M. Campos**

10:50 Concluding Remarks.

Section C
New Orleans Marriott Canal Street Studio 3

[†]Cooperative Cosponsorship

Polymers with Complex Architecture: From Synthesis to Self-Assembly

Financially supported by NSF, BASF, ExxonMobil, LG MMA, and Wyatt Technology, Department of Chemistry & Biochemistry at Florida State University J.G. Kennemur, M. Seo, G. Stein, *Organizers*
C.Y. Ryu, *Organizer, Presiding*

8:30 PMSE 471. Synthesis and characterization of new polyolefin comb blocks comprised of a poly(ethylene-co-acrylic acid) scaffold and polypropylene arms: Exploration of the impact of number, length, and crystallinity of the grafted arms on melt and solid state properties. **P. Brant**, C.R. Lopez-Barron

9:00 PMSE 472. Towards next generation polyolefin standards: Controlled synthesis of short-chain branched polyethylene via ring-opening metathesis polymerization. **W. Farrell**, S.V. Orski, K. Beers

9:20 PMSE 473. Crystallization of precision polyethylenes with acetal groups. **X. Zhang**, S. Cameron, P. Ortmann, S. Mecking, R.G. Alamo

9:40 PMSE 474. Photo-controlled growth of crosslinked nano-networks. **M.W. Lampley**, E. Harth

10:00 Intermission.

10:15 PMSE 475. LGMMA R&D strategy and product development roadmap. **Y. Lee**, M. Seo

10:35 PMSE 476. Synthesis of epoxy networks and interphases with controlled topology. **J. Gao**, G. Palmese

10:55 PMSE 477. Supramolecular design principles for the synthesis of 2D covalent organic frameworks. **R. Smaldone**, G. Occhialini, C. Thompson, S.O. Nielsen

11:15 PMSE 478. Synthesis and characterization of "Janus-type" linear-dendritic block copolymers (LDBC)s for therapeutic applications. **I. Chandrasiri**, D. Abebe, J.S. Williams, S. Gupta, G. Schneider, D.L. Watkins

11:35 PMSE 479. Temperature-triggered loading and release of hydrophobic model drugs in free-standing multilayer films for nano-adhesive patches. **R. Saikaew**, S.T. Dubas

Section D
New Orleans Marriott Canal Street
La Galerie 5

Third International Symposium on Polybenzoxazines: Towards Diamond Jubilee of Benzoxazine Chemistry

P. Froimowicz, I. Hamerton, H. Ishida, *Organizers*
R.C. Advincula, C. Jubsilp, *Presiding*

8:00 PMSE 480. Benzoxazine dimer and polybenzoxazine for as-designed functions and phenomena. **S. Chirachanchai**

8:40 PMSE 481. Withdrawn

9:10 PMSE 482. Design of high performance thermosets asymmetric benzoxazines from lignin derivatives and vegetable oils. L. Puchot, C. Vancaeyzeele, F. Vidal, P. Verge, **Y. Habibi**

9:30 PMSE 483. Design and preparation of fully bio-based polybenzoxazine from amino acid. W. Li, X. Zhang, W. Shi, **X. Jia**

9:50 PMSE 484. High performance ceramic-based benzoxazine micro and nanocomposites. **M. Derradji**, L. Wenbin

10:10 Intermission.

10:20 PMSE 485. Poly(vinyl benzoxazine): A novel kind of green intrinsic fire-retardant thermoplastics with high molecular weight. Y. Cao, H. Ma, Y. Liu, Z. Tu, **L. Cheng-Mei**

10:40 PMSE 486. Alternative approach in preparation of the maleimidobenzoxazines. **Z. Stirn**, A. Ručigaj, M. Krajnc

11:00 PMSE 487. Ultrathin coating containing high nanofiller: Superior flame retardancy performance of intercalation/exfoliation to non-intercalation of benzoxazine surfactant modified clay with natural polymer. **F. Shan**

11:20 PMSE 488. Mussel-inspired benzoxazines for thermoset resins and adhesives. **C.J. Higginson**, P.B. Messersmith

11:40 PMSE 489. Withdrawn

Section E

New Orleans Marriott Canal Street
Studio 5

General Papers: New Concepts in Polymeric Materials
Cosponsored by WCC
M. Becker, *Organizer*
C. O'Brien, L. Zhai, *Presiding*

8:30 PMSE 490. Role of isosorbide comonomer on interfacial tension with subsequent morphologies & mechanical properties of biobased poly(L-lactide)/poly(ethylene-co-isosorbide terephthalate) blends. **A. Bouzouita**, C. Samuel, T. parpaite, M. Lacrampe, M. Collinet, S. Bourbigot, G. Fontaine, S. Marcille, H. Amedro, J. Soulestin

8:55 PMSE 491. Study on poly(3-dodecylthiophene) behavior during heating and stretching by *in-situ* small and wide-angle X-ray scattering. **H. Chen**, G. Liu, D. Wang

9:45 PMSE 492. Multifunctional polyelectrolyte fibers with metal ions. **L. Zhai**, X. Lu, A. Malhotra

10:10 Intermission.

10:25 PMSE 493. Conductive polyamide-graphene composite fabric via interface engineering. **C. Sutanto**, E. Barjasteh, D. Nepal

10:50 PMSE 494. Fabricating millifluidic devices for SAXS/WAXS using 3D printing: a quick and inexpensive method to exploit many geometries. **C. O'Brien**, N.J. Terrill, O. Mykhaylyk, A. Ryan

11:15 PMSE 495. Galloyl groups-regulated fibrinogen conformation: Understanding antiplatelet adhesion on

tannic acid coating. **L. Yang**, L. Han, L. Jia

11:40 PMSE 496. Mass and charge Transport in organic radical polymers (Rising Star award address). **J.L. Lutkenhaus**

Section F
New Orleans Marriott Canal Street
Studio 8

Cyclic & Topologically Complex Polymers

Cosponsored by POLY
Financially supported by MilliporeSigma; Tosoh Biosciences LLC; Zeon Corporation; Toyo Styrene Co., Ltd.; Elsevier
S.M. Grayson, Y. Tezuka, *Organizers*,
Presiding

8:30 PMSE 497. Preparation of three-dimensional polymers with movable cross-linking points via pseudopolyrotaxane. **M. Kubo**, M. Okuro, T. Kawashima, T. Uno, T. Itoh

9:00 PMSE 498. Poly[n]catenanes: The synthesis of molecular interlocked chains. **Q. Wu**, X. Lang, P.M. Rauscher, R.J. Wojtecki, J.J. De Pablo, M. Hore, S.J. Rowan

9:20 PMSE 499. Nano knitting and "knitting"-single-chain nanoparticles. **E.B. Berda**, E.R. Bright, R. Chen, J. Cole

9:40 PMSE 500. Dithiacrown ethers as the cyclic component of polyrotaxanes and as the ligand of transition metal complexes. **K. Osakada**

10:00 Intermission.

10:10 PMSE 501. Cyclic monomers for supramolecular polymerization and enforced entanglements. **H.W. Gibson**, T. Price, H. Wessels, C. Slebodnick, A.L. Rheingold, N. Pothanagandhi

10:40 PMSE 502. Being knotty with supramolecular polymers. **R.C. Advincula**

11:10 PMSE 503. On-surface synthesis of polymers and macrocycles. **J. Gottfried**, Q. Fan, J. Zhu, C. Krug, K. Greulich

Section G
New Orleans Marriott Canal Street
Studio 9

Additive Manufacturing of Structures & Functional Devices: Materials, Methods, Models & Testing

Process Improvement & Understanding

D. Berrigan, J. Lewis, *Organizers*
C.R. Snyder, *Organizer, Presiding*

8:30 PMSE 504. Process engineering for digital manufacturing. **C.F. Fox Converse**

9:00 PMSE 505. Molecular weight dependence of polycarbonate weld formation in material extrusion additive manufacturing. **J. Seppala**

9:20 PMSE 506. Enhancing thermomechanical properties of PMMA parts fabricated via fused deposition modeling by incorporation of polymer-grafted nanoparticles. **D.P. Street**, J.A.

Bergman, J.M. Messman, M. Kilbey

9:40 PMSE 507. Quantifying reversibility in 3D printed networks using hetero-Diels-Alder linkages. **W. Korf**, Y.C. Simon

10:00 Intermission.

10:15 PMSE 508. Effects of material extrusion parameters on the properties of crystallizing polycaprolactones for additive manufacturing. **A. Kotula**, K. Migler

10:45 PMSE 509. Improving anisotropic properties of objects printed via stereolithography. **B. Green**, R. McLeod, A. Guymon

11:05 PMSE 510. Direct ink writing of ceramic and cementitious materials. **J.P. Youngblood**, R. Trice, L. Rueschhoff, W. Costakis, A. Diaz, P. Zavattieri, J. Olek, M. Moini

11:25 PMSE 511. Enhanced green part strength in binder jet additive manufacturing. D.B. Gilmer, E. Hong, A. Kisliuk, S. Cheng, A. Elliott, **T. Saito**

International Symposium on Biorelated Polymers: Renewable Materials

Functionalization & Modification of Renewable Feedstocks

Sponsored by POLY, Cosponsored by PMSE

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

Biobased Gels & Porous Materials

Functionalised Nanocellulose Gels

Sponsored by CELL, Cosponsored by COLL and PMSE

Polymer Colloids: Synthesis, Analysis, Modeling & Applications

Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

WEDNESDAY AFTERNOON

Section A
New Orleans Marriott Canal Street
La Galerie 6

ACS Award in the Chemistry of Materials: Symposium in honor of Elsa Reichmanis

Frontiers in Chemistry of Materials

Cosponsored by WCC
Financially supported by DuPont
Z. Bao, Y. Diao, G. Wang, *Organizers*,
Presiding

1:30 PMSE 512. Hybridizing organic and inorganic materials for unconventional electronics. **T.J. Marks**

2:00 PMSE 513. Materials engineering for addressing global inflections in

†Cooperative Cosponsorship

electronics, display, energy, additive manufacturing and other emerging markets. **O. Nalamasu**

2:30 PMSE 514. Self-assembly of block copolymer nanopatterns on surfaces. **J.M. Buriak**, C. Jin, E.J. Lubber, B. Olsen

3:00 Intermission.

3:15 PMSE 515. Flexible and stretchable electronics. **Z. Bao**

3:45 PMSE 516. Determining the orientation of molecular dipoles on random 2D nanoplasmonic structures. **T.A. Purcell**, T. Seideman

4:15 PMSE 517. Award Address (ACS Award in the Chemistry of Materials Sponsored by DuPont). From silicon to plastic: Materials design and process considerations. **E. Reichmanis**

Section B

New Orleans Marriott Canal Street La Galerie 4

General Papers: New Concepts in Polymeric Materials

M. Becker, Organizer
K. Golovin, F. Yang, Presiding

1:30 PMSE 518. Functional microgel-based microfibrils. **A. Pich**

1:55 PMSE 519. Improvement of the mechanical performance of pectin/GO composite films after non-covalent functionalization of graphene oxide. **A.M. Pandele**

2:20 PMSE 520. Development of a predictive framework for the design and fabrication of icephobic polymers. **K. Golovin**

2:45 PMSE 521. Semi-crystalline block copolymers as fat crystal habit modifiers. **J. Jennings**, M. Butler, O. Mykhaylyk, A. Ryan

3:10 Intermission.

3:25 PMSE 522. Facile loading of gold nanoparticles and gadolinium within alginate nanogels for enhanced dual mode tumor MR/CT imaging. **W. Sun**, J. Zhang, C. Peng, X. Shi

3:50 PMSE 523. Synthesis and characterization of cardanol-based epoxy/amine systems and analysis of secondary epoxies. **E. Kinaci**, E. Can, J. La Scala, G. Palmese

4:15 PMSE 524. Super bulk and interfacial toughness of fully physically-crosslinked double-network hydrogels. **Y. Zhang**, B. Ren, H. Chen, F. Yang, Y. Liu, J. Zheng

4:40 PMSE 525. Novel design of multi-mechanoresponsive and mechanically strong hydrogels. **F. Yang**, Y. Zhang, H. Chen, B. Ren, Y. Liu, J. Zheng

Section C

New Orleans Marriott Canal Street Studio 3

General Papers: New Concepts in Polymeric Materials

M. Becker, Organizer
X. Guo, L. Williams, Presiding

1:30 PMSE 526. Templated synthesis of polymer microparticles with complex anisotropic shapes and internal morphologies. **X. Guo**, Y. Kim, Y. Yang, K.d. Santiago Gonzalez, S. Spagnolie, N.L. Abbott, D.M. Lynn

1:55 PMSE 527. Towards a long-chain perfluoroalkyl replacement: wettability of polymer films modified with perfluoropolyethers-based triblock copolymers. **L. Wei**, T. Demir, I.A. Luzinov, P. Brown

2:20 PMSE 528. Withdrawn

2:45 Intermission.

3:00 PMSE 529. Formation of polybutene-1 hexagonal crystals directly from melt within confined microdomains. **Z. Wang**, D. Wang

3:25 PMSE 530. Withdrawn

3:50 PMSE 531. Novel nanoparticle network design and investigation of their structure-property relationships. **L. Williams**, E. Harth

Section D

New Orleans Marriott Canal Street La Galerie 5

Third International Symposium on Polybenzoxazines: Towards Diamond Jubilee of Benzoxazine Chemistry

P. Froimowicz, I. Hamerton, H. Ishida, Organizers
D. Lomonaco, Q. Ran, Presiding

1:30 PMSE 532. Fabrication and properties of polybenzoxazine-based functional surface. **Z. Xin**

2:05 PMSE 533. Multifunctional and lightweight composites based on high performance benzoxazine matrices. **L. Bonnaud**, L. Dumas, O. Murariu, M. Poortman, M. Olivier, P. Dubois

2:35 PMSE 534. Preparation and Characterization of β -ZrP / Polybenzoxazine Nanocomposites. **Y. Li**

3:05 PMSE 535. Unconventional applications of benzoxazine chemistry for advanced materials. **B. Kiskan**, M. Arslan, Y. Yagci

3:35 Intermission.

3:50 PMSE 536. Corrosion resistance of diamine-based polybenzoxazine coating on mild steel. X. Lu, R. Zhang, C. Zhou, **Z. Xin**

4:10 PMSE 537. Effects of reaction solvents on the chemical structure and high frequency dielectric property of main chain type benzoxazine copolymers. **M. Zeng**, J. Chen, Q. Xu, D. Yin, Z. Feng, T. Pang, S. Zeng, Y. Huang, Y. Gu

4:30 PMSE 538. Polybenzoxazine graft copolymers from miscible blends of polymers with thermally labile groups. **D.A. Rider**

4:50 PMSE 539. Thermal and mechanical properties of novel maleimidobenzoxazines prepared via phenolic diversity of reactants. **A. Rućigaj**, Z. Stirn, M. Krajinč

5:10 PMSE 540. Structure-flammability correlations of benzoxazines. **J. George**

F. Shan, H. Ishida

Section E

New Orleans Marriott Canal Street Studio 5

General Papers: New Concepts in Polymeric Materials

M. Becker, Organizer
A. Mueller, L. Rueschhoff, Presiding

1:30 PMSE 541. Patterning of preceramic polymers via macromolecular self-assembly. **L. Rueschhoff**, L. Baldwin, D. Berrigan, H. Koerner, T. Pruy, M. Dickerson

1:55 PMSE 542. Diels-Alder crosslinked hydrogels enable 3D cell encapsulation with increased reactivity. **L.J. Smith**, R.Y. Tam, S. Taimoory, A.E. Baker, J.F. Trant, M.S. Shoichet

2:20 PMSE 543. Poly(ethylene glycol) brushes for efficient siRNA delivery. **D. Wang**, K. Zhang

2:45 PMSE 544. Fluorinated polyelectrolytes as single ion conductors for Li batteries. **W. Zhang**, S. Feng, M. Huang, Y. Shao-Horn, J.A. Johnson

3:10 Intermission.

3:25 PMSE 545. Long-chain branching on polyamide 6 through reaction extrusion for melt foaming. **M. Xu**, **T. Liu**

3:50 PMSE 546. Perfluorinated block-copolymers for dry proton exchange membranes. A. Argall, C. Hager, M.J. Quast, **A. Mueller**

4:15 PMSE 547. pH-Responsive polysaccharide-modified liposomes for antigen delivery and induction of immune responses. **E. Yuba**, A. Yamaguchi, S. Uesugi, A. Harada, K. Kono

Section F

New Orleans Marriott Canal Street Studio 8

Cyclic & Topologically Complex Polymers

Cosponsored by POLY
Financially supported by MilliporeSigma; Tosoh Biosciences LLC; Zeon Corporation; Toyo Styrene Co., Ltd.; Elsevier
S.M. Grayson, Y. Tezuka, Organizers, Presiding

1:30 PMSE 548. Topologically complex hydrogels. **R.M. Waymouth**

2:00 PMSE 549. It's all about topology: The evolution of polymer brushes and their performance. G. Morgese, M. Divandari, **E. Benetti**

2:30 PMSE 550. Synthesis of cyclic polymers and control of their properties. **T. Yamamoto**

3:00 Intermission.

3:10 PMSE 551. Rings, stars, and dense brushes grown from flat substrates and spherical nanoparticles: How polymer topology perturbs glass transition temperature and fragility in bulk and confined states from linear polymer behavior. **J.M. Torkelson**, L. Zhang, T. Lan, S. Askar, L. Li, R. Elupula, S.M. Grayson

3:40 PMSE 552. Crystallization of

poly(β -caprolactone) under topological and thin film confinement. **J. Albert**, G. Kelly, F.M. Haque, S.M. Grayson

4:10 PMSE 553. Influence of chain topology on polymer crystallization and glass temperature: Rings vs. linear chains. **G. Floudas**, A. Pipertzi, M. Monteiro

Section G

New Orleans Marriott Canal Street Studio 9

Additive Manufacturing of Structures & Functional Devices: Materials, Methods, Models & Testing

Soft Robotics, Electronics & Actuation

D. Berrigan, J. Lewis, C.R. Snyder, Organizers
J. Seppala, Presiding

1:30 PMSE 554. Evolution of soft robotics. **R. Shepherd**

2:00 PMSE 555. 3D printable, self-healing, viscoelastic conducting polymer for wearable electronics applications. **Y. Wang**

2:20 PMSE 556. Multi-material additive manufacturing with solution mask liquid lithography (SMaLL). **N. Dolinski**, Z.A. Page, B. Callaway, F. Eisenreich, R. Garcia, R. Chavez, D. Bothman, S. Hecht PhD, F. Zok, C.J. Hawker

2:40 PMSE 557. Hierarchical co-assembly enhanced direct ink writing. **C. Ke**

3:00 Intermission.

3:15 PMSE 558. Multimaterial 3D printing for shape changing devices and 4D printing. Z. Ding, C. Yuan, M. Dunn, **H. Qi**

3:45 PMSE 559. 4D printing of TPU nanocomposite actuators. **R.C. Advincula**

4:05 PMSE 560. Additive manufacturing of hydrogel composites by direct-write 3D printing. **A. Nelson**

4:25 PMSE 561. Self-organized interpenetrating polymer network in semiconducting films for stretchable electronics. **G. Zhang**, E. Reichmanis

International Symposium on Biorelated Polymers: Renewable Materials

Synthesis of Renewable Materials

Sponsored by POLY, Cosponsored by PMSE

Innovative Chemistry & Materials for Electrochemical Energy Storage

Sponsored by ENFL, Cosponsored by CATL, INOR and PMSE

Biobased Gels & Porous Materials

Cellulose & Non-Cellulose Gels: Synthesis, Properties, Applications

Sponsored by CELL, Cosponsored by COLL and PMSE

[†]Cooperative Cosponsorship

Polymer Colloids: Synthesis, Analysis, Modeling & Applications
Sponsored by POLY, Cosponsored by ANYL, COLL, COMP, I&EC and PMSE

WEDNESDAY EVENING

POLY/PMSE Plenary & Awards Event

Sponsored by POLY, Cosponsored by PMSE[†]

THURSDAY MORNING

Section A

New Orleans Marriott Canal Street
Beauregard

General Papers: New Concepts in Polymeric Materials

M. Becker, Organizer

M. Cui, S. Manna, I. Zvonkina, Presiding

8:30 PMSE 562. Design of polymeric NLRP3-TLR agonist conjugates as vaccine adjuvants. **S. Manna**, W.J. Howitz, N.J. Oldenhuis, A. Eldredge, M. Lodeon, Z. Guan, A.P. Esser-Kahn

8:55 PMSE 563. Nanoscale ion-gel films as gate insulator material retaining high capacitance at megahertz switching frequency enabled by initiated chemical vapor deposition (iCVD). **M. Wang**, A. Liu, S. Schroeder, J. Zhao, K. Gleason

9:20 PMSE 564. Chain extension of polyamide 6 using multifunctional chain extenders and reactive extrusion for melt foaming. **M. Xu**, **T. Liu**, C. Park

9:45 PMSE 565. 'Nano-ruler' for chain dimension and molecular conformation in ultrathin polymer films based on surface contact angle. **I. Zvonkina**, A. Karim

10:10 Intermission.

10:25 PMSE 566. Highly stretchable sustainable electronic skin sensor with real-time self-healing. **M. Cui**, N. Nguyen, K. Meek, A.K. Naskar

10:50 PMSE 567. Carbon nanofiber production from electrospinning of liquid residue derived from supercritical CO₂-ethanol extraction of Powder-River-Basin coal. **M. Tang**, F. Liu, X. He, K. Sun, M. Fan

11:15 PMSE 568. Sugar poly(orthoesters) to construct highly pH-responsive nanoscopic assemblies. **W. Du**, S. Maiti

Section B

Astor Crowne Plaza New Orleans
Burgundy

General Papers: New Concepts in Polymeric Materials

M. Becker, Organizer

M. Kreckler, H. Verma, Presiding

8:30 PMSE 569. Assembly of grafted polymers on modified graphene oxide. **M. Kreckler**, A.M. Grant, M. Savchak, N. Borodinov, I.A. Luzinov, V.V. Tsukruk

8:55 PMSE 570. Low resistant and high water flux membranes improve the energy efficiency of membrane capacitive deionization. **V. Palakkal**, C. Arges

9:20 PMSE 571. Ordered bicontinuous nanostructures in a rod-coil block copolymer. **Z. Shen**

9:45 Intermission.

10:00 PMSE 572. Supported iron and tungsten nanoparticles incorporated polymer composites with uniform and static dispersion. **T. Hussain**, F. RIAZ, A. Mujahid, K. Shehzad

10:25 PMSE 573. Rolling and sliding friction characterization of polystyrene microspheres (PS) using force spectroscopy and lateral force microscopy. **H. Verma**, W.G. Matthews

10:50 PMSE 574. Prepreparation and flame retardant performance characterization of a novel self-intumescent spirocyclic flame retardant. **D. Wang**, S. Li, J. Liu

Section C

New Orleans Marriott Canal Street
Studio 3

General Papers: New Concepts in Polymeric Materials

M. Becker, Organizer

L. Ju, M. Korey, Presiding

8:30 PMSE 575. Phosphonated poly(ethylene terephthalate) ionomer: Effects of divalent anion on thermal and rheological properties of polyester ionomer. **L. Ju**, J. Pretelt, J.M. Dennis, K.A. Valentine, D.G. Baird, T.E. Long, R.B. Moore

8:55 PMSE 576. Substrate independent approach to dense cleavable polymer brushes from a coating by nitroxide mediated polymerization. **W. Wei**, B. Ayyakkalai, P. Gopalan

9:20 PMSE 577. Oligoanilines grafted membranes for water ultrafiltration. **C. Lin**, S. Aguilar, X. Huang, J. Tulyagankhodjaev, R.B. Kaner

9:45 PMSE 578. Biodegradable and stretchable multi-block semiconducting copolymers. **F. Sugiyama**, **A. Kleinschmidt**, M. Alkhandra, J. Wan, A. Chiang, D. Rodriguez, S. Root, S. Savagatrup, D.J. Lipomi

10:10 Intermission.

10:25 PMSE 579. Fluoranthene containing porous organic polymers for fluorescence sensing. **C. Thompson**, G. Occhialini, R.A. Smaldone

10:50 PMSE 580. Acetylated tannic acid as a more sustainable alternative to brominated flame retardants in epoxy. **M. Korey**, N. Burgos, J.P. Youngblood, J.A. Howarter

11:15 PMSE 581. Vertically oriented block copolymer thin film by dynamic thermal field directed self-assembly. **M. Basutkar**, D. Raghavan, A. Elzathry, **A. Karim**

11:40 PMSE 582. Tip-enhanced optical techniques for chemical nanomapping. **S.I. Leesment**, V.V. Polyakov, A.V. Shelaev

Section D

Astor Crowne Plaza New Orleans
Bourbon

General Papers: New Concepts in Polymeric Materials

M. Becker, Organizer
N.R. Mammoottil, S.R. Nowak, Presiding

8:30 PMSE 583. Substituent effects on the pH sensitivity of acetals and ketals and their correlation with encapsulation stability in polymeric nanogels. **B. Liu**, S. Thayumanavan

8:55 PMSE 584. Fabrication and characterization of ultra-thin films of thermoresponsive, nanostructured sugar-polyolefin amphiphilic conjugates. **S.R. Nowak**, K.K. Lachmayr, L.R. Sita

9:20 PMSE 585. Integrating metal sulfide nanoparticles with porous PMMA membranes for desulfurization applications. **A. Mujahid**, A. Maryam, T. Hussain, S. Bajwa

9:45 PMSE 586. Dependence of sidechain structure on the morphology and properties of perfluorinated ionomers. **C.M. Orsino**, R.B. Moore

10:10 Intermission.

10:25 PMSE 587. Controlled release of camptothecin from functional polyphosphonamidate nanoparticles exhibiting acid-triggered degradation. **H. Wang**, L. Su, R. Li, M. Dong, K.L. Wooley

10:50 PMSE 588. Fracture behavior of thermoplastic films in outdoor and accelerated laboratory exposure. **A. Fairbrother**, H. Hsueh, J. Kim, D. Goodwin, L. Perry, S.J. Watson, C.C. White, X. Gu, L. Sung

11:15 PMSE 589. Scanning probe nanomechanical characterization of PS-LDPE copolymer using cantilever probes with varying stiffness. **W. Shi**, G. Pascual, A. Zandiatashbar, B. Kim, K. Lee

11:40 PMSE 590. Unique surface re-organization and vapor sensitivity of PNOC. **N.R. Mammoottil**, J.F. Reuther, R. Campos, B.M. Novak

Section E

New Orleans Marriott Canal Street
Studio 2

General Papers: New Concepts in Polymeric Materials

M. Becker, Organizer

L.A. Baldwin, X. Chen, Presiding

8:30 PMSE 591. Unique crystallization behavior of isotactic polypropylene in the presence of L-isoleucine and its inhibition and promotion mechanism of nucleation. **S. Zhao**, X. Peng, Z. Xin

8:55 PMSE 592. Self-assembled graphene composites as porous electrodes for energy storage. **D. Varghese**, D.H. Adamson, E. Gentile, C. Schilling

9:20 PMSE 593. Soluble polymers with intrinsic porosity for flue gas purification and natural gas upgrading. **X. Wang**, **Z. Lai**

9:45 PMSE 594. Concentration fluctuation during nucleation in a phase separating broad ethylene copolymer leads to partial dissolution of melt memory. **X. Chen**, C.R. Lopez-Barron, Y. Zeng, R.G. Alamo

10:10 Intermission.

10:25 PMSE 595. Effect of partial saturation on thermodynamic interactions in polydiene/polylefin blends. **J. Qiu**, C.R. Lopez-Barron, M.L. Robertson, R. Krishnamoorti

10:50 PMSE 596. Hyperbranched polycarbosilanes for modular synthesis of ceramics. **L.A. Baldwin**, L. Rueschhoff, H. Koerner, M.J. Dalton, M. Dickerson

11:15 PMSE 597. Oxime hyaluronan hydrogels as a model for breast cancer. **A.E. Baker**, R.Y. Tam, A. Ganesh, L. Bahlmann, N. Mitrousis, J. Liu, G. Bader, M.S. Shoichet

11:40 PMSE 598. Molecular gel composites: From solution to solid-state reversibility. **S. Alexander**, L. Korley

Section F

New Orleans Marriott Canal Street
Studio 8

Cyclic & Topologically Complex Polymers

Cosponsored by POLY
Financially supported by MilliporeSigma; Tosoh Biosciences LLC; Zeon Corporation; Toyo Styrene Co., Ltd.; Elsevier
S.M. Grayson, Y. Tezuka, Organizers, Presiding

8:30 PMSE 599. Playing with the rings. **N. Hadjichristidis**, G. Polymeropoulos, Y. Jiang, N. Alkayal, Z. Zhang, D. Wang, P. Bilalis

9:00 PMSE 600. Synthesis and properties of stimuli-responsive linear and cyclic graft copolymers bearing multifunctional Y junctions. **Y. Zhao**, W. Dai, J. Zhang, X. Zhao, W. Wu

9:30 PMSE 601. Multiply-controlled cyclic polymers prepared by controlled/living and stereospecific polymerizations. **K. Satoh**, M. Kamigaito

10:00 Intermission.

10:10 PMSE 602. Universal scaling model for linear and cyclic block copolymer domain spacing from dissipative particle dynamic (DPD) simulation. **A. Goodson**, J.N. Albert, H. Ashbaugh

10:30 PMSE 603. Versatile nanomicelle carrier platform self-assembled by brush cyclic and tadpole copolymer amphiphiles. **B.J. Ree**, Y. Satoh, K. Jin, T. Isono, W. Kim, T. Kakuchi, T. Satoh, M. Ree

10:50 PMSE 604. Promoting cyclic morphologies in an acrylate-based metallo-supramolecular network. **A.M. Savage**, R.H. Lambeth, F.L. Beyer

11:10 PMSE 605. Solution self-assembly of block copolymers of branched architectures. **K. Kim**

11:30 Concluding Remarks.

Section G

New Orleans Marriott Canal Street
Studio 9

Additive Manufacturing of Structures & Functional Devices: Materials, Methods, Models & Testing

Novel Materials & Materials Improvements

D. Berrigan, J. Lewis, C.R. Snyder,

[†]Cooperative Cosponsorship

Organizers

A. Kotula, Presiding

8:30 PMSE 606. Effect of chain alignment on thermal welding in fused filament fabrication. **M. Galvani, T. O'Connor, T. Ge, M.O. Robbins**

9:00 PMSE 607. Balancing surface energy and reactivity in binary polymer blends: Development of 3D-printed energetic composites. **J. McCollum, J. Bencomo, S.T. Iacono**

9:20 PMSE 608. Thiol-enhanced photocuring of high-performance cyanate ester resins for additive manufacturing. **S. Hosseini, B. Lund, W. Voit**

9:40 PMSE 609. Preparation and properties of fire prevention insulation expanded vermiculite composites. **D. Wang, J. Liu**

10:00 Intermission.

10:15 PMSE 610. Shelf-stable photocurable resins for mechanically robust additively manufactured parts. **W. Voit, J. Huffstetler, B. Lund**

10:35 PMSE 611. Modifying the rheological properties of ABS resins for 3D printing applications. **Y. Bai, J.H. Wang, C. Shen**

10:55 PMSE 612. Influence of nanoclay morphology on the printability of fiber-reinforced composite inks. **K. Johnson, A. Abbott, J. Baur, H. Koerner**

11:15 PMSE 613. 3D printing with polymeric nanogel particles. **P.K. Shah, J.W. Stansbury, R. McLeod, A.C. Uzcategui, M. Eulau**

11:35 PMSE 614. Polymeric nanophotonic devices for abrupt control of optical beams in three dimensions. **S.M. Kuebler, R. Sharma, J.L. Digaum, N. Kosan, N. Martinez, C.L. Valle, R.C. Rumpf**

International Symposium on Biorelated Polymers: Renewable Materials**Renewable Polyesters**

Sponsored by POLY, Cosponsored by PMSE

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

Biobased Gels & Porous Materials**Biomedical Applications of Polysaccharide Gels & Aerogels**

Sponsored by CELL, Cosponsored by COLL and PMSE

THURSDAY AFTERNOON

International Symposium on Biorelated Polymers: Renewable Materials**Properties & Applications of Renewable Materials**

Sponsored by POLY, Cosponsored by PMSE

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

Biobased Gels & Porous Materials**Polysaccharide Foams, Cryogels & Aerogels**

Sponsored by CELL, Cosponsored by COLL and PMSE

PROF

Division of Professional Relations

R. Libby, Program Chair

SUNDAY MORNING

Section A

Hilton New Orleans Riverside
Grand Salon D Sec 22**LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium****Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis**Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC
M. Morris, Organizer
T. Iannuzzi, Presiding**9:00 Introductory Remarks.**

9:05 PROF 1. Rhizosphere effects on lamotrigine accumulation by wheat plants. **E.L. Miller, S.L. Nason, R.M. Hoehn, K.G. Karthikeyan, J.A. Pedersen**

9:25 PROF 2. Examination of the specific binding of cytochrome c on MPA-coated gold nanoparticles via protein footprinting. **E. Tollefson, X. Zhang, N. Rozanov, C. Allen, C.J. Murphy, R. Hernandez, E.E. Carlson**

9:45 PROF 3. Discovery of selective nanomolar potent Melanocortin-3 Receptor ligands. **S.R. Doering, K.T. Freeman, G. Debevec, P. Geer, R.G. Santos, M.A. Giulianotti, C. Pinilla, J.R. Appel, R.A. Houghten, C. Haskell-Luevano**

10:05 PROF 4. Toward libraries of artificial macrocycles using MCR. **E. Abdelraheem, M. Rudrakshula, A. Rossetta, G. Liao, C. Neochoritis, M. de Haan, P. Patil, S. Shaabani, A. Doemling**

10:25 Intermission.

10:35 PROF 5. Understanding selective binding motifs to design aryethynyl urea anion sensors. **L. Eytel, D.W. Johnson, M.M. Haley**

10:55 Introductory Remarks.

11:00 PROF 6. From strength in diversity to smart nanoscale technologies. **D.K. Smith**

SUNDAY AFTERNOON

Section A

Hilton New Orleans Riverside
Grand Salon D Sec 22**LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium****Experimental & Computational Frontiers in Inorganic & Materials Chemistry**Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC
M. Morris, Organizer
S.R. Doering, Presiding**1:30 Introductory Remarks.**

1:35 PROF 7. Optimizing YBa₂Cu₃O₇ superconducting nanocomposites through nanocrystal surface chemistry. **J. De Roo, H. Rijckaert, K. De Keukeleere, Z. Hens, J.C. Martins, I. Van Driessche**

1:55 PROF 8. Imaging crystal growth from nanometers to microns: *In situ* microscopy across scales for the study of europium oxalate growth. **J.A. Soltis, M. Conroy, E. Buck, G.J. Lumetta**

2:15 PROF 9. Identification of key intermediates in iron C-H functionalization. **T. Iannuzzi, M.L. Neidig**

2:35 PROF 10. Ligand imparts redox active character in earth-abundant metal complexes for multielectron processes. **D.L. Ross, D. Brazzolotto, A. Borovik**

2:55 Intermission.

3:10 PROF 11. Thermodynamics of complex metal oxide dissolution. **J.W. Bennett, D. Jones, R.J. Hamers, S.E. Mason**

3:30 PROF 12. Allegory of the cage: Shedding light on order in silicon clathrates. **L.W. Colaciello, G.A. Hegde, C.M. Maupin, S. Vyas**

3:50 PROF 13. Panel discussion: The LGBTQ+ community in chemistry—opportunities, challenges, and perspectives for graduate students and postdoctoral scholars. **M. Morris**

Chemical Angel Network (CAN): Chemists Investing in Chemistry-Based CompaniesSponsored by BMGT, Cosponsored by PROF and SCHB[†]**Starting a Successful Research Program at a PUI**

Sponsored by YCC, Cosponsored by PROF

Legal Issues for Chemical Companies in the Food, Energy & Water Industries

Sponsored by SCHB, Cosponsored by CHAL and PROF

SUNDAY EVENING

Entrepreneurs' Poster Session

Sponsored by SCHB, Cosponsored by PROF

MONDAY MORNING

Section A

Hilton New Orleans Riverside
Grand Salon D Sec 22**The Bond Between Science & Disability, Forging New Capabilities for Inclusion**

L.W. Hoffman, Organizer, Presiding

8:00 Introductory Remarks.

8:05 PROF 14. Increasing participation

of students with disabilities in STEM. **K.S. Booksh, S. Rozovsky**

8:25 PROF 15. Does ACS degree requirements marginalize students with disabilities. **K.S. Booksh**

8:45 PROF 16. Dyslexic advantage. **A.E. Norton**

9:05 Intermission.

9:10 PROF 17. Designing for accessibility in a blended learning course. **G.L. Heard**

9:30 PROF 18. Experiencing graduate school in chemistry as a blind student. **A.E. Neybert, R.W. Schwenz**

9:50 PROF 19. Blind scientists: A historical perspective on contributions and innovations. **C.A. Supalo**

10:10 PROF 20. Pairing chemistry with blindness: A journey through graduate school and more. **H. Wedler**

10:30 Intermission.

10:35 PROF 21. Serviced dogs in the chemistry laboratory: Some items to consider. **P.A. Redden**

10:55 PROF 22. Insights from experience in mentoring graduate students. **T.L. Windus**

11:15 PROF 23. Expanding biomedical training to the deaf/hard-of-hearing community. **T.E. Pagano, A.D. Ross, G. Buckley, S.R. Smith, J. DeCaro, S. Dewhurst**

11:35 PROF 24. Hiring people with disabilities: Competitive advantage for the savvy manager. **J.J. Johnston**

11:55 Concluding Remarks.**How to Foster Diversity in the Chemical Sciences**

Lessons Learned & Taught Through the Stories of Recipients of the Stanley C. Israel Award

Sponsored by CMA, Cosponsored by PROF and WCC

Science of Sexual Harassment**The Psychology & Sociology of Sexual Harassment**Sponsored by WCC, Cosponsored by PRES, PROF and YCC[†]**Excellence in Graduate Polymer Research****Polymerization Techniques**

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

MONDAY AFTERNOON

Section A

Hilton New Orleans Riverside
Grand Salon D Sec 22**LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium**Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC
M. Morris, Organizer**3:00–5:00**

PROF 25. Interaction of fluorescent teixobactin analogues with bacteria. **M.**

[†]Cooperative Cosponsorship

Morris, M. Malek, J.S. Nowick

PROF 26. Tungsten nitrido precursors for deposition of WN_xC_y thin films.
M.M. Nolan, A.J. Touchton, S. Kim, T.J. Anderson, L. McElwee-White

PROF 27. Tannic acid: A sustainable crosslinking agent for high glass transition epoxy materials. **M. Korey, G. Mendis, J.A. Howarter, J.P. Youngblood**

PROF 28. Herbariomics: Expanding possibilities for herbaria-based research pipelines by defining the herbariome. **J. de la Parra**

PROF 29. Functionalized NHCs as ligands for molecular cluster. **E. Doud**

PROF 30. Transamination of 7-keto-8-aminopelargonic acid (KAPA) with amino-donor lysine in *Bacillus subtilis*. **S.A. Souza, J. Morris, J. Jarrett, H. Ng**

PROF 31. Hypoglycemic, hypolipidemic and antioxidant properties of a combination of curcumin from *Curcuma Longa*, Linn, and partially purified product from *Abroma Augusta*, Linn, in streptozotocin-induced diabetes. **H.M. Eshrat**

PROF 32. Building a better house: A new approach to Mesoporous silica nanoparticle synthesis. **L. Chlebanowski, J. Yu, F. Wolschendorf, D.L. Troyer, S.H. Bossmann**

PROF 33. $Li_2Mg_2Si_2S_6$ and $Li_2Mg_2Ge_2S_6$: two new quaternary lithium sulfides with potential in infrared nonlinear optics. **C. Barton, S.S. Stoyko, W. Zhang, S. Halasyamani, J.A. Aitken**

PROF 34. Electronic communication in heterometallic systems incorporating the redox-active $M[SNS]_2$ metalloligand. **M. Wojnar, A.F. Heyduk**

PROF 35. Design, synthesis, applications of metabolic chemical reporters as tools for probing glycosylation pathways. **J. Moreno, M. Pratt**

PROF 36. Exploring the reactivity of actinide-pnictogen bonds. **S. Vilanova, J.R. Walensky**

Science of Sexual Harassment

Working to Stop Harassment in Departments & at Meetings

Sponsored by WCC, Cosponsored by PRES, PROF and YCC[†]

Senior Chemists' Career Stories
Sponsored by SCHB, Cosponsored by PROF and SCC

Thriving in the Workplace: Non-Technical Skills that Boost your Value

Sponsored by BMGT, Cosponsored by PROF[†], SCHB, WCC[†] and YCC[†]

Excellence in Graduate Polymer Research

Synthesis & New Materials

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

MONDAY EVENING

Section A
Ernest N. Morial Convention Center

[†]Cooperative Cosponsorship

TECH-344

Halls D/E

Sci-Mix
R. Libby, Organizer

8:00–10:00

25-36. See previous listings.

TUESDAY MORNING

Section A
Hilton New Orleans Riverside
Grand Salon D Sec 22
Ethics in Industry Collaborations that Work
Cosponsored by SCHB
S.M. Schelble, Organizer
P.A. Mabrouk, Organizer, Presiding

8:30 Introductory Remarks.

8:35 **PROF 37.** Corporate intersection of ethics and biotechnology. **R. Dhanda**

9:05 **PROF 38.** Ethics and forensic science. **T. DeAngelo**

9:35 **PROF 39.** Molecular mechanisms of ethical design. **J.C. Warner**

10:05 Intermission.

10:20 **PROF 40.** Preparing the next generation of molecular designers to practice greener chemistry through cross-sector partnerships. **A.S. Cannon**

10:50 **PROF 41.** Innovative training to reinforce a speak-up corporate culture: Voicing our values. **B. Marks**

11:20 Panel Discussion.

11:35 Concluding Remarks.

ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences: Symposium in honor of Jani C. Ingram

Sponsored by ANYL, Cosponsored by PROF and WCC

Chemists & Writing for Fun & Profit: Write Your Own Career

Sponsored by SCHB, Cosponsored by BIOL and PROF

ACS Award for Encouraging Women into Careers in the Chemical Sciences

Symposium in Honor of Rebecca Ruck

Sponsored by WCC, Cosponsored by ORGN, PROF and YCC[†]

Remarkable Women of Medicinal Chemistry

Sponsored by MEDI, Cosponsored by PROF and WCC

Excellence in Graduate Polymer Research

Bio-Related Polymers

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

TUESDAY AFTERNOON

Section A
Hilton New Orleans Riverside
Grand Salon D Sec 22

Chemistry Students at the Nexus: REU Award Winners
Cosponsored by CHED
K.L. Buchmueller, L.M. Watkins, Organizers

S.A. France, Presiding

1:30 Introductory Remarks.

1:35 **PROF 42.** Structural analysis of TCCP nanostructures. **T. Reyes, M.B. Elinski, J.D. Batteas**

1:50 **PROF 43.** Hybridizing self-assembling peptides with conductive polymers for biomedical applications. **L. Jenkins, E.I. James, A. Murphy**

2:05 **PROF 44.** Synthesis of antibacterial polymers. **S.D. Kendrick, S. Sharpes, K. Seifert, K.L. Caran**

2:20 **PROF 45.** Conformational analysis of furan and thiophene oligomers. **M. Webb, T.L. Ellington, G.S. Tschumper**

2:35 **PROF 46.** Determination of valuable metals in fracking waters. **M. Young, B. Nespor, A. LaVallie, D.T. Pierce, M. Mann, Y. Wang, D. Laudal**

2:50 Intermission.

3:10 **PROF 47.** Copper distribution in the cytoplasm of *Pseudomonas aeruginosa*. **G. Becker, L. Novoa-Aponte, J. Argüello**

3:25 **PROF 48.** Mild synthesis of a novel boron-based pharmaceutical candidate by copper catalysis with CO_2 . **N. Ziemer, T.M. Perrone, S. Knowlden, B.V. Popp**

3:40 **PROF 49.** Predicting biomolecular diffusion using surface residue exposure. **J. Haseleu, C. Fennell**

3:55 **PROF 50.** Complexation of Hg(II) and Cd(II) with rhodizonate and nitrogen donor ligands. **S. Saluga, J.A. Silverman, K. Kavallieratos**

4:10 **PROF 51.** Synthesis of NU-1000 nanoparticles. **S. Bingham, T. Webber, R. Penn**

4:25 Concluding Remarks.

Science & Ethics: The Path Toward Global Security in Chemicals, Energy, Food & Water

Sponsored by SCHB, Cosponsored by CHAS, COMSCI, MPPG and PROF

WCC Rising Star Award Symposium

Sponsored by WCC, Cosponsored by BIOT, CHED, COLL, INOR and PROF

Excellence in Graduate Polymer Research

New Products & Characterization

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

TUESDAY EVENING

Excellence in Graduate Polymer Research

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

SCHB

Division of Small Chemical Businesses

J. Sabol, Program Chair

OTHER SYMPOSIA OF INTEREST:

BIOT Tank (see BIOT, Sun)

Kathryn C. Hach Award for Entrepreneurial Success: Symposium in honor of Javier Garcia Martinez (see ENFL, Tue, Wed)

Issues in Chemical Commercialization (see CHAL, Mon)

Thriving in the Workplace: Non-Technical Skills that Boost your Value (see BMGT, Mon)

SOCIAL EVENTS:

Reception, 6:30 PM: Mon

Coffee & Networking, 8:30 AM & 7:45 AM: Mon, Tue

Speakers' & Members' Luncheon, 11:30 AM: Tue

BUSINESS MEETINGS:

Business Meeting, 7:00 PM: Sat

Executive Committee Meeting, 7:15 PM: Sat

SUNDAY MORNING

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

SUNDAY AFTERNOON

Section A
Hilton New Orleans Riverside
Grand Salon C Sec 15

Legal Issues for Chemical Companies in the Food, Energy & Water Industries

Cosponsored by CHAL and PROF
T. Siepmann, Organizer, Presiding

1:30 Introductory Remarks.

1:35 **SCHB 1.** Immigration issues facing chemists and chemical businesses. **B.H. Getson**

2:15 **SCHB 2.** Toxic Substances Control Act issues for chemical businesses in the food, energy, and water sectors. **I. Hantman**

2:55 **SCHB 3.** Getting the right starting material: Due diligence in the formation or acquisition of a chemical enterprise. **R.G. Hanshaw**

3:35 Intermission.

3:50 **SCHB 4.** Intellectual property and the clean energy sector. **S. Barkley**

4:30 **SCHB 5.** Trademark issues for chemical businesses in the food, energy,

and water sectors. **K.B. Drake**

5:10 Concluding Remarks.

Chemical Angel Network (CAN): Chemists Investing in Chemistry-Based Companies

Sponsored by BMGT, Cosponsored by PROF and SCHB[†]

Science Cafes & Engaging the Public: Techniques for Hosting Successful Events

Sponsored by PRES, Cosponsored by CATI, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, I&EC, INOR, MPPG, SCHB and YCC

SUNDAY EVENING

Section A

Ernest N. Morial Convention Center Halls B2/C

Entrepreneurs' Poster Session

Cosponsored by PROF
G.W. Ruger, Organizer

6:00–8:00

SCHB 6. Learn how SCHB assists innovators and entrepreneurs in the chemistry enterprise. **P.C. Lauro, M. Chorghade, A. Kantak, D.J. Deutsch, J.E. Sabol, J.L. Maclachlan, C.A. Burton, E.L. Oltermann, J.L. Bryant, T. Siepmann, G.W. Ruger, P.J. Bonk, R. Chorghade, N.A. Vaidya, A. Rahman**

SCHB 7. Chemical Angel Network: Chemical professionals investing in chemistry enabled businesses. **S.S. White, M. Vreeke, J.C. Giordan**

SCHB 8. Template for industry outreach collaboration in Lehigh Valley, Pennsylvania. **J.R. Berk, G.W. Ruger**

SCHB 9. Design of capacitive water treatment systems for preferential ion removal. **L. Boehme, J. Landon, C. Lippert**

MONDAY MORNING

Section A

Hilton New Orleans Riverside
Grand Salon C Sec 15

Public Policy in Food, Energy & Water Issues

Cosponsored by CCPA
Financially supported by Saul Ewing LLP
J.E. Sabol, Organizer, Presiding

9:30 Introductory Remarks.

9:35 SCHB 10. Public policy issues in food, energy, and water. **A. Pitagno, D. Nierenberg, P.R. Robinson, V.V. Rajasekharan**

10:05 SCHB 11. Panel discussion on public policy issues in food, energy, and water. **A. Pitagno, D. Nierenberg, P.R. Robinson, V.V. Rajasekharan**

Women in Cannabis: Shaping an Emerging Industry

Sponsored by CHAS, Cosponsored by SCHB[†] and WCC

MONDAY AFTERNOON

Section A

Hilton New Orleans Riverside

Grand Salon C Sec 15

Senior Chemists' Career Stories

Cosponsored by PROF and SCC
E. Meyer, Organizer
J.E. Sabol, Organizer, Presiding

1:25 Introductory Remarks.

1:30 SCHB 12. From academic laboratory to commercialization: The ThruPore story. **M.G. Bakker**

1:55 SCHB 13. Encounters with two past ACS presidents. **E. Meyer**

2:20 SCHB 14. A year in the life of an ACS president. **E.A. Nalley**

2:45 SCHB 15. Building Alchemie: An educational technology company from a chemistry classroom. **J. Winter**

3:10 Intermission.

3:20 SCHB 16. I never intended to teach: An outline of a non-linear career path. **L.G. Hartshorn**

3:45 SCHB 17. Career for chemists in sales, marketing, and management. **J.P. Stoner**

4:10 SCHB 18. Two lives: Chemist and ACS president. **A.E. Pavlath**

4:35 SCHB 19. From the bench to the bench: perspectives on a career from the laboratory to the courtroom. **P.C. Lauro**

Thriving in the Workplace: Non-Technical Skills that Boost your Value

Sponsored by BMGT, Cosponsored by PROF[†], SCHB, WCC[†] and YCC[†]

MONDAY EVENING

Section A

Ernest N. Morial Convention Center Halls D/E

Sci-Mix

G.W. Ruger, Organizer

8:00–10:00

6-9. See previous listings.

TUESDAY MORNING

Section A

Hilton New Orleans Riverside
Grand Salon C Sec 15

Chemists & Writing for Fun & Profit: Write Your Own Career

Cosponsored by BIOL and PROF
Financially supported by Saul Ewing LLP
L.M. Balbes, Organizer, Presiding

8:30 Introductory Remarks.

8:35 SCHB 20. Communication solved, or how my grandparents learned to love synthetic organic chemistry. **T.N. Hoerter**

9:05 SCHB 21. Never mistake an e-mail with reality (or the importance of writing well). **A.M. Noce**

9:35 SCHB 22. Proposals and blogging and books, oh my. **M.R. Hartings**

10:05 Intermission.

10:20 SCHB 23. Practical notes: Developing a writing practice as a working chemist. **M.M. Francl**

10:50 SCHB 24. No education of any kind is ever wasted. **H.J. Elston**

11:20 SCHB 25. On column detection. **R.M. Burks**

Ethics in Industry Collaborations that Work

Sponsored by PROF, Cosponsored by SCHB

TUESDAY AFTERNOON

Section A

Hilton New Orleans Riverside
Grand Salon C Sec 15

Science & Ethics: The Path Toward Global Security in Chemicals, Energy, Food & Water

Cosponsored by CHAS, COMSCI, MPPG and PROF
J.L. Bryant, Organizer
K. Rodda, Organizer, Presiding

1:30 Introductory Remarks.

1:35 SCHB 26. IUPAC, ethics, and chemical safety and security. **M.C. Cesa**

2:00 SCHB 27. Industrial perspective: Synergies between industrial security and ethics. **D. Hupaylo**

2:25 SCHB 28. Chemical security multipliers: securing global chemical weapons assets through international capacity building initiatives. **T. Brown**

2:50 Intermission.

3:10 SCHB 29. Global Chemists' Code of Ethics. **L. Brown**

3:35 SCHB 30. Incentives for small chemical companies' adoption of ethical codes: key components in the prevention of reemergence of chemical weapons. **K. Rodda**

4:00 SCHB 31. Path toward global security in biotechnology and synthetic biology research. **K.M. Omberg**

4:25 Concluding Remarks.

WEDNESDAY MORNING

Heidolph North America's Cannabis Chemistry Subdivision Scholarship Symposium

Sponsored by CHAS, Cosponsored by AGFD, CHAL and SCHB

WEDNESDAY AFTERNOON

Heidolph North America's Cannabis Chemistry Subdivision Scholarship Symposium

Sponsored by CHAS, Cosponsored by AGFD, CHAL and SCHB

CCS

Committee on Chemical Safety

R. Stuart, Program Chair

SUNDAY AFTERNOON

Ask Dr. Safety: Integrating Research & Safety

Sponsored by CHAS, Cosponsored by CCS

MONDAY AFTERNOON

Implementing ACS Safety Education Guidelines

Sponsored by CHAS, Cosponsored by CCS and CHED

TUESDAY MORNING

Water Supply Safety

Sponsored by CHAS, Cosponsored by CCS, CTA and ENVR

CCPA

Committee on Chemistry & Public Affairs

R. Forslund, Program Chair

MONDAY MORNING

Public Policy in Food, Energy & Water Issues

Sponsored by SCHB, Cosponsored by CCPA

CWD

Committee on Chemists with Disabilities

L. Hoffman, Program Chair

SUNDAY MORNING

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

SUNDAY AFTERNOON

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

MONDAY AFTERNOON

LGBTQ+ Graduate Student &

[†]Cooperative Cosponsorship

Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

CCA

Committee on Community Activities

M. McGinnis, Program Chair

WEDNESDAY MORNING

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Sponsored by CHED, Cosponsored by CCA, LSAC, SOCED and YCC

WEDNESDAY AFTERNOON

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Sponsored by CHED, Cosponsored by CCA, LSAC, SOCED and YCC

THURSDAY MORNING

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Sponsored by CHED, Cosponsored by CCA, LSAC, SOCED and YCC

CORP

Committee on Corporation Associates

D.G. Schmidt, Program Chair

MONDAY MORNING

Community Sharing of Chemical Safety Data: Yes, No, Maybe?

Sponsored by CINF, Cosponsored by CHAS, CORP and PRES†

DAC

Committee on Divisional Activities

R. Bennett, Program Chair

SUNDAY MORNING

PMSE-North American Membrane Society (NAMS) Joint Symposium on Surface Science of Membranes for Advanced Separations

Membranes for Water & Ion Transport

Sponsored by PMSE, Cosponsored by DAC†

SUNDAY AFTERNOON

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC†, MPPG† and PRES†

PMSE-North American Membrane Society (NAMS) Joint Symposium on Surface Science of Membranes for Advanced Separations

Novel Membranes & Membrane Functionalization

Sponsored by PMSE, Cosponsored by DAC†

MONDAY MORNING

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC†, MPPG† and PRES†

PMSE-North American Membrane Society (NAMS) Joint Symposium on Surface Science of Membranes for Advanced Separations

Membranes for Gas & Small-Molecule Separations

Sponsored by PMSE, Cosponsored by DAC†

MONDAY AFTERNOON

Food at the Crossroads: Chemistry's Role in Sustainability, Past & Present

Sponsored by HIST, Cosponsored by AGFD, CHED, DAC†, MPPG† and PRES†

PMSE-North American Membrane Society (NAMS) Joint Symposium on Surface Science of Membranes for Advanced Separations

Biofouling & Bioseparations

Sponsored by PMSE, Cosponsored by DAC†

TUESDAY MORNING

PMSE-North American Membrane Society (NAMS) Joint Symposium on Surface Science of Membranes for Advanced Separations

MOFs & 2D Membrane Materials

Sponsored by PMSE, Cosponsored by DAC†

CEI

Committee on Environmental Improvement

C. Middlecamp, Program Chair

SUNDAY MORNING

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

Citizens First!

Sponsored by CHED, Cosponsored by CEI

SUNDAY AFTERNOON

Citizens First!

Sponsored by CHED, Cosponsored by CEI

Perspectives on Climate Change Literacy & Education: Local to International

Sponsored by CHED, Cosponsored by CEI

MONDAY MORNING

ACS-CEI Award for Incorporating Sustainability into Chemical Education

Sponsored by CHED, Cosponsored by CEI and ENVR

Innovative Chemical & Material Approaches for Sustainable Water Purification

Adsorption

Sponsored by ENVR, Cosponsored by CEI

MONDAY AFTERNOON

Innovative Chemical & Material Approaches for Sustainable Water Purification

Electrochemistry & Membrane Technology

Sponsored by ENVR, Cosponsored by CEI

Ongoing Challenges in the Treatment of Contaminants of Emerging Concern

Sponsored by ENVR, Cosponsored by ANYL and CEI

Undergraduate Research Posters

Green Chemistry & Sustainability

Sponsored by CHED, Cosponsored by CEI and SOCED

TUESDAY MORNING

Innovative Chemical & Material Approaches for Sustainable Water Purification

Photocatalysis

Sponsored by ENVR, Cosponsored by CEI

Green Chemistry Theory & Practice: Food, Energy & Water Sustainability

Sponsored by CHED, Cosponsored by CEI

Ongoing Challenges in the Treatment of Contaminants of Emerging Concern

Sponsored by ENVR, Cosponsored by CEI

TUESDAY AFTERNOON

Science & its Perception: Climate Change, Nicotine, Pollution & Other Emerging Topics in the Crosshair

Sponsored by ENVR, Cosponsored by CEI†

Innovative Chemical & Material Approaches for Sustainable Water Purification

Oxidation & Sensor

Sponsored by ENVR, Cosponsored by CEI

Green Chemistry Theory & Practice: Food, Energy & Water Sustainability

Sponsored by CHED, Cosponsored by CEI

Ongoing Challenges in the Treatment of Contaminants of Emerging Concern

Sponsored by ENVR, Cosponsored by CEI

WEDNESDAY MORNING

Current State of Environmental Contamination Research: Theory &

Experiment

Sponsored by ENVR, Cosponsored by CEI

Innovative Chemical & Material Approaches for Sustainable Water Purification

Catalysis

Sponsored by ENVR, Cosponsored by CEI

WEDNESDAY AFTERNOON

Current State of Environmental Contamination Research: Theory & Experiment

Sponsored by ENVR, Cosponsored by CEI

Emerging Environmental Biotechnologies for Energy-Efficient Pollutant Control, Remediation & Resource Recovery

Sponsored by ENVR, Cosponsored by CEI

THURSDAY MORNING

Green Chemistry & the Environment

Sponsored by ENVR, Cosponsored by CEI

Current State of Environmental Contamination Research: Theory & Experiment

Sponsored by ENVR, Cosponsored by CEI

Emerging Environmental Biotechnologies for Energy-Efficient Pollutant Control, Remediation & Resource Recovery

Sponsored by ENVR, Cosponsored by CEI

THURSDAY AFTERNOON

Current State of Environmental Contamination Research: Theory & Experiment

Sponsored by ENVR, Cosponsored by CEI

Emerging Environmental Biotechnologies for Energy-Efficient Pollutant Control, Remediation & Resource Recovery

Sponsored by ENVR, Cosponsored by CEI

LSAC

Committee on Local Section Activities

J. Ritchie, Program Chair

WEDNESDAY MORNING

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Sponsored by CHED, Cosponsored by CCA, LSAC, SOCED and YCC

WEDNESDAY AFTERNOON

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Sponsored by CHED, Cosponsored by CCA, LSAC, SOCED and YCC

THURSDAY MORNING

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Sponsored by CHED, Cosponsored by CCA, LSAC, SOCED and YCC

†Cooperative Cosponsorship

CMA

Committee on Minority Affairs

J. Sarquis, Program Chair

OTHER SYMPOSIA OF INTEREST:

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium (see PROF, Sun, Mon)

SOCIAL EVENTS:

Social Hour, 5:00 PM: Sun**Luncheon, 11:30 AM:** Mon

BUSINESS MEETINGS:

Business Meeting, 7:30 AM: Sun

SUNDAY MORNING

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium**Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis**Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

SUNDAY AFTERNOON

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium**Experimental & Computational Frontiers in Inorganic & Materials Chemistry**Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

MONDAY MORNING

Section A

Hilton New Orleans Riverside
Grand Salon B Sec 7**How to Foster Diversity in the Chemical Sciences**

Lessons Learned & Taught Through the Stories of Recipients of the Stanley C. Israel Award

Cosponsored by PROF and WCC

J.L. Sarquis, Organizer

D. Afzal, R. Joseph, Organizers, Presiding

8:00 Introductory Remarks.**8:05 CMA 1.** Supporting university and K-12 students through outreach program. **S.J. Olesik**, J. Caton**8:25 CMA 2.** Success in mentoring and training minority undergraduate scientists to Ph.D. degrees. **K.H. Pannell****8:45 CMA 3.** Diversity and inclusion in chemistry teaching and research: Some personal challenges and opportunities. **D. Rabinovich****9:05 CMA 4.** Nine years in the Midwest:A new beginning? **J. Vela****9:25 Intermission.****9:40 CMA 5.** Diversity and excellence: Advice for department chairmen. **J.V. Ortiz****10:00 CMA 6.** The Alliance for Diversity in Science and Engineering: Empowering graduate students. **S.A. Lopez****10:20 CMA 7.** Diversity: The key to excellence in chemistry. **E.A. Nalley****10:40 CMA 8.** My path for fostering diversity. **Z.C. Morales Martinez****11:00 Concluding Remarks.**

MONDAY AFTERNOON

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

CPRC

Committee on Public Relations & Communications

J. McClachlan, Program Chair

SUNDAY AFTERNOON

Science Cafes & Engaging the Public: Techniques for Hosting Successful Events

Sponsored by PRES, Cosponsored by CATL, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, I&EC, INOR, MPPG, SCHB and YCC

COMSCI

Committee on Science

M. Fisher, Program Chair

TUESDAY AFTERNOON

Science & Ethics: The Path Toward Global Security in Chemicals, Energy, Food & Water

Sponsored by SCHB, Cosponsored by CHAS, COMSCI, MPPG and PROF

SCC

Senior Chemists Committee

T. Beattie, Program Chair

MONDAY AFTERNOON

Senior Chemists' Career Stories

Sponsored by SCHB, Cosponsored by PROF and SCC

SOCED

Society Committee on Education

N. Bastian, Program Chair

EVENTS:

Where Can My Chemistry Degree Take Me? 9:30 AM: Sun**Chem Demo Exchange, 11:00 AM:** Sun**Grad School Fair, 1:00 PM:** Sun**ACS Student Chapter Awards Ceremony, 7:00 PM:** Sun**ACS Undergraduate Social, 8:30 PM:** Sun**The Chemistry that Keeps America Safe, 10:00 AM:** Mon

SUNDAY MORNING

Chemistry Teachers Day Program

Sponsored by CHED, Cosponsored by SOCED

SUNDAY AFTERNOON

Chemistry Teachers Day Program

Sponsored by CHED, Cosponsored by SOCED

MONDAY MORNING

Excellence in Graduate Polymer Research**Polymerization Techniques**

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

MONDAY AFTERNOON

Section A

Ernest N. Morial Convention Center
Rooms 356/357**Eminent Scientist Lecture with Dr. Mary Jo Ondrechen**

N. R. Bastian, Organizer, Presiding

2:30 Introductory Remarks.**2:40 SOCED 1.** Thinking outside the informatics box: Concepts from chemistry for understanding genomes. **M.J. Ondrechen****3:40 Q&A.****3:55 Concluding Remarks.****Excellence in Graduate Polymer Research****Synthesis & New Materials**

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

Undergraduate Research Posters**Agricultural & Food Chemistry**

Sponsored by CHED, Cosponsored by AGFD and SOCED

Undergraduate Research Posters**Analytical Chemistry**

Sponsored by CHED, Cosponsored by ANYL and SOCED

Undergraduate Research Posters**Biochemistry**

Sponsored by CHED, Cosponsored by BIOL and SOCED

Undergraduate Research Posters**Biotechnology**

Sponsored by CHED, Cosponsored by BIOT and SOCED

Undergraduate Research Posters**Chemical Education**

Sponsored by CHED, Cosponsored by SOCED

Undergraduate Research Posters**Computational Chemistry**

Sponsored by CHED, Cosponsored by COMP and SOCED

Undergraduate Research Posters**Environmental Chemistry**

Sponsored by CHED, Cosponsored by ENVR and SOCED

Undergraduate Research Posters**Geochemistry**

Sponsored by CHED, Cosponsored by GEOC and SOCED

Undergraduate Research Posters**Green Chemistry & Sustainability**

Sponsored by CHED, Cosponsored by CEI and SOCED

Undergraduate Research Posters**Inorganic Chemistry**

Sponsored by CHED, Cosponsored by INOR and SOCED

Undergraduate Research Posters**Medicinal Chemistry**

Sponsored by CHED, Cosponsored by MEDI and SOCED

Undergraduate Research Posters**Nanochemistry**

Sponsored by CHED, Cosponsored by SOCED

Undergraduate Research Posters**Organic Chemistry**

Sponsored by CHED, Cosponsored by SOCED

Undergraduate Research Posters**Physical Chemistry**

Sponsored by CHED, Cosponsored by SOCED

Undergraduate Research Posters**Polymer Chemistry**

Sponsored by CHED, Cosponsored by PMSE, POLY and SOCED

TUESDAY MORNING

Excellence in Graduate Polymer Research[†]Cooperative Cosponsorship

Bio-Related Polymers

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

TUESDAY AFTERNOON

Excellence in Graduate Polymer Research

New Products & Characterization

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

TUESDAY EVENING

Excellence in Graduate Polymer Research

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

WEDNESDAY MORNING

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Sponsored by CHED, Cosponsored by CCA, LSAC, SOCED and YCC

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

WEDNESDAY AFTERNOON

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Sponsored by CHED, Cosponsored by CCA, LSAC, SOCED and YCC

THURSDAY MORNING

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Sponsored by CHED, Cosponsored by CCA, LSAC, SOCED and YCC

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

THURSDAY AFTERNOON

Polymer Networks: Soft Gels to Stiff Networks

Sponsored by POLY, Cosponsored by PHYS, PMSE and SOCED

CTA

Committee on Technician Affairs

C. Libby, Program Chair

SUNDAY MORNING

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

SUNDAY AFTERNOON

Science Cafes & Engaging the Public: Techniques for Hosting Successful Events

Sponsored by PRES, Cosponsored by CATL, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, I&EC, INOR, MPPG, SCHB and YCC

TUESDAY MORNING

Water Supply Safety

Sponsored by CHAS, Cosponsored by CCS, CTA and ENVR

WCC

Women Chemists Committee

R. Cole, Program Chair

OTHER SYMPOSIA OF INTEREST:

How to Foster Diversity in the Chemical Sciences (see CMA, Mon)

Thriving in the Workplace: Non-Technical Skills that Boost your Value (see BGMT, Mon)

Women in Cannabis: Shaping an Emerging Industry (see CHAS, Mon)

ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences: Symposium in honor of Jani C. Ingram (see ANYL, Tue)

Remarkable Women of Medicinal Chemistry (see MEDI, Tue)

SUNDAY MORNING

E.V. Murphree Award in Industrial and Engineering Chemistry: Symposium in honor of Linda J. Broadbelt

Sponsored by I&EC, Cosponsored by WCC

Earle B. Barnes Award for Leadership in Chemical Research Management: Symposium in honor of Margaret M. Faul

Sponsored by ORGN, Cosponsored by WCC

Synthetic Chemistry Addressing Challenges in Energy & the Environment

Sponsored by INOR, Cosponsored by CATL and WCC

ACS Award in Applied Polymer Science: Symposium in honor Paula T. Hammond

Sponsored by PMSE, Cosponsored by POLY and WCC

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Alfred Bader Award in Bioinorganic or Bioorganic Chemistry: Symposium in honor of Alison Butler

Sponsored by INOR, Cosponsored by WCC

ACS Award in Surface Chemistry: Symposium in honor of Stacey F. Bent

Atomic-Level Precision in Deposition & Etching

Sponsored by COLL, Cosponsored by WCC

SUNDAY AFTERNOON

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

Synthetic Chemistry Addressing Challenges in Energy & the Environment

Sponsored by INOR, Cosponsored by CATL and WCC

ACS Award in Applied Polymer Science: Symposium in honor Paula T. Hammond

Sponsored by PMSE, Cosponsored by POLY and WCC

E.V. Murphree Award in Industrial and Engineering Chemistry: Symposium in honor of Linda J. Broadbelt

Sponsored by I&EC, Cosponsored by WCC

Alfred Bader Award in Bioinorganic or Bioorganic Chemistry: Symposium in honor of Alison Butler

Sponsored by INOR, Cosponsored by WCC

ACS Award in Surface Chemistry: Symposium in honor of Stacey F. Bent

Nanomaterials & Catalysis on the Nanoscale

Sponsored by COLL, Cosponsored by WCC

SUNDAY EVENING

Alfred Bader Award in Bioinorganic or Bioorganic Chemistry: Symposium in honor of Alison Butler

Sponsored by INOR, Cosponsored by WCC

MONDAY MORNING

Section A

Hilton New Orleans Riverside
Grand Salon C Sec 13

Science of Sexual Harassment

The Psychology & Sociology of Sexual Harassment

Cosponsored by PRES, PROF and YCC[†]
Financially supported by C&EN
S. Azad, S.R. Hare, A. Widener,
Organizers
L. Wang, Organizer, Presiding

9:00 WCC 1. Sexual harassment on college campuses. **S. Sun**

9:15 WCC 2. The whys and hows of sexual harassment: What organizations should be doing. **V. Magley**

9:35 WCC 3. Gender salience and racial frames, potential potholes for women in science: Understanding the context before and the potential consequences of sexual harassment. **E. Branch**

9:55 Intermission.

10:05 WCC 4. The cost of cosmetic. **J. Grossman**

10:25 WCC 5. From the personal to the profession: Steps we must take to end sexual harassment. **M. Boyd**

10:45 Panel Discussion.

How to Foster Diversity in the Chemical Sciences

Lessons Learned & Taught Through the Stories of Recipients of the Stanley C. Israel Award

Sponsored by CMA, Cosponsored by PROF and WCC

Women in Cannabis: Shaping an Emerging Industry

Sponsored by CHAS, Cosponsored by SCHB[†] and WCC

Ralph F. Hirschmann Award in Peptide Chemistry: Symposium in honor of Lila M. Gierasch

Bridging Peptides & Proteins: From Function to Therapy

Sponsored by BIOL, Cosponsored by WCC

E.V. Murphree Award in Industrial and Engineering Chemistry: Symposium in honor of Linda J. Broadbelt

Sponsored by I&EC, Cosponsored by WCC

ACS Award in Surface Chemistry: Symposium in honor of Stacey F. Bent

Surface Modification & Function

Sponsored by COLL, Cosponsored by WCC

MONDAY AFTERNOON

[†]Cooperative Cosponsorship

Section A

Hilton New Orleans Riverside
Grand Salon C Sec 13

Science of Sexual Harassment

Working to Stop Harassment in Departments & at Meetings

Cosponsored by PRES, PROF and YCC[†]
Financially supported by C&EN
S. Azad, L. Wang, A. Widener,
Organizers
S.R. Hare, Organizer, Presiding

1:00 WCC 6. Taking back my power: My story of sexual harassment. **M. Dulay**

1:15 WCC 7. Mediating sexual harassment issues in science. **N. Frank**

1:35 WCC 8. Redefining expectations: The role for scientific societies in addressing harassment in science and other work climate issues. **B.M. Williams**

1:55 Intermission.

2:05 WCC 9. Preventing sexual harassment: Some experiences with a program aimed at graduate students, faculty, and staff. **N. Giordano**

2:25 WCC 10. GRC Power Hour: Culture-change begins at the frontiers of science. **N.R. Gray**

2:45 Panel Discussion.

Thriving in the Workplace: Non-Technical Skills that Boost your Value

Sponsored by BMGT, Cosponsored by PROF[†], SCHB, WCC[†] and YCC[†]

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

James Flack Norris Award in Physical Organic Chemistry: Symposium in honor of Cynthia J. Burrows

Sponsored by ORGN, Cosponsored by WCC

Alfred Bader Award in Bioinorganic or Bioorganic Chemistry: Symposium in honor of Alison Butler

Sponsored by INOR, Cosponsored by WCC

ACS Award in Surface Chemistry: Symposium in honor of Stacey F. Bent

Interfaces & Assembly: From Molecular Understanding to 3D Materials

Sponsored by COLL, Cosponsored by WCC

TUESDAY MORNING

Section A

Hilton New Orleans Riverside
Grand Salon C Sec 13

ACS Award for Encouraging Women into Careers in the Chemical Sciences

Symposium in Honor of Rebecca Ruck

Cosponsored by ORGN, PROF and YCC[†]

E.C. Sherer, Organizer, Presiding

8:30 Introductory Remarks.

8:35 WCC 11. Importance of mechanistic understanding towards process understanding. **Y. Ji Chen**

9:00 WCC 12. New synthetic opportunities with nitrones and hydroxamic acids. **L.L. Anderson**, M. Kroc, T. Reidl, J. Son

9:25 WCC 13. Stereocontrol in photochemical synthesis. **T.P. Yoon**

9:50 WCC 14. Accessing novel phosphoramidate prodrugs via the protecting-group free selective 3'-functionalization of nucleosides. **J. McCabe Dunn**, m. Reibarkh, E.C. Sherer, R. Orr, R. Ruck

10:15 Intermission.

10:25 WCC 15. From JANUVIA to MARIZEV (Omarigliptin), a once weekly DPP-4 inhibitor for the treatment of diabetes. **A.E. Weber**

10:50 WCC 16. Alkynes of transformations. **V.M. Dong**

11:15 WCC 17. Award Address (ACS Award for Encouraging Women into Careers in the Chemical Sciences Sponsored by The Camille and Henry Dreyfus Foundation, Inc.). Science, mentors, role models & more: The ongoing pursuit to inspire more women into successful chemistry careers. **R. Ruck**

ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences: Symposium in honor of Jani C. Ingram

Sponsored by ANYL, Cosponsored by PROF and WCC

ACS Award in the Chemistry of Materials: Symposium in honor of Elsa Reichmanis

Novel Materials Design

Sponsored by PMSE, Cosponsored by WCC

Remarkable Women of Medicinal Chemistry

Sponsored by MEDI, Cosponsored by PROF and WCC

George C. Pimentel Award in Chemical Education
Sponsored by CHED, Cosponsored by WCC

ACS Award in Surface Chemistry: Symposium in honor of Stacey F. Bent

Atomic-Layer Deposition & its Applications

Sponsored by COLL, Cosponsored by WCC

TUESDAY AFTERNOON

Section A

Hilton New Orleans Riverside
Grand Salon C Sec 13

WCC Rising Star Award Symposium

Cosponsored by BIOT, CHED, COLL, INOR and PROF
M.A. Kane, Organizer, Presiding

1:30 Introductory Remarks.

1:35 WCC 18. Materials chemistry for

plastic batteries. **J.L. Lutkenhaus**

1:55 WCC 19. Unlocking the biotech potential of gut microbes from herbivores. **M.A. O'Malley**

2:15 WCC 20. Chemical Education Research and ACS Exams: How I discovered my passion that became my career. **K.L. Murphy**

2:35 Intermission.

2:50 WCC 21. Design and discovery of molecular modules for artificial photosynthesis. **K.L. Mulfort**

3:10 WCC 22. Collaboration and conformation in new drug discovery. **M. Machacek**

3:30 WCC 23. Maximizing impact through collaboration. **X. Chen**

3:50 Concluding Remarks.

ACS Award in the Chemistry of Materials: Symposium in honor of Elsa Reichmanis

Advanced Structure Analysis

Sponsored by PMSE, Cosponsored by WCC

George C. Pimentel Award in Chemical Education

Sponsored by CHED, Cosponsored by WCC

ACS Award Symposium for Creative Advances in Environmental Science & Technology

Sponsored by ENVR, Cosponsored by WCC

WEDNESDAY MORNING

ACS Award in the Chemistry of Materials: Symposium in honor of Elsa Reichmanis

Processing-Structure-Property Relationships

Sponsored by PMSE, Cosponsored by WCC

Upstream Processes

Synthetic Biology

Sponsored by BIOT, Cosponsored by WCC

General Papers: New Concepts in Polymeric Materials
Sponsored by PMSE, Cosponsored by WCC

WEDNESDAY AFTERNOON

ACS Award in the Chemistry of Materials: Symposium in honor of Elsa Reichmanis

Frontiers in Chemistry of Materials

Sponsored by PMSE, Cosponsored by WCC

YCC

Younger Chemists Committee

D. Williams, K. Heroux and M. Brann, Program Chairs

SUNDAY MORNING

Water, Water Everywhere But Not a Drop to Drink: Preserving, Protecting & Delivering Clean Water

Sponsored by PRES, Cosponsored by AGFD, BMGT, CATL, CEI, CELL, CHAS, CHED, COLL, CTA, ENVR, GEOC, I&EC, INOR, MPPG, SCHB and YCC

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Emerging Applications of Organic & Biochemistry: Soil Science, Biomaterials & Synthesis

Sponsored by PROF, Cosponsored by ANYL[†], BIOL[†], BIOT, CHED, CMA, COLL, COMP[†], CWD, ENVR, INOR[†], MEDI[†], ORGN, PHYS[†], PMSE[†], POLY[†], PRES[†], WCC and YCC

SUNDAY AFTERNOON

Section A

Hilton New Orleans Riverside
Grand Salon C Sec 18

Starting a Successful Research Program at a PUI

Cosponsored by PROF
M.L. Druelinger, Organizer, Presiding

1:00 Introductory Remarks.

1:05 YCC 1. Using undergraduate research to help shape STEM education. **M.R. Malachowski**

1:20 YCC 2. Collaborative research with undergraduates: Research project and research design. **A.M. Schoffstall**

1:40 YCC 3. Maintaining equilibrium between teaching, research, service and life at predominantly undergraduate institutions (PUIs). **B.L. Gourley**

2:00 YCC 4. Art and necessity of gaining internal support from institutional administrators. **M.L. Druelinger**

2:20 Intermission.

2:30 YCC 5. Undergraduate new investigator grants at the ACS Petroleum Research Fund. **T. Clancy**

2:55 YCC 6. Funding opportunities at the National Science Foundation of interest to faculty at primarily undergraduate institutions (PUIs). **S. Atlas**

3:25 YCC 7. Writing more competitive grant proposals. **M.R. Malachowski**

3:45 YCC 8. Finding small pockets of funding to jump-start your research. **B.L. Gourley**

4:05 Panel Discussion.
4:25 Concluding Remarks.

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Experimental & Computational Frontiers in Inorganic & Materials Chemistry

[†]Cooperative Cosponsorship

Sponsored by PROF, Cosponsored by ANYL[‡], BIOL[‡], BIOT, CHED, CMA, COLL, COMP[‡], CWD, ENVR, INOR[‡], MEDI[‡], ORGN, PHYS[‡], PMSE[‡], POLY[‡], PRES[‡], WCC and YCC

Science Cafes & Engaging the Public: Techniques for Hosting Successful Events

Sponsored by PRES, Cosponsored by CATL, CELL, CHAS, CHED, COLL, CPRC, CTA, ENVR, I&EC, INOR, MPPG, SCHB and YCC

MONDAY MORNING

Section A

Hilton New Orleans Riverside
Grand Ballroom D

Molecules that Changed the World

Cosponsored by HIST and I&EC
M. Grandbois, Organizer, Presiding

9:00 Introductory Remarks.

9:05 YCC 9. Enabling Moore's Law through chemistry. **P. Trefonas**, J.F. Cameron, J.W. Thackeray, M. Li

9:35 YCC 10. Perspectives on agrochemical discovery. **B.A. Lorschach**, T.C. Sparks

10:05 YCC 11. Advances in olefin block copolymers. **D.M. Pearson**

10:35 Intermission.

10:50 YCC 12. Development for fluorolefins for refrigeration. **R. Singh**

11:20 YCC 13. Race to cleaner air: How cordierite revolutionized the automotive industry. **D.M. Beall**

11:50 Concluding Remarks.

Science of Sexual Harassment

The Psychology & Sociology of Sexual Harassment

Sponsored by WCC, Cosponsored by PRES, PROF and YCC[‡]

Excellence in Graduate Polymer Research

Polymerization Techniques

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

MONDAY AFTERNOON

Section A

Hilton New Orleans Riverside
Grand Ballroom D

Tales of Chemistry & Cocktails

Cosponsored by HIST
Financially supported by C&EN
J. Schwarzbach, Organizer
K.J. Heroux, Organizer, Presiding
L.K. Wolf, Presiding

2:00 Introductory Remarks.

2:05 YCC 14. Cocktails: Study your senses before you dull them. **M.R. Hartings**

2:30 YCC 15. Getting into sloe business. **S.J. Cantrill**

2:55 YCC 16. Beer, a bordello, and a barrister. **R.M. Burks**

3:20 Intermission.

3:25 Panel Discussion.

Science of Sexual Harassment

Working to Stop Harassment in

[‡]Cooperative Cosponsorship

TECH-350

Departments & at Meetings

Sponsored by WCC, Cosponsored by PRES, PROF and YCC[‡]

Thriving in the Workplace: Non-Technical Skills that Boost your Value

Sponsored by BMGT, Cosponsored by PROF[‡], SCHB, WCC[‡] and YCC[‡]

LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium

Sponsored by PROF, Cosponsored by ANYL, BIOL, BIOT, CHED, CMA, COLL, COMP, CWD, ENVR, INOR, MEDI, ORGN, PHYS, PMSE, POLY, WCC and YCC

Excellence in Graduate Polymer Research

Synthesis & New Materials

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

TUESDAY MORNING

ACS Award for Encouraging Women into Careers in the Chemical Sciences

Symposium in Honor of Rebecca Ruck

Sponsored by WCC, Cosponsored by ORGN, PROF and YCC[‡]

Excellence in Graduate Polymer Research

Bio-Related Polymers

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

TUESDAY AFTERNOON

Section A

Hilton New Orleans Riverside
Grand Salon C Sec 18

Young Chemists & Water

Cosponsored by PHYS
N. Hammer, J.T. Kelly, Organizers,
Presiding

1:00 Introductory Remarks.

1:05 YCC 17. Probing hydrogen bonding in Nitrogen-containing heterocyclic molecules using Raman under nitrogen spectroscopy. **T. Powell**, K. Stevens, J.T. Kelly, N. Hammer

1:25 YCC 18. Theoretical approaches for treating non-valence correlation-bound anions. **A. Kairalapova**, K.D. Jordan

1:45 YCC 19. Water world: Understanding water's diverse interactions with solutes through single-conformation spectroscopy. **P.S. Walsh**, D.P. Tabor, R. Kusaka, E.G. Buchanan, J. Gord, E.L. Sibert, T.S. Zwier

2:10 YCC 20. Probing the energetics and vibrational signatures of the azide-water complex. **T.L. Ellington**, J.T. Kelly, T.M. Sexton, R.C. Fortenberry, K.R. Asmis, G.S. Tschumper

2:30 Intermission.

2:45 YCC 21. Ions in water: A microscopic look at microhydration. **J.T. Kelly**, K.R. Asmis

3:10 YCC 22. Intrinsic energetics of proton transfer in binary (HF)_m(H₂O)_n and

(HCl)_m(H₂O)_n clusters. **S.N. Johnson**, G.S. Tschumper

3:30 YCC 23. Intermolecular interactions between TMAO and water: Restructuring the water hydrogen bonding network. **L.E. McNamara**, H.U. Valle, F.R. Fronczek, T.K. Hollis, G.S. Tschumper, N. Hammer

3:50 YCC 24. One-dimensional adiabatic models for the coupling of low-frequency intermolecular modes with OH stretch modes in water-ion clusters. **B. Henderson**, K.D. Jordan

4:10 YCC 25. Unraveling the spectroscopic signatures of divalent metal ion binding to carboxylate head groups at the air-water interface with cold gas-phase clusters. **J.K. Denton**, P.J. Kelleher, J. DePalma, H.C. Allen, C.J. Mundy, M.A. Johnson

4:35 YCC 26. Dual cryogenic ion trap spectroscopy for the formation and characterization of solvated peptides. **J.M. Voss**, K. Fischer, B. Marsh, E. Garand

Excellence in Graduate Polymer Research

New Products & Characterization

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

TUESDAY EVENING

Excellence in Graduate Polymer Research

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

WEDNESDAY MORNING

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Sponsored by CHED, Cosponsored by CCA, LSAC, SOCED and YCC

WEDNESDAY AFTERNOON

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Sponsored by CHED, Cosponsored by CCA, LSAC, SOCED and YCC

THURSDAY MORNING

Fundamentals of Chemistry Outreach Education: From Program Design to Assessment

Sponsored by CHED, Cosponsored by CCA, LSAC, SOCED and YCC

Aadland, R.	CELL	237	Abdalmoneam, M.H.	COMP	374	Abel, R.	MEDI	123
Aakeroy, C.B.	I&EC	134	Abdallah, M.	INOR	193	Abell, T.N.	CHED	167
Aakeroy, C.B.	INOR	572	Abdelaal, A.	POLY	13	Abell, T.N.	CHED	781
Aakeroy, C.B.	INOR	1138	Abdelaal, A.	POLY	531	Abel-Snape, X.	ORGN	576
Aakeroy, C.B.	INOR	1337	Abd-Elaal, A.A.	ANYL	158	Abelson, C.	INOR	477
Aakeroy, C.B.	MEDI	353	Abdel-Atti, D.	NUCL	53	Abelson, J.R.	INOR	615
Aakhus, A.L.	COLL	222	Abdel-Aziz, M.	BIOL	224	Abergel, R.J.	FLUO	43
Aalizadeh, R.	ANYL	29	Abdel-Aziz, M.	MEDI	167	Abergel, R.J.	NUCL	30
Aay, N.	MEDI	277	Abdelgawad, A.M.	CELL	378	Abergel, R.J.	NUCL	54
Abada, B.	CHED	905	Abdelhafez, E.M.	BIOL	87	Abernathy, D.L.	ENFL	469
Abada, B.	ENVR	673	Abdelhafez, E.M.	MEDI	161	Abernathy, M.	GEOC	244
Abada, B.	PMSE	192	Abdelhamid, D.	BIOL	224	Abernathy, C.D.	CHED	1051
Abai, M.	I&EC	37	Abdelhamid, D.	MEDI	167	Abeynayake, N.S.	ANYL	438
Abai, M.	I&EC	38	Abdelhamid, E.	COLL	67	Abeysirigunawardena, S.	BIOL	65
Abai, M.	I&EC	44	Abdellah, M.	INOR	109	Ab Halim, H.	ENVR	604
Abakumov, A.M.	INOR	162	Abd-Ellah, H.S.	BIOL	224	Abi, T.	ENVR	297
Abanador, P.	COMP	164	Abd El Meseh, N.	CHED	2000	Abiade, A.A.	CHED	1345
Abanador, P.	PHYS	528	Abdel Monaim, S.A.	MEDI	105	Abidi, N.	ANYL	459
Abanador, P.	PHYS	646	Abdelraheem, E.	PROF	4	Abidi, N.	CELL	434
Abaryan, D.	CHED	1083	Abdel-Rhman, F.H.	AGFD	180	Abidi, N.	I&EC	100
Abate, A.R.	BIOT	545	Abdel-Rhman, F.H.	ENVR	595	Abidin, A.	I&EC	44
Abate, S.	ENVR	41	Abdelsalam, A.	BIOT	82	Abii, T.A.	ANYL	240
Abate, S.	I&EC	110	Abdelsayed, V.	ENFL	87	Abild-Pedersen, F.	CATL	37
Abbas, N.	PHYS	569	Abdel-Sayed, V.	ENFL	517	Abild-Pedersen, F.	CATL	103
Abbas, S.H.	BIOL	87	Abdi, H.	AGFD	116	Abild-Pedersen, F.	CATL	461
Abbas, S.H.	MEDI	161	Abdilla, A.	POLY	511	Abild-Pedersen, F.	ENFL	112
Abbas, S.H.	MEDI	406	Abdo, Y.A.	COMP	293	Abitbol, T.	CELL	30
Abbas, Z.M.	POLY	353	Abdollahi, S.	PMSE	308	Abitbol, T.	CELL	136
Abbas, Z.M.	POLY	419	Abdolrahmani, M.	CATL	538	Abitbol, T.	CELL	196
Abbasi, A.	COLL	422	Abdoulmoumine, N.	CELL	422	Abivin, P.	POLY	210
Abbasi, A.	COLL	550	Abdul-Azeem, H.	ANYL	123	Abney, C.W.	ENFL	554
Abbaspourrad, A.	ANYL	17	Abdul-Azeem, H.	ANYL	124	Abney, C.W.	I&EC	99
Abbaspour Tamijani, A.	COMP	369	Abdullah, A.	ENVR	261	Abney, C.W.	INOR	285
Abbaspour Tamijani, A.	GEOC	144	Abdullah, A.	ENVR	675	Abokifa, A.A.	ENVR	93
Abbaspour Tamijani, A.	PHYS	387	Abdullah, A.M.	ENFL	236	Abolafia, J.	ENVR	633
Abbaspour Tamijani, A.	PHYS	415	Abdulquddos, S.	CELL	194	Abolhassani, M.	PRES	4
Abbaszadeh, M.	PMSE	43	Abdulrazzaq, H.	CATL	270	Aboueissa, M.	CHED	455
Abbati de Assis, C.	CELL	423	Abdul Salam, S.	CHED	574	Aboul-Enein, H.	ANYL	117
Abbatt, J.P.	ENVR	597	Abe, H.	BIOL	119	Abo-Zahrah, M.	CHED	1822
Abbey, E.R.	INOR	1248	Abe, H.	BIOL	163	Abplanalp, M.	PHYS	92
Abbott, A.	PHYS	424	Abe, H.	MEDI	157	Abraham, C.	ANYL	118
Abbott, A.	BIOL	207	Abe, N.	BIOL	119	Abraham, D.G.	CHED	1396
Abbott, A.	CHED	710	Abe, N.	BIOL	163	Abraham, K.	BIOL	237
Abbott, A.	PMSE	612	Abebe, D.	PMSE	450	Abraham, L.	CHED	282
Abbott, A.P.	PHYS	114	Abebe, D.	PMSE	478	Abraham, M.R.	CHED	1939
Abbott, N.L.	PMSE	436	Abecassis, B.	INOR	1380	Abraham, N.K.	CHED	448
Abbott, N.L.	PMSE	526	Abedin, A.	CATL	139	Abraham, V.	COMP	346
Abbott, S.	ANYL	334	Abegaz, S.M.	ENVR	297	Abraham, V.	PHYS	123
Abbott, S.	CHED	2029	Abel, M.E.	CHED	810	Abrahamsen-Mills, L.	GEOC	274
Abboud, K.A.	INOR	1321	Abel, P.	NUCL	4	Abramchuk, M.	INOR	1229
Abboud, K.A.	MEDI	349	Abel, P.	NUCL	7	Abramo, G.P.	POLY	494
Abdalla, G.	ENVR	612	Abel, R.	COMP	194	Abrams, C.F.	COMP	199
Abdalla, G.	GEOC	115	Abel, R.	COMP	379	Abrams, T.	MEDI	295
Abdalla, M.M.	MEDI	42	Abel, R.	COMP	414	Abramyan, T.M.	COMP	377
Abdallah, W.	BIOT	232	Abel, R.	COMP	417	Abroshan, H.	CATL	481

Abshear, T.	CINF	2	Adams, E.	CHED	1936	Adeyemo, A.	ANYL	203
Abu-Absi, N.	BIOT	249	Adams, F.	INOR	1105	Adeyemo, A.	CHED	1379
Abualeinan, N.	CHED	52	Adams, I.	INOR	1246	Adeyemo, A.	CHED	1382
Abualeinan, N.	CHED	1577	Adams, J.I.	CHED	1345	Adeyemo, A.	CHED	1384
Abualeinan, N.	ORGN	169	Adams, J.	CATL	55	Adeyemo, A.	CHED	1407
Abucayon, E.G.	INOR	467	Adams, J.J.	ENFL	164	Adeyemo, A.	CHED	1652
Abu-Omar, M.M.	ANYL	89	Adams, J.	BIOL	74	Adhikari, D.	ENVR	342
Abu-Omar, M.M.	CATL	109	Adams, J.	CHED	1956	Adhikari, D.	ENVR	752
Abu-Omar, M.M.	INOR	459	Adams, K.J.	ENFL	380	Adhikari, D.	GEOC	15
Abuo-Rahma, G.A.	BIOL	87	Adams, M.R.	CHED	1871	Adhikari, D.	GEOC	37
Abuo-Rahma, G.A.	MEDI	161	Adams, M.W.	BIOL	289	Adhikari, D.	GEOC	42
Abusallout, I.	ENVR	463	Adams, N.	CHED	1853	Adhikari, M.	BIOT	363
Abusallout, I.	ENVR	776	Adams, P.D.	BIOL	52	Adhikari, R.	CATL	302
Abu Seman, A.	I&EC	40	Adams, R.E.	INOR	706	Adhikari, R.	PMSE	74
Abuyuan, J.	INOR	613	Adams, R.	CHED	1855	Adhikari, S.	POLY	595
Abzalimov, R.	ANYL	256	Adams, R.	CATL	346	Adhikari, S.	CELL	122
Acar, H.	PMSE	191	Adams, R.D.	INOR	1189	Adikari Appuhamillage, G.	PMSE	310
Accardo, J.	PMSE	67	Adams, S.	AGFD	179	Adil, K.	INOR	727
Acchiardo, J.	CHED	1567	Adams, T.	CHED	1126	Adiletta, J.	BIOT	216
Acerce, M.	ENFL	341	Adams, T.J.	CHED	1918	Adiraju, V.	INOR	1335
Acevedo, M.	CHED	1826	Adams, T.J.	COLL	300	Adiraju, V.	INOR	882
Acevedo-Soto, L.	CHED	89	Adams, V.	BIOT	448	Adisa, D.	AGFD	180
Acevedo-Soto, L.	CHED	275	Adamski, S.	MEDI	69	Adkins, J.	CHED	768
Aceves, A.	CHED	704	Adamson, D.H.	COLL	563	Adkins, J.	CHED	1340
Acharya, A.	MEDI	273	Adamson, D.H.	COLL	623	Adkins, J.	CHED	1343
Acharya, B.	COLL	191	Adamson, D.H.	COLL	701	Adkins, J.	CHED	1345
Acharya, R.	POLY	487	Adamson, D.H.	PMSE	88	Adkins, J.	CHED	1349
Acharya, S.	ORGN	140	Adamson, D.H.	PMSE	313	Adkins, J.	CHED	1871
Achenie, L.E.	CATL	76	Adamson, D.H.	PMSE	314	Adkins, P.E.	CHED	714
Acher, E.	NUCL	9	Adamson, D.H.	PMSE	320	Adkins, P.E.	ENVR	533
Achyuthan, K.	COLL	336	Adamson, D.H.	PMSE	338	Adolph, B.R.	CHED	1002
Acik, L.	INOR	1212	Adamson, D.H.	PMSE	592	Adriana, B.	POLY	79
Acik, M.	PHYS	243	Adamson, D.H.	POLY	499	Adsmoond, D.	CHED	1397
Ackendorf, J.	CHED	950	Adamson, D.H.	COLL	366	Adsmoond, D.	CHED	1399
Ackendorf, J.M.	CHED	964	Adamson, D.H.	PMSE	42	Adu-Ampratwum, D.	ORGN	606
Ackendorf, J.M.	ENVR	519	Adamson, D.H.	PMSE	44	Adumeau, P.	FLUO	62
Ackerman, M.	CHED	377	Adamson, H.C.	CHED	1507	Adumeau, P.	FLUO	75
Ackerman, M.	NUCL	72	Adamson, J.D.	INOR	742	Advincula, R.C.	PMSE	12
Ackerson, C.	INOR	1318	Adamson, N.J.	CATL	501	Advincula, R.C.	PMSE	46
Ackley, B.	INOR	1112	Adande, G.	PHYS	630	Advincula, R.C.	PMSE	106
Ackroyd, J.	MEDI	120	Adas, S.K.	INOR	953	Advincula, R.C.	PMSE	125
Acree, T.E.	AGFD	130	Addepalli, B.	CHED	656	Advincula, R.C.	PMSE	285
Acree, T.E.	AGFD	209	Addison, B.	POLY	728	Advincula, R.C.	PMSE	502
Adam, M.	COLL	165	Addlestone, S.	CINF	37	Advincula, R.C.	PMSE	559
Adam, S.M.	INOR	118	Ade, H.W.	ANYL	339	Advincula, R.C.	POLY	54
Adamczyk, A.	I&EC	55	Adebanjo, A.	CHED	655	Advincula, R.C.	POLY	587
Adamczyk, P.A.	BIOT	156	Adejumo, H.	ENVR	512	Advincula, R.C.	POLY	750
Adamiak, L.	POLY	23	Adeleye, A.S.	ENVR	19	Advincula, R.C.	POLY	814
Adams, A.	BIOT	456	Adelizzi, B.	PHYS	492	Adzic, R.R.	CATL	179
Adams, C.	AGFD	232	Adeniji-Adele, A.	BIOL	271	Adzic, R.R.	CATL	281
Adams, C.	CHED	1074	Aderibigbe, A.	COMP	413	Aebi, M.	CELL	57
Adams, C.J.	INOR	1096	Aderibigbe, A.	MEDI	412	Aeppli, M.	GEOC	253
Adams, C.	CHED	773	Aderibigbe, S.A.	CHED	372	Afeworki, M.	COLL	644
Adams, D.	COLL	360	Adewusi, O.	INOR	588	Afosah, D.K.	MEDI	159
Adams, E.K.	INOR	942	Adeyemo, A.	ANYL	202	Afshinnia, K.	INOR	1393

Aften, C.	POLY	701	Aher, A.	PMSE	37	Aizenberg, J.	COLL	15
Aga, D.S.	ENVR	11	Ahlén, G.	BIOT	373	Ajamian, A.	COMP	203
Aga, D.S.	ENVR	437	Ahlfquist, M.	CATL	59	Ajamian, A.	COMP	204
Agarabi, C.	BIOT	215	Ahlfquist, M.	ENFL	119	Ajamian, A.	MEDI	83
Agarabi, C.	BIOT	253	Ahmad, A.	ORGN	675	Ajayan, P.	ENFL	105
Agarabi, C.	BIOT	259	Ahmad, A.	PMSE	456	Ajibola, A.A.	INOR	89
Agarabi, C.	BIOT	387	Ahmad, G.	COLL	169	Ajibola, A.A.	INOR	681
Agarabi, C.	BIOT	391	Ahmad, S.	MEDI	297	Ajmal, M.	COLL	258
Agarabi, C.	BIOT	394	Ahmadi, K.	ENVR	723	Akam, E.	CHED	603
Agarkar, V.	POLY	515	Ahmadibeni, Y.	AGFD	65	Akazome, M.	ORGN	141
Agarkar, V.	POLY	666	Ahmadipour, S.	CARB	93	Akbari Afkhami, F.	INOR	832
Agarwal, M.	ANYL	250	Ahmadvand, S.	PHYS	138	Akbarian-Tefaghi, S.	INOR	574
Agarwal, M.	ANYL	369	Ahmed, A.F.	BIOL	224	Akbarian-Tefaghi, S.	INOR	794
Agarwal, M.	ANYL	370	Ahmed, A.	CARB	73	Akbarian-Tefaghi, S.	INOR	835
Agarwal, M.	CHED	1298	Ahmed, B.M.	ORGN	260	Akbay, C.	ANYL	57
Agarwal, M.	PMSE	250	Ahmed, E.K.	MEDI	162	Akbulut, M.	AGFD	96
Agarwal, N.	ENFL	35	Ahmed, M.S.	POLY	49	Akbulut, M.	COLL	664
Agarwal, R.	INOR	276	Ahmed, M.	COLL	755	Akech, S.R.	CHED	943
Agarwal, U.P.	CELL	213	Ahmed, M.	POLY	462	Akech, S.R.	ENVR	428
Agarwal, U.P.	CELL	367	Ahmed, M.	ENVR	495	Åkerbladh, L.	FLUO	53
Agblevor, F.A.	CATL	227	Ahmed, M.	POLY	627	Akerblom, A.	BIOT	303
Agee, B.	CHED	797	Ahmed, M.	POLY	385	Akerblom, A.	BIOT	373
Agga, G.	BIOL	276	Ahmed, M.	POLY	390	Akeroyd, E.N.	CHED	1002
Aggarwal, A.	CHED	720	Ahmed, M.	POLY	747	Akers, K.	COLL	239
Aggarwal, A.	MEDI	273	Ahmed, N.	ENFL	481	Akgun, B.	MEDI	290
Aggarwal, K.	INOR	63	Ahmed Ali, A.	CARB	73	Akhade, P.	BIOL	253
Aggarwal, K.	BIOT	454	Ahn, D.	PMSE	141	Akhade, S.	CATL	216
Aggarwal, V.K.	ORGN	564	Ahn, H.	INOR	377	Akhade, S.	COMP	122
Agger, J.	CELL	111	Ahn, W.S.	BIOT	44	Akimoto, A.M.	COLL	751
Aggrawal, M.	AGFD	52	Ahrens, L.	ENVR	781	Akimoto, Y.	COLL	260
Agnew, D.	INOR	106	Ahrens, L.	ENVR	785	Akimov, A.V.	COMP	316
Ago, M.	CELL	265	Ahrens, M.	FLUO	5	Akimov, A.V.	COMP	336
Ago, M.	CELL	270	Ahrens, T.	FLUO	20	Akimov, A.V.	COMP	418
Ago, M.	CELL	342	Ahsan, S.	CHED	412	Akimov, A.V.	PHYS	189
Ago, M.	CELL	383	Ahuja, S.	AGFD	8	Akimov, A.V.	PHYS	376
Ago, M.	CELL	423	Ahuja, S.	ANYL	237	Akimov, A.V.	PHYS	377
Agola, J.	CHED	1322	Ahuja, S.	ANYL	427	Akimov, A.V.	PHYS	461
Agola, J.	BIOL	244	Ahyow, P.	BIOT	46	Akinmusire, T.	AGFD	91
Agrait, N.	COLL	111	Ai, H.	ANYL	420	Akinmusire, T.	AGFD	92
Agrawal, V.	CATL	294	Ai, Y.	MEDI	373	Akinmusire, T.	ENVR	587
Agrawal, V.	PMSE	322	Aiba, Y.	INOR	923	Akkaraju, V.	BIOL	46
Aguilar, M.	CHED	1214	Aieta, N.V.	I&EC	163	Akkineni, S.	GEOC	46
Aguilar, R.	INOR	881	Aigner, M.	CATL	383	Akkiraju, K.	CATL	240
Aguilar, R.	INOR	883	Aigner, M.	CATL	493	Akley, C.	CHED	267
Aguilar, S.	PMSE	577	Aikens, C.	MEDI	163	Akocak, S.	MEDI	311
Aguiluz, E.	CHED	1519	Aikens, C.	MEDI	164	Akono, A.	GEOC	282
Aguirre, G.	CHED	711	Aikens, C.M.	COMP	316	Akopov, G.	INOR	763
Aguirre, J.	INOR	1123	Aikens, C.M.	COMP	334	Akselrod, K.	CHED	1013
Aguirre-Flores, A.	AGFD	136	Aikens, C.M.	I&EC	154	Akula, B.	MEDI	34
Agwaramgbo, E.	CHED	1586	Aikens, C.M.	PHYS	329	Akula, B.	MEDI	210
Ahamed, R.A.	ANYL	107	Aires-Barros, M.	BIOT	210	Akula, P.	MEDI	67
A Hamid, P.	I&EC	39	Aitken, J.A.	CHED	888	Al-Abdullatif, S.	BIOL	307
Ahammad, T.	CHED	1740	Aitken, J.A.	PROF	33	Al-Abdul-Wahid, S.	BIOT	335
Aharon, T.	PHYS	222	Aitken, M.	ENVR	473	Al-Abed, S.R.	ENVR	579
Aharon, T.	PHYS	328	Aizenberg, J.	CATL	276	Alabugin, I.	ORGN	309

Alahmadi, I.	COLL	333	Albert, J.N.	PMSE	345	Aleuy, L.	CHED	2115
Alaimo, C.	ENVR	415	Albert, J.N.	PMSE	363	Alex, A.	ENVR	3
Alalq, I.	CATL	362	Albert, J.N.	PMSE	400	Alexander, A.T.	MEDI	325
Alalwan, H.	ENFL	510	Albert, J.N.	PMSE	602	Alexander, B.W.	ORGN	531
Alam, F.	ANYL	287	Albert, J.N.	POLY	806	Alexander, C.	POLY	453
Alam, M.E.	BIOT	492	Albin, T.J.	BIOL	136	Alexander, C.R.	BIOL	196
Alam, M.N.	CHED	110	Albrecht, K.O.	CATL	380	Alexander, J.S.	CHED	175
Alam, M.	ENVR	43	Albrecht, K.O.	CATL	444	Alexander, J.	CHED	25
Alam, M.A.	MEDI	125	Albrecht, K.O.	ENFL	404	Alexander, J.	CHED	50
Alam, M.A.	MEDI	179	Albrecht, T.	COLL	340	Alexander, K.	CHED	1630
Alam, M.	BIOT	562	Albright, V.	PMSE	57	Alexander, K.	CHED	1915
Alam, R.	MEDI	80	Alcalde, R.E.	ENVR	80	Alexander, M.S.	CINF	1
Alam, S.	BIOL	132	Alcalde, R.E.	ENVR	82	Alexander, N.P.	COLL	76
Alam, S.	CATL	470	Alcantar, M.	CHED	1791	Alexander, R.P.	MEDI	25
Alam, S.	ORGN	384	Alcantara, A.F.	PMSE	267	Alexander, S.C.	BIOL	229
Alam, T.M.	POLY	68	Alcorta, M.	NUCL	21	Alexander, S.	PMSE	598
Alam, T.M.	POLY	525	Alcoutlabi, M.	POLY	79	Alexander, T.S.	ORGN	600
Alameda, L.	INOR	836	Aldabagh, H.	COMP	86	Alexander, V.	INOR	1088
Alameda, L.	INOR	1364	Aldakhlallah, R.	CHED	523	Alexander, W.A.	CHAS	32
Al-Ameer, M.H.	COLL	200	Aldakkan, B.S.	ENFL	233	Alexander, W.A.	CHAS	33
AlAmer, M.	ENFL	128	Aldalbahi, A.	POLY	72	Alexander, W.A.	ENVR	419
Alamgir, A.	ANYL	114	Aldawsari, A.	ENVR	595	Alexandropoulos, D.I.	INOR	423
Alamgir, S.	COLL	278	Alden, S.	COLL	282	Alexandropoulos, D.I.	INOR	969
Alamo, R.G.	PMSE	473	Alder, N.N.	COMP	326	Alexandropoulos, D.I.	INOR	1122
Alamo, R.G.	PMSE	594	Alderborn, G.	COLL	162	Alexandrova, A.	CATL	38
Alaniz, S.A.	CHED	1572	Alderfer, K.	CHED	628	Alexandrova, A.	CATL	155
Alao, O.J.	CHED	672	Alderfer, K.	CHED	1850	Alexandrova, A.	COMP	70
Al-Aqtash, N.	COLL	443	Alderfer, K.	POLY	700	Alexandrowicz, G.	PHYS	229
Alarabi, A.	CHED	568	Alderman, C.	CHED	1596	Alexandrowicz, G.	PHYS	589
Alarousu, E.	ANYL	279	Aldongarov, A.	ENVR	550	Alexanian, E.J.	ORGN	97
Al Assad, M.	INOR	589	Aldongarov, A.	PHYS	436	Alexanian, E.J.	POLY	755
Alavattam, S.	BIOT	213	Aldous, D.	ENFL	279	Alexishin, S.A.	BIOL	11
Alawwa, N.D.	CHED	1864	Aldrich, C.C.	MEDI	102	Alexishin, S.A.	INOR	194
Alazmi, A.S.	INOR	168	Aldrich, C.C.	MEDI	104	Alfalah, S.	ENFL	525
Alb, A.M.	POLY	75	Aldrich, C.C.	ORGN	515	Alfaro, A.	CHED	573
Albalawi, F.	ENVR	528	Aldrich, C.C.	ORGN	616	Alfonso, D.	CATL	278
Albalawi, M.	ENVR	537	Aldrich, R.W.	BIOL	8	Alfonso, F.	COLL	207
Albanese, S.	COMP	417	Aleger, N.V.	INOR	742	Alfonso, P.J.	BIOT	214
Albano, T.	BIOT	341	Alegria, A.	PMSE	298	Alfonso, P.J.	BIOT	355
Albarracin, J.	I&EC	54	Aleksić, S.	CARB	8	Alfonso Castro, A.	CHED	1078
Albergamo, A.	AGFD	198	Aleksich, M.	CHED	405	Alfonzo, E.	ORGN	179
Albergamo, V.	ANYL	30	Aleman, E.A.	AGFD	84	Alford, A.	COLL	776
Albergamo, V.	ENVR	784	Aleman, E.A.	CHED	1709	Alford, A.	PMSE	274
Albericio, F.	ENVR	266	Aleman, E.A.	CHED	1714	Alford, A.	POLY	796
Albericio, F.	MEDI	105	Aleman, E.A.	CHED	1922	Alfred, C.R.	AGFD	54
Alberstein, R.	COLL	439	Aleman, E.A.	CHED	2048	Alfredo, K.A.	ENVR	70
Albert, J.	BIOT	196	Aleman, E.A.	CHED	2123	Algahamdi, A.	ENVR	625
Albert, J.	CHED	1763	Aleman, N.Y.	ORGN	473	Algama, M.A.	ORGN	739
Albert, J.	PMSE	150	Alessa, L.	MPPG	10	Al-Ghabeish, M.	ANYL	118
Albert, J.	PMSE	177	Alessi, D.	ANYL	388	Al-Gharrawi, M.	CATL	355
Albert, J.	PMSE	552	Alessi, D.	ENVR	43	Alghunaim, A.	PMSE	323
Albert, J.	POLY	283	Alessi, D.	GEOC	70	Algoul, S.T.	COLL	768
Albert, J.N.	CHED	1274	Alessi, D.	GEOC	152	Al Habsi, J.	ORGN	651
Albert, J.N.	PMSE	333	Aletty, K.	CHED	1038	Al Hageh, C.	INOR	589
Albert, J.N.	PMSE	335	Aletty, K.	CHED	1052	Alhallak, I.	CHED	1684

Al-Hamashi, A.	MEDI	409	Al-Karadaghi, S.	MEDI	319	Allen, W.E.	ORGN	444
Alharbi, S.F.	CHED	351	Alkayal, N.	PMSE	599	Allen, W.E.	ORGN	445
Al-Hashimi, H.M.	MEDI	301	Al-Khalifa, S.	ORGN	225	Allen, Z.	CHED	1392
Al-Hashimi, M.	POLY	349	Alkhandra, M.	PMSE	578	Allen, Z.	CHED	1609
Al-Hashimi, M.	POLY	765	Al-Kharji, N.	MEDI	390	Allendorf, M.	CATL	397
Al-Horani, R.A.	MEDI	159	Alkhashab, H.	GEOC	276	Allendorf, M.	ENFL	147
Alhroob, I.	PHYS	447	Alkhatib, E.	CHED	980	Allendorf, M.	ENFL	277
Ali, A.	ENVR	191	Alkhatib, E.	ENVR	625	Allendorf, M.	INOR	432
Ali, A.	ENVR	284	Al-Khayat, Z.	ENVR	625	Allendorf, M.	INOR	730
Ali, A.	GEOC	22	Alkheishali, N.	CHED	823	Allendorf, M.	INOR	1181
Ali, A.	GEOC	128	Alkhudhari, O.	CHED	1073	Allentoff, A.J.	MEDI	297
Ali, A.	GEOC	129	Alkire, G.	BIOT	385	Alley, K.A.	CHED	1640
Ali, A.	GEOC	130	Allan, K.M.	BIOL	58	Allgaier, J.	PMSE	94
Ali, A.	MEDI	238	Allan, K.M.	BIOL	239	Allgeyer, E.	BIOL	56
Ali, A.	MEDI	257	Allbritton, E.	CHED	1352	Allgeyer, E.	CHED	700
Ali, A.	MEDI	327	Allbritton, E.	CHED	1838	Allgood, G.	PRES	2
Ali, A.S.	BIOT	29	Allbritton, E.	INOR	967	Allie, S.	POLY	13
Ali, B.	ENFL	66	Allec, S.I.	COMP	333	Allie, S.	POLY	531
Ali, G.	CHED	2130	Allego, E.	CHED	1761	Allimuthu, D.	MEDI	43
Ali, H.	MEDI	42	Allego, E.	CHED	1820	Alliot, C.	NUCL	63
Ali, H.	CHED	1486	Allegrezza, M.	POLY	154	Allis, D.	INOR	313
Ali, M.	POLY	47	Allegrezza, M.	POLY	161	Allis, D.	INOR	319
Ali, M.	INOR	204	Allegrezza, M.	POLY	285	Allison, J.D.	ENFL	268
Ali, M.F.	CHED	124	Allegrezza, M.	POLY	803	Allison, N.T.	CHED	2119
Ali, M.F.	CHED	415	Alleman, T.	ENFL	96	Allison, S.	INOR	874
Ali, M.F.	CHED	768	Allen, A.	INOR	945	Allman, A.	BIOT	27
Ali, M.	CHED	1569	Allen, A.	INOR	1264	Allman, E.	BIOL	209
Ali, R.O.	CHED	1037	Allen, C.	CHED	2062	Allmendinger, S.	ORGN	198
Ali, S.O.	CHED	2203	Allen, C.	PHYS	283	Allmon, S.D.	CHED	1306
Alia, J.D.	CHED	871	Allen, C.	PHYS	585	Allodi, M.A.	ANYL	246
Aliahmad, N.	PMSE	250	Allen, C.	PROF	2	Allonas, X.	POLY	181
Alibabei, L.	INOR	1066	Allen, D.	ENVR	418	Allongue, P.	CATL	78
Alibozek, R.	ANYL	214	Allen, G.H.	CHED	794	Allongue, P.	CATL	181
Alickolli, I.	BIOT	296	Allen, G.H.	CHED	826	Allouche, E.M.	ORGN	575
Aliff, H.	CHED	1815	Allen, H.	CHED	48	Allouche, E.M.	ORGN	86
Aliff, H.	CHED	1251	Allen, H.	CHED	2200	Allouche, E.M.	ORGN	158
Ali Kizi, T.	CHED	1411	Allen, H.C.	ENVR	377	Allred, J.	COLL	592
Alimoradi Jazi, M.	COLL	120	Allen, H.C.	ENVR	646	Allred, J.	INOR	780
Alinajafi, H.	ENFL	174	Allen, H.C.	MPPG	16	Allred, J.	INOR	781
Alivisatos, P.	COLL	36	Allen, H.C.	YCC	25	Allred, Z.	CHED	165
Alivisatos, P.	COLL	41	Allen, J.E.	INOR	81	Allred, Z.	CHED	826
Alivisatos, P.	COLL	144	Allen, J.E.	INOR	251	Al-Maadeed, M.A.	POLY	360
Alivisatos, P.	COLL	145	Allen, J.K.	CHED	1102	Al-Majid, A.	ORGN	322
Alivisatos, P.	COLL	362	Allen, K.	INOR	441	Almalki, A.	ENVR	625
Alivisatos, P.	COLL	420	Allen, K.	CHED	1752	Almalki, F.	CATL	190
Alivisatos, P.	COLL	763	Allen, K.	CHED	1793	Almallahi, R.	POLY	472
Aliyan, A.	BIOL	281	Allen, K.M.	ORGN	639	Almanasrah, E.	ORGN	438
Aliyu, A.A.	ANYL	201	Allen, M.J.	ENFL	18	Almaraz, M.I.	CHED	744
Alizadeh, N.	CELL	427	Allen, N.D.	CHED	1128	Almarwani, B.M.	ANYL	172
Alizadeh, N.	PMSE	322	Allen, N.D.	CHED	1134	Almarwani, B.M.	BIOL	243
Aljowni, M.A.	MEDI	195	Allen, R.D.	PMSE	112	Al-Mashharawi, S.	AGFD	32
Alkan, F.	COMP	334	Allen, R.J.	INOR	1247	Al-Masri, D.	PHYS	68
Alkan, F.	I&EC	154	Allen, R.	ORGN	225	Almeida, N.	PHYS	449
Alkan, M.	COMP	280	Allen, W.E.	ORGN	441	Alminshid, A.H.	COLL	699
Alkan, M.	COMP	422	Allen, W.E.	ORGN	443	Almirall, J.	ANYL	270

Almirall, J.	ANYL	410	Altman, S.	INOR	584	Amato, D.V.	POLY	130
Almkhelfe, H.	CATL	436	Altoe, V.	COLL	381	Amato, D.V.	POLY	242
Almonacid, S.	AGFD	141	Altomare, A.	ENVR	647	Amato, D.V.	POLY	517
Almubayedh, S.	ORGN	90	Alvarado, J.J.	COMP	302	Amato, D.V.	POLY	576
Almughamsi, H.	ANYL	7	Alvarez, E.	CHED	1425	Amato, D.V.	POLY	41
Almutairi, A.	COLL	68	Alvarez, K.	CHED	1885	Amato, D.V.	POLY	231
Almutairi, A.M.	ENVR	607	Alvarez, M.	ANYL	129	Amato, D.V.	POLY	243
Alnabolsi, A.	CHED	1827	Alvarez, M.	ANYL	139	Amato, D.V.	POLY	482
Al-Najji, M.	CATL	213	Alvarez, M.	ANYL	140	Amato, D.V.	POLY	488
Al-Najji, M.	CATL	266	Alvarez, M.	CHED	792	Amatucci, G.	ENFL	254
Alniss, H.	ANYL	117	Alvarez, M.	CHED	823	Amaya, P.	BIOT	169
Alomainy, O.	CHED	1525	Alvarez, M.	CHED	1913	Ambrogio, M.	NUCL	17
Aloni, S.	COLL	379	Alvarez, M.	CHED	2010	Ambroise, C.	MEDI	321
Aloni, S.	INOR	767	Alvarez, P.J.	ENVR	78	Ambrose, E.A.	MEDI	192
Alonso, V.	CHED	186	Alvarez, P.J.	ENVR	204	Ambrose, E.A.	MEDI	413
Al-owaedi, O.A.	COLL	340	Alvarez, W.E.	CATL	224	Amedro, H.	PMSE	490
Alp, J.	MEDI	168	Álvarez, G.	PHYS	2	Ameduri, B.M.	POLY	505
Alper, B.J.	CHED	590	Álvarez-Asencio, R.	POLY	333	Ameen, M.A.	MEDI	162
Alper, B.J.	COMP	200	Álvarez-Asencio, R.	POLY	795	Amemiya, K.	ANYL	106
Alper, B.J.	COMP	201	Álvarez Benedicto, E.	ORGN	729	Amemiya, K.	ENVR	590
Alper, H.S.	BIOT	472	Alvarez-Cohen, L.	ENVR	453	am Ende, C.	CHED	1664
Alper, H.S.	BIOT	545	Alvarez-Cohen, L.	ENVR	560	am Ende, C.	MEDI	40
Alpers, C.	GEOC	127	Alvarez-Cohen, L.	ENVR	713	am Ende, C.	MEDI	321
Al-Qadi, N.	CHED	1323	Alvarez-Cohen, L.	ENVR	762	am Ende, C.	ORGN	220
Alqurafi, M.	MEDI	390	Alvarez-Cohen, L.	ENVR	762	Amer, H.	CELL	335
Alrashdi, A.	ENVR	625	Alvarez-Puebla, R.A.	COLL	583	Ames, W.M.	CHED	1524
Alrashdi, N.	ORGN	398	Alvarez- Sanchez, C.	ENFL	385	Ames, W.M.	INOR	1357
Alrawi, W.M.	ANYL	200	Alves, C.	POLY	443	Amicangelo, J.C.	CHED	1720
Al-Saleh, A.	ORGN	86	Alves, C.R.	POLY	588	Amicucci, M.	AGFD	43
Alsam, A.	PHYS	491	Alves, V.M.	BIOT	465	Amicucci, M.	AGFD	147
Alsarraji, M.K.	CHED	863	Alves, V.M.	ENVR	420	Amiens, C.	INOR	171
Alsarraji, M.K.	CHED	1864	Alves, W.A.	PMSE	224	Amiji, M.	COLL	169
Alsaydeh, S.A.	ENFL	544	Alves de Melo Junior, M.	INOR	1060	Amin, A.	POLY	514
Al-Saygh, A.	POLY	360	al-Wahish, A.	INOR	1160	Amin, B.G.	ENFL	330
Al-Sayyad, N.	POLY	110	Al-Yafeai, M.A.	INOR	904	Amin, S.	AGFD	22
Al-Sheikhly, M.	ANYL	291	Alyami, M.	PMSE	323	Amin, S.M.	CHED	797
Alshreimi, A.	ORGN	199	Alzari, V.	POLY	185	Amini, S.	CATL	439
Alsip, C.	CHED	1052	Alzobaidi, S.	COLL	566	AminiTabrizi, R.	ENVR	593
Alsop, R.	POLY	739	Alzweri, L.M.	AGFD	131	Aminzadeh, S.	CELL	277
Alsop, R.	BIOT	216	Amako, Y.	ORGN	30	Amirbahman, A.	GEOC	119
Alsop, R.	BIOT	280	Amama, P.B.	CATL	436	Amith, W.D.	PHYS	440
Alstadt, V.	PHYS	462	Amand, G.	INOR	574	Amos, R.A.	CELL	64
Alt, A.	ORGN	303	Amanda, B.M.	INOR	1008	Amoureux, J.	CATL	417
Alt, E.	POLY	140	Amar, L.	CHED	1184	Amoureux, J.	POLY	674
Al-Taher, F.	AGFD	79	Amara, J.P.	BIOT	162	Ampiah, E.	GEOC	234
Altaner, C.	CELL	207	Amarikwa, L.	BIOT	364	Ampomah, N.	COLL	261
Altay, E.	POLY	791	Amarnath, K.	PHYS	178	Amrose, S.	ENVR	363
Altel, T.H.	ORGN	23	Amaro, R.E.	COMP	323	Amstutz, A.	ANYL	292
Altel, T.H.	ORGN	63	Amato, D.	POLY	41	An, H.	ORGN	713
Althahban, S.M.	ENFL	35	Amato, D.	POLY	130	An, H.	PMSE	105
Altman, R.	COLL	724	Amato, D.	POLY	242	An, K.	ENFL	308
Altman, R.	PHYS	417	Amato, D.	POLY	576	An, M.	ENFL	364
Altman, R.	PHYS	446	Amato, D.N.	POLY	231	An, P.	BIOL	216
Altman, S.	CHED	1191	Amato, D.N.	POLY	243	An, Q.	ENFL	446
Altman, S.	INOR	186	Amato, D.N.	POLY	482	An, S.	ENVR	17
			Amato, D.N.	POLY	488			

An, S.	ENVR	280	Anderson, K.	CHED	1182	Andreola, L.	CHED	1820
An, T.	ENVR	144	Anderson, K.	POLY	147	Andresen, K.	CHED	1285
An, W.	ORGN	452	Anderson, L.L.	WCC	12	Andreussi, O.	CATL	81
An, Y.	BIOL	10	Anderson, L.	POLY	811	Andrew, C.R.	CHED	722
Anamoaah, C.	ORGN	427	Anderson, M.E.	BIOL	245	Andrews, D.M.	MEDI	293
Anand, M.	CATL	478	Anderson, N.C.	INOR	172	Andrews, L.	CHED	363
Anand, R.	MEDI	257	Anderson, N.C.	INOR	591	Andrews, M.K.	MEDI	39
Ananth, R.	COLL	221	Anderson, N.	INOR	886	Andrews, P.C.	INOR	1254
Ananth, R.	COLL	726	Anderson, N.	INOR	1193	Andrews, P.I.	CINF	22
Anantheswaran, R.C.	CARB	55	Anderson, N.	INOR	1294	Andrianova, A.	CELL	216
Anantram, M.	ENFL	525	Anderson, N.H.	INOR	1192	Andrianova, A.	POLY	80
Anareddy, R.S.	PHYS	625	Anderson, R.	HIST	38	Andricioaei, I.	COMP	81
Anastas, P.T.	CHED	245	Anderson, R.E.	CHED	1445	Andrienko, D.	POLY	248
Anastasaki, A.	PMSE	124	Anderson, R.	ENFL	492	Andrieu-Brunsen, A.	CELL	90
Anastasaki, A.	POLY	213	Anderson, R.	I&EC	142	Andrieu-Brunsen, A.	COLL	614
Anastasaki, A.	POLY	214	Anderson, S.	ANYL	109	Andris, S.	BIOT	217
Anastasia, C.M.	CHED	121	Anderson, S.L.	CATL	151	Andronescu, C.	ENFL	394
Anazia, K.	CHED	635	Anderson, S.L.	COLL	441	Andronescu, C.	PMSE	134
Anchukaitis, H.M.	CHED	1436	Anderson, T.J.	PROF	26	Androniuk, I.	GEOC	51
Andaraarachchi, H.	COLL	503	Anderson, V.	CHED	1104	Androshchuk, I.	ENFL	397
Andaraarachchi, H.	INOR	826	Anderson, V.	BIOL	22	Andrus, M.	ORGN	740
Andaraarachchi, H.	INOR	1055	Anderson, W.	POLY	142	Andze, L.	CELL	87
Ander, M.	BIOT	293	Anderson, Z.	CHED	604	Andzelm, J.	POLY	341
Andersen, C.J.	CHED	463	Anderson-Wile, A.	INOR	254	Anemone, E.	CHAS	47
Andersen, J.	CHED	2045	Andersson, H.	ORGN	585	Angart, P.	BIOT	215
Andersen, M.	CELL	117	Andersson, M.	COLL	747	Angart, P.	BIOT	253
Andersen, O.S.	MEDI	107	Andersson, N.	BIOT	344	Angelbello, A.	CARB	13
Anderson, A.	ENVR	74	Andersson, N.	BIOT	560	Angeles, A.R.	ORGN	618
Anderson, B.	INOR	1101	Andersson, S.	CATL	439	Angeles, L.	ENVR	11
Anderson, B.G.	CHED	907	Andersson, S.	COMP	404	Angeles Boza, A.M.	INOR	17
Anderson, B.	COMP	257	Andersson, S.	PHYS	309	Angelini, T.	COLL	359
Anderson, B.	NUCL	17	Andersson, S.	PHYS	361	Angelis, F.D.	PHYS	383
Anderson, B.	NUCL	65	Anderton, K.	INOR	610	Angelo, J.M.	BIOT	509
Anderson, B.	NUCL	73	Anderton, K.	INOR	1258	Angelo, J.M.	BIOT	558
Anderson, B.	NUCL	95	Anderton, M.	MEDI	293	Angelovski, G.	BIOL	100
Anderson, C.M.	COLL	713	Ando, K.	COLL	469	Anger, M.L.	INOR	342
Anderson, C.J.	FLUO	69	Ando, K.	COLL	715	Angle, K.J.	CHED	1122
Anderson, C.	CHED	817	Andrade, C.	BIOT	465	Angnes, R.A.	INOR	698
Anderson, C.	CHED	823	Andrade, C.H.	ENVR	420	Anguera Antonana, M.	COLL	482
Anderson, D.G.	ANYL	17	Andrade, J.	CHED	528	Angulo, J.	CELL	310
Anderson, E.	CATL	523	Andrade, J.	CHED	577	Anides Morales, A.	CHED	676
Anderson, G.	ENFL	492	Andrade, L.	CHED	2039	Anifowose, A.	MEDI	176
Anderson, H.	CHED	749	Andrade, L.	GEOC	255	Anikushin, B.	CATL	487
Anderson, I.	COLL	696	Andrade, N.A.	ENVR	301	Anjanappa, P.	MEDI	367
Anderson, I.C.	CHED	1431	Andrade, V.D.	GEOC	86	Anjong, T.	INOR	502
Anderson, J.S.	PHYS	638	Andre, A.	CHED	1871	Anjong, T.	INOR	580
Anderson, J.L.	ANYL	331	André, G.	INOR	83	Anjum, D.	CATL	41
Anderson, J.	CHED	1853	Andreana, P.R.	CHED	1265	Ankeny, M.	ENVR	704
Anderson, J.	INOR	609	Andreanksy, E.S.	ORGN	730	Anker, J.N.	ANYL	282
Anderson, J.	CHED	1392	Andreasen, N.R.	CHED	453	Anker, J.N.	ANYL	285
Anderson, K.	MEDI	271	Andree, S.	MEDI	353	Anketell, D.	CHED	759
Anderson, K.	CHED	2	Andreen, A.	ANYL	127	Anketell, D.	CHED	1248
Anderson, K.E.	CHED	147	Andreev, A.S.	CATL	418	Ankisetty, S.	ORGN	742
Anderson, K.	MEDI	69	Andrella, N.O.	INOR	22	Anklin, C.	ANYL	27
Anderson, K.	CHED	751	Andrén, O.C.	POLY	797	Ankner, J.	POLY	796

Anmol, T.	ENVR	415	Aoki, D.	CELL	45	Arancillo, M.	MEDI	95
Anmol, T.	ENVR	472	Aoki, I.	POLY	446	Aranda, P.	PMSE	152
Annable, T.	COLL	354	Aoki, M.	PMSE	325	Aranda, P.	PMSE	205
Annapragada, A.V.	FLUO	44	Aoki, M.	COMP	17	Aranda, P.	PMSE	209
Anokhina, V.	CARB	15	Aoki, N.	CHED	1020	Aranda, R.M.	MEDI	146
Anorma, C.	BIOL	310	Aparicio, C.	COLL	137	Aranda-Pérez, N.	CATL	521
Anovitz, L.	GEOC	258	Aparicio, M.	ORGN	396	Araneda, J.	CHED	106
Ansari, A.	CHED	1033	Aparicio-Martinez, S.	PHYS	69	Araneda, J.	I&EC	117
Ansari, F.	CELL	4	Apblett, A.W.	COLL	56	Arango-Velez, A.	CHED	385
Ansari, K.	CATL	473	Apblett, A.W.	COLL	264	Aranibar, N.	BIOT	12
Ansari, P.	COLL	268	Apblett, A.W.	INOR	170	Araque, J.C.	PHYS	339
Ansel, A.Q.	ORGN	137	Apel, C.	CHED	1052	Arau, V.	CHED	1297
Antal, M.J.	ENFL	14	Apgar, J.	MEDI	92	Arau, V.	COLL	510
Antczak, N.M.	CHED	577	Apgar, J.	MEDI	93	Arbaugh, B.S.	CHED	2084
Anthamatten, M.L.	POLY	359	Apkarian, V.A.	PHYS	301	Arbelaiz, A.	CELL	102
Anthamatten, M.L.	POLY	414	Aplan, M.	POLY	768	Arbitman, J.	ORGN	516
Antholine, W.E.	INOR	920	Aplan, M.P.	POLY	771	Arbogast, L.W.	BIOT	524
Anthony, A.	MEDI	166	Apley, K.	I&EC	138	Arboleda, C.	COLL	68
Anthony, A.	MEDI	315	Apostolidis, A.	BIOT	445	Arbour, C.	ORGN	709
Anthony, C.E.	ORGN	698	Apostolopoulou Kalkavoura, V.	CELL	13	Arca, E.	INOR	1156
Anthony, J.E.	PHYS	125	Appadoo, V.	BIOT	503	Arce, H.	CHED	818
Anthony, K.	AGFD	63	Appel, A.M.	INOR	863	Arce, M.	POLY	578
Anthony, K.	AGFD	180	Appel, E.A.	POLY	108	Archer, M.	GEOC	219
Anthony, K.	AGFD	194	Appel, J.R.	PROF	3	Archuleta, S.	ORGN	466
Anthony, K.	ENVR	595	Appell, M.	AGFD	40	Arcidiacono, A.M.	INOR	474
Anthony, K.	MEDI	217	Appell, M.	COMP	294	Arcis, H.	CHED	1688
Anthony, T.P.	ANYL	177	Appell, R.	CELL	193	Arcisaukaite, V.	COLL	29
Antia, F.	BIOT	356	Appleby, B.	POLY	516	Arciva, S.	ENVR	729
Antle, S.	BIOL	276	Appleby, B.	POLY	545	Arcure, H.	CHED	1832
Antochshuk, V.	BIOT	520	Applegate, J.	INOR	221	Arcure, H.	ORGN	623
Antonetti, D.A.	BIOT	183	Applegate, J.C.	CHED	1139	Ard, S.G.	PHYS	191
Antonietti, M.	CATL	369	Appold, M.	PMSE	278	Ardagh, A.	CATL	6
Antoniewicz, M.R.	BIOT	31	Appold, M.	PMSE	326	Ardagh, A.	I&EC	50
Antoniewicz, M.R.	BIOT	43	Apul, O.	ENVR	152	Ardebili, H.	PMSE	90
Antoniewicz, M.R.	BIOT	96	Aquilina, J.	INOR	484	Ardelean, J.	PHYS	248
Antonini, C.	CELL	430	Aquino, J.	CHED	450	Ardo, S.	INOR	1168
Antonio, M.R.	NUCL	19	Aquirre-Quintana, L.M.	INOR	1142	Ardon Munoz, L.	ORGN	82
Antono, E.	INOR	294	Arachchige, I.U.	INOR	1241	Ardrey, K.	POLY	562
Antonymsamy, A.	CHED	1066	Araga, R.	ENVR	172	Arena, J.	CHED	493
Antonymsamy, A.	COLL	370	Araga, R.	ENVR	173	Arenholz, E.	GEOC	251
Antonymsamy, A.	COLL	371	Aragó, J.	ORGN	295	Arens, R.	BIOL	262
Antos, J.	CHED	662	Aragon, A.	CATL	453	Areskog, D.	BIOT	219
Antos, J.	ORGN	588	Arai, M.	BIOL	87	Aretz, J.	CARB	8
Antropow, A.H.	ORGN	548	Arai, M.	MEDI	161	Aretz, J.	MEDI	318
Antukh, T.	ENVR	300	Arai, N.	MEDI	337	Arevalo, E.	ENVR	314
Antwi, J.	MEDI	344	Arai, S.	ORGN	30	Arey, B.	GEOC	186
Anumol, T.	ENVR	230	Arai, S.	ORGN	142	Arezina, A.	POLY	793
Anumol, T.	ENVR	410	Arai, Y.	MPPG	15	Argall, A.	PMSE	546
Anumol, T.	ENVR	786	Araj, R.	CHED	449	Arges, C.	ENFL	537
Anyaeche, R.O.	CHED	724	Araj, R.	CHED	1827	Arges, C.	PMSE	570
Anye, A.A.	ANYL	81	Arakaki, T.	MEDI	25	Argibay, N.	COLL	134
Anye, N.	PHYS	568	Arakaki, T.	MEDI	26	Argibay, N.	COLL	360
Anyika, M.	MEDI	356	Araki, K.	COLL	230	Argikar, U.A.	MEDI	271
Anzovino, M.	CHED	2051	Araki, Z.	INOR	1211	Arguelles, A.J.	CARB	88
Aoki, D.	POLY	371	Arambula, J.	INOR	585	Argüello, J.	PROF	47

Argueso, J.	GEOC	152	Armitage, B.A.	BIOL	50	Arrington, K.	POLY	752
Arguien, M.N.	POLY	101	Armitage, B.A.	CARB	16	Arroyave, A.	INOR	106
Argyropoulos, D.	ANYL	25	Armstrong, B.M.	ORGN	612	Arroyave, A.	INOR	672
Argyropoulos, D.	CELL	49	Armstrong, C.J.	ENVR	520	Arroyave, R.	INOR	1231
Argyropoulos, D.	CELL	185	Armstrong, D.L.	ENVR	302	Arroyo, A.	MEDI	196
Arias, C.J.	COLL	708	Armstrong, D.W.	ANYL	257	Arroyo, N.	ANYL	10
Arias, C.	CHED	773	Armstrong, J.	CHED	1456	Arroyo, N.	ANYL	253
Arias, D.	CHED	773	Armstrong, L.B.	CHED	2054	Arroyo-Maya, I.	CELL	301
Arias, D.	PHYS	125	Armstrong, N.R.	COLL	785	Arshi, A.	CHED	1348
Arias, M.R.	GEOC	84	Armstrong, Z.T.	CHED	1785	Arslan, I.	CATL	12
Arias, R.N.	INOR	1107	Arnadottir, L.	CATL	106	Arslan, M.	PMSE	535
Arias Chavez, L.H.	PMSE	35	Arnault, P.	NUCL	68	Artashyan, E.Y.	ORGN	157
Arifuzzaman, M.	ANYL	282	Arndt, A.	CHED	444	Artero, V.	INOR	516
Ariga, K.	PMSE	48	Arnet, N.	INOR	108	Artikis, E.	COMP	218
Aris, H.	ENVR	72	Arnet, N.	INOR	357	Artrith, N.	CATL	68
Aris, H.	ENVR	250	Arnet, N.A.	INOR	636	Arturo, S.G.	I&EC	60
Arisaka, Y.	COLL	705	Arnett, C.M.	ENVR	407	Arturo, S.G.	POLY	362
Aristilde, L.	ENVR	341	Arno, J.	INOR	625	Arturo, S.G.	POLY	365
Aristilde, L.	GEOC	175	Arnold, A.	INOR	258	Artyushkova, K.	CHED	1066
Ariya, P.A.	ENVR	557	Arnold, A.M.	ORGN	674	Artyushkova, K.	GEOC	128
Ariyathna, I.	PHYS	444	Arnold, A.	PMSE	327	Artyushkova, K.	GEOC	129
Ariyasu, S.	INOR	923	Arnold, C.	COLL	781	Artyushkova, K.	GEOC	130
Ariyibi, S.	PHYS	523	Arnold, H.	NUCL	98	Arua, U.N.	POLY	190
Arizaleta, M.L.	ENFL	14	Arnold, L.	MEDI	113	Arua, U.N.	POLY	405
Arjona Alonso, M.	CATL	306	Arnold, M.	PMSE	382	Arua, U.N.	POLY	532
Arjona Alonso, M.	CATL	322	Arnold, R.	ENVR	189	Arul, J.	AGFD	182
Arjona Alonso, M.	I&EC	112	Arnold, R.	ENVR	489	Arulsamy, N.	INOR	1082
Arjona Alonso, M.	I&EC	143	Arnold, W.	ENVR	15	Arulsamy, N.	INOR	1100
Arledge, T.J.	PHYS	531	Arnold, W.	ENVR	48	Arulsamy, N.	INOR	1190
Arlian, B.	CARB	84	Arnold, W.	ENVR	177	Arulsamy, N.	INOR	1303
Arlian, B.	CELL	159	Arnold, W.	ENVR	312	Arulsamy, N.	INOR	1377
Armas, S.M.	ANYL	225	Arnold, W.	ENVR	408	Arumugam, K.	INOR	585
Armas, S.M.	ANYL	286	Arnon, E.	PHYS	315	Arumugam, K.	INOR	1313
Armburst, K.L.	ENVR	239	Arnoult, E.	MEDI	75	Arunkumar, A.	BIOT	376
Armento, I.	CHED	1880	Arold, S.T.	MEDI	385	Arunkumar, A.	BIOT	447
Armento, I.	ORGN	508	Aron, K.	BIOT	258	Arvik, T.	AGFD	170
Armentrout, P.	PHYS	433	Aronne, L.	CHED	196	Arya, D.P.	CARB	27
Armentrout, P.B.	PHYS	561	Arora, A.	PMSE	178	Arya, H.	MEDI	106
Armentrout, P.B.	PHYS	572	Arora, A.	ORGN	353	Arya, S.	CHED	684
Armentrout, P.B.	PHYS	593	Arora, G.	CATL	91	Aryal, S.	COLL	547
Armentrout, S.	INOR	1421	Arora, J.S.	COLL	729	Aryal, S.	COLL	591
Armes, S.P.	COLL	62	Arora, J.S.	CATL	473	Aryal, S.	COLL	761
Armes, S.P.	COLL	354	Arora, S.	CHED	1375	Arza, C.	PMSE	185
Armes, S.P.	COLL	535	Arosio, P.	BIOT	49	Arza, C.	PMSE	186
Armes, S.P.	COLL	648	Arostegui, A.C.	INOR	26	Asaadi, S.	CELL	99
Armes, S.P.	POLY	103	Arpino, K.	INOR	575	Asada, N.	MEDI	189
Armes, S.P.	POLY	104	Arrachart, G.	CELL	272	Asadi, A.	CELL	376
Armes, S.P.	POLY	105	Arrachart, G.	PHYS	28	Asahi, T.	CELL	152
Armes, S.P.	POLY	106	Arredondo-Espinoza, E.	ORGN	636	Asakura, T.	POLY	533
Armes, S.P.	POLY	107	Arreola, A.	COLL	381	Asakura, T.	POLY	725
Armes, S.P.	POLY	288	Arreola-Hester, A.	ORGN	254	Asakura, T.	POLY	776
Armes, S.P.	POLY	296	Arriaga, E.A.	BIOT	33	Asano, A.	POLY	195
Armes, S.P.	POLY	347	Arrington, C.	PMSE	114	Asano, A.	POLY	324
Armes, S.P.	POLY	366	Arrington, D.	I&EC	110	Asano, M.	PMSE	328
Armes, S.P.	POLY	367	Arrington, K.	POLY	259	Asbury, J.B.	ANYL	243

Asbury, J.B.	ENFL	4	Assiri, T.	ENVR	625	Aube, J.	ORGN	610
Asbury, J.B.	ENFL	24	Astete, C.E.	AGFD	11	Aubol, B.	BIOL	74
Asbury, J.B.	PHYS	124	Aston, C.J.	CHED	530	Aubrecht, K.	CHED	1840
Aschebrock, T.	PHYS	147	Asua, J.	POLY	51	Aubrecht, K.	CHED	2006
Asfaha, T.	MEDI	214	Aswath, M.	BIOT	283	Aubry-Komin, T.	POLY	769
Asfour, H.	MEDI	385	Atalla, R.H.	CELL	210	Auclair, J.	CHAS	47
Asgari, P.	ORGN	613	Atalla, R.	CELL	210	Audie, J.H.	COMP	200
Asgar, F.	BIOL	273	Atangcho, L.	BIOT	85	Audie, J.H.	COMP	201
Asgar, W.	ANYL	6	Atchison, K.	MEDI	321	Audino, S.A.	CHAS	9
Ashbaugh, H.	CHED	2107	Atcitty, S.	INOR	1378	Audubert, C.	ORGN	459
Ashbaugh, H.	COMP	41	Atesin, T.	INOR	694	Audubert, C.	ORGN	581
Ashbaugh, H.	COMP	391	Athukorale, S.	COLL	766	Audus, D.	PMSE	26
Ashbaugh, H.	COMP	427	Atieh, E.L.	CHED	127	Auger, S.A.	ORGN	430
Ashbaugh, H.	PMSE	363	Atieh, E.L.	CHED	2015	Auguste, A.	POLY	631
Ashbaugh, H.	PMSE	602	Atifi, S.	CELL	66	Auguste, K.	ANYL	101
Ashcraft, A.	CATL	477	Atilgan, A.	INOR	122	Augustine, M.P.	GEOC	220
Ashcraft, P.	ENFL	168	Atilhan, M.	PHYS	69	Augustyn, E.	MEDI	315
Asheghali, D.	ANYL	53	Atilla-Gokcumen, G.	BIOL	89	Aukszi, B.	CHED	1650
Asher, J.C.	COMP	162	Atkin, J.	INOR	565	Aukszi, B.	CHED	1845
Ashfaq, M.	BIOT	428	Atkin, R.	COLL	425	Auletta, S.	MEDI	79
Ashizawa, T.	MEDI	22	Atkin, R.	PHYS	63	Aulin, Y.	INOR	1063
Ashkar, R.	COLL	21	Atkin, R.	PHYS	292	Ault, A.P.	CHED	445
Ashley, B.	INOR	1323	Atkin, R.	PHYS	656	Ault, A.P.	ENVR	369
Ashley, D.C.	INOR	201	Atkinson, E.J.	CHED	1749	Aurand, C.	ANYL	328
Ashley, W.L.	CHED	1380	Atkinson, J.	PMSE	218	Ausmus, A.	ORGN	427
Ashner, M.	PHYS	478	Atkinson, M.B.	CHED	236	Aussenac, F.	POLY	136
Ashoori, N.	ENVR	64	Atkinson, W.	GEOC	236	Austin, R.N.	INOR	41
Ashoori, N.	ENVR	166	Atlas, L.	CHED	94	Austin, T.	POLY	210
Ashoori, N.	ENVR	460	Atlas, L.	CHED	1884	Autillo, M.G.	NUCL	33
Ashraf, M.	ANYL	118	Atlas, S.	YCC	6	Autillo, M.G.	NUCL	47
Ashton, K.	MEDI	255	Atlas, S.R.	PHYS	269	Autreto, P.	ENFL	105
Ashurst, R.	CELL	372	Atmodjo, M.A.	CELL	64	Autrey, D.E.	ANYL	57
Asif, M.	POLY	655	Atmuri, N.	ORGN	530	Autrey, T.	ENFL	203
Asino, T.I.	ORGN	320	Atsango, A.	INOR	991	Autrey, T.	ENFL	204
Asirwatham, L.	CHED	821	Atsumi, S.	BIOT	550	Autrey, T.	ENFL	205
Askar, S.	PMSE	551	Attanayake, G.K.	ORGN	413	Autrey, T.	ENFL	340
Askim, J.	ANYL	174	Attard, J.	ORGN	234	Autrey, T.	ENFL	378
Aslam, U.	PHYS	35	Attard, J.	ORGN	237	Autrey, T.	ENFL	439
Asmafiliz, N.	INOR	1212	Attie, A.	MEDI	216	Autry, S.	INOR	1199
Asmis, K.R.	YCC	20	Atuk, E.B.	BIOL	75	Autry, S.	INOR	1276
Asmis, K.R.	YCC	21	Atwater, H.	MPPG	22	Autry, S.	ORGN	292
Aspelund, M.T.	BIOT	538	Atwood, A.	CHED	924	Autry, S.	PHYS	540
Aspuru-Guzik, A.	COMP	49	Atwood, C.H.	CHED	64	Autschbach, J.	CATL	419
Aspuru-Guzik, A.	COMP	52	Atwood, C.H.	CHED	297	Autschbach, J.	PHYS	279
Aspuru-Guzik, A.	ORGN	239	Atwood, J.L.	INOR	641	Auxier, J.D.	NUCL	66
Aspuru-Guzik, A.	PHYS	59	Atwood, P.H.	INOR	641	Auxier, J.D.	NUCL	87
Aspuru-Guzik, A.	PMSE	25	Atwood, S.G.	INOR	641	Avalle, P.	BIOT	82
Aspuru-Guzik, A.	COLL	480	Auad, M.	CELL	122	Avarvari, N.	COLL	374
Asraf, S.	PMSE	481	Auad, M.	CELL	129	Avarvari, N.	PHYS	10
Assadieskandar, A.	MEDI	203	Auad, M.	CELL	424	Avasara, S.	ENVR	191
Assary, R.	CATL	155	Auad, M.	CELL	427	Avasara, S.	GEOC	129
Assary, R.	CATL	449	Auad, M.	PMSE	322	Avasarala, S.	GEOC	128
Assary, R.	ENFL	50	Auad, M.	POLY	491	Avasare, V.	CATL	257
Assen, A.	INOR	727	Auad, M.L.	CELL	128	Avdeev, M.	INOR	1228
Assi, A.	ENVR	720	Auad, M.L.	CELL	306	Avellan, A.	ENVR	440

Averick, S.	COLL	688	Ayturk, E.	BIOT	362	Bachofer, S.J.	CHED	2132
Averick, S.	POLY	285	Ayyakkalai, B.	PMSE	576	Bachofer, S.J.	COLL	84
Avery, C.W.	ENVR	316	Ayyala, R.S.	BIOT	204	Bachofer, S.J.	POLY	194
Avery, E.	COLL	686	Azaldegui, C.	CHED	397	Backes, M.	AGFD	190
Avery, J.	ORGN	175	Azaldegui, C.	CHED	1907	Baco-Antoniali, F.	ENFL	95
Avery, K.	CELL	129	Azarfam, R.	POLY	405	Bacsa, J.	INOR	213
Avery, K.	CELL	306	Azarin, S.	BIOT	568	Bacsa, J.	INOR	218
Avery, T.	CHED	1034	Azevedo, A.	BIOT	210	Bacsa, J.	INOR	1348
Avila, C.	GEOC	13	Azevedo, E.	POLY	15	Bacsa, J.	INOR	1407
Avila, Y.I.	CHED	1276	Azhdarinia, A.	FLUO	72	Bacsa, J.	MEDI	55
Avila-Bront, L.	CATL	152	Azhgani, A.	CHED	635	Bacugalupa, Z.	BIOL	177
AV Muthiah, C.	I&EC	48	Aziz, T.N.	ENVR	110	Baczkowski, M.L.	CHED	121
Avraham, L.	POLY	656	Azizi, M.	BIOT	438	Badal, S.P.	ANYL	230
Avram, L.	INOR	751	Azoulay, J.	POLY	517	Badal Tejedor, M.	COLL	162
Awad, A.	CHED	1611	Azoulay, J.	POLY	518	Badani Prado, R.	POLY	343
Awad, A.	MEDI	205	Azoulay, J.	POLY	556	Baddam, N.	COMP	175
Awad, A.	GEOC	104	Azoulay, J.	POLY	598	Baddour, F.	CATL	384
Awazu, A.	COLL	716	Azoulay, J.D.	ENVR	400	Baddour, F.	CATL	394
Awwa, M.	MEDI	213	Azoulay, J.D.	ENVR	403	Baddour, F.	CATL	396
Axelrod, K.	CHED	676	Azoulay, J.D.	POLY	199	Baddour, F.G.	CATL	390
Axt, C.	CHED	1686	Azoulay, J.D.	POLY	313	Badejo, A.	CHED	1212
Ay, M.	MEDI	141	Azoulay, J.D.	POLY	519	Bader, G.	PMSE	597
Ayad, S.	INOR	742	Aztatzi-Pluma, D.	COMP	302	Badia, M.	ENVR	354
Ayad, S.	ORGN	9	Azzara, A.V.	ORGN	303	Badillo, J.J.	ORGN	554
Ayala, D.	GEOC	227	Azzaro, M.S.	PHYS	347	Badolato-Bönisch, G.	POLY	670
Ayala, P.C.	ENFL	53	Baalousha, M.	INOR	1393	Badorreck, J.	CELL	263
Ayala, S.	INOR	11	Baba, Y.	MEDI	310	Badria, F.	ORGN	322
Ayala Correa, L.	ANYL	335	Babaei Amameh, M.	CHED	711	Badshah, A.	BIOL	273
Ayala Orozco, C.	CATL	410	Babamale, H.F.	INOR	681	Badur, M.	BIOT	30
Ayala Valencia, G.	AGFD	145	Babcock, E.	CHED	1617	Badv, M.	CELL	97
Ayappa, G.K.	COLL	334	Babcock, E.	ORGN	480	Bae, S.	ANYL	115
Aydil, E.S.	INOR	145	Babikov, D.	PHYS	141	Bae, S.	ENVR	34
Aydil, E.S.	INOR	305	Babnigg, G.	COLL	572	Bae, Y.	ENVR	27
Ayele, T.	MEDI	302	Babuska, T.	COLL	134	Baechler, B.	AGFD	17
Ayers, P.	COMP	3	Babuska, T.	COLL	360	Baek, J.	ENVR	300
Ayers, P.	PHYS	273	Bacauanu, V.	ORGN	189	Baer, E.	PMSE	170
Ayers, P.	PHYS	569	Baccari, F.	ORGN	508	Baer, M.D.	GEOC	173
Ayers, P.	PHYS	592	Baccile, N.	CELL	351	Baer, R.R.	PHYS	315
Ayers, P.	PHYS	637	Baccile, N.	COLL	663	Baer, S.W.	CHED	1526
Ayers, P.	PHYS	638	Baccile, N.	COLL	741	Baer, S.W.	CHED	1881
Ayers, P.	PHYS	640	Bach, J.	MEDI	8	Baerends, E.	PHYS	595
Ayers, P.	PHYS	641	Bach, S.B.	AGFD	119	Baertschi, S.W.	ANYL	418
Ayon, N.J.	BIOL	246	Bachem, G.	BIOL	279	Baez, A.	CHED	1803
Ayoola, P.B.	AGFD	59	Bacher, G.	I&EC	65	Baez, S.	CHED	1807
Ayotte, P.	PHYS	229	Bachert, J.	POLY	89	Baeza, M.A.	INOR	881
Ayotte, P.	PHYS	589	Bachman, A.J.	INOR	56	Bafana, A.	INOR	1160
Ayoub, A.M.	MEDI	38	Bachman, J.C.	ENFL	469	Bagayoko, D.	PHYS	36
Ayoub, A.	CELL	276	Bachman, J.	INOR	32	Bagdasarian, A.L.	ORGN	593
Ayoub, G.	COLL	427	Bachman, J.	PMSE	239	Baghbanzadeh, M.	COLL	480
Ayres, N.	CHED	724	Bachman, R.E.	CHED	2090	Bagheri, M.	MEDI	330
Ayres, N.	POLY	580	Bachman, R.E.	INOR	56	Bagherzadeh, S.	INOR	52
Ayson, P.	CHED	1922	Bachman, R.E.	INOR	370	Bagley, J.	ENFL	109
Ayson, P.	CHED	2048	Bachman, R.E.	INOR	410	Bague, D.	ENFL	382
Aytemiz, D.	POLY	195	Bacho, A.	POLY	495	Bagus, P.S.	GEOC	251
Ayturk, E.	BIOT	298	Bachofer, S.J.	CHED	87	Bah, A.	POLY	568

Bah, A.	POLY	628	Bajaj, A.	PMSE	344	Bakula, B.	COMP	392
Bahlmann, L.	PMSE	597	Bajaj, P.	PHYS	161	Bal, R.	INOR	479
Bahnson, E.M.	CHED	524	Bajema, E.A.	INOR	1007	Bala, S.	BIOL	291
Bahoosh, S.G.	COLL	345	Bajorath, J.	COMP	171	Balaich, G.J.	INOR	953
Bahrani, B.	ENVR	298	Bajpai, A.	CATL	107	Balaich, G.J.	POLY	549
Bai, C.	PMSE	256	Bajwa, S.	PMSE	585	Balaj, A.	CHED	1662
Bai, F.	COLL	64	Bak, D.	BIOL	200	Balakshin, M.	CELL	214
Bai, F.	COLL	745	Bak, J.	COLL	720	Balakshin, M.	CELL	410
Bai, L.	POLY	25	Bakare, O.	COMP	197	Balamurugan, S.S.	POLY	293
Bai, L.	CELL	265	Bake, K.D.	ENFL	462	Balan, A.	COLL	144
Bai, L.	CELL	342	Baken, K.A.	CINF	107	Balana, A.J.	BIOL	127
Bai, L.	CELL	387	Baker, A.	CHED	1369	Balaña Fouce, R.	ORGN	729
Bai, L.	POLY	647	Baker, A.	ENFL	277	Balaraman, L.	INOR	948
Bai, P.	I&EC	70	Baker, A.E.	PMSE	542	Balasekaran, S.M.	INOR	84
Bai, Q.	INOR	371	Baker, A.E.	PMSE	597	Balasoorya, D.	ORGN	487
Bai, S.	CATL	44	Baker, B.	ORGN	577	Balbo, S.	CHED	555
Bai, S.	CATL	525	Baker, C.	ENVR	637	Balboa, A.	CATL	298
Bai, X.	ENFL	364	Baker, D.C.	CHED	1677	Balboa, A.	CATL	450
Bai, X.	ENVR	269	Baker, G.A.	CATL	544	Balboa, S.	ANYL	83
Bai, Y.	PMSE	611	Baker, G.A.	I&EC	126	Baldansuren, A.	INOR	1425
Bai, Y.	POLY	757	Baker, G.A.	INOR	641	Baldauff, E.A.	CHED	376
Bai, Y.	MEDI	305	Baker, J.J.	INOR	326	Baldauff, E.A.	CHED	1882
Bai, Y.	ENVR	218	Baker, J.	COLL	387	Baldea, I.	COLL	481
Baiardi, A.	PHYS	53	Baker, J.L.	COMP	229	Baldelli, S.	COLL	202
Baiardi, A.	PHYS	91	Baker, J.L.	COMP	230	Balderas, R.	NUCL	81
Baik, M.	ORGN	343	Baker, L.	CATL	153	Balderas-Renteria, I.	ORGN	636
Bailey, B.M.	CHED	1054	Baker, L.	PHYS	32	Balding, P.	POLY	28
Bailey, C.	MEDI	108	Baker, M.B.	PMSE	10	Baldo, M.	INOR	1332
Bailey, C.	MEDI	154	Baker, M.B.	POLY	227	Baldó, A.	CATL	244
Bailey, C.	ENFL	404	Baker, M.A.	INOR	875	Baldovino-Medrano, V.G.	CATL	226
Bailey, E.L.	CHED	83	Baker, N.	ANYL	28	Baldovino-Medrano, V.G.	CATL	386
Bailey, J.V.	GEOC	110	Baker, N.	CINF	85	Balduf, T.C.	PHYS	328
Bailey, M.A.	CHED	1965	Baker, N.	ENVR	731	Baldwin, C.	BIOT	454
Bailey, R.C.	POLY	78	Baker, N.	HIST	5	Baldwin, L.	PMSE	541
Bailey, R.C.	POLY	83	Baker, R.	CATL	112	Baldwin, L.A.	PMSE	596
Bailey, S.	PHYS	432	Baker, R.	INOR	22	Baldwin, M.	CHED	1820
Bailey, T.	CHED	596	Baker, R.	CHED	92	Baldwin, R.P.	ANYL	447
Bailey, T.	POLY	115	Baker, R.	CHED	587	Bales, R.	CHED	584
Bain, C.D.	COLL	640	Baker, R.	CHED	1905	Balesano, A.	CHED	980
Bain, E.	POLY	341	Baker, V.F.	POLY	473	Balesano, A.	CHED	1881
Bain, K.	CHED	1962	Bakhom, M.	COMP	250	Balgooyen, S.J.	GEOC	178
Baines, D.A.	AGFD	192	Bakhshayeshi, M.	BIOT	38	Balhoff, J.	BIOT	246
Bair, O.N.	CHED	814	Bakkali-Hassani, C.	POLY	812	Bali, A.	CHED	529
Baird, D.G.	PMSE	575	Bakkali-Hassani, C.	POLY	813	Baliija, A.M.	INOR	5
Baird, J.K.	ENFL	543	Bakken, G.A.	COMP	87	Balistreri, A.	CHED	1214
Baird, J.	MEDI	295	Bakker, H.	GEOC	167	Baljak, I.	CHED	1333
Baird, R.	AGFD	99	Bakker, M.	CATL	273	Baljak, I.	CHED	1347
Baiyasi, R.	PHYS	299	Bakker, M.G.	CATL	302	Balkus, K.J.	PMSE	385
Baiz, C.	CHED	269	Bakker, M.G.	CATL	497	Balkus, K.J.	ENFL	106
Baiz, C.R.	ANYL	244	Bakker, M.G.	PMSE	74	Balkus, K.J.	ENFL	107
Baiz, C.R.	ANYL	460	Bakker, M.G.	SCHB	12	Balkus, K.J.	ENVR	434
Baiz, C.R.	BIOL	8	Bakr, B.W.	MEDI	28	Balkus, K.J.	INOR	1216
Baiz, C.R.	PHYS	72	Bakr, O.M.	ANYL	279	Ball, J.L.	CHED	6
Baiz, C.R.	PHYS	466	Bakr, O.M.	PHYS	428	Ball, J.L.	CHED	1797
Baiz, C.R.	PHYS	654	Bakshi, S.	ENVR	174	Ball, N.D.	CHED	1664

Ball, N.D.	INOR	257	Banerjee, I.A.	COLL	256	Bara, J.E.	POLY	439
Ball, N.D.	ORGN	220	Banerjee, S.	ENFL	410	Bara, J.E.	POLY	540
Ballard, C.	ORGN	690	Banerjee, S.	INOR	1231	Baragar, E.	BIOT	301
Ballard, J.	MEDI	191	Banerjee, S.	ENFL	348	Barakat, A.	ORGN	322
Ballard, N.	POLY	51	Banerjee, S.	ENFL	375	Barakat, A.	ORGN	409
Ballatore, C.	MEDI	12	Banerjee, S.	ENFL	376	Baran, P.	CHED	1143
Ballenas, J.	POLY	807	Banerjee, S.	PMSE	143	Baran, P.	INOR	244
Ballentine, M.D.	COLL	372	Banerjee, T.	PHYS	511	Baran, P.S.	ORGN	360
Ballester, M.	CHED	1845	Banerjee-Ghosh, K.	PHYS	487	Barancheshme, F.	ENVR	298
Ballester, M.	PHYS	581	Banerjee-Ghosh, K.	PHYS	492	Baranger, A.M.	CHED	2054
Ballester, M.	PHYS	583	Banfield, J.	ENVR	53	Barashkov, N.	ENVR	550
Ballester, P.	INOR	540	Banfield, J.	ENVR	560	Barashkov, N.	PHYS	436
Balof, S.	CATL	477	Bange, A.F.	CHED	500	Barawi, K.M.	CHED	448
Balog, E.	COLL	651	Bange, C.	INOR	156	Barbarovich, A.	MEDI	80
Balow, R.	CATL	297	Banic Viana Martins, F.	ANYL	98	Barbay, G.	I&EC	82
Balow, R.	COLL	219	Banik, G.M.	CINF	2	Barbeau, K.A.	INOR	40
Balow, R.	PMSE	101	Banik, G.M.	CINF	19	Barbee, D.B.	INOR	1417
Bals, S.	COLL	500	Banisadr, S.	PMSE	329	Barber, A.	CHED	1209
Balskus, E.P.	BIOL	3	Bani-Yaseen, A.D.	PHYS	405	Barber, D.M.	PMSE	180
Balskus, E.P.	BIOL	164	Bank, T.	I&EC	122	Barber, J.	ENVR	3
Balskus, E.P.	BIOL	179	Banks, P.A.	ORGN	712	Barber, J.	ORGN	253
Baltazar, T.	BIOT	409	Bann, P.L.	ENVR	581	Barbera, J.	CHED	138
Balten, N.	CHED	1177	Bann, P.L.	ENVR	582	Barbera, J.	CHED	259
Baltrusaitis, J.	CATL	36	Banner, R.A.	CHED	1176	Barberi-Heyob, M.	MEDI	342
Baltrusaitis, J.	ENFL	132	Bannister, A.M.	CARB	59	Barberio, A.	COLL	600
Baltus, R.E.	CHED	972	Bannwarth, C.	PHYS	608	Barbier, J.	ENFL	523
Baltz, M.R.	BIOT	88	Banquy, X.	COLL	530	Barbieri, K.P.	MEDI	73
Baltz, M.R.	BIOT	115	Bansal, A.	ENVR	442	Barbier Jr, J.	I&EC	94
Balu, A.	CATL	86	Bansal, D.	ENFL	469	Barboiu, M.	ENVR	54
Balu, A.	CATL	263	Bansal, M.	CHED	791	Barboiu, M.	ORGN	285
Balucani, N.	PHYS	257	Bansal, R.	BIOT	490	Barboiu, M.	PMSE	138
Balucani, N.	PHYS	312	Bansal, V.	BIOT	328	Barbosa, R.	ANYL	192
Balut, C.	MEDI	117	Bansode, A.	CELL	122	Barbosa, R.	COLL	440
Bamber, J.	BIOT	567	Banson, C.N.	CHED	1305	Barboun, P.	COMP	147
Bamigboye, M.O.	INOR	681	Banstola, B.	ANYL	102	Barcellos, D.	ENFL	326
Banahene, N.	BIOL	247	Banstola, B.	ANYL	441	Barcelo, D.	ENVR	354
Banahene, N.	CARB	60	Banta, S.	BIOT	232	Barcena, H.S.	CHED	727
Banares, M.A.	CATL	138	Banton, R.	COLL	24	Barcena, H.S.	CHED	1106
Banares, M.A.	CATL	193	Banuelos, J.	GEOC	199	Barcena, H.S.	CHED	1975
Banares, M.A.	CATL	243	Banziger, S.D.	INOR	955	Barcenaz, Z.	CHED	1816
Banares, M.A.	CATL	292	Banzon, P.D.	ORGN	441	Barchi, J.J.	MEDI	11
Bañares, M.A.	CATL	322	Bao, H.	GEOC	113	Barcus, K.	POLY	241
Bancroft, L.	ENVR	84	Bao, J.L.	PHYS	448	Bard, S.K.	CHED	411
Bandara, Y.D.	ANYL	18	Bao, Y.	BIOT	129	Barde, M.	CELL	128
Bandari, C.	CHED	1522	Bao, Z.	PMSE	59	Barde, M.	CELL	129
Bandaru, S.	ENVR	638	Bao, Z.	PMSE	61	Barde, M.	CELL	306
Bandi, S.	BIOT	523	Bao, Z.	PMSE	515	Barde, M.	POLY	491
Bandy, J.	INOR	785	Bao, Z.	POLY	704	Bardenhagen, J.P.	MEDI	64
Bandyopadhyay, A.	BIOT	110	Bao, Z.	CHED	1024	Bardenhagen, J.P.	MEDI	359
Bandyopadhyay, D.	ORGN	635	Bapat, A.	PMSE	229	Bardliving, C.	BIOT	484
Bandyopadhyay, D.	ORGN	636	Bapat, A.	PMSE	330	Bardliving, C.	BIOT	512
Bandyopadhyay, D.	ORGN	675	Bapat, A.	POLY	11	Bardot, F.	CELL	92
Banek, N.	ENVR	392	Baquier, J.	MEDI	364	Bardow, A.	POLY	391
Banerjee, A.C.	ENFL	32	Bara, J.E.	PMSE	356	Bare, S.R.	CATL	132
Banerjee, D.	BIOL	295	Bara, J.E.	POLY	352	Bare, S.R.	CATL	231

Bare, S.R.	CATL	464	Barnett, B.R.	ENFL	491	Barroso-Bujans, F.	PMSE	298
Barekati-Goudarzi, M.	ENFL	379	Barnett, J.W.	COMP	391	Barroso-Bujans, F.	PMSE	412
Barekati-Goudarzi, M.	ENFL	407	Barnett, K.L.	CHED	337	Barrow, E.	CATL	212
Bargar, J.R.	GEOC	93	Barnett, K.	CATL	264	Barry, J.	CHED	1388
Bargar, J.R.	GEOC	123	Barnett, M.M.	CHED	1846	Bar-Shir, A.	INOR	751
Bargar, J.R.	GEOC	124	Barnett, S.	CHED	1917	Barskaya, A.	MEDI	80
Barger, P.T.	I&EC	84	Barnych, B.	AGFD	167	Barsoum, M.	ENVR	635
Baride, A.	COLL	190	Baron, S.	CHED	1772	Barstis, T.L.	ANYL	74
Baride, A.	COLL	762	Barona, M.	CATL	24	Barstis, T.L.	ANYL	75
Baride, A.	INOR	424	Barona, M.	CATL	137	Barstis, T.L.	ANYL	76
Barile, D.	AGFD	149	Baroncini, E.A.	POLY	658	Barstis, T.L.	ANYL	77
Barim, G.	INOR	1238	Barone, C.	CHAS	41	Barstis, T.L.	ANYL	78
Barjasteh, E.	PMSE	41	Barone, J.R.	CELL	51	Barstis, T.L.	ANYL	79
Barjasteh, E.	PMSE	493	Barone, J.R.	CELL	303	Bart, S.C.	INOR	1294
Bark, B.	CATL	208	Barone, J.R.	POLY	240	Barta, K.	CATL	50
Barker, G.	BIOT	101	Barone, V.	PHYS	88	Barta, K.	CATL	115
Barker, J.E.	CHED	1533	Barone, V.	PHYS	91	Barteau, K.	PMSE	89
Barker, T.	POLY	690	Barone, V.	PHYS	190	Barteau, M.A.	CATL	505
Barker, T.J.	ORGN	251	Barragan Peyrani, H.	ORGN	657	Bartel, C.	CATL	170
Barkhordarian, H.	BIOT	109	Barreiro, F.	CELL	133	Bartel, C.	COLL	155
Barkley, S.	SCHB	4	Barrera, D.	COLL	381	Bartelt-Hunt, S.	ENVR	487
Barkovich, K.	CHED	694	Barrera, L.	COLL	181	Bartges, T.	ANYL	188
Barlaam, B.	MEDI	227	Barreto, M.	ENVR	668	Barth, P.	COMP	361
Barlaam, B.	MEDI	244	Barreto, R.D.	CATL	451	Bartholomeusz, C.	BIOL	315
Barlow, D.	CATL	297	Barreto, T.	CHED	902	Bartlett, B.M.	ENFL	418
Barman, S.K.	INOR	220	Barreto, V.	ENVR	507	Bartlett, R.	MEDI	328
Barman, S.	INOR	217	Barreto-Estrada, J.L.	CHED	1168	Bartlett, R.	PHYS	94
Barman, S.	INOR	1116	Barrett, B.	CHED	378	Bartlett, R.J.	PHYS	150
Barnakov, Y.	PMSE	379	Barrett, B.	CHED	488	Barton, C.	CHED	888
Barnakov, Y.	POLY	801	Barrett, I.	PMSE	315	Barton, C.	PROF	33
Barnard, A.S.	CATL	16	Barrett, I.	POLY	312	Barton, D.G.	I&EC	61
Barnard, R.	CHED	1987	Barrett, J.A.	CATL	113	Barton, D.G.	I&EC	66
Barner-Kowollik, C.	PMSE	97	Barrett, J.A.	CATL	341	Barton, D.G.	I&EC	80
Barner-Kowollik, C.	POLY	216	Barrett, K.	COMP	16	Barton, D.G.	I&EC	93
Barner-Kowollik, C.	POLY	697	Barrey, E.	ANYL	328	Bartucci, M.	POLY	303
Barnes, A.	CHED	677	Barrick, S.	COLL	355	Bartzoka, E.D.	CELL	89
Barnes, A.L.	COMP	117	Barrientos, C.	PHYS	259	Barwe, S.	ENFL	394
Barnes, A.M.	CHED	797	Barriera Diaz, M.	CHED	738	Barwe, S.	PMSE	134
Barnes, B.	PMSE	331	Barril, X.	COMP	382	Barwich, A.	AGFD	130
Barnes, C.	BIOL	244	Barringer, G.E.	BIOT	383	Barwick, K.	INOR	56
Barnes, J.	POLY	179	Barrios, C.	CHED	1919	Barybin, M.V.	CHED	1139
Barnes, J.	POLY	273	Barrios, C.	POLY	434	Barybin, M.V.	COLL	410
Barnes, J.	POLY	413	Barrios, R.	ENVR	487	Barybin, M.V.	INOR	221
Barnes, J.C.	PMSE	279	Barrios-Masias, F.	ENVR	83	Barybin, M.V.	INOR	222
Barnes, J.C.	PMSE	350	Barrish, J.C.	MEDI	6	Barybin, M.V.	INOR	225
Barnes, J.C.	POLY	278	Barrish, J.C.	MEDI	35	Barybin, M.V.	INOR	1137
Barnes, J.C.	POLY	508	Barrish, J.C.	MEDI	109	Baryiames, C.P.	PHYS	72
Barnes, J.C.	POLY	509	Barrish, J.C.	MEDI	178	Baryiames, C.P.	PHYS	654
Barnes, J.C.	POLY	633	Barrish, J.C.	MEDI	202	Barz, M.	PMSE	76
Barnes, K.	MEDI	270	Barrish, J.C.	MEDI	367	Barz, M.	POLY	55
Barnes, K.	ORGN	438	Barron, A.R.	CATL	527	Barz, M.	POLY	117
Barnes, L.F.	ANYL	148	Barron, A.R.	INOR	1417	Basar, J.	I&EC	44
Barnes, M.	GEOC	40	Barron, B.	INOR	193	Basava, V.	CARB	46
Barnes, S.H.	CELL	364	Barron, C.	CELL	304	Bascal, H.	CHED	202
Barnes, S.H.	POLY	275	Barroso, J.	INOR	82	Basch, C.	ORGN	103

Basdogan, Y.	CATL	467	Bates, F.	BIOT	568	Baturina, O.A.	CATL	400
Basdogan, Y.	CHED	889	Bates, F.	POLY	457	Baturina, O.A.	ENFL	78
Baše, T.	COLL	686	Bates, F.	POLY	683	Batys, P.	PMSE	55
Baser, D.	ENFL	137	Bates, F.S.	PMSE	54	Batys, P.	POLY	326
Basheer, C.	ENFL	414	Bates, F.S.	PMSE	178	Baucom, D.	BIOL	82
Bashir, M.	I&EC	79	Bates, F.S.	POLY	730	Baucom, D.	COLL	200
Bashrum, B.	CHED	1574	Bates, H.J.	CHED	1051	Bauer, A.F.	CHED	1893
Bashrum, B.	CHED	1658	Bates, H.J.	CHED	1764	Bauer, B.A.	BIOL	239
Basile, M.C.	NUCL	35	Bates, J.	PMSE	41	Bauer, J.	ANYL	434
Basirico, L.M.	ENVR	239	Bates, J.E.	PHYS	149	Bauer, J.	MEDI	166
Baskin, A.	CATL	27	Bates, R.W.	ORGN	113	Bauer, N.	CHED	441
Basnakian, A.	BIOL	207	Bates, R.	BIOT	69	Bauer, W.	CELL	75
Basoli, F.	CELL	324	Bates, S.	BIOT	265	Bauer, W.	CELL	259
Bass, M.	PMSE	190	Bati, G.	CARB	50	Bauerle, M.R.	BIOT	227
Bassegoda, A.	BIOT	564	Batista, E.R.	FLUO	67	Bauers, S.	INOR	1156
Bassegoda, A.	COLL	518	Batista, E.R.	INOR	160	Baughman, T.W.	PMSE	253
Basser, P.J.	BIOT	197	Batista, E.R.	NUCL	93	Baughn, A.D.	MEDI	102
Basser, P.J.	POLY	281	Batista, V.S.	COLL	242	Baughn, A.D.	MEDI	104
Basset, J.M.	CATL	41	Batista, V.S.	COLL	786	Baukman, H.	CARB	8
Bassett, A.	POLY	709	Batista, V.S.	COMP	94	Baukman, H.	MEDI	318
Bassett, M.K.	COMP	281	Batista, V.S.	COMP	395	Baul, U.	COLL	636
Basson, A.E.	MEDI	346	Batista, V.S.	ENFL	80	Baulsir, E.	CHED	1751
Basta, L.	BIOL	238	Batka, A.	INOR	200	Baum, J.	BIOL	140
Bastakoti, B.	POLY	9	Batool, J.	PHYS	320	Baum, R.P.	NUCL	8
Basti, M.M.	CHED	334	Batool, S.	BIOL	176	Baumann, A.	ORGN	469
Basti, M.M.	CHED	806	Batt, A.	BIOL	36	Baumann, A.	ORGN	476
Bastian, N.R.	ANYL	129	Batt, A.	BIOL	109	Baumann, P.	BIOT	8
Bastian, N.R.	ANYL	139	Batt, D.G.	MEDI	6	Baumann, W.	INOR	1409
Bastian, N.R.	ANYL	140	Batt, D.G.	MEDI	36	Baumgartner, S.	CHED	942
Bastian, N.R.	CHED	792	Batt, D.G.	MEDI	297	Baumgartner, T.	ORGN	637
Bastian, N.R.	CHED	823	Batt, D.G.	MEDI	367	Baumler, K.	INOR	149
Bastian, N.R.	CHED	1913	Battaglia, C.	ENFL	274	Baur, A.	INOR	1307
Bastian, N.R.	CHED	2010	Batteas, J.	CHED	1335	Baur, D.	BIOT	509
Bastien, S.	CATL	184	Batteas, J.	COLL	130	Baur, J.	PMSE	612
Bastin, L.	CHED	42	Batteas, J.	COLL	131	Baussanne, I.	CELL	377
Bastin, L.	CHED	1020	Batteas, J.	COLL	248	Bavetsias, V.	BIOL	122
Bastin, L.	CHED	1951	Batteas, J.	COLL	315	Bawn, A.	BIOT	249
Basu, A.	CHED	2068	Batteas, J.D.	COLL	132	Baxter, A.	INOR	919
Basu, A.	PHYS	407	Batteas, J.D.	COLL	358	Baxter, C.	POLY	543
Basu, S.M.	CHED	760	Batteas, J.D.	PROF	42	Baxter, C.	POLY	544
Basutkar, M.	PMSE	581	Battersby, J.	ORGN	160	Baxter, E.T.	CATL	151
Bataglioli, R.A.	PMSE	195	Bathey, S.R.	NUCL	76	Baxter, N.	CATL	543
Bataglioli, R.A.	PMSE	332	Bathey, S.R.	NUCL	88	Baxter, N.	ENFL	47
Batchelor, B.	ENVR	136	Battiste, A.	CHED	406	Bayard, R.	CHED	1758
Batchelor, H.	CHED	1789	Battiste, A.	CHED	409	Bayat, H.	CHED	111
Batchelor, W.	CELL	308	Battiste, J.	POLY	775	Bayat, H.	ENVR	498
Bateman, D.	CHED	325	Battle, C.H.	BIOL	208	Bayer, A.M.	ORGN	384
Bateman, D.	CHED	886	Battle, C.H.	CHED	558	Baykara, M.Z.	COLL	361
Bateman, D.	CHED	932	Battle, C.H.	CHED	737	Baykoucheva, S.	CINF	51
Bateman, D.	CHED	1469	Battle, C.H.	CHED	1528	Baykoucheva, S.	CINF	77
Bateman, D.	CHED	1801	Battle, C.H.	CHED	1631	Bayline, J.	CHED	936
Bateman, D.	CHED	1823	Battle, C.H.	CHED	2085	Baylis, B.	PMSE	219
Bates, C.	PMSE	107	Battle, C.H.	CHED	2105	Bayliss, R.	ENFL	419
Bates, C.	PMSE	124	Battle, C.H.	CHED	2106	Bayliss, R.	ENFL	430
Bates, C.	POLY	511	Battle, P.D.	INOR	1228	Bayly, C.I.	COMP	85

Bayly, C.I.	COMP	248	Becerra-Arteaga, A.	BIOT	287	Bedford, N.	COLL	368
Bayse, C.A.	CHED	1049	Bechelli, S.	COMP	317	Bedford, N.	POLY	782
Bayse, C.A.	PHYS	601	Becher, J.	ENVR	553	Bedini, E.	CELL	60
Baysinger, G.	CINF	76	Becher, M.	POLY	319	Bednar, K.J.	CARB	84
Bazan, E.	PHYS	457	Becher, T.	PMSE	264	Bednash, J.	MEDI	231
Bazan, N.G.	MEDI	333	Bechtel, P.	AGFD	76	Bedrov, D.	COMP	410
Bazemore, J.	POLY	438	Bechtel, P.	AGFD	77	Bedrov, D.	ENFL	171
Bazin, P.	CATL	292	Bechtold, M.	INOR	497	Bedrov, D.	ENFL	511
Bazzi, H.	POLY	349	Beck, A.	COLL	593	Bedrov, D.	PHYS	236
Beabout, K.	BIOT	245	Beck, D.	GEOC	137	Bedrov, D.	PHYS	514
Beacham, R.	FLUO	68	Beck, E.	MEDI	321	Bedrov, D.	PMSE	358
Beadle, T.	AGFD	68	Beck, J.	AGFD	179	Bedzyk, M.J.	GEOC	141
Beagan, D.M.	INOR	144	Beck, J.	CHED	256	Bedzyk, M.J.	INOR	1226
Beal, S.	ENVR	553	Beck, J.	CHED	771	Beecher, A.N.	PHYS	562
Beall, D.M.	YCC	13	Beck, J.	CHED	804	Beecher, J.	ENVR	96
Beall, H.D.	ORGN	321	Beck, J.	CHED	862	Beecher, S.	INOR	346
Beams, R.	CELL	33	Beck, J.	CHED	2077	Beeler, A.B.	ORGN	72
Beane, G.	COLL	670	Beck, K.	CHED	1113	Beeler, C.	CHED	1917
Beane, G.	PHYS	297	Beck, M.	CHED	2114	Beeler, M.	CHED	1917
Beane, G.A.	PHYS	398	Beck, T.C.	BIOT	7	Beers, K.	I&EC	127
Bear, K.	GEOC	39	Beck, T.C.	BIOT	66	Beers, K.	PMSE	472
Beard, M.C.	PHYS	125	Beck, T.C.	BIOT	102	Beers, K.	POLY	342
Bearden, D.	ANYL	390	Beck, T.C.	BIOT	513	Beffa, A.	CHED	721
Bearden, M.	ENFL	319	Becke, A.D.	PHYS	146	Beffa, A.	CHED	864
Bearrood, T.	BIOL	310	Becke, A.D.	PHYS	219	Begovic, E.	COLL	237
Beasley, S.	ANYL	239	Beckel, E.R.	POLY	96	Begoyan, V.V.	ORGN	442
Beattie, R.	INOR	1005	Becker, G.	PROF	47	Begoyan, V.V.	ORGN	448
Beatty, J.D.	CHED	769	Becker, M.R.	ORGN	555	Behl, D.M.	CHED	290
Beatty, J.D.	CHED	971	Becker, M.	PMSE	304	Behmke, D.	CHED	2007
Beaucage, G.	COLL	81	Becker, M.	PMSE	307	Behmke, D.	CINF	75
Beaucage, G.	COLL	212	Becker, M.	PMSE	357	Behnke, G.	ANYL	432
Beaucage, P.	INOR	1372	Becker, M.	POLY	226	Behr, J.	AGFD	18
Beaucage, P.A.	PMSE	89	Becker, R.A.	ENVR	364	Behrend, C.	ANYL	282
Beauchamp, G.	AGFD	2	Becker, T.	POLY	212	Behrens, N.	CHED	1592
Beauchamp, J.	AGFD	211	Beckford, F.A.	CHED	1148	Behzadinasab, S.	PMSE	333
Beauchamp, M.	ANYL	7	Beckford, F.A.	CHED	1156	Behzadinasab, S.	PMSE	400
Beaudoin Bertrand, M.	MEDI	6	Beckham, G.	BIOT	350	Beierle, A.	BIOT	54
Beaudoin Bertrand, M.	MEDI	36	Beckham, G.	CATL	217	Beil, R.	PHYS	590
Beaudoin Bertrand, M.	MEDI	297	Beckham, G.	CATL	372	Beisel, C.	BIOT	504
Beaufils, N.	CELL	307	Beckham, G.	CATL	390	Beitel, S.	ENVR	477
Beaugrand, J.	CELL	269	Beckham, G.	CATL	449	Bejagam, K.	CATL	173
Beaulac, R.	INOR	347	Beckham, G.	CATL	523	Bekarian, M.	CHED	550
Beaulieu, J.	AGFD	202	Beckham, G.	CELL	148	Bekas, C.	COMP	23
Beaulieu, N.	CHED	1455	Beckham, G.	CELL	184	Bekins, B.A.	GEOC	71
Beaumier, E.	INOR	486	Beckham, G.	COMP	429	Bekins, B.A.	GEOC	229
Beaumier, E.	INOR	858	Beckham, G.	ENFL	17	Belanger, R.M.	CHED	395
Beaute, L.	COLL	108	Beckham, G.	I&EC	27	Belanger, R.M.	CHED	448
Beaute, L.	POLY	751	Beckley, C.	CHED	1140	Belardi, B.	COLL	637
Beauvais, L.G.	CHED	1075	Beckstein, O.	COMP	137	Belavek, K.	ORGN	710
Beauvilliers, E.E.	INOR	1073	Beckwith, D.	CARB	39	Belcher, A.M.	MPPG	6
Beazley, M.J.	ANYL	413	Becquart, F.	CELL	276	Belfiore, R.	MEDI	147
Beazley, M.J.	ENVR	537	Bedard, R.L.	CATL	65	Belford, R.E.	CHED	2176
Beazley, M.J.	ENVR	647	Bederman, A.	ORGN	521	Belfort, G.	I&EC	15
Becar, N.A.	CHED	1364	Bedernjak, A.	MEDI	308	Belfort, G.	PMSE	86
Beccia, M.	ENVR	585	Bedford, J.	COMP	353	Belgacem, N.	CELL	35

Belgacem, N.	CELL	133	Bencomo, J.	PMSE	607	Bennett, J.W.	PHYS	645
Belgacem, N.	CELL	377	Bencomo, J.	POLY	543	Bennett, J.W.	PROF	11
Belgiorno, V.	ENVR	193	Bender, A.	MEDI	13	Bennett, K.	FLUO	59
Belkacem, M.	BIOT	386	Bender, C.	BIOT	492	Bennett, K.H.	CHED	27
Bell, A.M.	BIOL	57	Bender, J.A.	PHYS	121	Bennett, K.H.	CHED	194
Bell, A.M.	CHED	624	Bender, J.A.	PHYS	396	Bennett, K.T.	INOR	1210
Bell, A.M.	CHED	666	Bender, J.A.	PHYS	521	Bennett, K.	CHED	1833
Bell, A.T.	CATL	2	Bender, M.	INOR	963	Bennett, M.	BIOT	13
Bell, A.T.	CATL	66	Bender, S.	BIOL	37	Bennett, M.V.	CHED	1075
Bell, A.T.	CATL	385	Ben Dor, O.	PHYS	487	Bennett, N.	BIOT	334
Bell, A.T.	COMP	90	Benedict, L.	CHED	377	Bennett, R.	ANYL	377
Bell, A.T.	ENFL	110	Benedict, L.	CHED	379	Bennick, R.A.	COLL	150
Bell, A.T.	I&EC	75	Benedict, L.	CHED	384	Bennick, R.A.	COLL	276
Bell, B.	POLY	33	Benedict, L.	CHED	1999	Benninghoff, A.	ORGN	417
Bell, D.	CHED	1437	Benedict, L.	CHED	2099	Bennion, M.C.	CHED	1577
Bell, D.	ORGN	571	Benedict, L.	CHED	2099	Bennion, M.C.	ORGN	169
Bell, D.S.	ANYL	328	Benesova, M.	NUCL	8	Bennun, S.V.	BIOT	252
Bell, D.C.	INOR	1229	Benetti, E.	COLL	93	Benny, P.D.	FLUO	57
Bell, G.W.	CHED	1023	Benetti, E.	PMSE	549	Benoist, M.	AGFD	56
Bell, J.A.	ENVR	317	Bengtsson, J.	CELL	327	Benoist, M.	AGFD	56
Bell, J.A.	ENVR	317	Beniah, G.	COLL	537	Benoit, E.	ORGN	150
Bell, K.T.	CHED	453	Benicewicz, B.C.	POLY	353	Benoit, G.	ORGN	575
Bell, L.	CHED	2166	Benicewicz, B.C.	POLY	402	Benselfelt, T.	CELL	311
Bell, L.N.	AGFD	144	Benicewicz, B.C.	POLY	419	Bensen, R.	BIOL	120
Bell, M.	POLY	402	Benicewicz, B.C.	POLY	808	Benson, A.	COLL	184
Bell, M.H.	POLY	19	Benicewicz, B.C.	POLY	808	Benson, A.	INOR	940
Bell, N.S.	INOR	291	Benito, G.	CHED	1628	Benson, A.	INOR	940
Bell, N.S.	INOR	291	Benjamin, C.	CHED	32	Benson, C.	ORGN	282
Bell, N.S.	INOR	1319	Benjamin, C.E.	PMSE	310	Benson, C.	POLY	541
Bell, R.T.	ENFL	390	Benjamin, I.	COMP	173	Benson, N.	CHED	1196
Bell, S.	BIOT	277	Benjamin, I.	PHYS	34	Bent, S.F.	COLL	70
Bell, S.	ENVR	418	Benjamin, I.	PHYS	34	Bent, S.F.	COLL	75
Bell, T.W.	MEDI	347	Benjamin, M.M.	ENVR	195	Bent, S.F.	COLL	387
Bellenie, B.	MEDI	63	Benjamin-Rivera, J.A.	INOR	914	Bent, S.F.	COLL	529
Bellmann, L.	BIOL	279	Benjamin-Rivera, J.A.	CHED	1036	Bent, S.F.	COLL	529
Bellon, P.	COLL	363	Benkaddour, S.	GEOC	239	Bentancur, S.	ENVR	663
Bellott, B.J.	ANYL	179	Ben Messaoud, G.	CELL	351	Bentel, M.J.	ENVR	178
Bellott, B.J.	ANYL	180	Ben Moshe, A.	PHYS	102	Bentley, A.K.	INOR	182
Bellott, B.J.	ANYL	180	Bennemo, M.	BIOT	373	Bentley, A.K.	INOR	304
Bellott, B.J.	CHED	149	Benner, S.	BIOT	4	Bentley, B.	MEDI	149
Bellott, B.J.	CHED	1146	Bennett, C.	CARB	7	Bentley, J.	MEDI	25
Bellott, B.J.	INOR	352	Bennett, D.	PHYS	178	Bentley, M.	ENVR	429
Bellows, S.M.	INOR	30	Bennett, E.	INOR	1380	Bentley, M.R.	PHYS	420
Bellshaw, D.	ENFL	494	Bennett, E.	INOR	1380	Bentley, M.R.	PHYS	420
Bell-Taylor, A.D.	INOR	392	Bennett, J.	CHED	7	Bentley, S.K.	CHED	1562
Belmabkhout, Y.	INOR	727	Bennett, J.	CHED	16	Bentley, S.K.	PHYS	501
Belmares, J.	CHED	1907	Bennett, J.	CHED	1025	Benton, M.G.	BIOT	32
Belov, N.	PMSE	108	Bennett, J.	CHED	1026	Bentz, K.C.	PMSE	243
Belov, N.	POLY	350	Bennett, J.	CHED	1506	Bentz, K.C.	POLY	42
Belunis, A.	ANYL	214	Bennett, J.	CHED	1508	Bentz, K.C.	POLY	200
Bemis, C.Y.	ORGN	76	Bennett, J.	CHED	1508	Bentz, K.C.	POLY	200
Benami, M.	PMSE	191	Bennett, J.	CHED	2001	Bentz, K.C.	POLY	340
Ben Amor, H.	I&EC	94	Bennett, J.A.	ANYL	165	Bentz, S.	CHED	861
Benasco, A.R.	POLY	520	Bennett, J.A.	CHED	388	Bentzel, T.C.	CHED	1645
Benayoud, F.	MEDI	90	Bennett, J.A.	CHED	487	Benvenuto, M.A.	CHED	498
Bence, J.	INOR	285	Bennett, J.W.	COLL	196	Benvenuto, M.A.	ENVR	637
Bence, R.	CHED	992	Bennett, J.W.	COLL	353	Benware, S.	POLY	417
Bencomo, J.	PMSE	334	Bennett, J.W.	COMP	369	Benware, S.	POLY	572
			Bennett, J.W.	GEOC	145	Benyamin, M.	ENFL	451
			Bennett, J.W.	PHYS	415	Benz, P.P.	CHED	780

Benz, P.P.	CHED	930	Berg, T.C.	ANYL	164	Berkman, C.E.	FLUO	69
Benz, P.P.	ENVR	581	Bergantini, A.	PHYS	92	Berks, A.	CHAL	1
Benz, P.P.	ENVR	582	Bergbreiter, D.E.	POLY	349	Berkson, Z.	COLL	171
Benz, P.P.	ENVR	583	Berge, M.	BIOT	47	Berkson, Z.	COLL	530
Benz, P.P.	INOR	286	Berge, N.D.	ENVR	36	Berkson, Z.	COLL	531
Benz, P.P.	INOR	787	Bergenholtz, J.	COLL	458	Berlanga, J.	AGFD	7
Benzing, S.	ENVR	409	Berger, A.	CINF	98	Berlinguette, C.P.	INOR	553
Beppu, M.M.	PMSE	195	Berger, J.M.	BIOL	87	Berlyoung, A.	BIOL	50
Beppu, M.M.	PMSE	332	Berger, J.M.	MEDI	161	Berman, A.	ENFL	476
Beppu, M.	PMSE	337	Berger, J.	CHED	426	Berman, C.	BIOL	300
Bequette, M.	CHED	2167	Berger, M.E.	COMP	118	Bermudez, A.	CHED	581
Bera, K.	PHYS	395	Berger, M.	ENVR	156	Bernacki, J.	BIOT	518
Bera, P.	COMP	265	Berger, M.	ENVR	159	Bernal, J.	CHED	549
Bera, P.	PHYS	193	Bergeron, J.	INOR	851	Bernales, V.	CATL	24
Beran, K.A.	CHED	1114	Bergeron, J.	INOR	1305	Bernard, J.	CELL	271
Beran, K.A.	CHED	1279	Bergeron, J.T.	INOR	885	Bernard, K.	CHED	1745
Beran, K.A.	CHED	1280	Bergeson, A.	INOR	170	Bernard, M.A.	INOR	252
Berardo, E.	PMSE	31	Bergeson, A.	PMSE	150	Bernard, M.A.	INOR	256
Beratan, D.N.	ANYL	46	Bergeson, A.	PMSE	335	Bernard-Gauthier, V.	FLUO	46
Beratan, D.N.	PHYS	97	Berghard, L.	BIOT	560	Bernardi, R.C.	COMP	420
Beratan, D.N.	PHYS	437	Bergin, E.	PHYS	363	Bernardi, S.	POLY	774
Berben, L.A.	INOR	258	Bergkamp, J.	CHED	748	Bernardus, V.B.	INOR	89
Berberich, J.	BIOT	146	Berglund, J.	CELL	277	Bernbeck, M.G.	INOR	1288
Berberich, J.	POLY	229	Berglund, J.	CELL	280	Berndt, N.	MEDI	38
Bercaw, J.E.	INOR	443	Berglund, L.	CELL	4	Bernhardt, K.	INOR	5
Bercaw, R.M.	CHED	219	Berglund, L.	CELL	26	Berni, I.	ANYL	431
Berch, J.K.	CHED	1031	Berglund, L.	CELL	79	Bernier, L.	ORGN	21
Berch, J.K.	CHED	1032	Berglund, L.	PMSE	251	Bernier, M.	ANYL	411
Berchem, T.	CELL	330	Bergman, J.A.	PMSE	506	Bernier, W.E.	CHED	1142
Berckman, E.	BIOT	234	Bergman, M.	BIOT	373	Bernier, W.E.	INOR	376
Berda, E.B.	PMSE	499	Bergman, R.G.	INOR	748	Bernier, W.E.	INOR	1089
Berda, E.B.	POLY	417	Bergmann, E.	PMSE	219	Bernier, W.E.	PMSE	360
Berda, E.B.	POLY	418	Bergquist, A.	ENVR	131	Bernier, W.E.	POLY	568
Berda, E.B.	POLY	420	Bergren, A.	COLL	409	Bernier, W.E.	POLY	628
Berda, E.B.	POLY	553	Bergren, M.	COLL	52	Bernier-Latmani, R.	GEOC	94
Berda, E.B.	POLY	554	Bergren, M.	ENFL	83	Berns, E.	GEOC	72
Berda, E.B.	POLY	570	Bergsman, D.S.	COLL	75	Bernskoetter, W.H.	INOR	1416
Berda, E.B.	POLY	572	Bergstedt, O.	ENVR	237	Bernt, C.M.	CATL	113
Berden, G.	PHYS	433	Bergstrom, A.	CHED	625	Berova, N.	PHYS	154
Berdugo, C.	BIOT	352	Bergstrom, L.	CELL	13	Berquist, E.	COMP	327
Berendzen, A.	FLUO	70	Bergstrom, L.	CELL	65	Berquist, E.	PHYS	424
Berendzen, J.	BIOL	7	Bergstrom Mann, P.	COLL	649	Berreau, L.M.	INOR	491
Berenstein, N.	HIST	18	Bergstrom Mann, P.	COLL	770	Berreau, L.M.	MEDI	242
Beres, N.	CHED	1893	Berhane, L.	ENFL	286	Berreau, L.M.	ORGN	417
Beres, N.	CHED	2016	Berhane, L.	ENFL	287	Berreau, L.M.	ORGN	428
Berezovska, I.	POLY	656	Berhanu, D.	CHED	1106	Berrie, C.L.	COLL	148
Berg, B.	CHED	1256	Berhanu, D.	CHED	1975	Berrie, C.L.	COLL	410
Berg, G.	POLY	693	Berhe, A.	GEOC	9	Berrigan, D.	PMSE	541
Berg, J.M.	FLUO	67	Berhe, A.	GEOC	13	Berrin, J.	CELL	417
Berg, M.	GEOC	90	Berhe, A.	GEOC	40	Berry, D.R.	PMSE	310
Berg, M.	BIOT	303	Berilla, E.	BIOT	255	Berry, D.R.	PMSE	336
Berg, M.	BIOT	309	Berilla, E.	BIOT	391	Berry, D.R.	PMSE	399
Berg, S.	CHED	981	Berilla, E.	BIOT	394	Berry, J.	CHED	1859
Berg, S.	ENVR	111	Berk, J.R.	SCHB	8	Berry, J.F.	COMP	176
Berg, S.	ENVR	112	Berke, V.R.	INOR	929	Berry, J.F.	INOR	951

Berry, J.F.	ORGN	395	Betley, T.	INOR	980	Bhandari, D.	ANYL	394
Berry, J.	INOR	172	Betley, T.	INOR	1262	Bhandari, S.	BIOL	176
Berry, M.T.	COLL	762	Betley, T.	INOR	1263	Bhansali, S.	ANYL	288
Berry, M.	COLL	767	Betley, T.	INOR	1339	Bhansali, S.	ANYL	289
Berry, M.R.	CHED	1408	Betley, T.	INOR	1351	Bhansali, S.	BIOL	253
Berry, R.	POLY	312	Betley, T.	INOR	1411	Bhanushali, D.	BIOT	267
Berry, R.M.	CELL	199	Bett-Garber, K.L.	AGFD	76	Bhanushali, D.	BIOT	507
Berry, V.	CHED	380	Bettinge, R.	PMSE	402	Bharadwaj, V.S.	CATL	443
Berstis, L.	CATL	372	Bettinger, C.	ANYL	256	Bharathi, V.	MEDI	210
Berstis, L.	CELL	184	Bettler, G.	INOR	877	Bhardwaj, M.	CHED	1263
Bertagni, A.	GEOC	6	Betz, J.	BIOL	133	Bharti, B.	COLL	227
Bertagni, A.L.	GEOC	211	Betz, K.	GEOC	219	Bharti, B.	COLL	534
Bertagni, A.L.	GEOC	7	Beuning, C.N.	BIOL	80	Bharti, B.	COLL	730
Bertagnolli, A.	GEOC	106	Beuning, P.J.	BIOL	42	Bharti, N.	CHED	285
Bertagnolli, K.R.	CHED	657	Beuning, P.J.	CHED	577	Bhaskara, S.	MEDI	54
Bertekap, R.L.	ORGN	303	Beuning, P.J.	COMP	69	Bhat, N.G.	ORGN	165
Bertin, M.	PHYS	589	Beuning, P.J.	COMP	179	Bhat, N.G.	ORGN	167
Bertoch, M.	ENVR	131	Beuning, P.J.	COMP	431	Bhat, S.	COMP	194
Bertolino, V.	PMSE	153	Beury, N.	CELL	164	Bhat, S.	MEDI	123
Bertoncini, P.	CELL	380	Beutler, J.A.	MEDI	144	Bhatia, G.S.	MEDI	90
Bertoni, C.	PHYS	465	Bever, C.	AGFD	167	Bhatia, S.	COLL	390
Bertozi, C.R.	BIOT	148	Bevilacqua, P.C.	BIOL	17	Bhatnagar, A.	CELL	243
Bertrand, G.	INOR	18	Bevilacqua, P.C.	CHED	182	Bhatnagar, B.	BIOT	423
Bertrand, H.C.	INOR	702	Bevilacqua, P.	BIOL	18	Bhatt, H.	MEDI	156
Bertrand, R.	BIOT	214	Bevsek, H.	GEOC	215	Bhatt, S.V.	CHED	1002
Bertuzzi, D.	PMSE	264	Beyer, F.L.	PMSE	604	Bhatt, S.V.	CHED	1002
Berumen, G.	BIOT	151	Beyer, M.	CHED	2167	Bhattacharjee, R.	INOR	1242
Berville, M.	ORGN	637	Beyer, M.	PHYS	228	Bhattacharjee, S.	MEDI	76
Berwanger, J.	ANYL	69	Beyer, N.J.	CHED	1587	Bhattacharya, A.	BIOL	30
Berzin, F.	CELL	269	Beyer, N.J.	CHED	1876	Bhattacharya, A.	COLL	721
Beshah, K.	POLY	17	Beylin, V.G.	MEDI	283	Bhattacharya, I.	CATL	169
Beshah, K.	POLY	496	Bezerra Taketa, T.	PMSE	337	Bhattacharya, J.	GEOC	77
Beshah, K.	POLY	647	Bezila, D.	BIOT	214	Bhattacharya, J.	GEOC	97
Beshore, D.C.	MEDI	314	Bezoari, M.D.	CHED	852	Bhattacharya, J.	GEOC	100
Beshr, E.A.	BIOL	224	Bezpalko, M.	CHED	1082	Bhattacharya, J.	GEOC	208
Bessey, S.	GEOC	11	Bezrukov, S.	COMP	132	Bhattacharya, M.	COLL	684
Best, M.	BIOL	132	Bhadra, M.	INOR	530	Bhattacharya, P.	INOR	121
Best, M.	ORGN	384	Bhagavatula, A.	ENFL	52	Bhattacharyay, S.	COMP	223
Best, S.	CHED	1300	Bhagavatula, A.	ENVR	467	Bhattacharyya, A.	ORGN	369
Bestler, C.	POLY	549	Bhagia, S.	CELL	218	Bhattacharyya, A.	CATL	169
Bestwick, M.	CHED	594	Bhagi-Damodaran, A.	INOR	465	Bhattacharyya, A.	ANYL	138
Bestwick, M.	CHED	595	Bhagwagar, M.	CHED	498	Bhattacharyya, D.	PMSE	37
Bestwick, M.	CHED	597	Bhagwagar, M.	CHED	1809	Bhattacharyya, G.	CHED	226
Bestwick, M.	CHED	600	Bhagwagar, M.	CHED	1810	Bhattacharyya, N.	ENVR	481
Beswick, L.	CARB	93	Bhagwagar, M.	CHED	1811	Bhattar, S.	CATL	139
Betancourt, M.	ANYL	85	Bhagwagar, M.	ENVR	637	Bhattarai, B.	MEDI	223
Betenbaugh, M.J.	BIOT	43	Bhagwat, A.M.	BIOT	439	Bhattarai, N.	ANYL	355
Betenbaugh, M.J.	BIOT	252	Bhalkikar, A.	CHED	1711	Bhattarai, N.	ANYL	375
Bethea, J.	CHED	1818	Bhalkikar, A.	COLL	443	Bhattarai, N.	ANYL	376
Bethea, J.	COMP	273	Bhama, S.	CATL	532	Bhatti, O.	PHYS	497
Bethea, J.	COMP	288	Bhan, A.	CATL	360	Bhatti, O.	PHYS	498
Betley, T.	INOR	455	Bhan, A.	I&EC	52	Bhawawet, N.	I&EC	126
Betley, T.	INOR	605	Bhandari, B.	AGFD	141	Bheemireddy, S.	POLY	638
Betley, T.	INOR	610	Bhandari, D.	ANYL	91	Bhide, R.S.	MEDI	36
Betley, T.	INOR	709	Bhandari, D.	ANYL	391	Bhowmick, A.	BIOL	5

Bhowmick, I.	INOR	393	Biery, A.	CHED	1906	Bingham, S.	INOR	1419
Bhowmick, I.	INOR	1387	Bies, J.	CHED	1199	Bingham, S.	PROF	51
Bhowmik, P.K.	INOR	1121	Bies, J.J.	BIOL	47	Bingol, K.	BIOT	532
Bhullar, K.	POLY	530	Biesalski, M.A.	CELL	90	Bin Hassan, A.	I&EC	43
Bhullar, K.	BIOL	210	Biesalski, M.A.	CELL	114	Bini, R.	PHYS	427
Bhullar, R.K.	INOR	1063	Bietz, S.	COMP	343	Bin Ishak, M.	I&EC	43
Bhupathiraju, N.	ORGN	424	Biewer, M.C.	PMSE	340	Bin Mohd Azam Shah Wong, S.	I&EC	43
Bhupathiraju, N.K.	CHED	2198	Biewer, M.C.	POLY	146	Binti A Manan, N.	I&EC	43
Bhuvanesh, N.	INOR	270	Biggers, C.	MEDI	380	Binti M Shariff, S.	I&EC	43
Bhuvanesh, N.	INOR	607	Bigham, R.	AGFD	99	Binti M Shariff, S.	I&EC	44
Bhuvanesh, N.	INOR	887	Bigler, D.	BIOL	215	Bin Yousaf, A.	ENFL	544
Bhuvanesh, N.	INOR	890	Bigness, A.	CHED	844	Biolsi, L.	PHYS	490
Bhuvanesh, N.	INOR	973	Bikash, C.	CHED	733	Bio-Sawe, W.	ORGN	121
Bhuvanesh, N.	INOR	1148	Bikker, J.A.	CINF	26	Birbeck, J.	ENVR	33
Bhuvanesh, N.	INOR	1201	Bilalis, P.	PMSE	599	Birch, L.	MEDI	90
Bhuvanesh, N.	INOR	1298	Bilek, H.	CELL	216	Bird, J.	CHED	614
Bi, X.	CATL	462	Bifulco, S.	ENVR	581	Bird, J.	CHED	645
Bi, X.	ENVR	258	Bilinski, T.	CHED	396	Biria, S.	POLY	8
Bi, Y.	ENVR	88	Bill, A.	BIOT	290	Birikh, K.	CELL	404
Bi, Y.	GEOC	92	Bill, E.	INOR	1024	Birimzhanova, D.	PHYS	436
Bian, H.	PHYS	591	Biller, D.M.	CHED	414	Biriukov, D.	GEOC	143
Bianchini, J.	CHED	250	Billings, W.M.	CHED	1364	Biriukov, D.	GEOC	231
Bianco, K.E.	CHAL	2	Billiot, A.	CHED	873	Birk, F.J.	INOR	1257
Bice, N.	CHED	379	Billiot, E.	CHED	403	Birmingham, A.	BIOT	30
Bickel, E.	CATL	271	Billiot, E.	CHED	404	Birmingham, M.	CHED	636
Bicker, L.	CHED	1559	Billiot, E.	CHED	405	Birnbaum, E.R.	FLUO	67
Bickler, J.R.	MEDI	71	Billiot, E.	COLL	184	Birney, L.	CHED	506
Bickler, J.R.	MEDI	206	Billiot, E.	COLL	263	Biro, R.	POLY	738
Biczysko, M.	COMP	351	Billiot, E.	COLL	283	Biros, S.M.	CHED	45
Biczysko, M.	PHYS	324	Billiot, F.H.	CHED	403	Biros, S.M.	CHED	1397
Biddy, M.	I&EC	27	Billiot, F.H.	CHED	404	Biros, S.M.	CHED	1399
Bidle, K.	BIOL	46	Billiot, F.H.	CHED	405	Biros, S.M.	INOR	259
Bidle, K.A.	MEDI	194	Billiot, F.H.	CHED	1565	Biros, S.M.	INOR	260
Bidwell, G.L.	CHED	706	Billiot, F.H.	COLL	184	Biros, S.M.	INOR	1011
Bidwell, S.	CHED	162	Billiot, F.H.	COLL	263	Biru, E.E.	PMSE	237
Bidwell, S.	COMP	352	Billiot, F.H.	COLL	283	Birua, S.	BIOL	83
Bidzimou, M.	CHED	1548	Billitti, J.	MEDI	19	Bisbey, R.P.	POLY	636
Bie, L.	ENFL	123	Billow, B.	INOR	1292	Bisceglia, K.J.	CHED	112
Bieber, N.	MPPG	9	Bills, A.	CHED	1746	Bisceglia, K.J.	CHED	450
Biedermann, L.	PMSE	240	Bills, A.	CHED	2136	Bischof, S.M.	INOR	480
Biehn, S.	ANYL	129	Bills, A.	PHYS	558	Biser, P.S.	CHED	824
Bieker, I.	PHYS	553	Bilodeau, C.	BIOT	322	Bishai, W.	MEDI	17
Bielecki, S.	CELL	356	Bilodeau, C.	BIOT	517	Bishop, A.	CHED	807
Bielecki, S.	CELL	358	Bilodeau, C.	COMP	12	Bishop, A.	CHED	808
Biellmann, T.	INOR	1316	Bilodeau, M.T.	MEDI	191	Bishop, B.	CHED	1316
Bielski, A.L.	CHED	1765	Bilousova, T.	BIOT	562	Bishop, E.R.	CHED	951
Bielski, R.	MEDI	58	Bimbela, F.	CATL	45	Bishop, E.R.	CHED	1166
Bielski, R.	ORGN	623	Bin A Hamid, M.	I&EC	43	Bishop, G.	CHED	18
Bienfait, B.	CINF	90	Bin A Rahman, A.	I&EC	43	Bishop, G.	CHED	22
Bienski, L.D.	CHED	1291	Binder, J.	INOR	313	Bishop, G.	CHED	180
Bienstock, R.J.	CINF	29	Bindra, J.K.	INOR	601	Bishop, G.	MEDI	340
Bierman, B.C.	INOR	370	Bingaman, J.	BIOL	17	Bishop, G.	MEDI	403
Bierwagen, B.	ENVR	771	Bingaman, S.	CHED	824	Bishop, G.	MEDI	405
Bierwisch, D.	CHED	843	Bingham, J.	CHED	1363	Bishop, K.M.	MEDI	340
Bierwisch, D.	PHYS	429	Bingham, S.	CHED	1317	Bishop, K.M.	MEDI	403

Bishop, L.	COLL	607	Black, T.	CHED	1593	Blakey, S.	ORGN	133
Bishop, L.C.	MEDI	403	Blackburn, J.	ENFL	391	Blakey, S.	ORGN	135
Bishop, N.	CHED	1713	Blackburn, J.	PHYS	125	Blakey, S.	ORGN	305
Bishop, N.	CHED	1723	Blackburn, K.	COLL	621	Blakey, S.	ORGN	730
Bisjak, C.	CELL	260	Blackburn, K.	COLL	784	Blanazs, A.	POLY	288
Bismarck, A.	CELL	31	Blackburn, M.	BIOL	56	Blanc, S.	ENVR	14
Bismarck, A.	CELL	54	Blackburn, M.	CHED	700	Blancett, L.	POLY	243
Bismarck, A.	CELL	236	Blackledge, M.S.	CHED	57	Blancett, L.	POLY	576
Bismarck, A.	CELL	333	Blackledge, M.S.	CHED	1167	Blanchette, C.	COLL	4
Bismarck, A.	CELL	370	Blackledge, M.S.	ORGN	69	Blanco, A.	INOR	794
Bisoi, S.	PMSE	143	Blackmon, N.	CHED	899	Blanco, A.	INOR	797
Bissada, K.	ENFL	37	Blackmond, D.G.	ORGN	239	Blanco, A.	ORGN	497
Bisson, P.J.	COLL	147	Blackstock, S.C.	CHED	1354	Blanco, A.	CELL	66
Bisson, P.J.	PHYS	503	Blackstock, S.C.	CHED	1378	Blanco, K.	ORGN	670
Bist, G.	MEDI	50	Blackstock, S.C.	ORGN	248	Blanco, M.A.	BIOT	491
Bist, G.	MEDI	209	Blackstock, S.C.	ORGN	249	Bland, J.M.	AGFD	76
Bista, R.	INOR	397	Blackstock, S.C.	ORGN	471	Bland, J.M.	AGFD	77
Bista, R.	ORGN	646	Blackstock, S.C.	ORGN	645	Blaney, L.M.	ENVR	72
Bistri, O.	CHED	1473	Blackwell, B.	CHED	835	Blaney, L.M.	ENVR	228
Biswa, B.	CHED	989	Blacquiere, J.M.	INOR	442	Blaney, L.M.	ENVR	232
Biswal, A.K.	CELL	64	Blades, A.M.	ORGN	698	Blaney, L.M.	ENVR	250
Biswal, S.	ENFL	144	Blagg, J.	BIOL	122	Blaney, L.M.	ENVR	512
Biswas, A.	POLY	588	Blahove, M.	CHED	345	Blaney, L.M.	ENVR	524
Biswas, N.	ENVR	389	Blain, H.	CARB	51	Blank, D.R.	POLY	580
Biswas, P.K.	COMP	202	Blain, J.M.	MEDI	381	Blankenbuehler, M.T.	CHED	1564
Biswas, P.	AGFD	10	Blaine, C.A.	CHED	442	Blankenbuehler, M.T.	CHED	1911
Biswas, P.	ENVR	93	Blair, D.J.	ORGN	37	Blankenship, J.	CARB	67
Biswas, P.	MPPG	3	Blake, A.M.	POLY	293	Blankenship, R.E.	ANYL	246
Biswas, S.	PHYS	32	Blake, A.V.	INOR	1010	Blankenship, R.E.	ANYL	367
Bitsaktsis, C.	CARB	46	Blake, D.	GEOC	198	Blankenship, R.E.	PHYS	103
Bitting, K.	ORGN	152	Blake, D.A.	BIOT	201	Blankenship, R.E.	PHYS	404
Bittle, E.	COLL	476	Blake, D.A.	BIOT	204	Blankschtein, D.	COLL	567
Bizarro Sordo, M.	CATL	452	Blake, D.A.	COLL	11	Blanton, M.	POLY	651
Bjorgaard, J.	PHYS	388	Blake, D.A.	COLL	564	Blanz, J.	MEDI	243
Bjorklund, J.A.	ORGN	504	Blake, D.A.	ENVR	718	Blasco, F.	MEDI	243
Bjorklund, J.A.	ORGN	722	Blake, D.A.	MEDI	158	Blass, B.E.	MEDI	51
Bjorklund, J.L.	CHED	1161	Blake, D.A.	PMSE	317	Blaszczyk, S.	CARB	44
Bjorklund, J.L.	COLL	196	Blake, D.A.	PMSE	321	Blatt, Y.	MEDI	178
Bjorklund, J.L.	COLL	353	Blake, J.M.	GEOC	128	Blatti, J.	CHED	2103
Bjorklund, J.L.	GEOC	145	Blake, R.	COLL	11	Blattner, K.	MEDI	51
Björklund, S.	COLL	317	Blake, R.	INOR	345	Blaylock, S.J.	CHED	806
Bjorkman, T.	BIOT	219	Blake, R.	INOR	368	Bleakney, M.	PHYS	504
Bjorkman, T.	BIOT	285	Blake, R.	INOR	369	Bleiziffer, P.	CATL	77
Bjorkman, T.	BIOT	291	Blakemore, J.D.	CHED	1124	Blemker, M.	PHYS	400
Bjorkman, T.	BIOT	293	Blakemore, J.D.	INOR	166	Blenner, M.A.	BIOT	159
Bjorkman, T.	BIOT	300	Blakemore, J.D.	INOR	421	Blenner, M.A.	BIOT	240
Bjorkman, T.	BIOT	379	Blakemore, J.D.	INOR	1127	Blenner, M.A.	BIOT	546
Bjorkman, T.	BIOT	544	Blakemore, J.D.	INOR	1128	Blersch, D.	CELL	302
Björnestad, V.	COLL	232	Blakemore, J.D.	INOR	1129	Blersch, D.	ENVR	743
Björnestad, V.	COLL	714	Blakemore, J.D.	INOR	1269	Bleuel, M.	POLY	739
Black, A.	CHED	1832	Blakemore, J.D.	INOR	1274	Blevins, H.M.	CHED	1772
Black, F.	CHED	551	Blakemore, J.D.	INOR	1405	Blewett, T.	GEOC	152
Black, M.B.	COMP	20	Blakemore, J.D.	INOR	1408	Blewett, T.	GEOC	156
Black, R.	CHED	1433	Blakemore, J.D.	INOR	1410	Blewis, M.	BIOT	80
Black, R.S.	CHED	1837	Blakey, S.	ORGN	132	Bliesner, S.	CHED	1763

Bligaard, T.	CATL	25	Blystone, A.M.	CHED	1761	Bock, D.C.	INOR	1159
Bligaard, T.	CATL	104	Bo, S.	PMSE	452	Bock, F.	CELL	403
Bligh, M.	GEOC	122	Bo, S.	ORGN	81	Bock, S.	COLL	340
Blinco, J.	POLY	697	Boal, A.	BIOL	2	Bockus, A.	CHED	1617
Blinco, J.P.	CHED	321	Boal, B.	BIOL	39	Bockus, A.	ORGN	480
Blinov, K.	ANYL	26	Boan, T.A.	CHED	1083	Bodah, Z.	CHED	379
Bloch, E.D.	ENFL	432	Boase, N.R.	CHED	321	Bodah, Z.	CHED	384
Bloch, E.D.	INOR	32	Boase, N.R.	POLY	284	Bodart, P.	AGFD	100
Bloch, E.D.	INOR	1095	Boateng, C.A.	MEDI	180	Bodenschatz, C.J.	CATL	359
Bloino, J.	COMP	351	Boaz, N.	CATL	465	Boder, E.T.	BIOT	115
Bloino, J.	PHYS	53	Boaz, N.	INOR	1268	Bodnar, W.	ENVR	473
Bloino, J.	PHYS	88	Bob, M.	ENVR	604	Bodner, G.M.	CHED	128
Bloino, J.	PHYS	91	Bobadilla, M.	MEDI	193	Bodner, G.M.	CHED	291
Bloino, J.	PHYS	190	Bobbink, F.D.	CATL	496	Bodner, G.M.	CHED	295
Blom, H.	BIOT	303	Bober, B.A.	CHED	1287	Bodner, G.M.	CHED	2075
Blom, H.	BIOT	309	Bobev, S.S.	INOR	150	Bodner, G.M.	ENVR	322
Blonder, A.	CELL	30	Bobinger, H.	CHED	1573	Bodoki, A.	AGFD	11
Blondes, M.S.	GEOC	84	Bobinski, T.P.	MEDI	65	Bodoki, E.	AGFD	11
Bloom, S.	ORGN	406	Bobo, M.V.	ORGN	403	Boebinger, M.G.	ENFL	131
Bloomgren, D.	CHED	1853	Bobylev, M.M.	CHED	49	Boebinger, M.G.	ENFL	303
Blotevogel, J.	ENVR	763	Bobylev, M.M.	CHED	1373	Boeck, A.	CHED	804
Blotevogel, J.	GEOC	150	Bobylev, M.M.	CHED	1531	Boeckler, J.	ENVR	591
Blotevogel, J.	GEOC	152	Bobylev, M.M.	CHED	1580	Boehle, K.	ANYL	304
Blotevogel, J.	GEOC	153	Bobylev, M.M.	CHED	1583	Boehler, M.	ENVR	293
Blotevogel, J.	GEOC	154	Bobylev, M.M.	CHED	1585	Boehm, M.	MEDI	23
Blount, B.	ANYL	91	Bobylev, M.M.	CHED	1595	Boehman, A.L.	ENFL	265
Blount, B.	ANYL	391	Bobylev, M.M.	CHED	1597	Boehme, C.	INOR	96
Blount, B.	ANYL	394	Bobylev, M.M.	CHED	1600	Boehme, L.	SCHB	9
Blowe, K.	I&EC	110	Bobylev, M.M.	CHED	1608	Boehme, S.	INOR	1054
Blue, E.D.	CHED	2025	Bobylev, M.M.	CHED	1620	Boelens, R.	CELL	215
Bluemel, J.	CATL	517	Bobylev, M.M.	CHED	1806	Boelter, S.	CATL	160
Bluemel, J.	CHED	1122	Bobyleva, L.I.	CHED	1373	Boermann, O.	POLY	230
Bluhm, H.	CATL	157	Bobyleva, L.I.	CHED	1531	Boerner, A.	INOR	1409
Bluhm, H.	CATL	158	Bobyleva, L.I.	CHED	1580	Boerth, D.W.	AGFD	93
Bluhm, H.	ENFL	147	Bobyleva, L.I.	CHED	1583	Boerth, D.W.	CHED	1386
Bluhm, K.N.	CHED	1672	Bobyleva, L.I.	CHED	1585	Boerth, D.W.	CHED	1391
Blum, A.P.	BIOL	49	Bobyleva, L.I.	CHED	1595	Boerth, D.W.	MEDI	200
Blum, D.	CHED	1893	Bobyleva, L.I.	CHED	1597	Boerth, D.W.	ORGN	512
Blum, D.M.	INOR	83	Bobyleva, L.I.	CHED	1600	Boerth, J.A.	ORGN	129
Blum, F.D.	POLY	190	Bobyleva, L.I.	CHED	1608	Boes, J.	CATL	166
Blum, F.D.	POLY	404	Bobyleva, L.I.	CHED	1620	Boesch, A.	BIOT	67
Blum, F.D.	POLY	405	Bocanegro, D.	CHED	1188	Boezio, A.	MEDI	3
Blum, F.D.	POLY	532	Bocanegro, D.	CHED	1192	Bogan, L.	I&EC	79
Blum, V.	PHYS	381	Bocharova, V.	COLL	50	Bogart, J.	INOR	604
Blum, V.	PHYS	382	Bocharova, V.	COLL	65	Bogart, J.A.	INOR	220
Blum, V.	PHYS	414	Bochenek, S.	POLY	386	Bogdan, A.	MEDI	117
Blumberger, J.	CATL	84	Bochenek, S.	POLY	792	Boge, L.	COLL	747
Blumberger, J.	PHYS	410	Bochevarov, A.	CATL	172	Boger, D.L.	ORGN	569
Blumberger, J.	PHYS	411	Bochevarov, A.	COMP	89	Boggara, M.	BIOT	191
Blumberger, J.	PHYS	412	Bochevarov, A.	COMP	103	Boggavarapu, K.	CHED	1567
Blumenfeld, C.	POLY	84	Bochevarov, A.	COMP	186	Boggins, S.	CHED	978
Blumenthal, L.	CATL	80	Bochevarov, A.	COMP	190	Boggs, D.	BIOL	174
Blumling, R.	CHED	1493	Bochevarov, A.	COMP	278	Boggs, Z.T.	COLL	255
Blystone, A.	CHED	1206	Bochner, S.	COLL	560	Boghi, M.	MEDI	290
Blystone, A.M.	CHED	1205	Bock, D.	BIOT	108	Bogie, N.	GEOC	13

Bogie, P.M.	ORGN	385	Bolton, E.	CINF	4	Bonizzoni, M.	ORGN	491
Bogin, B.A.	CHED	1825	Bolton, E.	CINF	21	Bonk, P.J.	PRES	7
Bohac, T.J.	ORGN	64	Bolton, E.	CINF	43	Bonk, P.J.	SCHB	6
Bohan, P.	ORGN	95	Bolton, E.	CINF	93	Bonn, A.	INOR	1074
Bohling, J.	POLY	82	Bolton, G.	BIOT	67	Bonnano, D.	BIOT	82
Bohling, J.	POLY	496	Bolton, G.	BIOT	284	Bonnaud, L.	PMSE	533
Bohn, P.W.	INOR	1392	Bolton, G.	BIOT	445	Bonner, C.	CHED	1281
Bohne, C.	PMSE	467	Bombile, J.	ENFL	8	Bonner, L.A.	MEDI	375
Bohner, B.	CHED	1897	Bombuwala Dewage, N.W.	ENVR	149	Bonney, J.R.	CHED	775
Bohnsack, A.	INOR	309	Bominaar, E.L.	INOR	632	Bonnyman, A.	BIOT	185
Bohonak, D.	BIOT	265	Bomma, S.	ENVR	576	Bono, M.S.	ANYL	239
Bois, F.	ENVR	518	Bommarius, A.S.	ORGN	107	Bonomo, G.	CHED	193
Boisclair, M.	ANYL	169	Bommarius, A.S.	ORGN	108	Bonomo, G.	CHED	1968
Boisvert, L.	CHED	1381	Bommarius, B.	ORGN	107	Bonomo, G.	CHED	2101
Boiteau, R.M.	ANYL	231	Bommarius, B.	ORGN	108	Bonomo, R.	CHED	625
Boitnott, A.	BIOL	228	Bompoti, N.	GEOC	58	Bontemps, S.	INOR	697
Boixel, J.	INOR	1316	Bompoti, N.M.	GEOC	248	Bontemps, S.	INOR	1255
Bojko, B.G.	ANYL	329	Boms, E.	CHED	1617	Bontrager, J.	POLY	557
Bok, F.	NUCL	96	Boms, E.	ORGN	480	Bonvallet, P.A.	CHED	1365
Bokesch, H.	MEDI	11	Bonanini, F.	COLL	774	Bonvallet, P.A.	CHED	1368
Bokhari, A.	ENFL	66	Bonanni, D.	MEDI	319	Bonvallet, P.A.	ORGN	472
Boknevitiz, K.L.	ORGN	711	Boncella, J.M.	INOR	886	Bonzo, J.	ENVR	421
Boland, K.	INOR	1146	Boncella, J.M.	INOR	1000	Boogaerts, T.	ENVR	414
Boland, N.E.	GEOC	85	Boncella, J.M.	INOR	1192	Book, R.A.	CHED	1179
Bolanos, M.	CHED	146	Boncella, J.M.	INOR	1193	Booker, S.J.	BIOT	227
Bolanos, M.	CHED	2036	Boncella, J.M.	INOR	1292	Booker, S.	CHED	1171
Bolarin, D.	PMSE	312	Bond, A.	CHED	734	Booker, S.	CHED	1246
Boldor, D.	ENFL	16	Bond, A.	CHED	1352	Bookout, E.	CHED	1387
Boldor, D.	ENFL	379	Bond, M.	CHED	1971	Booksh, K.S.	PROF	14
Boldor, D.	ENFL	407	Bond, M.R.	INOR	776	Booksh, K.S.	PROF	15
Boldyрева, E.	AGFD	123	Bond, N.	COLL	85	Boon, E.M.	INOR	1353
Boldyрева, E.	BIOT	423	Bonde, J.	GEOC	46	Boons, G.	CARB	19
Boles, G.	PHYS	433	Bonde, N.	CHED	787	Boons, G.	CELL	156
Boles, J.O.	CHED	417	Bone, R.	CHAL	3	Boot, C.	CHAS	41
Boles, T.H.	CHED	417	Bone, R.	CHAL	5	Boote, B.	INOR	1055
Boles, T.H.	CHED	893	Bone, S.	FLUO	59	Booth, G.J.	ENVR	548
Bolessa, E.	BIOT	278	Bone, S.	GEOC	93	Boothe, G.	CHED	852
Boley, M.	CATL	170	Bone, S.	GEOC	123	Boothe, J.R.	CHED	1987
Bolgar, M.	BIOT	345	Bone, S.	INOR	1210	Bootsma, A.N.	COMP	387
Bolgar, M.	BIOT	427	Bonev, S.	ENFL	276	Bootsma, A.N.	MEDI	30
Bolin, A.	ORGN	475	Bong, Y.	ENVR	556	Bopegedera, A.M.	CHED	307
Bolin, M.	CHED	514	Bonga, J.	MEDI	204	Boppart, S.	ENVR	25
Boll, M.	CHED	657	Bongay-Williams, K.	MEDI	394	Boppidi, K.	BIOT	440
Boll, R.A.	FLUO	57	Bongio, C.	CELL	398	Bora, P.	MEDI	324
Bolliger, J.L.	ORGN	82	Bongiovanni, R.M.	POLY	92	Boraghi, M.	PHYS	453
Bolling, B.W.	CELL	238	Bonilla, J.	CHED	1083	Boraj, E.	INOR	243
Bollinger, J.	BIOT	495	Bonilla, T.D.	BIOT	161	Borch, T.	ANYL	453
Bollinger, M.	ORGN	124	Bonin, A.	MEDI	86	Borch, T.	ENVR	218
Bollinger, M.	ORGN	473	Bonita, Y.	CATL	274	Borch, T.	ENVR	219
Bollinger, W.	ORGN	601	Bonizzoni, M.	ANYL	121	Borch, T.	GEOC	150
Bolm, C.	CATL	99	Bonizzoni, M.	ANYL	219	Borch, T.	GEOC	152
Bolmatov, D.	COLL	641	Bonizzoni, M.	ANYL	220	Borch, T.	GEOC	153
Bolotaolo, M.	ENVR	556	Bonizzoni, M.	ENVR	400	Borch, T.	GEOC	154
Boltalina, O.V.	FLUO	36	Bonizzoni, M.	ENVR	403	Borda, E.J.	CHED	827
Bolton, E.	CHED	2169	Bonizzoni, M.	ORGN	286	Bordas, M.	CHED	752

Bordiga, S.	CATL	15	Borrelli, M.	COLL	753	Bothra, P.	CATL	103
Bordokas, B.	CHED	1500	Borsali, R.	PMSE	457	Bothra, P.	CATL	481
Borea, L.	ENVR	193	Borsato, D.	ANYL	266	Bothun, G.D.	COLL	90
Boresch, S.	COMP	98	Borshchenko, A.	BIOT	44	Bothun, G.D.	COLL	296
Borfecchia, E.	INOR	1425	Borshchenko, A.	BIOT	262	Bothun, G.D.	COLL	422
Borgerding, A.J.	CHED	907	Bortner, M.	CELL	70	Bothun, G.D.	COLL	514
Borges, A.	COLL	343	Bortner, M.	POLY	759	Bothun, G.D.	COLL	550
Borges, A.	CHED	579	Bortz, D.T.	CHED	465	Bothun, G.D.	COLL	733
Borges, A.	CHED	591	Bortz, D.T.	CHED	467	Bothun, G.D.	COLL	780
Borghei, M.	CELL	162	Borwankar, A.	BIOT	181	Botlaguduru, V.	ENVR	124
Borghei, M.	CELL	181	Borwankar, A.	BIOT	358	Bottan, S.	CELL	396
Borghei, M.	CELL	270	Borys, M.C.	BIOL	282	Bottegoni, G.	COMP	362
Borghei, M.	CELL	342	Borys, M.C.	BIOT	254	Bottiger, J.R.	PHYS	462
Borgman, P.	BIOL	284	Borys, M.C.	BIOT	258	Botto, R.	CATL	399
Borguet, E.	GEOC	247	Borys, M.C.	BIOT	358	Bottorf, L.	CHED	1735
Borguet, E.	INOR	1063	Borys, M.C.	BIOT	486	Boubnov, A.	CATL	132
Borhan, B.	ENFL	363	Borys, M.C.	BIOT	487	Boubnov, A.	CATL	464
Borhani, S.	BIOT	184	Borys, N.J.	COLL	379	Bouchard, A.	ORGN	459
Borin, V.A.	PHYS	468	Borysko, P.	MEDI	124	Bouchard, B.	CHED	1789
Borisov, I.S.	INOR	487	Bosch, E.	INOR	954	Bouchard, J.	CELL	195
Borjas Nevarez, R.	INOR	84	Bosch, M.R.	ENFL	73	Bouchard, J.	CELL	197
Borjas Nevarez, R.	NUCL	69	Bosch, M.R.	ENFL	348	Bouchard, J.	POLY	163
Börjesson, K.	ENFL	26	Boschetti, B.	ENVR	159	Boucher, A.	CHED	774
Borkowski, A.K.	COLL	148	Boschi, D.	MEDI	319	Boucher, D.S.	COLL	252
Borkowski, N.	CHED	1237	Boscoboinik, J.A.	CATL	57	Boucher, D.S.	PMSE	432
Borodai, A.	CHED	1885	Bose, A.	COLL	422	Boucher, D.	INOR	300
Borodina, Y.	CINF	101	Bose, A.	COLL	550	Boucher, M.M.	CHED	1360
Borodinov, N.	PMSE	569	Bose, A.	GEOC	81	Boucher, M.A.	INOR	316
Borodinov, N.	POLY	61	Bose, S.	BIOT	507	Bouchut, A.	CELL	271
Borole, A.	BIOT	97	Bose, S.	INOR	692	Bouchy, C.	CATL	432
Borole, A.	ENFL	11	Bose, S.	INOR	901	Boudon, C.	ORGN	468
Borole, A.	ENFL	58	Bosma, W.	AGFD	40	Boudon, C.	ORGN	637
Borole, A.	ENFL	444	Bosque Mart?nez, I.	ORGN	565	Boudou, C.	MEDI	150
Boron, M.L.	BIOL	211	Bosquesi, P.L.	MEDI	107	Boudouris, B.W.	POLY	515
Boros, E.	FLUO	58	Bossier, D.	POLY	37	Boudouris, B.W.	POLY	666
Boros, E.	FLUO	61	Bossier, D.	POLY	574	Boudreau, M.A.	MEDI	355
Borovik, A.	I&EC	173	Bossmann, S.H.	ANYL	81	Boudreau, M.A.	MEDI	396
Borovik, A.	INOR	70	Bossmann, S.H.	BIOL	110	Boudreaux, C.	INOR	1297
Borovik, A.	INOR	117	Bossmann, S.H.	BIOL	115	Boudreaux, C.	INOR	1299
Borovik, A.	INOR	217	Bossmann, S.H.	I&EC	157	Boudreaux, C.	CATL	187
Borovik, A.	INOR	219	Bossmann, S.H.	MEDI	111	Boudy, B.	COLL	697
Borovik, A.	INOR	220	Bossmann, S.H.	MEDI	354	Boue, S.	AGFD	202
Borovik, A.	INOR	417	Bossmann, S.H.	ORGN	324	Boujemaoui, A.	CELL	295
Borovik, A.	INOR	604	Bossmann, S.H.	PROF	32	Boul, P.	POLY	209
Borovik, A.	INOR	1017	Bostick, B.C.	GEOC	109	Boulos, J.F.	MEDI	364
Borovik, A.	INOR	1019	Boston, D.J.	INOR	393	Boumelhem, F.	CHED	1194
Borovik, A.	INOR	1020	Boston, D.J.	INOR	512	Boumelhem, F.	MEDI	145
Borovik, A.	INOR	1023	Boston, D.J.	INOR	1387	Boundy-Mills, K.	BIOT	240
Borovik, A.	INOR	1116	Botcha, N.	INOR	611	Bouquot, J.	PMSE	247
Borovik, A.	PROF	10	Botelho, E.	CHED	525	Boura, C.	MEDI	342
Borowski, V.	MEDI	109	Both, A.	CHED	1711	Bourbigot, S.	PMSE	490
Borreguero, J.	COMP	355	Botha, S.	CHED	28	Bourdeau, R.	BIOT	500
Borrel, A.	CINF	100	Botha, S.	CHED	1903	Bourg, I.C.	GEOC	170
Borrelli, K.	COMP	379	Bothman, D.	PMSE	556	Bourg, I.C.	GEOC	171
Borrelli, M.	BIOT	461	Bothman, D.	POLY	217	Bourg, I.C.	GEOC	172

Bourg, I.C.	GEOC	174	Bowman, C.	POLY	693	Boyle, T.J.	CHED	344
Bourg, I.C.	GEOC	259	Bowman, C.	POLY	732	Boyle, T.J.	INOR	291
Bourg, I.C.	GEOC	260	Bowman, J.M.	PHYS	140	Boyle, T.J.	INOR	498
Bourg, I.C.	GEOC	265	Bowman, M.K.	INOR	915	Boyle, T.J.	INOR	606
Bourgeois, M.	CHED	2006	Bowman, M.K.	POLY	199	Boyle, T.J.	INOR	1319
Bourgin, M.	ENVR	293	Bowman, S.E.	CHED	1677	Boynton, N.R.	CHED	1486
Bourke, S.	COLL	770	Bowman, S.G.	CHED	280	Boysen, G.	CHED	605
Bourne, T.	MEDI	25	Bowman, S.G.	CHED	580	Bozack, M.J.	AGFD	178
Boutignon, M.	CHED	1007	Bowman, S.G.	CHED	1095	Bozekowski, J.	BIOT	209
Boutin, J.A.	COMP	382	Bowman, S.G.	CHED	1097	Bozell, J.J.	CATL	470
Boutwell, L.	COMP	288	Bowman, S.	CHED	223	Bozigian, H.	MEDI	280
Bouyanff, A.	ANYL	459	Bowman-James, K.	COMP	424	Bracco, J.	GEOC	6
Bouza, M.	ANYL	377	Bowman-James, K.	INOR	539	Bracco, J.	GEOC	7
Bouzouita, A.	PMSE	490	Bowman-James, K.	INOR	749	Bracco, J.	GEOC	170
Bowden, M.	ENFL	204	Bowring, M.A.	CHED	1084	Bracco, J.	GEOC	211
Bowden, M.	ENFL	205	Bowring, M.A.	CHED	1085	Bracco, J.	GEOC	279
Bowden, M.	ENFL	340	Boyanov, M.	ENVR	222	Brace, G.	MEDI	378
Bowden, M.	ENFL	378	Boyanov, M.	GEOC	65	Bracewell, D.G.	BIOT	35
Bowden, N.B.	POLY	327	Boyanov, M.	GEOC	207	Bracewell, D.G.	BIOT	50
Bowden, S.	ORGN	222	Boyanov, M.	GEOC	222	Bracewell, D.G.	BIOT	218
Bowen, A.	INOR	998	Boyce, B.	COLL	360	Bracewell, D.G.	BIOT	302
Bowen, A.	CHED	906	Boyd, C.	CHED	427	Bracewell, D.G.	BIOT	318
Bowen, B.	BIOT	532	Boyd, C.	CHED	1024	Brack, E.	ENVR	650
Bowen, K.H.	PHYS	425	Boyd, D.A.	POLY	39	Bradely, K.	ORGN	640
Bowen, N.	MEDI	186	Boyd, E.	INOR	1405	Bradford, S.	ENVR	90
Bowen, N.	MEDI	187	Boyd, J.E.	CHED	348	Bradicich, A.	CATL	342
Bowerman, M.	MEDI	131	Boyd, J.E.	CHED	895	Bradley, A.	GEOC	135
Bowers, B.B.	PHYS	522	Boyd, J.E.	CHED	897	Bradley, A.	CINF	42
Bowers, C.M.	COLL	480	Boyd, J.E.	CHED	951	Bradley, B.	CHED	133
Bowers, C.R.	CATL	519	Boyd, J.E.	CHED	1166	Bradley, B.N.	CHED	722
Bowers, G.M.	CHED	1687	Boyd, J.E.	CHED	1843	Bradley, C.	CHED	788
Bowers, G.M.	CHED	1726	Boyd, K.J.	COMP	326	Bradley, G.	CHED	439
Bowers, G.M.	GEOC	237	Boyd, L.E.	CHED	1909	Bradley, J.M.	COLL	226
Bowers, G.M.	GEOC	238	Boyd, L.	MEDI	130	Bradley, L.	INOR	803
Bowers, G.M.	GEOC	263	Boyd, M.	WCC	5	Bradley, L.M.	ORGN	628
Bowers, G.M.	GEOC	264	Boydston, A.J.	ORGN	57	Bradley, M.	GEOC	98
Bowers, J.S.	BIOT	82	Boydston, A.J.	ORGN	398	Bradley, S.	INOR	189
Bowers, M.T.	HIST	35	Boydston, A.J.	POLY	155	Bradshaw, J.	ENVR	460
Bowersox, R.	CHED	1690	Boydston, A.J.	POLY	159	Bradshaw, J.E.	BIOL	207
Bowland, C.C.	CELL	364	Boydston, A.J.	POLY	178	Bradshaw, J.E.	CHED	710
Bowland, C.C.	POLY	275	Boydston, A.J.	POLY	393	Bradshaw, J.E.	CHED	1041
Bowlin, J.	CHED	1541	Boydston, A.J.	POLY	463	Bradshaw, J.E.	CHED	1068
Bowlin, J.	CHED	1814	Boydston, A.J.	POLY	642	Bradshaw, J.E.	CHED	1160
Bowling, W.	CHED	1721	Boye, K.	GEOC	124	Bradshaw, J.E.	CHED	1904
Bowling, W.	CHED	1917	Boyer, C.	POLY	160	Brady, C.J.	ANYL	70
Bowman, A.	CHED	1100	Boyer, S.	CELL	304	Brady, C.J.	CHED	433
Bowman, B.	ANYL	91	Boyer, T.H.	ENVR	197	Brady, J.R.	BIOT	28
Bowman, C.	COLL	329	Boykin, D.W.	BIOL	184	Brady, N.	CHED	748
Bowman, C.	POLY	36	Boykin, D.W.	BIOL	188	Brady, P.V.	INOR	167
Bowman, C.	POLY	43	Boykin, D.W.	BIOL	190	Braeutigam, P.	ENVR	641
Bowman, C.	POLY	167	Boykin, D.W.	MEDI	177	Braga, A.L.	ORGN	338
Bowman, C.	POLY	409	Boykin, D.W.	MEDI	365	Braga, A.L.	ORGN	679
Bowman, C.	POLY	425	Boyle, C.	ENFL	338	Braga, C.	PMSE	264
Bowman, C.	POLY	492	Boyle, R.	BIOL	104	Braganza, J.F.	MEDI	19
Bowman, C.	POLY	546	Boyle, T.J.	CHED	134	Braganza, J.F.	ORGN	21

Braglia, L.	INOR	1425	Braunschweig, A.B.	COLL	689	Brenner, R.	PHYS	537
Braide-Moncoeur, O.	CHED	560	Braunschweig, A.B.	ORGN	578	Brennessel, W.W.	CHED	1659
Braidy, N.	CATL	184	Braunschweig, A.B.	POLY	627	Brennessel, W.W.	ORGN	87
Braidy, N.	CATL	340	Bray, A.M.	AGFD	81	Brenning, D.	CHED	1903
Braley, S.	INOR	144	Bray, A.M.	CHED	356	Brentzel, Z.	CATL	264
Braman, P.T.	CHED	911	Brayden, M.	I&EC	82	Brentzel, Z.	I&EC	26
Bramer, L.	GEOC	36	Brazdil, L.C.	CHED	809	Brenzovich, W.E.	CHED	216
Bramhill, J.	POLY	333	Brazel, C.	BIOL	96	Brenzovich, W.E.	CHED	1431
Branca, C.	MEDI	147	Brazel, C.	BIOL	175	Brenzovich, W.E.	CHED	1435
Branch, A.	CHED	1915	Brazel, C.	CHED	671	Brenzovich, W.E.	CHED	1448
Branch, E.	WCC	3	Brazzotto, D.	INOR	219	Breretton, K.R.	INOR	437
Brandenburg, C.	CHED	380	Brazzotto, D.	INOR	1020	Breshears, A.	I&EC	124
Brandis, J.E.	BIOL	11	Brazzotto, D.	PROF	10	Bresnahan, B.	CHED	1888
Brandner, D.	CATL	217	Brdjanovic, D.	ENVR	663	Bresnahan, C.	ENVR	448
Brandon, H.	BIOL	207	Brdjanovic, D.	ENVR	667	Brestrich, N.	BIOT	17
Brandon, H.	CHED	710	Brdjanovic, D.	ENVR	668	Brestrich, N.	BIOT	135
Brandon, M.	CHED	581	Brea, R.J.	BIOL	194	Bretagne, S.	GEOC	94
Brands, T.	POLY	391	Brea, R.J.	BIOT	194	Breton-Vega, A.S.	CHED	1803
Brandt, A.	ENFL	429	Brea, R.J.	ORGN	382	Brett, C.	PMSE	277
Brandt, P.F.	INOR	267	Brea Fernández, R.J.	COLL	639	Brettell-Adams, I.A.	ANYL	127
Brandwein, D.H.	BIOT	161	Brea Fernández, R.J.	ORGN	383	Bretz, J.	MEDI	214
Brannon, C.	ENVR	581	Breakfield, C.	ANYL	78	Bretz, R.L.	CHED	434
Brannon, C.	ENVR	582	Brearley, A.	GEOC	22	Bretz, R.L.	CHED	460
Branscum, T.	ORGN	472	Brearley, A.	GEOC	128	Bretz, S.	CHED	165
Branstrom, A.A.	MEDI	253	Breaux, M.	INOR	814	Bretz, S.	CHED	167
Brant, P.	PMSE	471	Breaux, S.	CELL	424	Bretz, S.	CHED	168
Brant, P.	POLY	153	Breckenridge, L.	BIOT	427	Bretz, S.	CHED	205
Brantner, T.	ENVR	178	Bredas, J.E.	COLL	25	Bretz, S.	CHED	781
Branyan, T.	CHED	706	Bredas, J.E.	PHYS	428	Bretz, S.	CHED	793
Bras, J.	CELL	35	Bredas, J.E.	PMSE	461	Bretz, S.	CHED	794
Bras, J.	CELL	92	Bredas, J.E.	POLY	403	Bretz, S.	CHED	802
Bras, J.	CELL	167	Bredas, J.E.	POLY	596	Bretz, S.	CHED	826
Bras, J.	CELL	332	Breed, J.	MEDI	293	Breuckman, K.C.	CHED	982
Bras, J.	CELL	377	Breedveld, V.	COLL	608	Breugst, M.	ORGN	389
Bras, J.	CELL	394	Breen, H.M.	CHED	519	Breuning, C.	BIOT	216
Braselton, M.	CHED	1328	Breen, N.E.	ANYL	160	Brewer, C.R.	INOR	853
Braselton, M.	CHED	1329	Breen, N.E.	ANYL	170	Brewer, C.R.	INOR	1113
Braster, M.	ENVR	349	Breen, N.	ORGN	680	Brewer, S.M.	INOR	586
Bratis, A.	I&EC	27	Breen-Lyles, M.	BIOL	198	Brewer, T.	ORGN	191
Bratton, A.F.	POLY	44	Brega, V.	PMSE	280	Brewer, T.	ORGN	356
Bratton, A.F.	POLY	537	Bregante, D.	CATL	6	Brezel, B.	GEOC	197
Bratton, M.	CHED	53	Bregante, D.	I&EC	51	Brezinski, W.P.	POLY	397
Bratton, M.	CHED	1485	Breitner, L.	ENVR	251	Brgoch, J.	INOR	294
Bratton, M.	MEDI	160	Breitner, L.N.	ENVR	4	Brgoch, J.	INOR	295
Bratton, M.	MEDI	190	Brekalo, I.	INOR	1326	Brgoch, J.	INOR	296
Bratton, M.	MEDI	386	Bremer, M.	CELL	258	Brgoch, J.	INOR	773
Bratuša, A.	CELL	374	Bremmer, J.	CHED	134	Brgoch, J.	INOR	775
Braud, I.	PHYS	229	Bren, K.	INOR	141	Brgoch, J.	INOR	1232
Brauer, E.K.	ANYL	40	Brendler, V.	NUCL	96	Brian, B.	MEDI	14
Brault, I.	PHYS	589	Breneman, C.M.	PMSE	30	Bricker, L.	CHED	61
Braun, P.V.	COLL	436	Brenneman, M.K.	INOR	1066	Briddon, S.	MEDI	411
Braun, P.V.	POLY	83	Brenneman, M.K.	PHYS	175	Bridge, B.J.	INOR	442
Braun, T.	FLUO	5	Brennan, M.C.	INOR	1151	Bridge, C.	ANYL	409
Braun, T.	FLUO	20	Brennan, P.	CHED	1551	Bridge, C.	ANYL	413
Braunschweig, A.B.	COLL	128	Brennecka, G.	INOR	1227	Bridges, T.M.	MEDI	13

Brien, K.A.	ORGN	432	Brletic, P.A.	ENVR	601	Brooks, J.	ANYL	19
Brien, K.A.	ORGN	717	Brdardic, E.	MEDI	191	Brooks, K.	COLL	688
Brien, K.A.	ORGN	718	Broadbelt, L.J.	I&EC	24	Brooks, K.	ENFL	203
Brien, K.A.	ORGN	719	Broadbelt, L.J.	I&EC	26	Brooks, K.D.	INOR	227
Brien, K.A.	ORGN	720	Broadbelt, L.J.	I&EC	60	Brooks, C.L.	COMP	136
Briere, D.M.	MEDI	65	Broaders, K.	CHED	1759	Brooks, C.L.	COMP	218
Briere, D.M.	MEDI	146	Broadnax, A.D.	ORGN	243	Broome, J.	ENVR	378
Briggs, B.	CHED	1336	Broadrup, R.L.	ANYL	210	Brooun, A.	MEDI	19
Briggs, B.	CHED	1344	Broadwater, M.A.	ENVR	484	Brorson, K.A.	BIOT	394
Briggs, B.	COLL	571	Broadway, S.	CHED	2098	Bross, D.	NUCL	88
Briggs, L.	CHED	273	Brochier-Salon, M.	CELL	219	Bross, D.H.	NUCL	76
Briggs, M.	MEDI	7	Brock, O.	ANYL	30	Brosse, A.	CELL	164
Briggs, S.	CHED	344	Brock, R.	POLY	230	Brostow, W.	CHED	1037
Bright, C.J.	POLY	703	Brock, S.	COLL	67	Brothers, E.N.	INOR	373
Bright, E.	POLY	554	Brock, S.	COLL	431	Brothers, E.N.	INOR	925
Bright, E.R.	PMSE	499	Brock, S.	INOR	449	Brotzman, N.	CHED	1461
Bright, E.R.	POLY	418	Broda, M.	CHED	860	Brouet, S.A.	CHED	563
Bright, E.R.	POLY	570	Broderick, J.B.	INOR	91	Brouet, S.A.	ORGN	652
Bright, S.	FLUO	68	Broderick, J.B.	INOR	518	Broughton, K.	AGFD	67
Brikho, S.M.	CHED	1486	Brodie, E.	GEOC	13	Broughton, R.	AGFD	178
Brillos-Monia, K.A.	ANYL	97	Brodney, M.A.	MEDI	14	Broughton, R.	CELL	427
Brillos-Monia, K.A.	COMP	19	Brodney, M.A.	MEDI	321	Broughton, R.	I&EC	119
Brim, G.G.	POLY	583	Brodsky, B.	COMP	211	Broussard, H.	CHED	2173
Brindle, C.	CHED	1360	Brodsky, Y.	BIOT	120	Brouwer, D.H.	POLY	249
Brindle, C.	ORGN	345	Brodsky, Y.	BIOT	331	Brow, D.	MEDI	299
Briney, C.	BIOL	208	Broekema, M.	ORGN	303	Brower, K.	BIOT	556
Brini, E.	COMP	88	Broene, R.D.	ORGN	177	Brower, M.	BIOT	134
Brini, E.	COMP	219	Broerman, T.	ORGN	116	Brown, A.E.	CHED	791
Brininger, C.	BIOL	235	Brogdon, P.	ORGN	296	Brown, A.	CHED	1521
Brink, A.	CHED	737	Brolo, A.G.	COLL	230	Brown, A.M.	CHED	1157
Brink, E.T.	PMSE	323	Bromfield-Lee, D.C.	CHED	1630	Brown, A.T.	ENFL	106
Brinker, C.	CHED	1322	Bromfield-Lee, D.C.	CHED	2003	Brown, A.	CHED	1137
Brinker, J.	COLL	468	Bromley III, L.	COLL	242	Brown, A.C.	BIOT	563
Brinkman, H.	ORGN	427	Bromley III, L.	COLL	786	Brown, A.C.	COLL	97
Brinn, R.M.	PHYS	557	Bronner, S.M.	MEDI	279	Brown, B.	BIOL	91
Brinson, C.	PMSE	30	Bronner, S.M.	ORGN	301	Brown, B.	CHED	659
Brinson, R.G.	BIOT	524	Bronstein, L.	CATL	185	Brown, B.	CHED	961
Brintlinger, T.H.	CATL	400	Bronstein, L.	COLL	512	Brown, B.	ORGN	475
Brintlinger, T.H.	ENFL	78	Bronstein, N.	COLL	420	Brown, B.	COLL	670
Briody-Pavlik, E.	GEOC	85	Brook, C.	FLUO	36	Brown, B.	PHYS	297
Briskot, T.	BIOT	8	Brook, D.J.	INOR	943	Brown, C.L.	INOR	852
Briskot, T.	BIOT	130	Brook, D.J.	MEDI	404	Brown, C.E.	BIOL	85
Bristol, A.N.	POLY	129	Brook, D.J.	ORGN	474	Brown, C.E.	BIOL	88
Bristol, A.N.	POLY	306	Brook, J.	COLL	395	Brown, C.E.	CHED	59
Bristol, A.N.	POLY	551	Brooke, R.	COLL	117	Brown, C.E.	CHED	173
Bristow, C.A.	MEDI	64	Brooke, R.	PHYS	247	Brown, C.M.	ENFL	149
Bristow, T.	GEOC	198	Brookes, D.	MEDI	308	Brown, D.	COMP	16
Britovsek, G.J.	I&EC	42	Brookhart, J.T.	CHED	1921	Brown, D.	MEDI	7
Britovsek, G.J.	I&EC	46	Brookhart, M.	INOR	1109	Brown, D.G.	MEDI	79
Brits, S.	PMSE	276	Brookhart, M.	ORGN	168	Brown, D.G.	MEDI	81
Britt, R.	GEOC	164	Brookings, D.	MEDI	25	Brown, D.	BIOL	186
Britt, R.	INOR	45	Brooks, A.F.	FLUO	50	Brown, D.	ORGN	311
Britto, B.	PMSE	434	Brooks, B.W.	ANYL	385	Brown, E.	PMSE	338
Brletic, P.A.	CHED	361	Brooks, J.L.	COLL	589	Brown, E.	CHED	1038
Brletic, P.A.	CHED	362	Brooks, J.H.	CHED	593	Brown, E.	CHED	1052

Brown, E.A.	PMSE	339	Brown, T.	POLY	473	Bruner, A.	PHYS	528
Brown, F.L.	COLL	471	Brown, T.	SCHB	28	Bruner, A.	PHYS	646
Brown, G.	INOR	28	Brown, T.	COLL	501	Brunet, C.	CHED	901
Brown, G.O.	POLY	204	Brown, T.T.	INOR	794	Bruneval, F.	COLL	28
Brown, G.	PHYS	497	Brownell, S.	POLY	496	Brunker, T.J.	CHED	210
Brown, G.	PHYS	498	Brownholland, D.	CHED	765	Brunker, T.J.	CHED	1067
Brown, G.	MEDI	35	Brownholland, D.	CHED	1011	Brunner, A.M.	CINF	107
Brown, G.	MEDI	202	Brownholland, D.	CHED	1017	Brunner, F.M.	INOR	335
Brown, G.	MEDI	367	Brownholland, D.	CHED	1018	Brunner, F.M.	INOR	1283
Brown, H.	BIOT	33	Brownholland, D.	CHED	1565	Brunner, J.M.	CHED	102
Brown, I.	CHED	261	Browning, A.	PMSE	184	Bruno, I.	CINF	3
Brown, J.D.	I&EC	150	Browning, J.	GEOC	217	Bruno, J.	CATL	546
Brown, J.E.	ENFL	130	Browning, J.	POLY	77	Bruno, S.	CHED	2208
Brown, J.	BIOT	311	Brownlee, M.	CHED	692	Bruno, T.	I&EC	164
Brown, J.	BIOT	236	Brownlow, J.	CHED	73	Brunschwig, B.S.	INOR	1130
Brown, J.	ANYL	160	Brownlow, J.	POLY	120	Brunskill, A.	ORGN	66
Brown, J.	ANYL	170	Brown-McDonald, J.L.	CHED	9	Brunton, A.	COLL	55
Brown, J.A.	MEDI	25	Brown-McDonald, J.L.	CHED	1062	Brush, E.J.	CHED	579
Brown, K.	CHAS	2	Brown-McDonald, J.L.	CHED	2086	Brush, E.J.	CHED	591
Brown, K.	PHYS	56	Broyer, R.	CHED	2008	Brush, E.J.	CHED	997
Brown, K.	CHED	1292	Broyer, R.	CHED	2183	Brush, E.J.	CHED	1952
Brown, K.	COLL	189	Brozek, C.K.	INOR	564	Brush, E.J.	CHED	2006
Brown, K.K.	COMP	32	Brozek, C.K.	INOR	593	Brush, E.J.	CHED	2168
Brown, L.E.	CHED	723	Brozino, I.	CHED	189	Brust, M.	COLL	502
Brown, L.	CHED	1833	Bruce, A.E.	CHED	262	Brust, M.	COLL	579
Brown, L.	SCHB	29	Bruce, B.D.	CHED	748	Brust, M.	PHYS	179
Brown, M.	I&EC	124	Bruce, C.D.	COMP	392	Brutchey, R.L.	CATL	384
Brown, M.E.	CHED	136	Bruce, D.W.	PHYS	622	Brutchey, R.L.	CATL	395
Brown, M.E.	CHED	192	Bruce, I.	MEDI	243	Brutchey, R.L.	INOR	1237
Brown, M.	BIOT	364	Bruce, M.R.	CHED	262	Brutchey, R.L.	INOR	1238
Brown, M.A.	COLL	540	Bruce, R.C.	COLL	476	Brutlet, J.	MEDI	321
Brown, M.A.	GEOC	149	Bruce Macdonald, H.	COMP	11	Brutman, J.	POLY	261
Brown, M.	CHED	933	Bruch, Q.J.	INOR	120	Brutman, J.	POLY	503
Brown, N.S.	COLL	617	Bruckner, C.	ENVR	153	Brutschea, E.	CHED	1880
Brown, N.	CHED	1516	Bruckner, D.	BIOT	266	Brutschea, E.	ORGN	507
Brown, N.P.	CHED	1364	Brudvig, G.W.	COMP	94	Bryan, C.D.	CHED	938
Brown, N.	CHED	329	Brueckner, A.	CATL	416	Bryan, C.D.	CHED	1159
Brown, P.	ENVR	176	Bruefach, A.	INOR	833	Bryan, M.	CHED	1623
Brown, P.	ENVR	213	Bruender, N.A.	CHED	530	Bryant, J.L.	SCHB	6
Brown, P.A.	COLL	139	Bruening, M.	ANYL	69	Bryant, J.	CHED	2159
Brown, P.	PMSE	527	Brugarolas, P.	FLUO	55	Bryant, K.	COLL	241
Brown, R.D.	ENVR	703	Bruggeman, B.	PHYS	572	Bryant, K.	COLL	655
Brown, R.	CATL	110	Brugnoni, M.	POLY	372	Bryant, L.P.	CHED	1376
Brown, R.G.	CHED	1622	Brugnoni, M.	POLY	792	Bryant, R.	CHED	1851
Brown, S.	PHYS	161	Bruhn, S.	CHED	1548	Bryant, S.H.	COMP	196
Brown, S.P.	MEDI	18	Bruijninx, P.	CATL	95	Bryant, S.	CELL	237
Brown, S.P.	ORGN	302	Bruijninx, P.	CATL	425	Bryantsev, V.S.	GEOC	189
Brown, S.N.	INOR	277	Bruijninx, P.	CELL	215	Bryantsev, V.S.	NUCL	78
Brown, S.N.	INOR	278	Brumaghim, J.L.	INOR	581	Bryce, C.	GEOC	80
Brown, S.N.	INOR	26	Brumaghim, J.L.	INOR	1119	Bryce, D.	ANYL	204
Brown, S.	CHED	1150	Brummel, C.	CHED	1709	Bryce, D.	BIOT	425
Brown, S.	INOR	900	Brummond, K.M.	ORGN	1	Bryce, D.	COLL	104
Brown, S.	CELL	101	Bruna, J.	INOR	755	Bryce, D.	COLL	700
Brown, S.	COLL	535	Brunscics, B.	BIOT	528	Bryce, M.R.	COLL	337
Brown, T.	PMSE	420	Brunken, K.	MEDI	12	Bryce, M.R.	COLL	340

Bryce, M.R.	ORGN	294	Budkina, D.	PHYS	499	Bulutoglu, B.	BIOL	13
Bryce, R.	MEDI	94	Budman, J.	CELL	30	Bump, C.M.	CHED	2186
Bryson, K.	CHED	649	Budner, D.	CHED	123	Bunagan, M.R.	CHED	1825
Bryson, S.	CHED	1591	Budner, D.	CHED	742	Bunce, D.M.	CHED	37
Brzovic, D.	ORGN	588	Budtova, T.	CELL	269	Bunce, R.A.	BIOL	81
Bsharat, O.	ORGN	110	Budtova, T.	CELL	428	Bunescu, A.	ORGN	545
Bte Rahmat, J.	POLY	87	Budtova, T.	POLY	669	Bunge, S.D.	INOR	1015
Bu, L.	COMP	149	Budy, B.	CHED	154	Bunnell, B.	BIOT	128
Bu, X.	INOR	429	Budzinski, K.	BIOT	80	Bunselmeyer, K.	CHED	1860
Bua, D.G.	AGFD	198	Buecher, K.	POLY	307	Buonomo, J.	MEDI	104
Buabthong, P.P.	INOR	1061	Buelow, M.T.	I&EC	63	Buonomo, J.	ORGN	515
Bubb, D.M.	BIOT	195	Buen, Z.	CHED	1690	Buonomo, J.	ORGN	616
Bubb, D.M.	BIOT	198	Buera, P.	AGFD	24	Bur, S.	CHED	1973
Bubb, D.M.	BIOT	464	Buerki-Thurnherr, T.	ENVR	324	Burba, C.	PHYS	287
Bubniak, M.	CELL	242	Buesing, B.	BIOT	333	Burch, M.	CHED	51
Buccella, D.	BIOL	275	Buetner, A.	AGFD	188	Burch, M.	CHED	52
Buchan, J.A.	BIOL	58	Buetner, A.	AGFD	191	Burch, M.	CHED	1577
Buchan, J.A.	BIOL	239	Buetner, K.M.	INOR	917	Burch, M.	ORGN	169
Buchanan, C.M.	CARB	10	Buevich, A.	ORGN	66	Burch, S.	ENVR	433
Buchanan, E.G.	YCC	19	Buffo, C.E.	PHYS	586	Burchett, J.	CHED	582
Buchanan, J.P.	ENVR	703	Bufford, D.	COLL	53	Burchett, S.	CHED	30
Buchanan, J.	CHED	795	Bugarin, A.	ORGN	101	Burchett, S.	CHED	2206
Buchanan, R.K.	ENVR	703	Bugarin, A.	ORGN	657	Burda, C.	POLY	627
Buchanan, R.	INOR	960	Bugarin, A.	ORGN	692	Burdette, J.E.	MEDI	384
Buchete, N.	COMP	38	Buglak, N.E.	CHED	524	Burdge, H.	ORGN	733
Buchfellner, M.	BIOL	220	Bugno, M.	BIOT	454	Burdick, J.A.	POLY	298
Buchholz, B.	INOR	1226	Buhbut-Sinai, S.	COLL	120	Burgard, D.A.	CHED	891
Buchholz, M.	MEDI	351	Buhrlage, S.	MEDI	232	Burgenson, D.	BIOT	184
Buchko, G.	GEOC	24	Buhro, W.E.	COLL	135	Burger, A.	COMP	83
Buchman, J.T.	CHED	2062	Bui, A.	CHED	789	Burger, P.B.	MEDI	55
Buchman, J.T.	COLL	9	Bui, J.H.	ENVR	589	Burgess, K.	BIOL	185
Buchman, J.T.	ENVR	242	Bui, L.	CHED	1880	Burgess, K.	INOR	1375
Buchman, J.T.	ENVR	655	Bui, L.	ORGN	507	Burgess, K.	MEDI	70
Bucior, B.	I&EC	72	Bui, T.	ENFL	501	Burgess, K.	MEDI	95
Buck, A.	CHED	1635	Bukacek Frazier, J.	INOR	991	Burgess, K.	MEDI	96
Buck, E.	PROF	8	Buker, D.	CHED	1301	Burgess, K.	MEDI	97
Buck, M.	PHYS	352	Bukhovko, M.	INOR	76	Burgess, K.	MEDI	98
Buck, M.R.	INOR	810	Bulandr, J.	CHED	1679	Burgess, K.	MEDI	99
Buck, M.	BIOT	424	Bulinski, M.J.	FLUO	30	Burgess, K.	MEDI	212
Buckeridge, S.A.	CHED	608	Bullard, K.L.	CHED	761	Burgess, R.M.	ENVR	19
Buckle, A.	MEDI	277	Bullard, K.L.	CHED	1866	Burgett, A.	ANYL	446
Buckles, M.A.	CHED	1599	Bullington, E.	CHED	462	Burgett, A.	BIOL	120
Buckley, C.	POLY	403	Bullington, E.	CHED	1841	Burgett, A.	CHED	554
Buckley, C.	ENVR	163	Bullock, R.	INOR	121	Burgett, A.	CHED	2037
Buckley, C.	ENVR	648	Bullock, R.	INOR	269	Burgett, A.	MEDI	126
Buckley, G.	COMP	16	Bullock, R.	INOR	612	Burgey, C.S.	MEDI	69
Buckley, G.	PROF	23	Bullock, R.	INOR	665	Burggraf, L.	PHYS	369
Buckley, H.L.	ENVR	363	Bulman, D.M.	ENVR	49	Burghard, C.J.	CHED	1415
Buckley, J.	CINF	58	Bulmer, D.	GEOC	102	Bürgi, T.	INOR	1239
Buckner, A.K.	CHED	580	Bulone, V.	CELL	211	Burgin, A.	MEDI	25
Buckner, A.K.	CHED	1502	Bulovic, V.	PMSE	378	Burgin, A.	MEDI	26
Buckner, C.R.	CHED	797	Bultinck, P.	PHYS	641	Burgin, A.	MEDI	378
Buczek, A.	CHED	860	Bulumulla, C.	PMSE	340	Burgis, N.E.	BIOL	105
Budarin, V.	ENFL	64	Bulumulla, C.	POLY	435	Burgmann, H.	ENVR	11
Budkina, D.	PHYS	468	Bulut, H.	COMP	17	Burgos, J.	CHED	823

Burgos, N.	PMSE	580	Burnham, M.S.	BIOT	289	Buswell, J.L.	BIOL	292
Burgos, W.D.	GEOC	83	Burnley, M.J.	ANYL	230	Butch, C.J.	MEDI	55
Burgos, W.D.	GEOC	156	Burns, A.	CHED	988	Butch, E.	FLUO	42
Burgos, W.D.	GEOC	177	Burns, A.	GEOC	106	Butcher, R.	ANYL	137
Burgos, W.D.	GEOC	227	Burns, C.J.	MEDI	309	Butcher, S.	MEDI	299
Burgos Rivera, J.	BIOL	70	Burns, C.	INOR	1293	Butcher, T.	ORGN	545
Buriak, J.M.	COLL	383	Burns, J.	CHED	273	Buteler, P.	COMP	237
Buriak, J.M.	INOR	654	Burns, K.T.	INOR	224	Buteler, P.	COMP	246
Buriak, J.M.	MPPG	17	Burns, L.A.	PHYS	184	Butera, V.	CATL	219
Buriak, J.M.	PMSE	514	Burns, L.A.	PHYS	305	Butkus, J.	CHED	760
Burin, A.	PHYS	78	Burns, L.A.	PHYS	424	Butler, A.	INOR	195
Burk, G.	ENVR	502	Burns, N.Z.	ORGN	11	Butler, A.	INOR	196
Burkart, M.D.	BIOL	181	Burns, N.Z.	ORGN	75	Butler, A.	INOR	197
Burke, A.	CHED	870	Burns, P.D.	BIOL	77	Butler, A.	INOR	198
Burke, B.	INOR	209	Burns, P.D.	BIOL	85	Butler, A.	INOR	415
Burke, B.	INOR	631	Burns, P.C.	GEOC	195	Butler, A.M.	CHED	444
Burke, D.C.	CHED	928	Burns, P.C.	GEOC	212	Butler, C.R.	CHED	1180
Burke, G.	CHED	437	Burns, P.C.	GEOC	213	Butler, I.S.	BIOL	273
Burke, J.R.	MEDI	6	Burns, P.C.	GEOC	214	Butler, J.	ANYL	38
Burke, J.R.	MEDI	297	Burns, P.C.	NUCL	12	Butler, J.	MEDI	3
Burke, J.P.	MEDI	64	Burnstine-Townely, A.	ORGN	376	Butler, J.L.	CHED	348
Burke, J.P.	MEDI	359	Burraston, R.R.	CHED	792	Butler, J.L.	CHED	897
Burke, K.	CHED	892	Burridge, K.	BIOT	146	Butler, K.	INOR	1325
Burke, K.	CHED	1900	Burridge, K.	BIOT	335	Butler, K.	INOR	1398
Burke, K.A.	CHED	1050	Burridge, K.	POLY	229	Butler, K.S.	INOR	178
Burke, K.	PHYS	270	Burris, A.	CHED	2037	Butler, K.S.	INOR	1328
Burke, M.D.	ORGN	37	Burris, J.N.	CELL	249	Butler, L.G.	CHED	2114
Burke, M.D.	ORGN	39	Burris, T.P.	MEDI	100	Butler, M.	PMSE	521
Burke, M.	CHED	784	Burrows, C.J.	MEDI	298	Butler, M.	BIOT	541
Burke, R.	PHYS	350	Burrows, C.J.	ORGN	274	Butler, P.	BIOT	50
Burke, S.	ORGN	231	Burrows, N.	CHED	36	Butler, P.	COLL	555
Burkhardt, A.	BIOL	136	Bursavich, J.	CATL	187	Butler, S.C.	CHED	614
Burkhardt, G.	BIOL	91	Burt, S.	CATL	264	Butterfield, H.	MEDI	120
Burkhardt, J.A.	COLL	417	Burton, C.A.	SCHB	6	Butterworth, S.	MEDI	94
Burkhardt, J.A.	INOR	823	Burton, C.	ANYL	372	Button, A.	BIOL	17
Burkholder, K.M.	CHED	1202	Burton, M.	PHYS	587	Butts, C.T.	COMP	81
Burkholder, M.	ORGN	454	Burton, S.	GEOC	238	Butts, L.	CHED	1728
Burkholder, T.R.	CHED	457	Burton, S.	GEOC	263	Buynak, J.D.	MEDI	390
Burks, D.B.	INOR	1297	Burton, S.A.	CHED	427	Buytendyk, A.	PHYS	425
Burks, D.	INOR	344	Burton-Pye, B.P.	NUCL	42	Buzbee, M.L.	CHED	1335
Burks, H.E.	MEDI	295	Burton-Pye, B.P.	NUCL	58	Buzzeo, M.C.	INOR	343
Burks, R.M.	CHED	396	Burzynski, E.A.	ANYL	444	Bwambok, D.	ANYL	294
Burks, R.M.	CHED	397	Busby, K.N.	BIOL	35	Byard, S.	POLY	288
Burks, R.M.	CHED	2148	Busby, K.N.	BIOL	229	Bydalek, S.	BIOL	88
Burks, R.M.	SCHB	25	Busby, K.N.	BIOL	294	Byers, A.H.	BIOL	113
Burks, R.M.	YCC	16	Busch, M.W.	ANYL	93	Byers, J.	BIOT	22
Burkus-Matasevac, A.	CHED	522	Bush, M.F.	ANYL	439	Bykov, D.	COMP	117
Burlette, M.	CHED	1181	Buss, A.	POLY	762	Bykov, M.	INOR	577
Burley, G.	MEDI	312	Bussard, K.	ANYL	152	Bykova, E.	INOR	577
Burley, G.A.	BIOL	94	Bussell, M.E.	CATL	500	Bylaska, E.J.	CATL	84
Burman, J.S.	ORGN	133	Busse-Wicher, M.	CELL	283	Bylaska, E.J.	GEOC	141
Burn, A.	ANYL	290	Bussey, T.J.	CHED	783	Bylaska, E.J.	GEOC	272
Burnell, S.	ENVR	462	Bussey, T.J.	CHED	1887	Bynum, S.	POLY	475
Burnett, A.L.	AGFD	131	Bustamante, H.	ENVR	59	Byrd, M.H.	CHED	837
Burney-Allen, A.	CHED	1699	Bustillos, C.	NUCL	36	Byrd, M.H.	CHED	1734

Byrne, M.	CHED	123	Cai, J.	INOR	930	Calmiano, M.	MEDI	378
Byrne, M.	GEOC	45	Cai, J.	CELL	180	Calverley, T.	I&EC	79
Byrne, N.	CELL	264	Cai, Q.	AGFD	86	Calvert, J.	CHED	2115
Byrne, N.	CELL	326	Cai, Q.	ENVR	616	Calvillo, G.N.	CHED	1714
Byrnes, C.	ENVR	490	Cai, R.	BIOL	199	Calvo, B.	FLUO	41
Byrnes, D.	AGFD	231	Cai, W.	PMSE	133	Calvo, P.R.	ENVR	565
Byrnes, J.	INOR	207	Cai, Y.	AGFD	201	Calvo, P.R.	POLY	415
Byron, C.M.	BIOL	198	Cai, Y.	PHYS	299	Calvo, P.R.	POLY	416
Byron, M.	AGFD	93	Cai, Y.	PHYS	392	Camac, D.	MEDI	109
Bysell, H.	COLL	747	Cai, Y.	PHYS	394	Camacho, C.J.	BIOL	210
Byun, J.	ENFL	27	Cai, Y.	INOR	282	Camacho, C.J.	CINF	13
Byun, S.	CATL	304	Cai, Y.	COLL	675	Camacho, D.	CELL	105
Cabana, J.	ENFL	417	Cai, Z.	POLY	29	Camacho, E.	MEDI	110
Cabana, J.	ENFL	419	Cai, Z.	ENVR	143	Camacho, K.E.	INOR	258
Cabana, J.	ENFL	430	Cain, M.	INOR	869	Camacho, L.M.	ENVR	466
Cabane, E.	CELL	78	Cain, M.	INOR	872	Camacho, M.	CELL	96
Cabaniss, S.	GEOC	22	Cain, M.	INOR	1206	Camacho-Bunquin, J.	I&EC	11
Cabelof, A.	INOR	144	Cain, M.	INOR	1296	Camacho-Bunquin, J.	INOR	496
Cable, R.	ENVR	81	Cairncross, R.	ENFL	61	Camacho-Vanegas, O.	COLL	677
Cabral, J.T.	POLY	62	Cairns, A.J.	ENFL	233	Camaioni, D.M.	CATL	194
Cabrera, C.R.	CHED	387	Cairns, A.J.	ENFL	234	Camara, C.	I&EC	161
Cabrera Lopez, C.	CHED	279	Calabro, D.C.	COLL	644	Camara, J.M.	INOR	272
Cabrera Lopez, C.	CHED	1318	Calamita, T.	AGFD	73	Camara, J.M.	INOR	1185
Cabrera Lopez, C.	CHED	1910	Calara, J.	ANYL	152	Camarero-Espinosa, S.	PMSE	309
Cabreros, T.A.	CHED	1123	Calaza, F.C.	CATL	157	Camarillo, A.	CHED	1828
Caccamo, A.	MEDI	147	Calaza, F.C.	CATL	244	Cameron, C.E.	BIOL	231
Cacciatore, J.	BIOT	263	Calaza, F.C.	CATL	344	Cameron, C.	CHED	708
Cachero, R.	CHED	662	Calderon, R.	ENVR	101	Cameron, J.F.	YCC	9
Cadena, B.	CHED	534	Calderón Díaz, A.	INOR	607	Cameron, P.	COLL	731
Cadigan, C.A.	INOR	1240	Calderón Díaz, A.	INOR	973	Cameron, R.G.	CELL	245
Cadigan, C.A.	INOR	1242	Calderone, C.T.	CHED	647	Cameron, S.	PMSE	473
Cadwallader, K.R.	AGFD	117	Calderone, C.T.	CHED	589	Camesano, T.A.	COLL	559
Cady, S.	INOR	848	Caldona, E.	POLY	428	Caminal, G.	ENVR	354
Caffyn, J.	PMSE	341	Caldwell, C.	CHED	812	Cammarota, R.	INOR	1166
Cafiero, M.L.	BIOL	215	Caldwell, F.	BIOT	460	Camp, C.	INOR	157
Cafiero, M.L.	COMP	180	Caldwell, J.P.	ORGN	66	Campagna, J.	BIOT	562
Cafiero, M.L.	COMP	193	Cale, T.	BIOL	88	Campagna, M.R.	MEDI	363
Cafiero, M.L.	COMP	259	Calhoun, K.A.	BIOT	505	Campagna, S.R.	CHED	1172
Cafiero, M.L.	COMP	268	Calhoun, T.R.	CHED	394	Campagnola, G.	GEOC	178
Cafiero, M.L.	COMP	269	Calixte, E.I.	COLL	139	Campana, S.	PMSE	337
Cafiero, M.L.	COMP	277	Call, D.F.	ENVR	458	Campbell, C.T.	CATL	106
Cafiero, M.L.	COMP	283	Call, D.F.	ENVR	459	Campbell, C.T.	CATL	291
Cafiero, M.L.	COMP	284	Callam, C.	CHED	1389	Campbell, C.T.	COLL	442
Cafiero, M.L.	COMP	287	Callam, C.	CHED	1651	Campbell, C.T.	COLL	525
Cafiero, M.L.	MEDI	155	Callam, C.S.	MEDI	62	Campbell, D.P.	POLY	646
Cafiero, M.L.	ORGN	419	Callam, C.S.	ORGN	223	Campbell, D.J.	CHED	181
Cafiero, M.L.	ORGN	420	Callaway, B.	PMSE	556	Campbell, J.	MEDI	165
Cafiero, M.L.	ORGN	423	Callaway, B.	POLY	217	Campbell, J.	MEDI	315
Cahill, C.L.	NUCL	34	Callaway, C.	COLL	85	Campbell, J.M.	BIOT	417
Cahill, J.F.	ANYL	382	Callaway, C.	COLL	238	Campbell, J.M.	BIOT	419
Cahill, M.R.	GEOC	123	Callaway, J.	CHED	1346	Campbell, J.M.	BIOT	420
Cahoon, J.	INOR	562	Callender, A.F.	ENVR	584	Campbell, K.	GEOC	93
Cahoon, J.	INOR	567	Callison, J.	CATL	373	Campbell, K.	GEOC	127
Cai, C.	BIOT	229	Callister, S.	GEOC	36	Campbell, K.	GEOC	228
Cai, C.	ORGN	494	Calmiano, M.	MEDI	25	Campbell, K.	CHED	1786

Campbell, M.J.	CHED	1458	Cano, V.M.	ORGN	635	Cao, X.	POLY	316
Campbell, M.G.	INOR	548	Canongia Lopes, J.	PHYS	235	Cao, X.	INOR	750
Campbell, M.G.	INOR	893	Canongia Lopes, J.	PHYS	657	Cao, X.	INOR	1048
Campbell, M.J.	ORGN	321	Canonica, S.	ENVR	50	Cao, Y.	ENFL	522
Campbell, M.J.	ORGN	714	Canonica, S.	ENVR	109	Cao, Y.	CHED	121
Campbell, M.	CHED	599	Canote, C.	ORGN	175	Cao, Y.	INOR	887
Campbell, S.T.	BIOL	90	Cantlin, T.	FLUO	32	Cao, Y.	INOR	1201
Campbell, S.	CHED	531	Cantlon, J.	COLL	124	Cao, Y.	INOR	1298
Campbell, W.	PHYS	160	Cantos, M.	ENVR	719	Cao, Y.	AGFD	15
Campidelli, S.	INOR	497	Cantrell, J.	COLL	730	Cao, Y.	INOR	1407
Campiglia, A.D.	ORGN	376	Cantrell, L.S.	ORGN	288	Cao, Y.	PHYS	399
Campos, A.	ENVR	87	Cantrell, L.S.	ORGN	482	Cao, Y.	PMSE	485
Campos, K.M.	CHED	1073	Cantrell, W.H.	COLL	266	Cao, Y.	PHYS	385
Campos, L.M.	COLL	408	Cantrill, S.J.	YCC	15	Cao, Z.	ENFL	453
Campos, L.M.	COLL	477	Cantu, D.C.	CATL	216	Capanema, E.A.	CELL	214
Campos, L.M.	PMSE	470	Cantu, D.C.	COLL	143	Capanema, E.A.	CELL	410
Campos, L.M.	POLY	625	Cantu, D.C.	COMP	122	Capozzi, B.	COLL	408
Campos, L.M.	POLY	661	Cantu, D.C.	PHYS	233	Cappelle, M.	ENVR	260
Campos, M.P.	INOR	675	Cantu, J.M.	ANYL	83	Cappelli, C.	PHYS	221
Campos, M.P.	INOR	1400	Cantu, J.M.	ANYL	211	Capps, A.J.	CHED	1311
Campos, R.	ENFL	518	Cantwell, C.A.	CHED	1601	Capra, N.	CHED	1506
Campos, R.	PMSE	403	Canty, E.	CHED	684	Caprini, G.	MEDI	407
Campos, R.	PMSE	590	Cao, A.	ENFL	112	Caprioglio, D.R.	ENFL	365
Campos-Teran, J.	CELL	301	Cao, B.	ENVR	226	Capron, I.	CELL	380
Campos-Teran, J.	CELL	385	Cao, B.	ENVR	767	Capron, I.	CELL	382
Can, E.	PMSE	388	Cao, B.	MPPG	17	Captain, B.	INOR	1311
Can, E.	PMSE	523	Cao, B.	GEOC	278	Capua, E.	PHYS	487
Canady, R.	ENVR	375	Cao, D.D.	ORGN	490	Capuzzi, S.	COMP	195
Canan, S.S.	MEDI	263	Cao, D.	INOR	1157	Car, R.	COMP	56
Canary, J.W.	ORGN	378	Cao, F.	ANYL	144	Car, R.	MPPG	30
Candian, A.	PHYS	194	Cao, F.	ANYL	146	Caradonna, J.P.	BIOL	174
Candy, L.	CELL	307	Cao, H.	AGFD	226	Caran, K.L.	PROF	44
Canelas, D.A.	CHED	1961	Cao, H.	BIOT	268	Caranto, J.D.	INOR	138
Canepa, P.	ENFL	419	Cao, H.	POLY	766	Caranto, J.D.	INOR	53
Canesi, S.	ORGN	669	Cao, J.	ORGN	224	Caranto, J.D.	INOR	202
Canfield, A.	CHED	1015	Cao, J.	ORGN	421	Caranto, J.D.	INOR	632
Canich, J.M.	INOR	487	Cao, J.	BIOT	451	Caravan, P.	INOR	686
Cankovic, M.	GEOC	108	Cao, J.	POLY	355	Caravan, W.	MEDI	79
Canlas, C.	ENFL	500	Cao, J.	MEDI	134	Caravan, W.	MEDI	80
Canlas, G.	ANYL	192	Cao, K.	PMSE	63	Caravatti, G.	MEDI	243
Cann, N.M.	PHYS	158	Cao, K.	PMSE	122	Carbajal, C.	CHED	485
Cann, N.M.	PHYS	532	Cao, L.	POLY	166	Carballeira, N.M.	ORGN	729
Cannanbilla, P.	CHED	683	Cao, L.	ENFL	115	Carbery, W.	BIOL	275
Cannella, A.F.	INOR	210	Cao, L.	MEDI	253	Carbognani, L.A.	ENFL	41
Canney, D.J.	MEDI	51	Cao, L.	ENFL	422	Carbone, L.	POLY	317
Cannon, A.S.	CHED	130	Cao, M.	BIOT	548	Carbonell, C.	ORGN	578
Cannon, A.S.	CHED	317	Cao, P.	PMSE	64	Carbonell Fernandez, C.	COLL	689
Cannon, A.S.	CHED	318	Cao, P.	PMSE	140	Carboni, A.	ENVR	89
Cannon, A.S.	CHED	1945	Cao, P.	POLY	502	Carden, R.	ORGN	394
Cannon, A.S.	PROF	40	Cao, R.	INOR	137	Carden, W.G.	INOR	1321
Cannon, A.	CHED	2011	Cao, R.	INOR	530	Cardenal, A.D.	INOR	1094
Cannon, A.	CHED	2207	Cao, S.	ENVR	185	Cardenas, A.E.	COLL	713
Cannon, J.	POLY	753	Cao, T.	ENFL	144	Cardenas, A.J.	INOR	665
Cano, I.	CATL	502	Cao, X.	AGFD	158	Cardenas, C.	CHED	661
Cano, M.	BIOL	315	Cao, X.	MEDI	380	Cardenas, C.	CHED	1199

Cardenas, C.	PHYS	44	Carmichael, J.	INOR	197	Carrillo, J.Y.	ENFL	484
Cardenas, M.M.	CHED	1390	Carmon, J.	CHED	533	Carrington, B.	MEDI	25
Cardenas, M.	CHED	1188	Carmon, K.	FLUO	72	Carrington, B.	MEDI	26
Cardenas, M.	CHED	1192	Carmona-Monroy, P.	INOR	646	Carrington, L.	PHYS	251
Cardenas, M.	COLL	232	Carn, F.	AGFD	145	Carrington, N.	ANYL	282
Cardinal, S.	ORGN	186	Carnathan, A.J.	CHED	1176	Carroll, A.B.	CHED	1618
Cardoen, G.	POLY	149	Carnevale, K.J.	INOR	1391	Carroll, A.J.	CHED	92
Cardona, M.P.	INOR	1056	Carpenetti, D.W.	CHED	320	Carroll, A.J.	CHED	830
Carey, B.	ENFL	93	Carpenetti, D.W.	CHED	476	Carroll, A.J.	CHED	1905
Carey, J.	CHED	159	Carpenter, A.	ANYL	401	Carroll, A.J.	CHED	1977
Carey, J.	CHED	1570	Carpenter, A.	CHED	1725	Carroll, A.	BIOT	550
Carey, J.	CHED	881	Carpenter, A.	PHYS	417	Carroll, C.	MEDI	64
Carey, J.	CATL	248	Carpenter, B.K.	ORGN	518	Carroll, C.	CHED	1557
Carey, J.	CATL	319	Carpenter, C.	INOR	1070	Carroll, C.	CHED	564
Carey, J.	COMP	367	Carpenter, C.	ENVR	780	Carroll, G.M.	INOR	564
Carey, J.	BIOL	284	Carpenter, E.E.	INOR	844	Carroll, J.	ANYL	159
Carey, K.	CHED	1593	Carpenter, J.E.	PHYS	11	Carroll, L.	CHED	346
Cargnello, M.	CATL	37	Carpenter, J.	ORGN	303	Carroll, L.	CHED	1069
Cargnello, M.	CATL	231	Carpenter, R.	CHED	891	Carroll, M.	PHYS	125
Cargnello, M.	CATL	461	Carpenter, S.	INOR	1350	Carroll, P.J.	INOR	1143
Cargnello, M.	CATL	464	Carpenter, T.A.	CINF	52	Carroll, P.J.	INOR	1340
Cargnello, M.	COLL	123	Carpenter, T.S.	CHED	1466	Carroll, S.	CHED	24
Cargnello, M.	COLL	593	Carpenter, T.S.	ORGN	694	Carroll, S.	MEDI	69
Caricato, M.	PHYS	222	Carpick, R.	COLL	429	Carroll, W.	ANYL	433
Caricato, M.	PHYS	328	Carpita, N.C.	AGFD	50	Carroll, W.	CHED	1501
Cariello, N.	CINF	102	Carpita, N.C.	AGFD	51	Carroll, W.F.	BMGT	6
Carim, A.	INOR	1064	Carr, A.J.	BIOL	132	Carrow, B.	ORGN	96
Carini, E.	AGFD	126	Carr, A.J.	ORGN	384	Carrow, B.	ORGN	543
Carlisle, J.	POLY	244	Carr, A.	COLL	390	Carrow, B.P.	INOR	1415
Carlisle, J.	POLY	245	Carr, A.	PMSE	82	Carruthers, D.N.	BIOT	94
Carlmark, A.E.	CELL	295	Carr, J.M.	COMP	293	Carsch, K.M.	INOR	605
Carlos, I.Z.	MEDI	73	Carr, R.	CATL	14	Carta, G.	BIOT	101
Carlos, I.Z.	MEDI	392	Carra', A.	CHED	555	Cartagena, J.	COLL	242
Carloti, S.	POLY	813	Carraher, C.E.	PMSE	342	Cartagena, J.	COLL	786
Carloti, S.	POLY	812	Carraher, C.E.	PMSE	343	Carter, A.	CHED	1908
Carlsen, D.	CHED	1260	Carrasco, E.	PHYS	464	Carter, A.	INOR	875
Carlson, A.N.	COLL	185	Carrasco-López, C.	BIOL	189	Carter, B.	AGFD	106
Carlson, A.N.	COMP	298	Carrate, B.	CHED	1267	Carter, E.A.	CATL	149
Carlson, E.E.	PROF	2	Carreira, A.C.	PMSE	222	Carter, E.A.	COMP	62
Carlson, H.L.	CHED	1455	Carreira, E.	CHAS	45	Carter, E.A.	MPPG	24
Carlson, K.	COLL	512	Carreira, E.M.	ORGN	3	Carter, E.A.	PHYS	98
Carlson, P.R.	ORGN	254	Carrell, C.	ANYL	304	Carter, E.A.	PHYS	262
Carlson, P.J.	CHED	18	Carreon, M.A.	I&EC	142	Carter, J.	ENFL	34
Carlson, P.J.	CHED	22	Carrero, C.A.	CATL	346	Carter, J.C.	CHED	113
Carlson, P.J.	CHED	180	Carrero, C.A.	CHED	999	Carter, J.K.	CHED	519
Carlsson, A.C.	MEDI	325	Carrero, C.A.	CHED	1028	Carter, K.R.	CELL	36
Carlsson, J.	COMP	363	Carrero, C.A.	CHED	1409	Carter, K.R.	POLY	131
Carlton, D.D.	ANYL	386	Carreyre, H.	FLUO	32	Carter, K.R.	POLY	761
Carmean, R.N.	POLY	212	Carrick, J.D.	ORGN	327	Carter, K.	GEOC	154
Carmel, J.H.	CHED	253	Carrico-Moniz, D.	CHED	1233	Carter, K.	NUCL	34
Carmen, J.	CHED	593	Carrier, D.	CELL	350	Carter, P.H.	COMP	366
Carmichael, D.	BIOT	381	Carrier, R.H.	POLY	361	Carter, P.H.	MEDI	6
Carmichael, D.	BIOT	382	Carrigan, S.W.	CHED	311	Carter, P.H.	MEDI	20
Carmichael, D.	ENFL	353	Carrigan, S.W.	CHED	359	Carter, P.H.	MEDI	35
Carmichael, D.	ENFL	354	Carrillo, J.	COLL	21	Carter, P.H.	MEDI	36

Carter, P.H.	MEDI	91	Cass, A.C.	CATL	151	Castro, C.	ORGN	516
Carter, P.H.	MEDI	109	Cassabaum, A.A.	ANYL	312	Castro, F.	CHED	1879
Carter, P.H.	MEDI	178	Cassady, C.J.	ANYL	183	Castro, J.	CHED	1773
Carter, P.H.	MEDI	202	Cassady, C.J.	COMP	285	Castro Forero, A.	BIOT	73
Carter, P.H.	MEDI	297	Cassady, C.J.	COMP	256	Castro Herazo, C.	CELL	343
Carter, P.H.	MEDI	367	Casselmann, B.	CHED	64	Castro Smirnov, F.A.	PMSE	209
Carter, R.	CHED	1138	Cassels, W.R.	CHED	1612	Casty, G.	CATL	14
Carter, S.L.	INOR	958	Cassidy, B.	AGFD	217	Catalani, L.	PMSE	222
Carter, T.J.	INOR	426	Cassidy, J.	INOR	1246	Catalano, J.G.	GEOC	180
Carter-Cooper, B.	MEDI	129	Cassidy, K.J.	POLY	101	Catalano, J.G.	GEOC	241
Carter-Wientjes, C.	AGFD	85	Cassingham, M.	CHED	944	Catani, M.	ANYL	109
Cartrette, D.P.	CHED	290	Cassingham, M.	CHED	946	Catarino, C.	BIOT	409
Caruso, F.	PMSE	7	Cassingham, M.	CHED	948	Cates, E.L.	ENVR	279
Carvajal de Luna, J.	CHED	769	Cassity, C.	PHYS	25	Cath, T.Y.	ENVR	123
Carvalho, A.J.	CELL	98	Cassity, C.	PHYS	552	Cathala, B.	CELL	164
Carvalho, E.	BIOT	178	Castagnoli, N.	ORGN	18	Cathala, B.	CELL	271
Carvalho, T.	CELL	163	Castaldi, M.J.	CHED	1965	Cathala, B.	CELL	380
Carver, P.L.	INOR	133	Castaldi, M.J.	CHED	2202	Cathala, B.	CELL	417
Cary, J.	AGFD	85	Castaneda, A.	CHED	1869	Catlow, R.	CATL	373
Casad, B.	ENVR	163	Castaneda, S.	CHED	1878	Caton, J.	CMA	1
Casadonte, D.J.	INOR	984	Castano, C.E.	ORGN	454	Cattaneo, M.	INOR	447
Casale, B.	COMP	261	Castano, C.E.	ORGN	455	Caudill, E.R.	COLL	275
Casalini, R.	COLL	221	Castano, J.	BIOT	163	Caudill, E.R.	ENVR	20
Casals-Peralvarez, M.	BIOT	7	Castano, J.	BIOT	287	Caudill, E.R.	ENVR	24
Casanova, K.	CHED	1140	Castele, E.	CHED	1820	Caulmare, J.	BIOT	273
Casar, J.R.	ENVR	602	Castellani, R.	CELL	269	Caulton, K.G.	COLL	375
Casazza, A.P.	PHYS	401	Castellano, F.N.	INOR	1076	Caulton, K.G.	INOR	144
Cascio, M.	BIOL	43	Castellanos, L.	AGFD	46	Caulton, K.G.	INOR	1077
Case, A.	CHED	1707	Castellanos, M.	BIOT	491	Causey, C.	COLL	180
Case, A.	BIOT	550	Castellanos, P.	PHYS	194	Causey, J.C.	CHED	305
Case, D.	BIOL	140	Castellet, F.	ENVR	354	Caushi, K.	CHED	796
Case, D.A.	COMP	321	Castelli, U.	FLUO	32	Cavaco-Paulo, A.	COLL	625
Case, W.	CHED	2178	Caster, A.	CHED	197	Cavallaro, G.	PMSE	153
Caserio, M.	HIST	30	Caster, A.G.	CHED	1906	Cavazos, A.	GEOC	268
Casey, B.	PMSE	344	Caster, A.G.	CHED	1940	Cavazzini, A.	ANYL	109
Casey, J.	ENFL	37	Castiel, A.	BIOT	257	Cave, E.	CATL	447
Casey, K.	CHED	224	Castignolles, P.	POLY	526	Cave, J.R.	AGFD	204
Casey, W.	ENVR	418	Castignolles, P.	POLY	530	Cave, J.R.	AGFD	220
Casey, W.H.	GEOC	29	Castignolles, P.	POLY	671	Cave, K.	CHED	677
Casey, W.H.	GEOC	164	Castillion, C.	CATL	272	Cave, R.J.	ORGN	502
Casey, W.H.	GEOC	220	Castillo, C.	CHED	704	Cave, R.J.	ORGN	503
Casey, W.H.	INOR	45	Castillo, J.	ENVR	722	Cave-Ayland, C.	COMP	11
Casey, W.H.	NUCL	49	Castillo, J.	CHED	1117	Caveny, C.	CHED	1606
Cash, C.	CHED	896	Castillo, J.	BIOT	457	Cavicchi, K.A.	CHED	1766
Cash, C.	CHED	920	Castillo, L.	GEOC	156	Cavicchi, K.A.	POLY	122
Cash, D.	BIOL	39	Castillo, L.E.	GEOC	177	Cavicchi, K.A.	POLY	729
Cash, M.	ENVR	592	Castillo, S.	CHED	1344	Cavinato, A.G.	ANYL	63
Cash, M.	ENVR	598	Castner, E.	PHYS	440	Cavinato, A.G.	CHED	475
Cash, M.	ENVR	599	Castner, E.	PHYS	620	Cavinato, A.G.	CHED	515
Casillas Ituarte, N.N.	COLL	626	Castner, E.	CHED	1472	Cavinato, A.G.	CHED	519
Casini, A.	INOR	682	Castner, E.	CHED	1490	Cavinato, A.G.	CHED	1889
Casique, H.	ENVR	90	Castonguay, H.D.	ORGN	475	Cavinato, A.G.	CHED	2145
Casis, N.	CELL	344	Castor, T.	I&EC	162	Cavitt, T.B.	POLY	244
Caspar, B.	MEDI	411	Castro, E.	PHYS	231	Cavitt, T.B.	POLY	245
Casperson, M.	CHED	994	Castrejon-Gonzalez, E.O.	COMP	302	Cavnar, P.	CHED	1208

Cavnar, P.	INOR	286	Cerrato, J.M.	GEOC	179	Chakraborty, S.	AGFD	201
Cavnar, P.	INOR	787	Cerutti, D.S.	COMP	216	Chakraborty, S.	CHED	385
Cawkwell, M.	INOR	28	Cerutti, D.S.	COMP	321	Chakrapani, H.	MEDI	43
Cazeneuve, C.	COLL	356	Cervantes, C.	CHED	941	Chakrapani, H.	MEDI	323
Cazzell, S.	PMSE	14	Cervantes, F.	CHED	1459	Chakrapani, H.	MEDI	324
Ceballos, B.	INOR	436	Cervinka, C.	PHYS	27	Chakrapani, H.	MEDI	330
Ceballos-Pérez, G.	CHED	1180	Cesa, I.G.	CHED	3	Chakravorty, S.	MEDI	57
Ceccarelli, C.	PHYS	257	Cesa, M.C.	SCHB	26	Chalk, S.J.	CINF	108
Ceccarelli, C.	PHYS	312	Cha, J.	COLL	465	Chalker, C.	INOR	1094
Ceder, G.	ENFL	419	Chabal, Y.J.	COLL	524	Challis, K.	ENVR	88
Ceder, G.	ENFL	430	Chabal, Y.J.	INOR	738	Chalmers, K.A.	CHED	95
Ceder, G.	INOR	1156	Chabal, Y.J.	PHYS	352	Chalmers, K.A.	CHED	1844
Cedillo, A.	PHYS	46	Chabanon, M.	COLL	722	Chalmers, K.A.	COMP	224
Cegelski, L.	COLL	98	Chablani, L.	CHED	1462	Chaloupka, K.	BIOT	544
Cehreli, D.	CHED	1862	Chabolla, S.A.	INOR	164	Chalyavi, F.	ANYL	248
Cekic-Laskovic, I.	FLUO	31	Chachignon, M.	ENVR	783	Chamakuri, S.	ORGN	671
Celani, C.	CHED	889	Chacón, M.F.	ENFL	389	Chamarti, K.	PHYS	581
Celani, C.	ENVR	601	Chacón-Patiño, M.L.	ENFL	160	Chamas, A.	CATL	51
Celenza, J.	CHED	711	Chadha, A.	COLL	769	Chamas, A.	CATL	515
Celestine, A.	PMSE	322	Chadwick, O.	ENVR	340	Chamberlain, C.	INOR	275
Celestine, M.J.	ENFL	547	Chae, J.	INOR	938	Chamberlain, J.	CARB	15
Celi, L.	GEOC	38	Chae, S.	ENVR	299	Chamberland, S.	ORGN	741
Celik, F.E.	CATL	141	Chaffin, P.	BIOT	144	Chambers, B.A.	ENVR	79
Celik, F.E.	CATL	402	Chai, H.	MEDI	384	Chambers, B.A.	ENVR	661
Celik, F.E.	I&EC	77	Chai, I.C.	I&EC	39	Chambers, D.	POLY	690
Celiksoy, S.	PHYS	402	Chai, Q.	CHED	724	Chambers, E.	CHED	362
Celis-Salazar, P.	INOR	661	Chai, W.	INOR	718	Chambers, G.	INOR	269
Celius, T.C.	CHED	1433	Chai, Y.	ENVR	760	Chambers, G.M.	INOR	612
Celius, T.C.	CHED	1518	Chai, Y.	CHED	643	Chambers, K.	INOR	1382
Celius, T.C.	ORGN	518	Chailapakul, O.	ANYL	455	Chambers, M.B.	INOR	976
Cella, L.	BIOT	82	Chaira, T.	MEDI	17	Chambers, M.B.	INOR	1074
Cella, M.E.	ANYL	97	Chaisoonornyotin, W.	ENFL	232	Chambers, P.C.	COLL	262
Celorrío, V.	CATL	178	Chaisuwan, T.	CATL	303	Chambers, R.C.	CHED	1614
Cen, J.	CATL	180	Chaisuwan, T.	CELL	116	Chambliss, K.	ENVR	617
Cen, J.	CATL	280	Chaisuwan, T.	ENVR	628	Chambliss, K.	ENVR	619
Cen, Y.	BIOL	162	Chaisuwan, T.	PMSE	183	Chambon, J.	ENVR	129
Centellas, P.	POLY	183	Chaisuwan, T.	PMSE	371	Chambreau, S.D.	PHYS	23
Centeno Benigno, S.	POLY	746	Chaisuwan, T.	PMSE	381	Chambreau, S.D.	PHYS	22
Centola, G.	MEDI	395	Chaisuwan, T.	PMSE	435	Chamely Wiik, D.	CHED	2092
Centore, J.	CHED	1319	Chaka, A.M.	GEOC	185	Champagne, E.	POLY	466
Centore, J.	CHED	1870	Chakarawet, K.	INOR	550	Champagne, P.	CELL	197
Cerda, J.	CHED	1692	Chaker, K.	CHED	1846	Champagne, P.	CELL	232
Cerecetto, H.	CELL	125	Chakma, P.	CHED	1479	Champagne, P.	POLY	163
Ceriotti, M.	CATL	124	Chakrabarti, A.	ENFL	132	Champion, D.	AGFD	100
Cerjan, C.	NUCL	71	Chakrabarti, A.	ANYL	216	Champness, E.	CINF	55
Cerkez, E.B.	INOR	833	Chakrabarti, D.	CHED	1186	Champness, E.	COMP	24
Cerkez, E.B.	GEOC	246	Chakrabarty, A.	CELL	29	Champness, E.	CINF	27
Cerrato, D.C.	INOR	926	Chakraborty, J.	BIOL	48	Champness, E.	MEDI	185
Cerrato, D.C.	INOR	930	Chakraborty, K.	COMP	357	Chan, B.C.	CHED	1825
Cerrato, J.M.	ENVR	191	Chakraborty, S.	BIOL	84	Chan, B.C.	INOR	248
Cerrato, J.M.	ENVR	284	Chakraborty, S.	CHED	1066	Chan, B.C.	INOR	297
Cerrato, J.M.	GEOC	22	Chakraborty, S.	COLL	651	Chan, C.	INOR	1308
Cerrato, J.M.	GEOC	128	Chakraborty, S.	INOR	906	Chan, E.	BIOT	166
Cerrato, J.M.	GEOC	129	Chakraborty, S.	INOR	933	Chan, E.	PMSE	33
Cerrato, J.M.	GEOC	130	Chakraborty, S.	PHYS	564	Chan, E.	PMSE	38

Chan, E.	POLY	89	Chandrasekhar, J.	MEDI	37	Chang, Y.	COLL	307
Chan, E.	POLY	342	Chandrasiri, I.	PMSE	450	Chang, Y.	ENVR	267
Chan, E.	MEDI	305	Chandrasiri, I.	PMSE	478	Chang, Y.	BIOL	111
Chan, E.T.	INOR	234	Chandross, M.	COLL	134	Chang, Y.	BIOT	186
Chan, E.T.	INOR	235	Chandross, M.	COLL	360	Changas, A.	INOR	877
Chan, E.T.	INOR	475	Chang, A.	COMP	206	Change, C.	MEDI	321
Chan, E.	INOR	175	Chang, A.H.	PHYS	255	Channon, R.B.	ANYL	304
Chan, E.	INOR	675	Chang, A.	INOR	941	Channon, R.B.	ANYL	455
Chan, G.	ANYL	233	Chang, A.	CELL	36	Chan Park, M.	POLY	445
Chan, H.	INOR	962	Chang, A.	INOR	1121	Chan-Park, M.	CARB	50
Chan, H.	INOR	1002	Chang, C.	PMSE	324	Chant, C.	CHED	351
Chan, H.	INOR	1003	Chang, C.	MEDI	6	Chantarojsiri, T.	INOR	1135
Chan, H.	INOR	1004	Chang, C.J.	ANYL	419	Chanthamath, S.	ORGN	26
Chan, H.	COLL	508	Chang, C.J.	BIOL	147	Chanthamontri, C.	ANYL	150
Chan, H.	PHYS	563	Chang, C.J.	INOR	126	Chanzy, H.D.	CELL	139
Chan, J.	ENVR	83	Chang, C.	CELL	180	Chanzy, H.D.	CELL	246
Chan, J.M.	CHED	730	Chang, C.	COLL	16	Chao, D.	ENFL	183
Chan, J.	BIOL	156	Chang, D.	COLL	638	Chao, K.R.	CHED	987
Chan, J.	BIOL	310	Chang, E.	GEOC	259	Chao, W.	MEDI	32
Chan, J.	BIOL	316	Chang, F.	CATL	412	Chaoui, M.	CHED	1534
Chan, K.	CHED	1553	Chang, F.	ENFL	441	Chapa, M.	CHED	1469
Chan, K.	BIOT	339	Chang, H.	CATL	334	Chaparro Sosa, A.F.	COLL	629
Chan, K.	CATL	146	Chang, H.	CELL	121	Chaple, I.F.	FLUO	58
Chan, K.	CATL	533	Chang, H.	CELL	371	Chaplin, B.P.	ENVR	191
Chan, K.	COMP	93	Chang, H.	CELL	418	Chaplin, D.J.	MEDI	66
Chan, K.	CELL	393	Chang, J.C.	COLL	356	Chapman, C.M.	PMSE	44
Chan, K.	ANYL	143	Chang, J.	ENFL	313	Chapman, D.V.	POLY	101
Chan, K.L.	ENVR	363	Chang, J.	INOR	715	Chapman, J.	I&EC	87
Chan, M.	GEOC	141	Chang, J.	INOR	718	Chapman, K.W.	CATL	194
Chan, M.	CHED	179	Chang, K.	POLY	67	Chapman, K.W.	ENFL	254
Chan, M.	COLL	533	Chang, K.	POLY	71	Chapman, K.W.	INOR	522
Chan, M.	I&EC	48	Chang, N.	ENVR	771	Chapman, K.W.	INOR	528
Chan, N.J.	INOR	257	Chang, P.	ENVR	374	Chapman, M.	COLL	778
Chan, S.	BIOT	98	Chang, P.	ENVR	235	Chapp, S.M.	INOR	892
Chan, W.	COLL	496	Chang, R.	BIOT	183	Chappel, A.	CHED	902
Chan, W.	INOR	962	Chang, R.	INOR	1226	Chaput, J.C.	BIOL	291
Chan, W.	INOR	1002	Chang, R.	PMSE	259	Charaf Eddin, A.	INOR	1217
Chan, W.	INOR	1003	Chang, R.	ENVR	509	Charaschanya, M.	ORGN	610
Chan, W.	INOR	1004	Chang, S.	AGFD	224	Charbonnet, J.	ENVR	166
Chandler, B.	CATL	506	Chang, S.	COLL	286	Charbonnet, J.	ENVR	347
Chandler, B.	INOR	292	Chang, S.	COLL	665	Charbonnet, K.	CHAS	33
Chandler, B.D.	CATL	200	Chang, S.	ENFL	393	Chard, K.	PMSE	26
Chandler, B.D.	CATL	546	Chang, S.	BIOT	422	Charette, A.B.	ORGN	458
Chandra, A.	PMSE	390	Chang, S.	ENFL	393	Charette, A.B.	ORGN	575
Chandra, D.	ENFL	446	Chang, T.	PMSE	297	Charette, A.B.	ORGN	86
Chandra, N.	CHED	1413	Chang, T.	PMSE	299	Charette, A.B.	ORGN	158
Chandra, R.	CHED	271	Chang, V.	BIOT	113	Charette, B.	INOR	1134
Chandra, R.	CHED	375	Chang, W.	COLL	759	Charkhabi, S.	BIOT	54
Chandra, R.	CHED	458	Chang, W.	PHYS	12	Charles, D.S.	ENFL	487
Chandra, S.	GEOC	77	Chang, W.	PHYS	299	Charles, J.	COMP	389
Chandrasekar, V.	CARB	55	Chang, W.	PHYS	384	Charles, S.	CHED	902
Chandrasekar, V.	PMSE	344	Chang, W.	PHYS	392	Charlesworth, K.	PMSE	219
Chandrasekaran, P.	INOR	983	Chang, W.	PHYS	394	Charlesworth-Seiler, E.M.	ORGN	465
Chandrasekaran, P.	INOR	1336	Chang, W.	PHYS	402	Charlier, H.A.	CHED	692
Chandrasekaran, S.	CATL	262	Chang, X.	ENVR	418	Charlot, A.	CELL	271

Charoenpanich, A.	INOR	1375	Chauhan, P.	MEDI	324	Chegaev, K.	MEDI	73
Charov, K.	BIOL	181	Chau Nguyen, K.D.	ORGN	663	Chesson, T.	INOR	1143
Charron, B.P.	POLY	717	Chau Nguyen, K.D.	ORGN	664	Chekal, B.P.	MEDI	283
Chartock, J.R.	PMSE	279	Chaurand, P.	ANYL	381	Chekmarev, D.	CINF	26
Charvet, A.	CELL	337	Chauvet, O.	CELL	380	Chekmenev, E.Y.	ORGN	65
Chasapis, T.	INOR	1226	Chavan, A.	BIOL	111	Chelius, C.	BIOT	440
Chase, A.	CHED	1988	Chavarri, I.	BIOL	245	Chellam, S.	CHED	904
Chase, B.	ANYL	462	Chavarria, M.	PHYS	551	Chellam, S.	CHED	905
Chase, B.	CELL	134	Chavarria-Vivar, R.	ENVR	178	Chellam, S.	CHED	972
Chase, B.	COLL	327	Chaves-Villarreal, V.	ENFL	389	Chellam, S.	ENVR	71
Chase, B.	PMSE	291	Chavez, A.R.	CHED	381	Chellam, S.	ENVR	126
Chase, B.	PMSE	293	Chavez, A.	ORGN	244	Chellam, S.	ENVR	212
Chase, B.	PMSE	296	Chavez, A.	CHED	1214	Chellam, S.	ENVR	671
Chase, D.	CHED	1477	Chavez, B.	ORGN	418	Chellam, S.	ENVR	672
Chase, D.	CHED	1481	Chavez, B.	BIOT	259	Chellam, S.	ENVR	673
Chastant, J.A.	ORGN	644	Chavez, B.	BIOT	387	Chellam, S.	PMSE	192
Chatel, A.	BIOT	188	Chavez, B.	BIOT	391	Chelucci, R.C.	MEDI	73
Chatelain, L.	NUCL	31	Chavez, J.L.	ANYL	322	Chelucci, R.C.	MEDI	107
Chatron-Michaud, P.	ENFL	291	Chavez, J.L.	BIOT	245	Chelucci, R.C.	MEDI	392
Chattaraj, P.	PHYS	45	Chavez, J.L.	BIOT	396	Chembazhi, U.	MEDI	305
Chattaraj, R.	COLL	545	Chavez, J.L.	COLL	703	Chemelli, A.	CELL	296
Chatterjee, C.	BIOL	108	Chavez, J.L.	ANYL	104	Chemerisov, S.	INOR	207
Chatterjee, C.	MEDI	229	Chavez, J.L.	COLL	231	Chemtob, S.	ORGN	587
Chatterjee, M.	CHED	2181	Chavez, R.	PMSE	556	Chen, A.	COLL	737
Chatterjee, M.	ENFL	197	Chavez, R.	POLY	217	Chen, A.	CHED	625
Chatterjee, P.	POLY	616	Chavez, S.	PHYS	35	Chen, A.	ORGN	560
Chatterjee, R.	ENFL	376	Chávez, D.	INOR	867	Chen, A.	ORGN	703
Chatterjee, R.	PMSE	143	Chavez-Gomez, D.	AGFD	98	Chen, A.	CHED	2158
Chatterjee, R.	ENVR	42	Chawathe, M.	COLL	599	Chen, B.	INOR	83
Chatterjee, R.	PHYS	494	Chawla, A.	CATL	9	Chen, B.	INOR	946
Chatterjee, S.	INOR	554	Chawla, A.	ENFL	282	Chen, B.	INOR	306
Chatterjee, S.	COLL	335	Chaytor, J.	CHED	1543	Chen, B.	INOR	428
Chatterjee, S.	PMSE	333	Chaytor, J.	CHED	1550	Chen, B.	INOR	433
Chatterjee, S.	PMSE	345	Chaytor, J.	CHED	2042	Chen, B.	ENVR	55
Chatterjee, S.	PMSE	400	Che, F.	CATL	133	Chen, B.	ENVR	432
Chatterjee, S.	POLY	806	Che, S.	POLY	513	Chen, B.	ENVR	500
Chatterjee, S.	COLL	292	Cheah, S.	CATL	285	Chen, B.	POLY	408
Chatterjee, S.	INOR	405	Cheek, G.T.	CHED	630	Chen, B.	CATL	486
Chatters, A.	CHED	768	Cheema, A.W.	COLL	7	Chen, B.B.	MEDI	231
Chattopadhyay, D.	CHED	696	Cheema, H.	ENFL	22	Chen, B.	CATL	530
Chau, P.	CATL	119	Cheema, H.	INOR	1070	Chen, B.	COLL	195
Chaudhari, M.	COMP	133	Cheema, H.	ORGN	297	Chen, B.	BIOT	251
Chaudhary, B.I.	PMSE	117	Cheema, H.	ORGN	477	Chen, C.	CHED	959
Chaudhary, G.	BIOT	108	Cheema, H.	ENFL	21	Chen, C.	AGFD	236
Chaudhary, V.	ORGN	41	Cheema, H.	INOR	839	Chen, C.	ENFL	298
Chaudhary, V.	ORGN	48	Cheema, H.	INOR	1401	Chen, C.	PMSE	232
Chaudhuri, J.	CHED	640	Cheema, H.	ORGN	296	Chen, C.	PMSE	346
Chaudhuri, S.	ENVR	23	Cheema, H.	ORGN	469	Chen, C.	PMSE	394
Chaudhuri, S.	ENFL	80	Cheema, H.	ORGN	476	Chen, C.	CATL	530
Chauhan, A.	POLY	200	Cheeseman, J.R.	PHYS	55	Chen, C.	COLL	379
Chauhan, B.P.	COLL	209	Cheeseman, M.	MEDI	16	Chen, C.	INOR	767
Chauhan, B.P.	COLL	210	Cheeseright, T.	COMP	192	Chen, C.	BIOL	206
Chauhan, B.P.	COLL	261	Cheetham, A.K.	INOR	716	Chen, C.	INOR	86
Chauhan, B.P.	COLL	643	Cheetham, A.K.	INOR	1422	Chen, C.	INOR	144
Chauhan, G.	ENFL	170	Cheevers, S.	POLY	530	Chen, C.	GEOC	10

Chen, D.	ENFL	336	Chen, J.	PMSE	329	Chen, M.	BIOT	95
Chen, D.	BIOT	111	Chen, J.	PMSE	537	Chen, M.	PHYS	538
Chen, D.	BIOT	251	Chen, J.	BIOL	141	Chen, M.	POLY	77
Chen, D.	GEOC	79	Chen, J.	ENVR	108	Chen, M.	COLL	63
Chen, D.	ANYL	70	Chen, J.	ENVR	139	Chen, N.	PMSE	347
Chen, D.	PMSE	194	Chen, J.	ANYL	357	Chen, O.	COLL	416
Chen, F.	INOR	811	Chen, J.	AGFD	39	Chen, P.	CELL	178
Chen, F.	CATL	368	Chen, J.	MEDI	367	Chen, P.	CELL	247
Chen, F.	COLL	5	Chen, J.G.	CATL	131	Chen, P.	PHYS	651
Chen, F.	PHYS	171	Chen, J.G.	CATL	230	Chen, P.	INOR	1314
Chen, F.	COLL	623	Chen, J.G.	CATL	495	Chen, P.B.	AGFD	110
Chen, F.	PMSE	313	Chen, J.G.	COMP	124	Chen, P.	CATL	412
Chen, F.	AGFD	138	Chen, J.	ENFL	72	Chen, P.	ENFL	441
Chen, F.	AGFD	213	Chen, J.	ENFL	123	Chen, P.	MEDI	270
Chen, F.	INOR	738	Chen, J.	AGFD	95	Chen, P.	ORGN	91
Chen, F.	POLY	443	Chen, J.	ENVR	141	Chen, Q.	MEDI	49
Chen, F.	POLY	464	Chen, J.	COLL	594	Chen, Q.	MEDI	219
Chen, G.	AGFD	89	Chen, J.	PHYS	401	Chen, Q.	MEDI	220
Chen, G.	ENVR	507	Chen, J.	PMSE	368	Chen, Q.	ORGN	221
Chen, G.	CELL	426	Chen, J.	PMSE	448	Chen, R.	COLL	428
Chen, G.	MEDI	49	Chen, J.	BIOT	327	Chen, R.	COLL	318
Chen, G.	MEDI	219	Chen, J.	PHYS	372	Chen, R.	PMSE	128
Chen, G.	MEDI	220	Chen, J.	POLY	22	Chen, R.	POLY	196
Chen, G.	ORGN	221	Chen, J.Y.	CHED	1862	Chen, R.	PMSE	499
Chen, G.	BIOT	288	Chen, J.	AGFD	107	Chen, R.	POLY	417
Chen, G.	ANYL	34	Chen, J.	INOR	181	Chen, R.	POLY	572
Chen, H.	ANYL	245	Chen, J.	ENFL	241	Chen, S.	CELL	36
Chen, H.	ENFL	303	Chen, J.	MEDI	199	Chen, S.	POLY	33
Chen, H.	ENFL	307	Chen, J.	POLY	259	Chen, S.	CELL	40
Chen, H.	ENFL	309	Chen, J.	POLY	586	Chen, S.	COLL	487
Chen, H.	PMSE	491	Chen, K.	POLY	166	Chen, S.	AGFD	139
Chen, H.	CATL	548	Chen, K.	CATL	538	Chen, S.	PMSE	193
Chen, H.	POLY	199	Chen, L.	CHED	1753	Chen, S.	ANYL	43
Chen, H.	PHYS	126	Chen, L.	CATL	427	Chen, S.	CHED	391
Chen, H.	BIOT	263	Chen, L.	COLL	749	Chen, S.M.	ENVR	617
Chen, H.	BIOT	271	Chen, L.	POLY	647	Chen, S.M.	ENVR	619
Chen, H.	BIOT	554	Chen, L.	MEDI	260	Chen, T.	MEDI	204
Chen, H.	CATL	306	Chen, L.X.	INOR	1381	Chen, T.	ENVR	56
Chen, H.	COLL	436	Chen, L.	CATL	294	Chen, T.Q.	ORGN	351
Chen, H.	MEDI	360	Chen, L.	COLL	244	Chen, T.Q.	ORGN	352
Chen, H.	ORGN	114	Chen, L.	ENFL	325	Chen, T.	ENVR	335
Chen, H.	CATL	407	Chen, L.	INOR	358	Chen, T.	ANYL	398
Chen, H.	INOR	505	Chen, L.	INOR	381	Chen, T.	ANYL	34
Chen, H.	BIOT	68	Chen, L.	COLL	551	Chen, V.	ENVR	59
Chen, H.	PMSE	524	Chen, L.	BIOL	206	Chen, W.	COLL	211
Chen, H.	PMSE	525	Chen, L.	PHYS	407	Chen, W.	COLL	259
Chen, H.	ENVR	688	Chen, M.	POLY	287	Chen, W.	COLL	310
Chen, H.	MPPG	8	Chen, M.	ANYL	375	Chen, W.	COMP	379
Chen, H.	GEOC	111	Chen, M.	ANYL	376	Chen, W.	ENVR	204
Chen, H.	COLL	778	Chen, M.	ANYL	34	Chen, W.	CATL	243
Chen, H.	PHYS	423	Chen, M.	INOR	1334	Chen, W.	INOR	725
Chen, H.	ENVR	475	Chen, M.	PHYS	122	Chen, W.W.	ENVR	42
Chen, H.	ENFL	398	Chen, M.	ENVR	778	Chen, W.W.	ENVR	378
Chen, I.	MEDI	53	Chen, M.	GEOC	131	Chen, W.W.	PHYS	421
Chen, J.Z.	BIOL	37	Chen, M.	GEOC	155	Chen, W.	BIOT	411

Chen, W.	ANYL	306	Chen, Y.	ENVR	221	Cheng, S.Z.	PMSE	179
Chen, W.	ENVR	25	Chen, Y.	CELL	208	Cheng, T.	CATL	460
Chen, W.	BIOT	63	Chen, Y.	PMSE	211	Cheng, T.	CINF	43
Chen, W.	BIOT	150	Chen, Y.	COLL	651	Cheng, T.	COMP	196
Chen, W.	BIOT	234	Chen, Z.	PHYS	145	Cheng, V.	COLL	406
Chen, W.	BIOT	421	Chen, Z.	PHYS	605	Cheng, W.	CATL	378
Chen, W.	BIOT	458	Chen, Z.	COLL	330	Cheng, W.	CATL	223
Chen, W.	BIOT	476	Chen, Z.	COLL	373	Cheng, W.	ENFL	281
Chen, W.	BIOT	501	Chen, Z.	ENFL	183	Cheng, X.	POLY	223
Chen, X.	CARB	22	Chen, Z.	ENVR	468	Cheng, X.	COLL	335
Chen, X.	FLUO	48	Chen, Z.	CHED	315	Cheng, X.	ENFL	416
Chen, X.	PMSE	122	Chen, Z.	INOR	727	Cheng, Y.	ENFL	152
Chen, X.	POLY	733	Chen, Z.	BIOT	136	Cheng, Z.	ENFL	137
Chen, X.	CHED	1047	Chen, Z.	PMSE	232	Cheng, Z.	ENFL	208
Chen, X.D.	AGFD	165	Chen, Z.	CHED	625	Cheng, Z.	ENFL	520
Chen, X.	ENFL	74	Cheney, D.L.	MEDI	2	Cheng-Mei, L.	PMSE	460
Chen, X.	ENVR	144	Cheney, D.L.	MEDI	27	Cheng-Mei, L.	PMSE	485
Chen, X.	ANYL	360	Cheney, D.L.	MEDI	28	Chenoweth, D.M.	BIOL	25
Chen, X.	ANYL	362	Cheng, A.	BIOT	3	Chenoweth, D.M.	CARB	26
Chen, X.	ANYL	426	Cheng, C.	COMP	234	Cheon, D.	MEDI	368
Chen, X.	MEDI	226	Cheng, C.	ENVR	760	Cheong, A.	BIOT	339
Chen, X.	CATL	244	Cheng, C.	PMSE	189	Cheong, H.	INOR	349
Chen, X.	COLL	213	Cheng, C.	POLY	197	Cheong, H.	INOR	350
Chen, X.	POLY	255	Cheng, E.S.	I&EC	66	Cheong, J.	MEDI	320
Chen, X.	COLL	94	Cheng, G.	CELL	345	Cheong, J.	MEDI	382
Chen, X.	ENFL	151	Cheng, H.	POLY	469	Chernesky, W.	NUCL	72
Chen, X.	PHYS	406	Cheng, H.	POLY	588	Cherney, R.J.	COMP	366
Chen, X.	CHED	1413	Cheng, H.	POLY	672	Cherney, R.J.	MEDI	36
Chen, X.	GEOC	68	Cheng, H.	POLY	776	Cherney, R.J.	MEDI	367
Chen, X.	BIOT	15	Cheng, H.	ANYL	315	Chernick, M.	ENVR	681
Chen, X.	COLL	731	Cheng, H.	INOR	82	Chernikov, V.S.	CINF	105
Chen, X.	WCC	23	Cheng, H.	COLL	40	Cherr, G.N.	ENVR	306
Chen, X.	PMSE	211	Cheng, H.	ENVR	750	Cherradi, Y.	BIOT	341
Chen, X.	PMSE	594	Cheng, J.	ENVR	704	Cherrette, V.	INOR	730
Chen, X.	ENFL	171	Cheng, J.	INOR	484	Cherrette, V.	INOR	1181
Chen, X.	ENFL	151	Cheng, K.	I&EC	143	Cherry, B.	POLY	727
Chen, Y.	ENFL	308	Cheng, K.	I&EC	10	Cherry, J.	CHED	850
Chen, Y.	ENVR	555	Cheng, L.	ORGN	19	Cherukara, M.	COLL	508
Chen, Y.	INOR	739	Cheng, L.	MEDI	6	Cheruzel, L.E.	INOR	192
Chen, Y.	INOR	1092	Cheng, L.	MEDI	297	Cheruzel, L.E.	INOR	1016
Chen, Y.	COLL	109	Cheng, L.	AGFD	169	Cheshire, M.	GEOC	6
Chen, Y.	COLL	286	Cheng, L.	ENVR	363	Cheshire, M.	GEOC	8
Chen, Y.	COLL	314	Cheng, L.	AGFD	168	Cheshire, M.	GEOC	189
Chen, Y.	COLL	677	Cheng, M.	ENVR	510	Cheshire, M.	GEOC	265
Chen, Y.	ENVR	396	Cheng, P.	CHED	585	Cheslack, V.	CHED	1255
Chen, Y.	ENVR	716	Cheng, P.	ENFL	72	Chesler, L.	MEDI	63
Chen, Y.	CELL	368	Cheng, P.	ENFL	116	Chetney, K.	ORGN	500
Chen, Y.	COLL	152	Cheng, Q.	BIOL	106	Cheung, C.L.	COLL	443
Chen, Y.	COLL	728	Cheng, Q.	COMP	281	Cheung, C.	CHED	1711
Chen, Y.	PHYS	335	Cheng, Q.	COMP	419	Cheung, H.	CHED	1492
Chen, Y.	MEDI	9	Cheng, Q.	PHYS	137	Cheung, J.	COLL	234
Chen, Y.	ENVR	187	Cheng, Q.	ENVR	458	Cheung, P.C.	AGFD	80
Chen, Y.	ORGN	474	Cheng, S.	PMSE	511	Cheung, P.L.	INOR	327
Chen, Y.	BIOT	271	Cheng, S.	POLY	314	Cheung, P.L.	INOR	859
Chen, Y.	MEDI	360	Cheng, S.	ENFL	307	Cheung, P.	INOR	216

Chevillard, F.	COMP	364	Chin, Y.	I&EC	32	Cho, J.	BIOL	154
Chhatre, S.	PMSE	294	Chin, Y.	I&EC	78	Cho, M.	CELL	43
Chhotaray, P.	ANYL	284	Chinchilla-Olszar, D.	BIOT	454	Cho, M.	CELL	118
Chhotaray, P.	ANYL	355	Chinga-Carrasco, G.	CELL	82	Cho, M.	CELL	325
Chhotaray, P.	PMSE	530	Chinn, S.C.	POLY	252	Cho, M.	CELL	408
Chhotaray, P.K.	ENVR	629	Chinn, S.C.	POLY	778	Cho, S.	ENVR	106
Chi, M.	ENFL	308	Chinnam, P.R.	INOR	1123	Cho, S.	MEDI	74
Chi, W.	BIOT	251	Chinni, R.	CHED	1704	Cho, T.	COLL	653
Chiaia Hernandez, A.C.	ENVR	787	Chintakunta, H.	POLY	562	Cho, Y.	INOR	348
Chianese, A.R.	INOR	864	Chinwangso, P.	COLL	247	Cho, Y.	INOR	349
Chiang, A.	PMSE	578	Chiong, E.	POLY	87	Cho, Y.	INOR	822
Chiang, B.	BIOT	107	Chiosis, G.	BIOL	304	Cho, Y.	BIOT	23
Chiang, L.	INOR	536	Chipara, D.	POLY	79	Cho, Y.	BIOT	119
Chiappe, C.	ANYL	258	Chipara, M.	POLY	79	Cho, Y.	BIOT	237
Chiarizia, R.	NUCL	46	Chipman, J.A.	INOR	951	Chodera, J.D.	COMP	417
Chib, R.	AGFD	44	Chirachanchai, S.	PMSE	480	Choe, H.	BIOT	399
Chiba, D.E.	MEDI	392	Chirat, C.	CELL	281	Choe, J.	ENVR	234
Chickering, T.	CHED	1670	Chirik, P.J.	CATL	206	Choe, U.	AGFD	64
Chicone, C.	ENVR	759	Chisholm, C.	COLL	53	Choe, W.	INOR	104
Chicone, C.	ORGN	499	Chisholm, J.	MEDI	185	Choe, W.	INOR	1426
Chidanguro, T.	POLY	579	Chisholm, M.F.	CATL	271	Choe, Y.	CATL	219
Chidanguro, T.	POLY	580	Chithrani, D.	COLL	513	Choffnes, D.	CHED	383
Chidanguro, T.	POLY	749	Chitikela, S.	ENVR	570	Choi, B.	COLL	116
Chidsey, C.E.	INOR	105	Chitkul, P.	AGFD	25	Choi, B.	INOR	595
Chiechi, R.C.	ANYL	449	Chitta, R.	INOR	944	Choi, B.	INOR	1371
Chiechi, R.C.	COLL	479	Chittur, S.V.	MEDI	56	Choi, B.	PHYS	383
Chien, H.	BIOL	222	Chiu, C.	INOR	314	Choi, D.	PMSE	263
Chien, H.	MEDI	165	Chiu, C.	INOR	315	Choi, D.S.	PHYS	373
Chien, H.	MEDI	166	Chiu, C.	INOR	1249	Choi, E.K.	BIOL	33
Chien, H.	MEDI	315	Chiu, H.	ORGN	83	Choi, G.	NUCL	82
Chien, P.	ENFL	467	Chiu, M.	GEOC	44	Choi, G.	NUCL	83
Chignen Possi, K.	ORGN	587	Chizallet, C.	CATL	432	Choi, H.	ENVR	334
Chih, K.	COLL	333	Chlebanowski, L.	PROF	32	Choi, H.	ENVR	634
Chihong, S.	POLY	99	Chmelka, B.	CATL	369	Choi, J.	ANYL	38
Chihong, S.	POLY	378	Chmelka, B.	COLL	171	Choi, J.	CATL	379
Chikan, V.	COLL	191	Chmelka, B.	COLL	531	Choi, J.	CATL	392
Chikan, V.	COLL	270	Chmelka, B.	POLY	248	Choi, J.	CATL	393
Chikan, V.	I&EC	153	Chmely, S.C.	CELL	11	Choi, J.	CATL	422
Childress, A.	MPPG	5	Chmely, S.C.	CELL	123	Choi, J.	PMSE	160
Childs, A.	ENVR	164	Chmely, S.C.	CELL	268	Choi, J.	AGFD	45
Chillrud, S.	GEOC	109	Chmely, S.C.	CELL	350	Choi, J.	ANYL	452
Chilom, G.	CHED	916	Chmely, S.C.	CELL	422	Choi, J.	ENVR	653
Chilom, G.	CHED	929	Chmiela, S.	CATL	69	Choi, J.	ANYL	292
Chilukuri, S.	CATL	273	Chmiela, S.	CATL	117	Choi, K.	CATL	211
Chimilio, L.	ANYL	416	Chmielewski, J.A.	CHED	743	Choi, K.	CATL	267
Chin, C.P.	INOR	265	Chmielewski, J.A.	CHED	2075	Choi, K.	INOR	1426
Chin, J.	MEDI	74	Chmielowski, R.	BIOT	554	Choi, M.	ENVR	34
Chin, M.	ENVR	289	Cho, A.	CATL	305	Choi, M.	COLL	107
Chin, M.	ENVR	642	Cho, C.J.	BIOL	45	Choi, M.	COLL	720
Chin, R.M.	CHED	1046	Cho, D.	INOR	349	Choi, S.	CHED	452
Chin, R.M.	CHED	1079	Cho, D.	INOR	822	Choi, S.	NUCL	82
Chin, R.M.	INOR	856	Cho, E.	ENFL	499	Choi, S.	ORGN	222
Chin, T.	CHED	1868	Cho, H.	INOR	937	Choi, S.	POLY	753
Chin, Y.	CATL	56	Cho, H.	CATL	375	Choi, S.	AGFD	34
Chin, Y.	CATL	457	Cho, H.P.	MEDI	13	Choi, S.	ENFL	198

Choi, S.	INOR	349	Choy, J.	PMSE	53	Chua, X.	AGFD	192
Choi, S.	INOR	350	Chrissafis, K.	INOR	1226	Chuaicham, C.	ENVR	532
Choi, W.	GEOC	17	Christe, D.	CINF	74	Chuang, C.	ANYL	168
Choi, W.	ENVR	499	Christe, K.O.	FLUO	7	Chuck, C.	ENFL	18
Choi, Y.	ENVR	105	Christe, K.O.	FLUO	13	Chuck, C.	ENFL	64
Choi, Y.	BIOT	228	Christensen, E.	ENFL	96	Chuck, C.	ENVR	627
Choi, Y.	COMP	14	Christensen, G.A.	ENVR	281	Chudakov, Y.	PMSE	362
Chojecki, A.	I&EC	88	Christensen, J.G.	MEDI	65	Chuekitkumchorn, P.	BIOT	316
Cholkar, K.	MEDI	267	Christensen, J.G.	MEDI	146	Chugani, R.	MEDI	143
Chollangi, S.	BIOT	14	Christensen, M.	ORGN	193	Chuh, K.N.	BIOL	36
Chollangi, S.	BIOT	307	Christensen, M.	ORGN	618	Chuh, K.N.	BIOL	109
Chollangi, S.	BIOT	509	Christensen, P.	POLY	787	Chui, M.A.	CATL	113
Chollangi, S.	BIOT	558	Christensen, R.	CATL	120	Chukanov, N.	ORGN	65
Chon, K.	ENVR	137	Christensen, S.	PMSE	184	Chumbimuni Torres, K.Y.	ANYL	225
Chon, K.	POLY	86	Christensen, S.	ENFL	395	Chumbimuni Torres, K.Y.	ANYL	286
Chong, E.Q.	COMP	273	Christensen, T.	CHED	755	Chu-Moyer, M.	MEDI	3
Chong, H.	AGFD	230	Christensen, T.	CHED	756	Chun, C.	ENVR	288
Chong, L.	GEOC	281	Christian, A.	ORGN	614	Chun, C.	ENVR	346
Chong, L.	ENFL	497	Christians, J.	PHYS	473	Chun, J.	ENFL	235
Chong, M.	ENFL	204	Christiansen, D.	CHED	1763	Chun, K.	ANYL	110
Chong, M.	ENFL	205	Christie, A.E.	BIOL	265	Chung, A.	INOR	193
Chong, M.	ENFL	340	Christison, T.	AGFD	179	Chung, A.	CHED	1056
Chong, M.	ENFL	378	Christison, T.	ENFL	524	Chung, A.	CHED	1845
Chong, P.	CHED	681	Christman, S.	CINF	37	Chung, C.	POLY	699
Choo, K.	ENVR	194	Christman, W.	INOR	1082	Chung, C.	CHED	703
Chopra, G.	ANYL	424	Christman, W.	INOR	1190	Chung, D.	ENVR	608
Chopra, G.	BIOL	159	Christnacht, S.	CHED	904	Chung, D.	INOR	943
Chopra, G.	CHED	2079	Christophe, B.	ORGN	33	Chung, D.	INOR	1226
Chopra, S.	MEDI	43	Christophe, B.	ORGN	93	Chung, H.	ORGN	88
Chorghade, M.	SCHB	6	Christopher, P.	CATL	205	Chung, H.	PMSE	20
Chorghade, R.	SCHB	6	Christopher, P.	CELL	225	Chung, H.	POLY	454
Chou, C.	MEDI	408	Christopher, S.	ANYL	390	Chung, H.	POLY	458
Chou, J.	CHED	1005	Christopoulos, A.	MEDI	13	Chung, H.	POLY	585
Choua, S.	ORGN	468	Christou, G.	INOR	1320	Chung, H.	ORGN	147
Choua, S.	ORGN	637	Christus, J.	CARB	74	Chung, H.	BIOL	192
Choudhary, M.	ORGN	409	Christy, A.	INOR	834	Chung, J.	CHED	1216
Choudhuri, K.	PMSE	348	Chrysochoou, M.	GEOC	58	Chung, K.	NUCL	83
Choudhury, C.	POLY	61	Chrysochoou, M.	GEOC	140	Chung, M.	MEDI	73
Choudhury, R.	CHED	658	Chrysochoou, M.	GEOC	248	Chung, M.	MEDI	107
Choudhury, R.	ORGN	332	Chrzanowski, M.J.	CHED	2053	Chung, M.	MEDI	392
Chouhan, R.K.	ENVR	446	Chu, C.	ENVR	236	Chung, M.	INOR	1249
Chouikhi, D.	POLY	349	Chu, G.	MEDI	309	Chung, R.	ANYL	290
Choung, K.	INOR	1195	Chu, L.	MEDI	92	Chung, R.	CHED	1022
Chourey, S.	ORGN	228	Chu, M.	PHYS	167	Chung, R.	CHED	1275
Chov, A.M.	COLL	190	Chu, P.	COLL	399	Chung, S.	ENVR	590
Chow, C.S.	CHED	1176	Chu, S.	INOR	453	Chung, S.	GEOC	197
Chow, C.S.	ORGN	362	Chu, T.	INOR	160	Chung, Y.G.	I&EC	70
Chow, E.	PHYS	132	Chu, T.	COLL	292	Chung, Y.G.	I&EC	72
Chow, E.	PHYS	515	Chu, T.M.	ORGN	590	Chung, Y.K.	ORGN	147
Chow, J.	ENVR	84	Chu, W.	INOR	438	Chuntonov, L.	ANYL	341
Chowdhry, D.	CHED	1700	Chu, W.	ENVR	679	Chuntonov, L.	ANYL	346
Chowdhury, I.	ENVR	339	Chu, W.	INOR	268	Chupas, P.J.	ENFL	254
Chowdhury, S.	ENFL	76	Chu, Y.	ENVR	267	Chupik, R.B.	INOR	908
Chowdhury, S.	CELL	408	Chu, Y.	ENFL	256	Churanova, T.	ANYL	26
Choy, C.J.	FLUO	69	Chua, G.	MEDI	168	Church, D.	POLY	178

Church, D.	POLY	463	Cisneros, G.A.	COMP	68	Clark, T.R.	COMP	161
Church, D.C.	POLY	393	Cisneros, G.A.	COMP	131	Clarke, B.	ENVR	230
Church, G.M.	BIOL	299	Cisneros, G.A.	COMP	175	Clarke, B.	ENVR	786
Church, S.	INOR	1369	Cisneros, G.A.	COMP	302	Clarke, C.	GEOC	245
Churchfield, L.	INOR	463	Cisneros, G.A.	COMP	424	Clarke, D.D.	CHED	43
Churchwell, J.	COLL	640	Cisneros-Zevallos, L.	AGFD	96	Clarke, H.	CHAS	42
Chushak, Y.	ANYL	322	Cissell, K.	CHED	2150	Clarke, P.	POLY	297
Chushak, Y.	BIOT	396	Ciszewski, R.	COLL	723	Clarke, S.M.	INOR	450
Chutivasanaskun, K.	ENVR	628	Ciszewski, R.	PHYS	417	Clarke, J.J.	AGFD	216
Chuvashova, I.	INOR	577	Citterio, D.	COLL	240	Clarkson, C.	POLY	756
Chval, Z.	GEOC	231	Ciudad, G.	CELL	82	Clary, K.	INOR	1282
Ciampi, S.	COLL	118	Ciura, K.	COMP	279	Claus, R.	CHED	221
Cianciola, E.	ENVR	156	Ciuro, D.	CHED	1803	Clause, H.	NUCL	4
Ciarfella, A.	AGFD	44	Civitella, M.	CHED	100	Clause, H.	NUCL	7
Cibin, G.	COLL	665	Civitello, L.	HIST	15	Clausell, M.	CHED	456
Ciborowski, S.	PHYS	425	Civitello, L.	HIST	22	Clausen, C.	ENVR	540
Cibura, N.	I&EC	65	Cizmas, L.H.	ENVR	330	Clausen, C.	ENVR	607
Cibuzar, M.	INOR	1253	Cizmas, L.H.	ENVR	410	Clay, C.D.	CHED	1837
Cicccone, S.	INOR	444	Clack, H.	ENVR	546	Clay, T.J.	ORGN	600
Cicek, H.	NUCL	42	Claes, N.	COLL	500	Clay, W.	CHED	1588
Cicek, H.	NUCL	54	Claesson, P.	COLL	165	Claycomb, G.D.	CHED	940
Cicero, N.	AGFD	198	Clague, M.	MEDI	233	Clayden, J.	ORGN	236
Cielecka, I.	CELL	358	Clancy, T.	YCC	5	Clayden, J.	ORGN	380
Ciesielski, P.	CATL	443	Clar, J.G.	CHED	968	Claypool, B.	POLY	762
Cieslinski, R.C.	MPPG	14	Clar, J.G.	CHED	978	Clayton, T.W.	INOR	249
Cifelli, G.	CHED	1682	Clark, A.	CHED	1492	Clayton, T.W.	INOR	298
Ciftci, O.	CELL	241	Clark, A.	COMP	194	Clayton, T.W.	INOR	303
Ciglenecki, I.	GEOC	108	Clark, A.E.	GEOC	105	Clear, K.J.	CHED	1507
Ciglenečki, I.	GEOC	216	Clark, A.E.	INOR	711	Clear, K.J.	ORGN	17
Cignetti, A.	MEDI	319	Clark, A.F.	CHED	707	Cleary, L.	ORGN	220
Cihan, E.	COLL	361	Clark, B.D.	INOR	801	Cleary, M.T.	AGFD	230
Cimenler, U.	CATL	192	Clark, B.	COLL	360	Cleary, T.	ANYL	134
Cinnater, V.	ORGN	124	Clark, B.	ORGN	148	Clem, C.M.	CHED	1225
Cinnater, V.	ORGN	453	Clark, C.M.	ENVR	602	Clem, C.M.	CHED	1801
Cinnater, V.	ORGN	473	Clark, D.	CHED	630	Clem, C.M.	CHED	1823
Cinoman, D.	PMSE	105	Clark, E.	BIOT	145	Clemens, B.M.	COLL	387
Cintron-Rivera, L.	CHED	463	Clark, E.	BIOT	335	Clemens, M.	CHED	605
Cintron-Rosado, G.	CARB	44	Clark, E.	POLY	229	Clement, C.	CHED	1068
Cioffi, C.L.	MEDI	270	Clark, J.	ENFL	64	Clement, C.C.	BIOL	86
Ciolkowski, N.	CHED	1086	Clark, J.M.	AGFD	34	Clement, C.C.	MEDI	399
Cipoletti, M.	CHED	513	Clark, J.M.	AGFD	110	Clement, P.	ENVR	654
Cipriano, B.H.	CATL	223	Clark, K.	BIOT	499	Clementi, C.	PHYS	250
Cipurko, D.	BIOL	223	Clark, K.D.	ANYL	331	Clements, C.M.	CHED	1452
Circosta, P.	MEDI	319	Clark, M.	CINF	57	Clements, H.	ORGN	483
Cirera Fernandez, J.	INOR	687	Clark, M.	POLY	496	Clements, H.	I&EC	79
Cirera Fernandez, J.	PHYS	644	Clark, P.	BIOT	559	Clements, T.J.	CHED	1133
Cirino, P.	COLL	99	Clark, R.	ANYL	224	Clemmer, D.E.	CHED	1693
Cirovic, D.	AGFD	183	Clark, R.	MEDI	90	Clemmer, D.E.	CHED	1739
Cirri, A.	PHYS	32	Clark, R.D.	COMP	105	Clemmer, D.E.	CHED	1741
Cirujano, F.G.	CATL	265	Clark, R.A.	CHED	2046	Clerico, E.M.	BIOL	141
Cisneros, B.T.	BIOL	218	Clark, R.	BIOT	120	Clerouin, J.	NUCL	68
Cisneros, G.	COMP	240	Clark, R.A.	PHYS	119	Cleveland, G.	INOR	675
Cisneros, G.	COMP	270	Clark, S.	CHED	1877	Cleveland, K.	ORGN	124
Cisneros, G.	COMP	431	Clark, S.B.	GEOC	105	Cleveland, N.	CATL	448
Cisneros, G.A.	COMP	47	Clark, T.	CHED	1238	Clewell, H.	ENVR	360

Clewell, R.	ENVR	360	Coello, J.	INOR	1369	Cole, B.E.	INOR	1143
Clift, M.D.	MEDI	356	Coello, Y.	ANYL	238	Cole, C.	PHYS	469
Clift, M.D.	ORGN	100	Coffee, D.	CHED	192	Cole, C.	PHYS	486
Clift, M.D.	ORGN	552	Coffer, J.L.	INOR	1361	Cole, D.	GEOC	1
Clifton, L.	BIOT	50	Coffey, G.	COLL	172	Cole, D.	GEOC	209
Cline, E.	CHED	1833	Coffey, N.R.	INOR	46	Cole, D.	GEOC	265
Cline, T.	CHED	313	Coffey, S.B.	MEDI	275	Cole, D.	GEOC	280
Clinkingbeard, T.	CATL	500	Coffie, S.	INOR	1251	Cole, E.	NUCL	35
Clinton, S.M.	ENVR	298	Coffman, A.H.	ANYL	184	Cole, H.D.	CHED	2025
Clodfelter, J.E.	BIOL	58	Coffman, J.L.	BIOT	364	Cole, J.	PMSE	499
Cloete, S.	CATL	439	Coffman, J.L.	BIOT	483	Cole, J.	POLY	417
Cloninger, M.	CHED	1667	Coffman, J.L.	BIOT	557	Cole, J.	POLY	420
Clor, Z.	CHED	622	Coffman, K.J.	MEDI	14	Cole, J.	POLY	553
Closmann, F.	ENFL	267	Cogan, S.F.	ENFL	108	Cole, J.	POLY	572
Clothier, M.	CHED	348	Cogen, J.M.	PMSE	117	Cole, K.	I&EC	129
Clothier, M.	CHED	897	Cogen, J.M.	POLY	208	Cole, M.	CHED	1161
Cloutet, E.	POLY	650	Coggan, T.	ENVR	786	Cole, M.	MEDI	104
Cloutet, E.	POLY	660	Cognigni, A.	PHYS	659	Cole, M.	BIOL	99
Clouthier, D.J.	PHYS	587	Cogswell, C.	PMSE	349	Cole, R.S.	CHED	129
Cloutier, T.	BIOT	24	Cogswell, C.	PMSE	402	Cole, R.S.	CHED	261
Cloutier, T.	BIOT	525	Cohen, A.	CHED	2114	Cole, R.S.	CHED	790
Clymer, R.N.	INOR	1123	Cohen, A.J.	PHYS	268	Cole, R.S.	CHED	2069
Co, A.	I&EC	33	Cohen, A.J.	PHYS	271	Cole, W.	PMSE	247
Co, A.	INOR	668	Cohen, B.E.	BIOL	260	Cole, Z.	CHED	1175
Co, L.	CHED	537	Cohen, B.E.	INOR	175	Cole-Dai, J.	CHED	927
Coasne, B.	PHYS	452	Cohen, J.M.	ENVR	362	Colell, J.	PHYS	381
Coates, G.W.	POLY	261	Cohen, R.E.	PMSE	337	Coleman, F.	INOR	1251
Coates, K.A.	CHED	798	Cohen, S.	CHED	625	Coleman, I.	BIOT	247
Coballes, K.F.	CHED	1829	Cohen, S.	INOR	11	Coleman, M.	COLL	542
Cobani, L.	BIOL	219	Cohen, S.	INOR	136	Coleman, R.E.	INOR	199
Cobban, A.	CHED	992	Cohn, B.	ANYL	346	Coleman Wasik, J.K.	GEOC	110
Cobo Sanchez, C.	CELL	295	Cohn, P.G.	CHED	1514	Coley, C.	CATL	171
Cocardon, E.	ENVR	783	Cohn, P.G.	CHED	1788	Colin, F.	INOR	1044
Coccia, E.	ANYL	15	Cohn, P.G.	CHED	1789	Colin, R.N.	INOR	1009
Cochran, E.W.	POLY	762	Cojocar, B.E.	INOR	1240	Collares, M.	PMSE	223
Cochran, J.	AGFD	217	Cojocar, O.A.	CHED	1476	Collazo-Flores, M.	INOR	867
Cochran, K.H.	ENVR	410	Cojocar, O.A.	CHED	1499	Colletti, C.	PMSE	353
Cochran, W.J.	CHED	1055	Cojocar, O.A.	CHED	1520	Colletti, S.L.	ORGN	184
Cochran, K.	CHED	386	Cojocar, O.A.	CHED	1529	Colletti, S.L.	ORGN	194
Cochrane, C.	BIOL	215	Cojocar, O.A.	CHED	1616	Colley, N.D.	PMSE	350
Cochrane, C.	ORGN	420	Coker, A.	CHED	1843	Colley, N.D.	POLY	508
Cocke, R.C.	COLL	272	Coker, R.	CHED	905	Colley, N.D.	POLY	509
Cocker, D.	AGFD	7	Colacot, T.	CATL	161	Collier, J.L.	ENVR	457
Cockerill, G.S.	MEDI	308	Colah, A.N.	CHED	460	Collier, P.	MEDI	247
Cockram, A.	POLY	367	Colant, N.	BIOT	28	Collier, T.L.	FLUO	54
Cockroft, N.T.	MEDI	344	Colas, C.	BIOL	222	Collinet, M.	PMSE	490
Cocolas, A.	CHED	1461	Colas, C.	MEDI	165	Collins, C.	INOR	1387
Coconubo, L.C.	AGFD	46	Colas, C.	MEDI	166	Collins, C.H.	BIOT	93
Code, A.L.	CHED	1320	Colas, C.	MEDI	315	Collins, C.H.	BIOT	439
Code, A.L.	COLL	7	Colburn, A.	PMSE	37	Collins, D.	BIOT	567
Codella, C.	PHYS	257	Colby, D.A.	MEDI	376	Collins, E.	INOR	888
Cody, C.C.	INOR	229	Colby, R.H.	POLY	202	Collins, E.L.	PHYS	425
Cody, R.B.	ANYL	409	Colby, R.H.	POLY	714	Collins, G.	GEOC	108
Cody, W.L.	CHED	1140	Cole, A.	CHED	2042	Collins, J.	BIOT	226
Coeck, R.	CATL	376	Cole, A.	CHED	1904	Collins, J.	ORGN	293

Collins, L.	NUCL	68	Condon, B.D.	AGFD	223	Conte, E.D.	BIOL	276
Collins, M.	BIOT	165	Condon, B.D.	AGFD	224	Conte, E.D.	ENVR	705
Collins, M.	MEDI	337	Condon, B.D.	CELL	85	Conte, M.	ANYL	158
Collins, R.	ENVR	221	Condon, B.D.	CELL	86	Conteh, H.	BIOL	49
Collins, S.S.	PHYS	384	Confeld, M.	COLL	517	Contrella, N.D.	INOR	695
Collins, S.	CATL	244	Confer, M.	COLL	735	Contreras, J.I.	CHED	592
Collins, S.	CATL	344	Cong, M.	ANYL	355	Contreras, T.A.	CHED	1629
Collins, S.K.	CHED	2126	Cong, M.	ANYL	376	Contreras-Garcia, J.	PHYS	635
Collins, S.K.	ORGN	346	Congreve, D.N.	POLY	661	Conway, B.	PHYS	338
Collins, S.K.	ORGN	458	Congreve, M.	COMP	362	Conway, J.M.	BIOT	221
Collins, S.K.	ORGN	572	Conley, M.	PMSE	117	Conwell, S.	ORGN	688
Collins, S.K.	ORGN	576	Conley, M.P.	INOR	708	Cook, A.W.	INOR	291
Collins, S.K.	ORGN	582	Conlin, S.K.	ANYL	190	Cook, A.W.	INOR	1319
Collins, T.	AGFD	116	Conlisk, A.T.	ANYL	396	Cook, B.J.	INOR	603
Collinson, M.M.	ANYL	407	Conlon, I.L.	MEDI	186	Cook, B.J.	INOR	696
Collins-Wildman, D.	CATL	295	Conlon, M.P.	MEDI	270	Cook, C.	MEDI	293
Collins-Wildman, D.	CATL	299	Conn, A.D.	INOR	718	Cook, D.	CHED	440
Collins-Wildman, D.	CATL	405	Conn, P.J.	MEDI	13	Cook, E.K.	ENVR	762
Collins-Wildman, D.L.	CATL	300	Connell, J.	ENFL	419	Cook, J.M.	MEDI	113
Collins-Wildman, D.L.	CATL	404	Connell-Crowley, L.	BIOT	331	Cook, J.	CHED	1904
Collister, E.	POLY	395	Connolly, C.	BIOT	320	Cook, M.E.	CHED	432
Colon, A.	CHED	1704	Connolly, R.	BIOT	202	Cook, M.E.	ENFL	101
Colon, A.	CHED	1898	Connolly, R.	BIOT	230	Cook, M.E.	ORGN	514
Colon, B.	INOR	286	Connolly, R.	BIOT	399	Cook, R.L.	ENVR	612
Colon, B.	INOR	787	Connolly, R.	BIOT	402	Cook, R.L.	GEOC	41
Colon, G.	CHED	1817	Conner, A.	CHED	1065	Cook, R.L.	GEOC	115
Colon, J.L.	INOR	1065	Conner, K.	INOR	278	Cook, R.L.	GEOC	234
Colon, W.	CHED	2093	Conner, K.M.	INOR	26	Cook, R.L.	GEOC	235
Colon, W.	CHED	2094	Connerney, J.M.	BIOT	266	Cook, S.A.	INOR	604
Colon Santiago, A.G.	CHED	1318	Connick, W.B.	CHAS	2	Cook, S.P.	CHED	1363
Colon Santiago, A.G.	CHED	1807	Connick, W.B.	CHED	495	Cook, S.	CHED	481
Colon Santiago, A.G.	CHED	1808	Connick, W.B.	INOR	1215	Cook-Chennault, K.	ENFL	385
Colosi, L.M.	ENVR	77	Connolly, A.N.	CHED	1605	Cooke, A.	MEDI	185
Colson, E.	ORGN	655	Connor, A.	BIOT	250	Cooke, B.	CHED	1961
Colt, T.	POLY	241	Connor, E.K.	INOR	259	Cooke, D.	CHED	1142
Colvin, M.	CHED	162	Connor, E.K.	INOR	260	Cooke, D.	INOR	1089
Colwell, C.	ORGN	605	Connor, G.P.	INOR	1338	Cooke, E.	ENFL	514
Comas, Q.	ENVR	354	Connor, M.	CHED	34	Cooke, E.	POLY	96
Combs, A.	CHED	196	Connor, M.	CHED	126	Cooke, M.	ANYL	96
Combs, A.R.	INOR	560	Connor, R.E.	CHED	596	Cooksey, T.J.	POLY	724
Combs, A.P.	MEDI	306	Connor Recio, J.	CHED	1074	Coolbaugh, M.J.	BIOT	556
Combs, R.	INOR	666	Connors, G.	CHED	965	Cooley, C.B.	CHED	1392
Combs, R.	INOR	1419	Connors, W.F.	CHED	1643	Cooley, C.B.	CHED	1609
Comert Onder, F.	MEDI	141	Conover, G.	CHED	736	Cooley, C.B.	ORGN	214
Comes, V.C.	POLY	395	Conover, O.Q.	INOR	252	Cooley, K.	ENVR	613
Comito, R.J.	INOR	500	Conover, O.Q.	INOR	256	Cooley, K.	ENVR	614
Comito, R.J.	ORGN	554	Conrad, H.	CHED	1846	Cooley, T.A.	ORGN	429
Communal, J.	CELL	106	Conrad, J.	COLL	99	Coombs, T.C.	CHED	1380
Compagnon, I.	CELL	22	Conrad, J.	COLL	391	Coombs, T.C.	ORGN	116
Compagnone, D.	AGFD	193	Conrad, J.	GEOC	277	Coon, S.	CHED	1738
Conaway, C.	GEOC	84	Conrad-Burton, F.	PHYS	127	Coonce, J.G.	CHED	1905
Conboy, J.C.	COLL	324	Conrad-Webb, H.	BIOL	245	Coonrod, C.	ENVR	405
Conboy, J.C.	COLL	406	Conroy, D.T.	INOR	760	Cooper, A.	ANYL	64
Concepcion, J.J.	INOR	568	Conroy, M.	PROF	8	Cooper, A.	CATL	380
Concepcion, J.J.	INOR	662	Consoli, D.F.	INOR	76	Cooper, A.	CATL	444

Cooper, A.K.	CHED	1636	Cordero, D.	CHED	1874	Cortes, Y.	CHED	931
Cooper, A.I.	PMSE	31	Cordero, D.	ORGN	537	Cortes Bula, C.	CHED	1808
Cooper, B.	CHED	531	Cordero, S.	CHED	1789	Cortes-Clerget, M.	CHED	247
Cooper, C.	CHED	1031	Cordner, A.P.	CHED	499	Cortes-Guzman, F.	AGFD	98
Cooper, E.	CHED	1820	Cordner, A.P.	CHED	502	Cortez, S.	CHED	918
Cooper, G.	PHYS	586	Cordova, D.	I&EC	115	Cory, R.M.	ENVR	117
Cooper, K.	CELL	245	Cordova, D.	COLL	625	Cosby, T.	PHYS	344
Cooper, K.	CHED	1721	Cordova, J.	INOR	732	Coscia, K.	CHED	1834
Cooper, L.	PHYS	570	Cordova, J.	INOR	1182	Cosden, M.	MEDI	191
Cooper, M.	MEDI	375	Coreas, W.	CHED	1694	Cosentin, C.	INOR	660
Cooper, M.	CHED	253	Corey, D.	CHED	882	Cosenza, S.C.	MEDI	34
Cooper, M.	CHED	1958	Corey, D.	CHED	1864	Cosenza, S.C.	MEDI	210
Cooper, P.	COLL	425	Coria, V.	ENVR	178	Cosgrove, D.	CELL	182
Cooper, R.	CHED	1145	Coriani, S.	PHYS	14	Cosgrove, D.	CELL	208
Cooper, R.	CHED	1181	Coridan, R.	INOR	1158	Cosimbescu, L.	PMSE	330
Cooperman, G.	COMP	179	Corilo, Y.	ENFL	464	Cosmidis, J.	GEOC	136
Cooperstone, J.	AGFD	235	Corilo, Y.	ENVR	475	Cossairt, B.M.	COLL	365
Cooperstone, J.	CELL	239	Corio, P.	COLL	66	Cossairt, B.M.	COLL	367
Coote, J.	CATL	494	Corio, P.	COLL	230	Cossairt, B.M.	INOR	561
Coote, J.	PMSE	351	Corio, P.	ENVR	698	Cossairt, B.M.	INOR	592
Coote, M.	COLL	118	Corkovic, A.	CHED	1253	Cossairt, B.M.	INOR	594
Coovert, J.	CHED	472	Corleto, K.A.	AGFD	215	Cossairt, B.M.	INOR	596
Cope, J.	INOR	690	Corma, A.	CATL	14	Cossairt, B.M.	INOR	597
Cope, J.	INOR	1198	Corn, R.M.	POLY	222	Cossairt, B.M.	INOR	598
Cope, N.	BIOL	236	Cornec, A.	MEDI	12	Cossairt, B.M.	INOR	1125
Cope, S.K.	INOR	1005	Cornel, E.	POLY	366	Cossairt, B.M.	INOR	1302
Coplan, C.	CHED	1885	Cornelissen, J.J.	BIOT	459	Cossette, C.	ORGN	228
Coplan, C.	COLL	198	Cornelissen, J.J.	ORGN	333	Costa, F.F.	MEDI	73
Copley, M.	ENFL	183	Cornelius, G.	MEDI	20	Costa, F.F.	MEDI	107
Coppel, Y.	COLL	445	Cornelius, G.	MEDI	91	Costa, P.	INOR	168
Copper, C.L.	ANYL	166	Cornelius, L.	MEDI	36	Costache, A.	CINF	19
Copping, R.	NUCL	36	Cornell, K.	CHED	588	Costache, A.D.	CHED	2208
Coppock, M.	BIOT	403	Cornell, K.	CHED	657	Costache, A.D.	CINF	17
Coppola, B.P.	CHED	1987	Cornell, K.	INOR	800	Costa Gomes, M.	PHYS	27
Corace, B.	ENVR	744	Cornell, K.	INOR	804	Costakis, W.	PMSE	510
Corace, E.	ENVR	744	Cornell, K.	MEDI	391	Costales, M.	CARB	13
Corbeil, C.R.	BIOT	212	Corni, S.	ANYL	15	Costa Milan, D.	COLL	340
Corbett, B.	CELL	393	Corni, S.	PHYS	332	Costan, S.	CHED	1566
Corbett, K.	COMP	36	Cornwell, E.W.	CHED	559	Costanzo, P.J.	POLY	239
Corbett, K.	COMP	227	Cornwell, E.W.	CHED	759	Costanzo, P.J.	POLY	241
Corbin, J.	BIOT	455	Cornwell, E.W.	CHED	1248	Costas Feliciano, J.	CHED	1808
Corbin, J.R.	ORGN	134	Corona, A.	COMP	356	Costellano, E.	BIOL	43
Corbin, W.C.	INOR	178	Corporon, B.	AGFD	81	Costello, M.G.	FLUO	30
Corbo, J.C.	CHED	260	Corporon, B.	CHED	356	Costen, M.L.	PHYS	622
Corcelli, S.	PHYS	234	Corpuz, A.R.	INOR	1242	Costin, S.A.	CHED	798
Corcelli, S.	PHYS	661	Corpuz-Nicolas, A.	CHED	1438	Coston, T.S.	ORGN	219
Corcoran, E.	ORGN	408	Corr, S.	ENFL	49	Cosulich, S.	MEDI	244
Corcoran, L.	GEOC	195	Corradini, M.G.	AGFD	44	Cotlet, M.	INOR	1332
Corcoran, L.	GEOC	212	Corrales Ureña, Y.	CELL	96	Cotoni, K.A.	BIOT	70
Corcoran, L.	GEOC	213	Correa, I.	BIOL	263	Cotoni, K.A.	BIOT	162
Corcoran, L.	GEOC	214	Correa, I.	BIOL	292	Cotoni, K.A.	BIOT	273
Corcos, A.R.	ENVR	245	Correa, S.	COLL	600	Cotoni, K.A.	BIOT	308
Corcuera, M.	CELL	102	Correia, C.R.	INOR	698	Cotter, L.	PHYS	460
Cordell, K.	PMSE	352	Correia, J.J.	CHED	706	Cotter, L.	PHYS	476
Cordella, P.	MEDI	407	Cortes, F.J.	ENFL	131	Cottingham, K.L.	ANYL	2

Cotton, D.E.	PHYS	121	Cox, M.	MEDI	390	Cranston, E.D.	CELL	199
Cotton, D.E.	PHYS	396	Cox, R.	CHED	992	Cranston, E.D.	CELL	393
Cottrell, B.	ENVR	110	Cox, T.	CHED	927	Cranston, E.D.	MPPG	23
Cottrill, A.	COLL	590	Cox, V.	BIOL	293	Cranswick, M.A.	INOR	921
Cottrill, A.	ENFL	369	Cox, V.	BIOT	207	Crassous, J.	COLL	320
Cotugno, A.	POLY	123	Cozzarelli, I.M.	GEOC	84	Crater, E.	POLY	313
Couch, B.	BIOL	276	Cozzarelli, I.M.	GEOC	229	Crathern, S.	MEDI	69
Couch, B.	ENVR	705	Cozzolino, A.F.	INOR	36	Crawford, C.E.	CHED	824
Couch, K.D.	ENVR	45	Cozzolino, A.F.	INOR	984	Crawford, J.	ORGN	301
Couch, M.	BIOL	276	Cozzolino, A.F.	INOR	1207	Crawford, J.E.	BIOT	140
Couder, M.	NUCL	6	Crabb, B.	CHED	1075	Crawford, J.J.	MEDI	24
Coughlin, C.S.	POLY	562	Craciun, I.	MEDI	398	Crawford, M.J.	CHED	682
Coughlin, E.	PMSE	174	Craciun, R.	COMP	301	Crawford, M.	CHED	1871
Coulembier, O.R.	PMSE	93	Cracolice, M.S.	CHED	1984	Crawford, P.W.	ANYL	97
Coulibali, S.	ORGN	669	Craft, C.	PHYS	223	Crawford, P.W.	COMP	19
Coulther, T.	BIOL	42	Craft, J.	COLL	247	Crawford, T.Z.	INOR	1325
Coulther, T.A.	COMP	69	Craig, A.	BIOT	335	Crawford, T.	PHYS	52
Coumar, M.	MEDI	106	Craig, A.	POLY	229	Crawford, T.	PHYS	250
Counter, K.M.	BIOL	61	Craig, A.	CHED	1743	Crawford, T.	PHYS	276
Counter, K.M.	CHED	718	Craig, C.	CHED	2155	Crawford, T.	PHYS	424
Coupland, J.	CARB	55	Craig, T.	CHED	373	Crawford, T.	PHYS	609
Cournia, Z.	COMP	58	Craik, D.	PMSE	146	Crawshaw, B.	POLY	89
Cournia, Z.	PHYS	613	Crain, M.M.	ANYL	447	Creasy, A.	BIOT	101
Cousins, M.	INOR	264	Cramer, C.J.	CATL	134	Creasy, W.R.	ENVR	611
Coutinho, J.	CELL	149	Cramer, C.J.	COMP	162	Credille, C.V.	INOR	136
Coutsias, E.	ORGN	349	Cramer, C.J.	COMP	310	Credo, J.	ENVR	689
Couture, S.	CHED	60	Cramer, C.J.	INOR	522	Cremer, P.S.	COLL	281
Couture, S.	CHED	2000	Cramer, E.K.	CHED	1560	Cremer, P.S.	COLL	287
Covaci, A.	ENVR	414	Cramer, S.P.	INOR	519	Cremer, P.S.	COLL	470
Covarrubias-Zambrano, O.	I&EC	157	Cramer, S.M.	BIOT	1	Cremer, P.S.	COLL	712
Covarrubias-Zambrano, O.	MEDI	111	Cramer, S.M.	BIOT	68	Cremer, P.S.	COLL	719
Covarrubias-Zambrano, O.	MEDI	354	Cramer, S.M.	BIOT	99	Crenshaw, B.L.	CHED	1222
Covello, J.	PMSE	15	Cramer, S.M.	BIOT	210	Crespilho, F.N.	PMSE	225
Cowan, J.	ENVR	633	Cramer, S.M.	BIOT	306	Crespy, D.	CELL	286
Cowan, J.	INOR	58	Cramer, S.M.	BIOT	322	Cress, B.	BIOL	187
Cowan, J.	INOR	799	Cramer, S.M.	BIOT	324	Cressman, D.	CHED	740
Cowan, J.	INOR	800	Cramer, S.M.	BIOT	409	Cressy, D.	INOR	1101
Cowan, J.	INOR	804	Cramer, S.M.	BIOT	475	Cressy, D.	ORGN	163
Coward, E.K.	GEOC	16	Cramer, S.M.	BIOT	517	Crestini, C.	CELL	89
Cowart, A.	CHED	538	Cramer, S.M.	BIOT	539	Crestini, C.	CELL	185
Cowden, C.	CINF	80	Cramer, S.M.	COMP	12	Crestini, C.	CELL	221
Cowger, T.	COLL	778	Cramer, S.M.	I&EC	19	Crestini, C.	CELL	290
Cowgill, D.	INOR	432	Crandall, D.	GEOC	281	Crestini, C.	CELL	324
Cowley, C.	CHED	1727	Crandall, J.	CHED	900	Crestini, C.	CELL	406
Cox, C.	CHED	1082	Crandall, J.	ANYL	268	Creutz, S.E.	INOR	1050
Cox, C.T.	CHED	255	Crandall, Z.	CHED	2047	Crew, M.	BIOL	134
Cox, C.T.	CHED	319	Crane, G.H.	COLL	688	Crews, C.M.	MEDI	389
Cox, C.T.	CHED	2039	Crane, J.L.	CHED	1785	Crews, N.D.	PMSE	318
Cox, C.T.	CHED	2174	Crans, D.C.	BIOL	80	Crews, S.N.	CHED	473
Cox, H.	CHED	50	Crans, D.C.	INOR	55	Cribb, A.B.	CHED	1515
Cox, J.	ORGN	672	Crans, D.C.	INOR	135	Crich, D.	CARB	4
Cox, L.	PMSE	34	Cranston, E.D.	CELL	97	Crick, D.C.	BIOL	80
Cox, L.	POLY	167	Cranston, E.D.	CELL	167	Crickmore, C.	CHED	771
Cox, L.	POLY	501	Cranston, E.D.	CELL	195	Crickmore, C.	CHED	1896
Cox, L.	POLY	693	Cranston, E.D.	CELL	196	Crider, C.	CHED	875

Crim, F.F.	CHED	1707	Crowley, M.F.	CATL	372	Culakova, Z.	INOR	438
Crimmins, G.	INOR	877	Crowley, M.F.	CELL	184	Culbertson, C.T.	ANYL	81
Criqui, A.	POLY	181	Crowley, M.F.	COMP	429	Culbertson, C.T.	CHED	481
Criscenti, L.J.	GEOC	28	Crowley, M.F.	ENFL	17	Culcu, G.	INOR	608
Criscenti, L.J.	GEOC	169	Crowther, A.	INOR	829	Cullen, D.	CHED	67
Crispin, G.	INOR	947	Crowther, A.	PHYS	557	Cullen, M.J.	ORGN	303
Cristofol Clough, M.	COMP	37	Crowther, A.	PHYS	562	Cully, D.	MEDI	327
Cristofol Clough, M.	COMP	217	Cruché, C.	ORGN	572	Culver, D.	INOR	708
Crites, E.N.	INOR	1050	Cruché, C.	ORGN	576	Culver, G.	CHED	561
Crocella, V.	CATL	15	Crudden, C.M.	INOR	557	Culver, S.	CARB	40
Crocker, M.	CATL	98	Crudden, C.M.	POLY	265	Culver, S.	CHED	115
Crocker, M.	CATL	100	Crum, S.B.	CHED	1097	Cumbe, H.A.	CHED	907
Crocker, M.	CATL	374	Crumlin, E.	CATL	27	Cumin, F.	MEDI	271
Crockett, B.	COLL	654	Cruz, A.R.	COMP	177	Cumming, J.	ORGN	66
Crockford, P.	GEOC	133	Cruz, A.J.	INOR	870	Cummings, P.T.	GEOC	4
Croft, J.F.	PHYS	109	Cruz, J.	ORGN	636	Cummings, P.T.	GEOC	26
Croft, J.F.	PHYS	470	Cruz, S.	INOR	788	Cummins, C.C.	INOR	107
Croft, Z.L.	CHED	1448	Cruzeiro, V.D.	COMP	249	Cummins, C.C.	INOR	550
Croisant, M.	CHED	168	Cruz-Hernandez, Y.	GEOC	266	Cummins, C.	COLL	731
Croissant, J.	CHED	1322	Cruz Tato, P.E.	CHED	890	Cummins, E.J.	ORGN	696
Croll, H.	ENVR	119	Csipak, B.	CHED	1897	Cummins, H.	BIOL	248
Crombie, A.L.	MEDI	226	Csizmar, C.M.	BIOT	498	Cummins, W.R.	CHED	434
Crompton, N.M.	CHED	85	Csizmar, C.M.	COLL	647	Cundari, T.R.	COMP	423
Cronauer, D.C.	ENFL	88	Csokas, D.	ORGN	113	Cundari, T.R.	INOR	440
Crone, S.	CHED	1352	Csonka, G.I.	PHYS	149	Cundari, T.R.	CHED	878
Crosbie, N.	ENVR	786	Csonka, G.I.	PHYS	319	Cundari, T.R.	COMP	121
Crosby, A.	PMSE	180	Csuhai, E.	CHED	367	Cundari, T.R.	INOR	30
Crosby, J.R.	BIOT	221	Cuadra, G.	CHED	1198	Cundari, T.R.	INOR	437
Crosby, M.	POLY	276	Cubit, E.	CHED	1871	Cundari, T.R.	INOR	441
Croshaw, C.	POLY	563	Cubuk, J.	CHED	1788	Cundari, T.R.	INOR	700
Cross, W.	BIOL	56	Cudic, M.	CARB	39	Cunniff, S.	CHED	1726
Cross, W.	CHED	700	Cue, B.W.	I&EC	147	Cunniff, S.	GEOC	238
Cross, W.M.	INOR	424	Cuervo Reyes, E.	ENFL	274	Cunniff, S.	GEOC	263
Cross, Z.	CHED	1201	Cueto, M.	AGFD	24	Cunningham, C.	ORGN	535
Crossley, S.	CATL	362	Cuevas, J.C.	COLL	345	Cunningham, C.D.	CHED	515
Crossley, S.	CATL	430	Cui, A.	BIOT	196	Cunningham, D.W.	INOR	436
Crossley, S.	ENFL	264	Cui, B.	COLL	207	Cunningham, D.W.	INOR	1414
Crosswell, J.	ENVR	401	Cui, C.	COMP	256	Cunningham, E.	INOR	356
Crouch, G.	INOR	1392	Cui, C.	ENFL	151	Cunningham, J.	BIOT	392
Crouch, I.T.	ORGN	37	Cui, D.	ENVR	658	Cunningham, L.	FLUO	42
Crouch, I.L.	CHED	1476	Cui, J.	COLL	408	Cunningham, M.	CELL	232
Croue, J.	ENVR	181	Cui, K.	ENFL	456	Cunningham, M.	ORGN	742
Croue, J.	ENVR	310	Cui, M.	PMSE	566	Cunningham, M.A.	BIOT	247
Croue, J.	ENVR	523	Cui, M.	POLY	275	Cunningham, M.F.	CELL	197
Crouse, D.J.	CHED	797	Cui, M.M.	COLL	175	Cunningham, M.F.	POLY	163
Crouzier, T.	BIOT	117	Cui, Q.	COMP	130	Cunningham, M.F.	POLY	646
Crovak, R.A.	INOR	444	Cui, Q.	PHYS	612	Cunningham, M.T.	CATL	141
Crowder, M.	CHED	625	Cui, X.	GEOC	96	Cunningham, S.	CHED	1913
Crowe, M.C.	AGFD	118	Cui, X.	INOR	433	Cuny, G.	MEDI	374
Crowe, M.	CHED	1251	Cui, X.	ENFL	293	Cuppen, H.	PHYS	311
Crowe, S.	BIOT	155	Cui, Y.	PHYS	113	Cura, A.J.	BIOT	14
Crowe, S.	GEOC	151	Cui, Y.	PHYS	481	Curia, S.	POLY	709
Crowe, S.	GEOC	227	Cui, Y.	MPPG	19	Curotto, E.	CHED	839
Crowell, L.	BIOT	185	Cui, Y.	BIOT	286	Curotto, E.	CHED	840
Crowl, T.A.	CHED	902	Cui, Z.	PMSE	44	Curotto, E.	CHED	843

Curotto, E.	COMP	426	Cvijic, M.	MEDI	20	Dabney-Smith, C.	CHED	735
Curotto, E.	PHYS	429	Cvijic, M.	MEDI	36	Dabo, I.	CATL	79
Curran, T.P.	INOR	59	Cvijic, M.	MEDI	91	Daboss, S.	PMSE	233
Curran, T.P.	INOR	187	Cvijic, M.	MEDI	367	Dabros, M.	MEDI	109
Curran, T.P.	INOR	188	Cvitesic, A.	GEOC	108	Dabros, M.	MEDI	367
Curens, E.R.	CHED	374	Cvitkovic, J.	CHED	858	Dabrowski, J.A.	CHED	1086
Currie, H.N.	CHED	438	Cwiertny, D.M.	CHED	982	Dabrowski, J.A.	CHED	1642
Currie, J.	BIOT	397	Cwiertny, D.M.	ENFL	510	Dabrowski-Tumanski, P.	PMSE	200
Currie, M.	CHED	1839	Cwiertny, D.M.	ENVR	479	Dacquet, C.	COMP	382
Currier, D.	MEDI	204	Cwiertny, D.M.	ENVR	483	Dacres, D.	COLL	764
Curry, J.	COLL	134	Cwiertny, D.M.	ENVR	485	Dacres, D.	COMP	183
Curry, J.	COLL	360	Cwiertny, D.M.	ENVR	536	Dacres, D.	INOR	802
Curry, M.	AGFD	160	Cygan, R.T.	GEOC	262	Dadmun, M.D.	INOR	1327
Curry, M.L.	ENVR	24	Cyganik, P.	COLL	480	Dadmun, M.D.	POLY	798
Curry, N.A.	INOR	245	Cytter, Y.	PHYS	315	Daemen, L.L.	ENFL	152
Curry, T.	ENVR	242	Cywin, C.L.	MEDI	270	Daeneke, T.	COLL	511
Curti, E.	AGFD	126	Czaja, W.	CELL	360	Daeneke, T.	INOR	1317
Curtis, E.	COMP	304	Czako, B.	MEDI	64	Daer, S.	ENVR	355
Curtis, G.P.	GEOC	95	Czaplyski, W.	POLY	755	Daga, P.R.	COMP	105
Curtis, J.E.	BIOT	491	Czermak, P.	BIOT	270	Daggag, D.A.	COLL	603
Curtis, R.	CHED	349	Czermak, P.	BIOT	315	Dagle, R.	CATL	290
Curtis, T.	ENVR	455	Czermak, P.	BIOT	452	Dagle, R.	CATL	444
Curtis, T.	ANYL	461	Czermak, P.	BIOT	552	Dahal, D.	AGFD	141
Curtiss, L.A.	CATL	155	Czermak, P.M.	BIOT	40	Dahanayake, V.	INOR	180
Curtiss, L.A.	CATL	449	Czermak, P.M.	BIOT	123	Daher, C.	BIOL	287
Curtiss, L.A.	COMP	150	Czermak, P.M.	BIOT	172	Daher, C.	INOR	910
Curtiss, L.A.	COMP	307	Czermak, P.M.	CELL	112	Dahl, A.J.	ORGN	120
Curtiss, L.A.	ENFL	50	Czerwinski, K.	NUCL	53	Dahl, B.J.	ORGN	217
Curtsinger, S.C.	CHED	1819	Czerwinski, K.	NUCL	72	Dahl, B.J.	ORGN	464
Cusachs, K.	CHED	1800	Czubatka-Bienkowska, A.	MEDI	58	Dahl, B.J.	ORGN	465
Cusick, R.D.	ENVR	216	D'Accorso, N.	CELL	267	Dahl, J.A.	COLL	222
Cusick, R.D.	ENVR	376	D'Achille, A.	INOR	1361	Dahl, J.A.	COLL	223
Cusick, R.D.	ENVR	561	D'Agosto, F.	CELL	295	Dahl, K.	FLUO	54
Cusick, R.D.	ENVR	659	D'Amelia, R.P.	POLY	437	Dahl, P.	CATL	439
Cusick, R.D.	ENVR	774	D'Andrea, L.	PHYS	622	Dahlberg, D.	CHED	1908
Cusick, S.	MEDI	309	D'Antona, N.	CHED	1299	Dahlhauser, S.	MEDI	11
Cusinato, L.	INOR	171	D'Aquila, D.	BIOT	456	Dahlin, P.	BIOT	80
Cussen, E.	ENFL	49	d'Arcy, R.	POLY	490	Dahlmann, H.A.	CHED	1422
Cusson, A.J.	CHED	1202	D'Arienzo, C.	MEDI	6	Dai, A.	COLL	593
Custelcean, R.	INOR	638	D'Arienzo, C.	MEDI	20	Dai, C.	ENVR	26
Cuthbert, C.	CHED	1334	D'Arienzo, C.	MEDI	109	Dai, C.	ENVR	29
Cuthbertson, A.A.	ENVR	310	D'Arienzo, C.	MEDI	297	Dai, C.	GEOC	6
Cuthbertson, D.	ENVR	471	D'eon, J.C.	ENVR	155	Dai, C.	COMP	26
Cuthbertson, J.D.	ORGN	355	d'Espinose de Lacaillerie, J.	CATL	418	Dai, H.	COLL	405
Cutler, C.S.	FLUO	63	D'Souza, F.	ORGN	370	Dai, H.	CHED	1538
Cutler, C.S.	FLUO	71	D'Souza, M.J.	CHED	967	Dai, J.	CELL	329
Cutler, C.S.	NUCL	3	D'Souza, M.J.	CHED	970	Dai, J.	POLY	590
Cutler, C.S.	NUCL	42	D'Souza, M.J.	CHED	1220	Dai, J.	MEDI	6
Cutler, C.S.	NUCL	44	D'Souza, M.J.	CHED	1914	Dai, J.	MEDI	297
Cutler, C.S.	NUCL	54	D'Souza, M.	CINF	2	Dai, L.	POLY	616
Cutler, C.S.	NUCL	59	Da, C.	COLL	566	Dai, N.	BIOL	263
Cutler, C.	BIOT	554	Daasbjerg, K.	COLL	75	Dai, S.	ANYL	259
Cutler, L.A.	CHED	419	Dabalos, C.	POLY	723	Dai, S.	CATL	231
Cutri, A.	ANYL	177	Dabertin, T.	INOR	1379	Dai, S.	ENFL	179
Cutrona, N.	CHED	1167	Dabney-Smith, C.	BIOT	335	Dai, S.	I&EC	97

Dai, S.	I&EC	104	Daly, R.P.	PHYS	339	Danielson, M.K.	POLY	509
Dai, S.	INOR	1001	Daly, S.R.	INOR	340	Danielson, N.D.	CHED	402
Dai, S.	PHYS	26	Daly, S.R.	INOR	495	Danielson, N.D.	CARB	66
Dai, S.	PMSE	347	Daly, S.R.	INOR	940	Danielsson, J.	COLL	528
Dai, S.	PMSE	423	Daly, S.R.	INOR	1010	Dansby-Sparks, R.N.	CHED	444
Dai, S.	ENVR	572	Daly, S.R.	INOR	1080	Dansby-Sparks, R.N.	CHED	2100
Dai, S.	ENVR	508	Daly, S.R.	INOR	1342	Dansereau, J.	ORGN	150
Dai, S.	ENVR	536	Dam, H.	CATL	164	Dantanarayana, V.	COMP	339
Dai, W.	PMSE	600	Dam, W.	GEOC	124	Dao, T.N.	CHED	1710
Dai, X.	ENVR	568	Damatov, D.	INOR	276	Daou, M.	CELL	411
Dai, Y.	PMSE	229	Dame, A.	FLUO	74	Daoutidis, P.	BIOT	27
Daigle, D.	MEDI	309	Damergi, M.	BIOL	173	dAquino, A.	INOR	82
Daigle, D.	INOR	851	Damewood, J.	PHYS	425	Darabedian, N.	CARB	36
Daigle, D.	INOR	885	Damm-Ganamet, K.	COMP	15	Darancet, P.	PHYS	241
Daigle, D.	INOR	1305	Damon, C.A.	POLY	427	Darapaneni, P.	BIOT	374
Daigle, K.	AGFD	202	Dams, R.	ORGN	579	Darapaneni, P.	COMP	297
Daino, G.	COMP	356	Dana, H.	CHED	944	Darapaneni, P.	PHYS	403
Daire, J.	ENVR	288	Dana, H.	CHED	946	Darcy, J.	INOR	628
Dake, L.S.	INOR	316	Dana, H.	CHED	948	Darden, T.A.	COMP	85
Dakermanji, S.	INOR	862	Danby, A.M.	CATL	93	Darden, T.A.	COMP	270
Dakermanji, S.	INOR	1098	Dandamudi, C.	COLL	537	Darder, M.	PMSE	152
Dakka, A.	MEDI	253	Dandu, N.K.	CATL	142	Dardona, M.	ENVR	33
Dakka, A.	ORGN	369	Dandu, N.K.	INOR	507	Darensbourg, M.Y.	CHED	1112
Dakovic, M.	INOR	572	Dandu, N.K.	NUCL	10	Darensbourg, M.Y.	INOR	2
Dalal, N.	INOR	601	Dandu, V.	MEDI	34	Darensbourg, M.Y.	INOR	108
Dalby, K.N.	BIOL	87	Dandu, V.	MEDI	210	Darensbourg, M.Y.	INOR	270
Dalby, K.N.	BIOL	280	Danelius, E.	ORGN	585	Darensbourg, M.Y.	INOR	331
Dalby, K.N.	MEDI	161	Danes, J.	ORGN	589	Darensbourg, M.Y.	INOR	357
Dalby, K.N.	MEDI	162	Daneshkhah, A.	ANYL	250	Darensbourg, M.Y.	INOR	382
Dalby, K.N.	MEDI	167	Daneshkhah, A.	ANYL	369	Darensbourg, M.Y.	INOR	513
Dalby, K.N.	MEDI	406	Daneshvar, E.	CELL	243	Darensbourg, M.Y.	INOR	908
Dalby, K.N.	BIOL	224	Danforth, C.	ANYL	125	Darensbourg, M.Y.	INOR	918
Dalby, K.N.	BIOL	315	Danforth, C.	ANYL	384	Darensbourg, M.Y.	INOR	919
Dale, S.G.	COMP	335	Dang, A.T.	COLL	542	Darensbourg, M.Y.	INOR	1358
Dale, S.G.	PHYS	219	Dang, A.T.	COLL	717	Darjani, S.	ENFL	410
Daleke, D.L.	COLL	402	Dang, B.S.	CHED	430	Darko, A.	INOR	1101
Dallanoce, C.M.	MEDI	182	Dang, D.	CHED	1862	Darko, A.	ORGN	149
Dallimore, C.	ANYL	196	Dang, J.	CHED	1221	Darko, A.	ORGN	163
Dallinger, D.	ORGN	574	Dang, S.	ENFL	293	Darling, A.A.	CHED	1365
Dallman, J.	ORGN	557	Dangel, G.	CHED	517	Darmency, V.	MEDI	150
Dallman, J.	CHED	615	Dangerfield, A.	COLL	524	Darrat, Y.A.	PMSE	157
Dalton, A.	COLL	55	Danica, R.	MEDI	14	Darrat, Y.A.	PMSE	353
Dalton, A.	COLL	434	Daniel, P.E.	ORGN	654	Darrat, Y.A.	PMSE	354
Dalton, A.	COLL	619	Daniel, Y.	POLY	236	Darsey, J.A.	ENFL	498
Dalton, A.	COLL	652	Daniele, M.A.	ANYL	21	Darvas, F.	AGFD	177
Dalton, A.	COLL	710	Daniele, M.A.	ANYL	281	Darweesh, T.	MEDI	380
Dalton, E.Z.	INOR	1141	Daniele, M.A.	POLY	257	Das, A.	ORGN	9
Dalton, L.R.	COMP	338	Daniels, A.	CHED	1044	Das, B.	GEOC	208
Dalton, M.J.	PMSE	596	Daniels, C.L.	INOR	673	Das, D.	COMP	17
Dalton, M.	CHED	1581	Daniels, G.C.	CATL	297	Das, D.	CATL	257
Dalvie, N.	BIOT	28	Daniels, G.C.	COLL	221	Das, I.	PHYS	434
Dalvit, C.	MEDI	271	Daniels, G.C.	PMSE	101	Das, J.	MEDI	178
Daly, H.	PHYS	662	Daniels, H.	CHED	1148	Das, K.K.	ENVR	83
Daly, J.A.	CHED	1047	Danielson, M.	POLY	273	Das, K.K.	ENVR	84
Daly, J.A.	CHED	1840	Danielson, M.	POLY	508	Das, K.K.	GEOC	42

Das, K.	ORGN	139	Daugulis, O.	ORGN	542	Davis, B.G.	CARB	80
Das, K.	ORGN	597	Daugulis, O.	ORGN	660	Davis, B.G.	CELL	18
Das, L.	CELL	132	Daujatas, D.	CHED	619	Davis, B.L.	INOR	160
Das, M.	MEDI	333	Daujatas, D.	CHED	1900	Davis, B.A.	CHED	618
Das, P.	CHED	961	Dave, L.	ORGN	677	Davis, B.A.	CHED	653
Das, P.	CHED	965	Dave, N.	BIOL	253	Davis, B.A.	CHED	2040
Das, P.	CHED	989	Dave, P.	CHED	300	Davis, B.	PMSE	355
Das, P.K.	POLY	270	Davenport, C.	INOR	275	Davis, B.	POLY	119
Das, P.K.	POLY	306	Davenport, M.A.	INOR	781	Davis, B.	CHED	1377
Das, P.	ORGN	450	Davenport, M.T.	ORGN	741	Davis, B.H.	ENFL	88
Das, P.K.	COLL	757	Davenport, S.	ORGN	107	Davis, B.H.	ENFL	292
Das, S.	INOR	1297	Davey, R.	MEDI	361	Davis, C.	PHYS	474
Das, S.	INOR	1299	David, B.W.	CARB	28	Davis, C.	ENVR	581
Das, S.	CHED	904	David, B.	MEDI	197	Davis, C.	ANYL	390
Dasani, D.	BIOL	54	David, B.	MEDI	260	Davis, C.M.	CHED	1151
Dasch, M.I.	CHED	1693	David, B.	ORGN	589	Davis, D.	POLY	632
Dasch, M.I.	CHED	1739	David, J.	CHED	1512	Davis, E.W.	COLL	657
Dasch, M.I.	CHED	1741	David, J.B.	BIOL	239	Davis, E.W.	PMSE	158
Das Chakraborty, S.	COLL	692	David, N.	ORGN	686	Davis, E.	ENFL	102
Dasgupta, N.	COMP	44	David, R.	INOR	1097	Davis, E.	CINF	47
Dasgupta, P.K.	ANYL	330	David, R.	INOR	1355	Davis, E.	COMP	25
Dash, S.	MEDI	129	David, S.S.	ORGN	273	Davis, G.	BIOL	133
da Silva, I.	ENFL	295	David, W.I.	ENFL	437	Davis, J.	CHED	1177
da Silva Bernardes, J.	PMSE	468	Davidovits, T.	BIOT	384	Davis, J.A.	GEOC	59
da Silva Moura, N.	CATL	187	Davids, B.	NUCL	21	Davis, J.A.	GEOC	63
Da Silva Perez, D.	CELL	32	Davidson, C.	CHED	892	Davis, J.A.	GEOC	90
Da Silva Perez, D.	CELL	106	Davidson, C.	CARB	11	Davis, J.A.	GEOC	91
Da Silva Perez, D.	CELL	107	Davidson, E.	PMSE	159	Davis, J.A.	GEOC	123
Da Silva Perez, D.	CELL	221	Davidson, K.	BIOL	91	Davis, J.H.	PHYS	25
Da Silva Perez, D.	POLY	589	Davidson, K.L.	CHED	659	Davis, J.H.	PHYS	552
Dass, A.	COLL	765	Davidson, L.M.	INOR	188	Davis, J.H.	PHYS	573
Dassanayake, A.C.	CELL	434	Davidson, M.L.	COLL	389	Davis, J.H.	PHYS	574
Dassanayake, A.C.	ENVR	697	Davidson, S.	CATL	444	Davis, J.H.	PHYS	577
Dassanayake, A.C.	I&EC	100	Davidson-Hunt, A.	CHED	1455	Davis, J.H.	CHED	1116
Dassanayake, R.	CELL	434	Davies, A.	CHED	1369	Davis, J.G.	CHED	75
Dassanayake, R.S.	I&EC	100	Davies, C.	MEDI	47	Davis, J.	GEOC	202
Dassanayake Mudiyansele, T.M.	INOR	783	Davies, D.	CATL	160	Davis, K.	ENFL	387
Datko, B.	PHYS	128	Davies, E.	MEDI	293	Davis, M.E.	CATL	542
Datko, B.	PHYS	547	Davies, G.	COLL	51	Davis, M.E.	ENFL	331
Datta, P.	POLY	423	Davies, G.	COLL	681	Davis, M.	PHYS	408
Daturi, M.	CATL	292	Davies, G.	INOR	535	Davis, M.	POLY	491
Dau, H.	CATL	508	Davies, H.	BIOL	136	Davis, N.	POLY	575
Daub, G.W.	ORGN	502	Davies, H.M.	ORGN	5	Davis, R.	ENVR	593
Daub, G.W.	ORGN	503	Davies, H.M.	ORGN	112	Davis, R.	MEDI	26
Daubenmire, P.L.	CHED	150	Davies, H.M.	ORGN	539	Davis, R.A.	CHED	1610
Daubenmire, P.L.	CHED	809	Davies, H.M.	ORGN	540	Davis, R.	COLL	387
Daubenmire, P.L.	HIST	19	Davies, I.	ORGN	184	Davis, R.W.	ANYL	264
Dauenhauer, P.J.	CATL	473	Davies, I.	ORGN	194	Davis, R.W.	BIOT	92
Daugherty, E.	ENVR	219	Davies, I.	ORGN	203	Davis, R.W.	BIOT	222
Daugherty, N.T.	INOR	1348	Davies, I.W.	ORGN	193	Davis, R.W.	ENFL	455
Daugherty, P.	BIOT	209	Davies, S.	ENVR	32	Davis, R.W.	ENVR	742
Daugherty, P.	BIOT	220	Davila-Rivera, R.	CHED	975	Davis, S.	MEDI	62
Daugulis, O.	INOR	1109	Davis, A.	ENFL	530	Davis, S.	ORGN	223
Daugulis, O.	ORGN	138	Davis, A.N.	CHED	1224	Davis, S.	CHED	511
Daugulis, O.	ORGN	250	Davis, A.N.	POLY	551	Davis, S.B.	INOR	1297

Davis, S.	CHED	380	Day, V.	CHED	1124	De Carvalho, H.F.	PMSE	195
Davis, T.	CHED	2200	Day, V.	COMP	424	De Castro, M.	CARB	37
Davis, T.	ENVR	260	Day, V.	INOR	749	De Cataldo, R.	CHED	717
Davis, T.	ENFL	42	Day, V.	INOR	1127	De Cataldo, R.	CHED	2134
Davis, V.A.	CELL	194	Day, V.	INOR	1128	DeCesare, V.	MEDI	232
Davis, V.A.	CELL	302	Day, V.	INOR	1337	Dechert, S.	INOR	447
Davis, V.A.	CELL	372	Day, V.	INOR	1410	DeChiara, N.	ANYL	19
Davis, V.A.	COLL	438	Dayal, B.	AGFD	25	DeCiucies, S.	ENVR	747
Davis-Gunn, J.K.	INOR	286	Dayal, B.	ENVR	700	Deck, P.A.	CHED	1426
Davis-Gunn, J.K.	INOR	787	Daye, J.	CHED	1842	Deck, P.A.	CHED	1432
Davis McGibony, M.	CHED	539	Dayeh, M.	ANYL	100	Deck, P.A.	CHED	1438
Davis McGibony, M.	CHED	540	Dayfield, D.J.	CHED	395	Deck, P.A.	PMSE	253
Davison, B.H.	CATL	286	Dayfield, D.J.	CHED	448	Deckard, C.	BIOL	295
Davison, B.H.	CATL	445	Daymon, S.P.	POLY	44	Decker, E.A.	AGFD	230
Davison, B.H.	CELL	8	Daymon, S.P.	POLY	547	Deckert, A.	CHED	357
Davison, B.H.	CELL	322	Dayo, A.Q.	PMSE	133	Deckert, A.	CHED	963
Davison, R.T.	ORGN	712	Daystar, J.	ENVR	704	Deckert, A.	CHED	1301
Davisson, V.J.	MEDI	361	Daza, E.	COLL	217	Decombe, J.	ANYL	146
Davis-Wheeler Chin, C.	INOR	354	Daza, E.	COLL	596	DeCoste, J.	CATL	406
Davoudi, M.	COLL	747	Daza, E.	ENVR	23	DeCoste, J.	INOR	376
Davoudi, M.	POLY	797	De, S.	CATL	124	DeCoste, J.	INOR	1089
Davtyan, A.	BIOL	256	Deacon, G.B.	INOR	1254	DeCoster, M.A.	CHED	1181
Davtyan, A.	COMP	354	Deal, P.	BIOL	307	Decoté-Ricardo, D.	MEDI	78
Davydenko, I.	COLL	115	Deal, P.	BIOL	317	Decuyper, L.	ORGN	67
Davydova, M.	FLUO	75	De Alwis, W.T.	POLY	483	De Denus, C.M.	CHED	1092
Dawadi, S.	MEDI	102	Dean, D.N.	POLY	306	de Dios, R.	ORGN	466
Dawlaty, J.	CATL	145	Dean, F.	COMP	177	Deeb, R.	GEOC	203
Dawlaty, J.	PHYS	165	Dean, J.	ENVR	421	Deem, M.W.	CATL	13
Dawlaty, J.	PHYS	536	Dean, L.M.	POLY	182	Deen, T.	ENVR	346
Dawood, F.	INOR	790	Dean, L.M.	POLY	183	Deering-Rice, C.	CHED	914
Dawood, F.	INOR	803	DeAngelis, A.	ENFL	272	Deeter, G.A.	POLY	646
Dawood, F.	INOR	807	DeAngelo, T.	PROF	38	Defino, P.	POLY	562
Daws, B.	ENVR	729	Dear, B.	BIOT	436	DeFlorian, F.	COMP	362
Dawson, B.	ANYL	464	Dear, B.	BIOT	495	De France, K.J.	CELL	97
Dawson, G.A.	ORGN	118	Dearborn, M.A.	POLY	279	De France, K.J.	CELL	393
Dawson, G.A.	ORGN	238	Dearborn, M.A.	POLY	558	de Freitas Siqueira, G.	CELL	72
Dawson-Scully, K.	ORGN	601	Dearden, D.V.	ANYL	440	DeGayner, J.	INOR	124
Day, A.	ANYL	361	DeArmond, J.	INOR	243	DeGayner, J.	INOR	1177
Day, A.	CHED	1340	De Bastiani, M.	PHYS	428	Degen, G.	COLL	171
Day, B.	CHED	438	DeBeer, S.	INOR	1024	Degen, G.	COLL	530
Day, B.	CHED	682	De Bettencourt Dias, A.	INOR	422	Degen, G.	COLL	531
Day, E.	CHED	62	De Bettencourt Dias, A.	INOR	1006	De Girolamo, A.	ENFL	60
Day, E.	CHED	2110	Debevec, G.	PROF	3	Degorce, S.	MEDI	244
Day, E.	CHED	1115	DeBoever, M.	CHED	2162	Degrado, W.F.	BIOL	153
Day, G.	ORGN	482	Debreczeni, J.E.	MEDI	293	DeGraffenreid, A.J.	FLUO	71
Day, G.M.	COMP	82	DeBuono, N.	INOR	807	DeGraffenreid, A.J.	NUCL	44
Day, G.S.	ENFL	352	DeButts, B.	POLY	240	DeGrauw, A.M.	CHED	1885
Day, G.S.	ENFL	362	DeButts, B.L.	CELL	303	Degterev, A.	MEDI	374
Day, G.S.	ENFL	73	de Cabrera, M.	BIOL	212	Deguchi, T.	PMSE	197
Day, J.W.	ENFL	482	DeCaluwe, S.	ENFL	555	Deguchi, T.	PMSE	442
Day, J.I.	ORGN	230	de Campo, L.	COLL	725	Deguchi, T.	MEDI	379
Day, J.	ORGN	180	De Caprio, A.	ENVR	658	de Haan, M.	PROF	4
Day, M.	MEDI	180	DeCarlo, S.	ORGN	127	Dehaudt, J.	INOR	1001
Day, R.W.	INOR	729	DeCarlo, S.	ORGN	688	Deheck, K.	CHED	1164
Day, R.W.	INOR	1332	DeCaro, J.	PROF	23	De Hoe, G.	POLY	261

De Hoyos, P.	CATL	272	Delcamp, J.H.	CHED	1743	Delikatny, E.	MEDI	196
Deibler, K.D.	AGFD	132	Delcamp, J.H.	ENFL	21	Deline, A.	ENVR	657
Deiglmayr, J.	PHYS	228	Delcamp, J.H.	ENFL	22	Delis, P.	CHED	634
Deiters, A.	BIOL	146	Delcamp, J.H.	INOR	358	DeLisa, M.P.	BIOT	18
Deiters, A.	CARB	24	Delcamp, J.H.	INOR	690	DeLisa, M.P.	BIOT	88
de Jesus, B.S.	CARB	65	Delcamp, J.H.	INOR	1070	DeLisa, M.P.	BIOT	90
De Jesús, V.	ANYL	91	Delcamp, J.H.	INOR	1075	DeLisa, M.P.	BIOT	122
De Jesús, V.	ANYL	391	Delcamp, J.H.	INOR	1297	DeLisa, M.P.	BIOT	147
De Jesús, V.	ANYL	394	Delcamp, J.H.	INOR	1299	DeLisa, M.P.	BIOT	468
Dejong, E.	CELL	254	Delcamp, J.H.	INOR	1401	Delisée, C.	CELL	269
De Jong, K.	CATL	381	Delcamp, J.H.	ORGN	292	Dell, A.	CELL	23
de Jongh, P.	CATL	381	Delcamp, J.H.	ORGN	296	Dellate, D.	POLY	651
Deka, D.J.	I&EC	33	Delcamp, J.H.	ORGN	297	DeLomba, W.C.	CHED	1487
De Kesel, C.	BIOT	386	Delcamp, J.H.	ORGN	469	Delomppe, P.	GEOC	156
Deketelaere, S.	ORGN	67	Delcamp, J.H.	ORGN	476	De Long, H.	ANYL	290
De Keukeleere, K.	COLL	445	Delcamp, J.H.	ORGN	477	De Long, H.	CHED	1022
De Keukeleere, K.	PROF	7	Delcamp, J.H.	PHYS	534	De Long, H.	CHED	1275
Dekkers, S.	MEDI	410	Del Carlo, D.I.	CHED	131	De Long, H.C.	ANYL	292
Dekkers, S.	MEDI	411	Del Carlo, D.I.	CHED	222	DeLongchamp, D.	POLY	592
De Klerk, A.	ENFL	170	Del Carlo, D.I.	CHED	787	Delos Reyes, A.V.	ORGN	424
Del, V.I.	ENVR	750	Delcau, M.	BIOT	416	Delos Reyes, H.	ENVR	516
DelaCourt, A.	ORGN	243	del Cerro, M.	ENVR	216	de los Reyes, C.	INOR	818
De La Cruz, L.	MEDI	329	Deldari, S.	BIOT	69	de los Reyes, C.	INOR	1235
DeLacy, B.G.	CATL	401	Deldari, S.	BIOT	184	de los Reyes, C.A.	INOR	824
De La Fuente, L.	POLY	491	Delechiave, G.	PMSE	222	de los Reyes, F.L.	ENVR	458
De La Fuente-Nunez, C.	ENVR	213	De Leener, G.	INOR	29	De Los Santos, A.	MEDI	356
De La Fuente-Nunez, C.	POLY	284	Delegard, J.	CHED	1549	De Los Santos, A.	ORGN	552
Delaglio, F.	BIOT	524	Delene, D.	ANYL	164	Delouvrie, B.	MEDI	244
Delahaye, N.	BIOT	454	Deleon, C.A.	CARB	76	Delparastan, P.	COLL	631
Delahunty, I.	COLL	778	de Leon, A.	POLY	630	Delpe Acharige, A.	BIOL	115
Delaire, O.	ENFL	469	Delevoye, L.	CATL	367	Delpe Acharige, A.	ORGN	324
DeLaney, C.	INOR	908	Delevoye, L.	CATL	413	Delpech, F.	COLL	445
Delano IV, F.	CHED	1054	Delferro, M.	CATL	39	Delph, J.	CHED	1106
de la Parra, J.	CHAS	47	Delferro, M.	CATL	408	Del Pilar, J.	ENVR	565
de la Parra, J.	PROF	28	Delferro, M.	INOR	496	Delplace, V.	BIOT	463
De Laporte, L.	POLY	337	Delferro, M.	INOR	614	Delplace, V.	POLY	514
De Laporte, L.	POLY	369	Delgadillo, M.	CHED	668	Del Poeta, M.	CHED	1231
De Laporte, L.	POLY	374	Delgado, J.	CHED	1010	Del Poeta, M.	MEDI	371
Delarosa, M.	ORGN	499	Delgado, J.	POLY	187	del Real, G.	PMSE	205
de la Salud Bea, R.	ORGN	717	Delgado, J.	POLY	783	DelRio, F.	PMSE	34
de la Salud Bea, R.	ORGN	718	Delgado, M.	CHED	309	Del Rosal, I.	CATL	367
de la Salud Bea, R.	ORGN	719	Delgado, M.	CHED	1878	Del Rosal, I.	INOR	171
de la Salud Bea, R.	ORGN	720	Delgado, Y.	CHED	603	Delrue, F.	CELL	272
de las Heras Ruiz, E.	MEDI	94	Delgado, Y.	CHED	1036	Del Sesto, R.E.	CHED	754
de la Torre, B.G.	MEDI	105	Delgado, Y.	INOR	914	Del Sesto, R.E.	CHED	755
de la Torre, B.	ENVR	266	Delgado-Interial, L.G.	ENFL	9	Del Sesto, R.E.	CHED	756
De La Torre, J.	ORGN	289	Delgass, W.	I&EC	54	Del Sesto, R.E.	CHED	757
De La Torre, P.M.	INOR	271	Delhommelle, J.	COMP	299	Del Sesto, R.E.	ORGN	440
De La Torre, P.M.	INOR	1076	Delhommelle, J.	COMP	306	Delsuc, N.	INOR	702
Delawder, A.	PMSE	279	Delhommelle, J.	COMP	317	Deluca, M.	CATL	458
Delawder, A.	POLY	179	Delhommelle, J.	COMP	406	DeLuca, M.L.	CHED	826
Delawder, A.	POLY	273	Deligiannakis, Y.	ENFL	200	De Lucca, G.V.	MEDI	6
Delawder, A.	POLY	413	Deligiannakis, Y.	ENFL	442	DeLucia, A.A.	INOR	239
del Barco, E.	COLL	482	Deligney, M.	MEDI	25	DeLucia, N.A.	CATL	320
Delcamp, J.H.	CHED	1105	De Lijser, P.	ORGN	199	DeLucia, N.A.	INOR	1284

de Luna, M.G.	ENVR	193	Deng, Y.	COLL	628	De Pablo, J.J.	PMSE	498
Dema, K.D.	CHED	1503	Deng, Y.	ORGN	357	Depablos-Rivera, O.	COLL	415
DeMars III, M.	CARB	88	Deng, Y.	AGFD	60	De Paëpe, G.	POLY	139
DeMartini, Z.	POLY	154	Deng, Y.	ANYL	193	DePalma, J.	YCC	25
Demas, N.	PMSE	330	Deng, Y.	ENVR	530	Deplano, A.	COMP	74
Demchenko, A.	CARB	23	Deng, Y.	COMP	379	Depner, S.	INOR	1231
Demchenko, D.O.	INOR	1241	Deng, Y.	COMP	414	Deprele, S.	CHED	354
Demchuk, Z.	POLY	45	Dengler, H.	MEDI	7	Deprele, S.	CHED	585
DeMella, K.C.	COLL	392	Denieul, M.	ENVR	783	Deprele, S.	CHED	704
De Meo, C.	CARB	70	DeNike, K.A.	INOR	394	Deprele, S.	CHED	918
De Meo, C.	CARB	71	Denis, P.A.	CHED	1467	Deprele, S.	CHED	934
De Meo, C.	CARB	72	Denis, P.A.	CHED	1470	Deprele, S.	CHED	1183
Demers, S.	PHYS	333	Denis, P.A.	CHED	1471	Deprele, S.	CHED	1185
Demeunynck, M.	CELL	377	Denisenko, A.	MEDI	139	Deprele, S.	CHED	1200
Demharter, S.	CELL	112	Denler, M.	INOR	211	Deprele, S.	CHED	1653
Demianets, I.	PHYS	536	Denmark, S.E.	ORGN	280	DePrince, A.E.	COMP	160
DeMille, D.	PHYS	159	Dennis, A.M.	COLL	364	DePrince, A.E.	PHYS	424
Demir, B.	AGFD	178	Dennis, D.	CHED	51	De Proft, F.J.	PHYS	47
Demir, B.	I&EC	119	Dennis, D.	CHED	52	de Queiroz, T.	PHYS	147
Demir, T.	PMSE	527	Dennis, D.	CHED	1577	Derami, H.G.	ENVR	185
Demirci, S.	COLL	265	Dennis, D.	ORGN	169	Deravi, L.	ANYL	54
Demirci, S.	POLY	291	Dennis, E.A.	BIOL	272	Derbigny, B.	CHED	1784
Demirdirek, B.	BIOT	345	Dennis, E.A.	COMP	106	Derda, R.	CARB	9
Demmings, M.	CHED	1152	Dennis, E.A.	COMP	139	Deresiensi, A.	BIOT	258
Demmings, M.J.	CHED	93	Dennis, E.A.	COMP	247	Derewinski, M.	ENFL	548
Demmings, M.J.	CHED	1824	Dennis, E.A.	MEDI	317	Deri, M.A.	CHED	1992
Demoin, D.W.	FLUO	74	Dennis, G.P.	PMSE	356	Deri, M.A.	CHED	2177
Demond, A.	ENVR	481	Dennis, G.P.	POLY	352	Deri, S.	CATL	203
Demourgues, A.	FLUO	35	Dennis, G.P.	POLY	540	Deria, P.	COMP	61
Dempsey, J.L.	INOR	24	Dennis, J.	GEOC	119	Deria, P.	INOR	1179
Dempsey, J.L.	INOR	90	Dennis, J.M.	PMSE	114	Derkson, K.J.	CHED	1455
Dempsey, J.L.	INOR	1164	Dennis, J.M.	PMSE	380	Dermody, D.	COLL	565
Dempsey, J.L.	INOR	1170	Dennis, J.M.	PMSE	575	de Ronde, E.	HIST	24
Demuth, H.U.	MEDI	21	Dennis, J.M.	POLY	202	De Roo, J.	COLL	445
Den auwer, C.	ENVR	585	Dennis, P.	POLY	276	De Roo, J.	INOR	1051
Denavit, V.	CARB	35	Dennis, P.	POLY	721	De Roo, J.	INOR	1380
Denavit, V.	CARB	82	Denny, J.	INOR	159	De Roo, J.	INOR	1400
den Besten, O.V.	CHED	1032	Denny, J.	INOR	690	De Roo, J.	PROF	7
Deneen, K.C.	CHED	1854	Denny, J.	INOR	1197	DeRosh, D.E.	INOR	636
Denef, K.	CHAS	41	Denny, J.	INOR	1198	DeRosh, D.E.	INOR	1024
Denette, A.O.	COMP	255	Denny, J.	INOR	1199	Derouchey, J.E.	BIOL	267
Deng, C.	COLL	541	Denny, J.	INOR	1200	Derradji, M.	ORGN	495
Deng, F.	CATL	417	Denny, J.	INOR	1276	Derradji, M.	PMSE	484
Deng, G.	MEDI	142	deNoord, O.	CATL	169	Derradji, M.	POLY	654
Deng, H.	INOR	100	Denslow, N.D.	ANYL	385	Derrah, T.	INOR	346
Deng, H.	INOR	1330	Dent, A.T.	INOR	134	Derry, M.J.	COLL	648
Deng, J.	ENVR	80	Denton, E.	MEDI	206	Derry, M.J.	POLY	106
Deng, J.	ENVR	82	Denton, J.K.	YCC	25	Derry, M.J.	POLY	288
Deng, N.	GEOC	6	Denuffe, H.	CINF	25	Derry, M.J.	POLY	347
Deng, N.	GEOC	278	Deobald, J.	INOR	1247	Dershimer, R.	CHED	61
Deng, Q.	MEDI	257	De Oliveira Jardim, E.	CATL	222	Derstine, B.P.	ORGN	257
Deng, R.	INOR	339	De Oliveira Jardim, E.	CATL	490	Deruer, E.	ORGN	669
Deng, W.	ENFL	56	Deorkar, N.	BIOT	278	de Ruiter, M.	BIOT	459
Deng, W.	CATL	114	De Pablo, J.J.	PMSE	26	de Ruiter, M.	ORGN	333
Deng, Y.	MEDI	19	De Pablo, J.J.	PMSE	203	Dervan, P.B.	CARB	25

De Saeger, S.	AGFD	85	Desroches, G.J.	INOR	150	De Vries, J.G.	CATL	115
Desai, A.	BIOT	121	Desselle-Hirsch, S.	CHED	1346	De Vries, J.G.	CATL	214
Desai, J.	CHED	1873	DeStefano, A.J.	ENVR	120	De Vries, J.G.	INOR	1191
Desai, J.	ANYL	37	Destine, R.	BIOL	174	Devriese, E.M.	POLY	352
Desai, K.	BIOT	144	Detering, C.	COMP	102	Dewar, J.	INOR	362
Desai, M.	BIOT	178	Detering, C.	MEDI	350	Dewar, J.	INOR	924
Desai, S.P.	CATL	194	Detmar, E.	ORGN	389	DeWeerd, N.J.	FLUO	36
Desai, S.P.	INOR	283	Dettweiler-Robinson, E.	BIOL	68	Dewey, B.	ENVR	283
Desai, S.P.	INOR	290	Detty, M.R.	POLY	427	Dewey, O.	COLL	642
Desai, S.P.	INOR	1166	Detzel, A.	BIOT	214	Dewhurst, S.	CARB	15
Desai, S.P.	INOR	1419	Deuss, P.J.	CATL	115	Dewhurst, S.	PROF	23
De Santiago, H.A.	INOR	805	Deutsch, D.	MEDI	213	De Wilde, J.	CATL	440
DeSario, P.	CATL	400	Deutsch, D.J.	SCHB	6	DeWinter, M.A.	COLL	634
DeSario, P.	ENFL	78	Deutsch, S.	BIOT	470	Dewitt, M.	I&EC	2
Desbiens, N.	NUCL	68	Deutschman, W.	CHED	381	Dexter, P.	CHED	1999
Deschamps, M.	CATL	368	Dev, S.	GEOC	204	Dexter, P.	CHED	2099
Desgranges, C.	COMP	299	Devadas, M.	CHED	2129	Dey, P.	MEDI	144
Desgranges, C.	COMP	306	Devadas, M.	INOR	177	Dey, S.	INOR	986
Desgranges, C.	COMP	317	Devadas, M.	INOR	1322	Dey, S.	INOR	210
Desgranges, C.	COMP	406	DeVaney, J.D.	CHED	1501	Deynzer, S.	CHED	484
Deshaye, M.	CHED	1449	Devarai, S.K.	BIOT	242	DeYong, A.	CHED	1651
DeShetler, L.K.	MEDI	403	Devaraj, N.K.	BIOL	16	Deyonker, N.J.	BIOL	106
Deshlahra, P.	CATL	196	Devaraj, N.K.	BIOL	30	Deyonker, N.J.	CHAS	33
Deshmukh, S.	CATL	73	Devaraj, N.K.	BIOL	35	Deyonker, N.J.	COMP	281
Deshmukh, S.	CATL	173	Devaraj, N.K.	BIOL	194	Deyonker, N.J.	COMP	419
Deshommes, E.	ENVR	30	Devaraj, N.K.	BIOL	213	Deyonker, N.J.	PHYS	137
De Siena, M.C.	INOR	1050	Devaraj, N.K.	BIOL	250	Deyonker, N.J.	PHYS	587
Desikan, R.	COLL	334	Devaraj, N.K.	BIOL	294	DeYoreo, J.J.	COLL	439
de Silva, U.K.	PMSE	348	Devaraj, N.K.	BIOT	194	DeYoreo, J.J.	GEOC	46
De Silva, A.O.	ENVR	155	Devaraj, N.K.	COLL	214	DeYoreo, J.J.	GEOC	121
De Silva, E.H.	POLY	81	Devaraj, N.K.	COLL	472	DeYoreo, J.J.	GEOC	173
De Silva, E.H.	POLY	643	Devaraj, N.K.	COLL	639	De Yoreo, J.	COLL	742
De Silva, P.P.	COLL	698	Devaraj, N.K.	COLL	721	De Yoreo, J.	GEOC	24
De Silva, T.P.	ANYL	295	Devaraj, N.K.	ORGN	382	DeYoung, J.	ENVR	603
De Silva, U.	ENFL	330	Devaraj, N.K.	ORGN	383	Deysher, D.	CHED	1692
De Silva Indrasekara, A.S.	PHYS	299	DeVault, M.P.	PHYS	475	Dhakal, R.C.	MEDI	273
DeSimone, J.M.	PMSE	5	Deveau, A.M.	CHED	1202	Dhamane, S.P.	BIOT	327
Desireddy, A.	COLL	651	Devereux, C.	COMP	54	Dhamane, S.P.	BIOT	363
DesJardins, J.D.	ANYL	282	Devereux, C.	COMP	264	Dhanda, R.	PROF	37
Deskins, N.A.	ENFL	241	Devereux, C.	PHYS	253	Dhar, M.	MEDI	28
Desmaisons, J.	CELL	167	Devi, N.	INOR	386	Dhar, M.	MEDI	109
Desman, P.	BIOL	255	De Visscher, A.	PHYS	419	Dhar, S.	BIOL	221
Desman, P.	ORGN	436	deVita, R.	MEDI	39	Dhar, S.	BIOL	249
Desman, P.K.	ORGN	434	Devito, J.	CHED	133	Dhar, S.	MEDI	370
Desobry, S.	AGFD	142	Devkota, L.	FLUO	44	Dhar, S.	BIOL	91
de Solla, S.R.	ENVR	155	Devkota, T.	COLL	670	Dhar, S.	CHED	659
Desombre, M.	BIOT	521	Devkota, T.	PHYS	398	Dhar, T.	MEDI	20
deSouza, N.	BIOT	567	de Voogt, P.	ANYL	30	Dhar, T.	MEDI	91
DeSouza, N.	CHED	1868	de Voogt, P.	ENVR	89	Dhara, V.	BIOT	43
de Souza, E.C.	MEDI	398	de Voogt, P.	ENVR	349	Dhawan, D.	BIOL	159
Despotopoulos, J.	NUCL	22	de Voogt, P.	ENVR	784	Dhawan, S.	MPPG	3
Despotopoulos, J.D.	NUCL	67	Devore, D.	CHED	876	Dhe-Paganon, S.	MEDI	232
Despotopoulos, J.D.	NUCL	71	DeVore, C.	GEOC	130	Dhinojwala, A.N.	POLY	695
Desrochers, P.	CHED	1133	De Vos, D.	CATL	265	Dhong, C.	COLL	748
Desrochers, P.	CHED	1135	De Vos, D.	CATL	376	Dhong, C.	ORGN	245

Dhong, C.	PMSE	83	Dickenson, E.	ENVR	545	Dikkumbura, A.S.	PHYS	479
Dhooghe, M.	ORGN	67	Dickerson, C.	COMP	265	Dikkumbura, A.S.	PHYS	480
Dhull, P.	INOR	1189	Dickerson, M.	PMSE	541	Dikkumbura, A.S.	PHYS	649
Diaconescu, P.	INOR	546	Dickerson, M.	PMSE	596	DiLabio, G.A.	COMP	8
Diagne, M.	INOR	343	Dickerson, R.	BIOT	38	DiLallo, H.	ANYL	77
Diallo, J.	INOR	135	Dickey, A.	CHED	1062	Dilbeck, T.	PHYS	174
Diallo, S.	ENFL	489	Dickey, M.D.	ANYL	20	Dilday, T.Y.	CHED	1310
Diamond, D.	ENVR	399	Dickey, M.D.	ANYL	52	Dill, C.	COLL	199
Diamond, M.	BIOT	67	Dickey, M.D.	POLY	567	Dill, K.	COMP	88
Diana Di Manvungu, J.	AGFD	85	Dickey, M.D.	POLY	632	Dill, K.	COMP	219
Diao, R.	BIOL	46	Dickie, C.M.	INOR	1148	Dill, Z.	ORGN	412
Diao, Y.	COLL	49	Dickie, C.M.	INOR	1293	Dill, Z.	ORGN	414
Diao, Y.	PMSE	463	Dickinson, P.S.	BIOL	265	Dilla, R.	PMSE	307
Diao, Y.	POLY	719	Dickmeyer, J.	ORGN	136	Dilla, R.	PMSE	357
Dias, A.	BIOT	124	Dickovick, J.	PHYS	576	Dilling, W.L.	CHED	1594
Dias, A.A.	POLY	111	Dickow, M.T.	CHED	1486	Dillner, D.K.	CHED	37
Dias, M.C.	INOR	46	Dickson, A.	COMP	178	Dillner, D.K.	CHED	814
Dias, R.P.	CHED	973	Dickson, C.	COMP	60	Dillon, D.L.	CHED	39
Dias, R.P.	ENVR	484	Dickson, J.A.	ORGN	741	Dillon, D.L.	CHED	766
Diaz, A.A.	ANYL	88	Diddens, D.	PHYS	514	Dillon, D.L.	CHED	2199
Diaz, A.	ENVR	122	Didelot, J.	CHED	412	Dillon, D.L.	ENFL	365
Diaz, A.	PMSE	510	Didychuk, A.L.	MEDI	299	Dillon, E.	PMSE	295
Diaz, A.	CHED	1912	Dieden, R.	POLY	589	Dima, R.I.	CHED	874
Diaz, D.	CHED	1817	Diederich, F.N.	MEDI	118	Dimaggio, S.C.	CHED	1589
Diaz, E.	ANYL	182	Diedrich, J.	BIOT	375	Dimaggio, S.C.	CHED	1781
Diaz, F.	ENVR	666	Diehl III, G.L.	FLUO	66	Dimaggio, S.C.	CHED	1784
Diaz, Y.J.	POLY	626	Dieken, H.	BIOT	172	Dimaggio, S.C.	PRES	6
Diaz-Alvarez, A.E.	CATL	138	Diemler, E.T.	CHED	93	Dimakis, N.	CATL	148
Diaz-Gonzalez, R.	CHED	1180	Diemler, E.T.	CHED	1824	DiMartino, J.	ANYL	25
Diaz-Ramirez, J.	ENVR	468	DiEmma, G.	CHED	839	DiMauro, E.F.	MEDI	3
Diaz Romero, D.E.	INOR	530	DiEmma, G.	CHED	840	Dimitratos, N.	CATL	373
Di Bari, L.	PHYS	50	Dieringer, R.K.	HIST	43	Dimitratos, N.	ENFL	35
Dibdiakova, J.	CELL	405	Dierolf, B.A.	CHED	1008	Dimitriadis, E.	BIOT	197
Di Bella, G.	AGFD	198	Dieterich, J.M.	PHYS	98	Dimitrievska, M.	ENFL	205
DiBernardo, A.M.	CHED	1147	Dietrich, C.	ENVR	782	Dimitrievska, M.	ENFL	434
Dibrell, S.	BIOL	310	Dietz, M.L.	NUCL	38	Dimkovikj, A.	ANYL	70
Dicesare, J.C.	CHED	672	Dietz, P.C.	CHED	1219	Dimopoulos, P.	MEDI	90
Dichiaro, A.	CELL	291	Dietz, T.	CELL	46	Dimova, D.	COMP	144
Dichiaro, A.	CELL	432	Di Francesco, M.E.	MEDI	64	Dimps, M.	BIOT	144
Dichiaro, A.	ENFL	402	Di Francesco, M.E.	MEDI	359	DiMucci, I.	INOR	406
Dichiaro, A.	ENVR	645	Digaum, J.L.	PMSE	614	DiMuzio, J.	MEDI	191
Dichristina, T.J.	GEOC	76	Digby, Z.	CHED	1479	Din, N.	COLL	375
Dichristina, T.J.	GEOC	106	Digby, Z.	POLY	154	Din, N.	INOR	1077
Dichtel, W.	CHED	1764	Dighe, K.	ANYL	325	Dina, M.I.	CHED	970
Dichtel, W.	ENVR	245	Dighe, K.	ENVR	406	Dinadayalane, T.	COLL	603
Dichtel, W.	ORGN	244	Di Giuseppe, E.	CELL	269	Dinca, M.	INOR	12
Dichtel, W.	POLY	503	Di Justo, Z.	CHED	1121	Dinca, M.	INOR	321
Dichtel, W.	POLY	636	Digles, D.	CINF	59	Dinca, M.	INOR	323
Dick, B.	INOR	136	Digles, D.	MEDI	173	Dinca, M.	INOR	324
Dick, D.	ORGN	661	Dignam, J.D.	CHED	122	Dinca, M.	INOR	416
Dick, G.	GEOC	134	Di Iorio, D.	COLL	548	Dinca, M.	INOR	500
Dick, T.J.	CHED	908	Di Iorio, J.R.	CATL	356	Dinca, M.	INOR	729
Dickakian, G.	ENFL	169	Di Iorio, J.R.	I&EC	54	Dinca, M.	INOR	1086
Dickens, C.F.	CATL	120	Dikarev, E.	INOR	162	Dinca, M.	INOR	1090
Dickenson, A.J.	COLL	222	Dikkumbura, A.S.	PHYS	455	Dinca, M.	INOR	1091

Dinca, M.	INOR	1174	Diroll, B.T.	PHYS	241	Dixon, D.A.	NUCL	98
Dinca, M.	INOR	1175	Disalvo, G.M.	BIOT	195	Dixon, D.A.	PHYS	556
Dinca, M.	INOR	1177	Disalvo, G.M.	BIOT	198	Dixon, D.A.	ENFL	547
Dinca, M.	INOR	1178	Disalvo, G.M.	BIOT	464	Dixon, M.	COLL	397
Dinca, M.	INOR	1180	Discekici, E.	POLY	560	Dixon, S.L.	COMP	104
Dinca, M.	INOR	1214	Discekici, E.	POLY	581	Dixon, S.L.	COMP	344
Dinca, M.	INOR	1315	Discenza, L.	MEDI	6	DiYanni, R.	CHED	19
Dinca, M.	INOR	1332	Discenza, L.	MEDI	297	Dizon, K.	POLY	526
Dinca, M.	INOR	1420	Dishuck, C.	COMP	193	Djabourov, M.	AGFD	145
Dinca, M.	INOR	1425	Disney, M.D.	CARB	13	Djajamuliadi, J.	POLY	723
Ding, D.	ANYL	89	Dissanayake, D.	INOR	399	Djombou Feunang, Y.	CINF	8
Ding, D.	ORGN	12	Dissanayake, G.C.	ORGN	603	Djombou Feunang, Y.	CINF	103
Ding, F.	BIOL	199	Dissanayake, K.	CATL	331	Dlamini, S.M.	MEDI	409
Ding, F.	COMP	330	Dissanayake, M.	ORGN	592	Dlott, D.D.	ANYL	12
Ding, J.	CELL	409	Dissanayake, M.	ORGN	634	Dluhy, R.A.	ANYL	351
Ding, K.	ENVR	490	Distasio, R.A.	COMP	56	Dmochowski, I.J.	BIOT	328
Ding, K.	INOR	1186	Distefano, M.D.	BIOL	225	Dmytriv, Y.	MEDI	138
Ding, K.	ENFL	34	Distefano, M.D.	BIOL	309	Do, A.	CHED	1705
Ding, R.	INOR	1063	Distefano, M.D.	BIOT	149	Do, C.	CHED	1171
Ding, R.	POLY	471	Distefano, M.D.	CHED	1385	Do, C.	CHED	1215
Ding, S.	INOR	2	Distefano, M.D.	ORGN	430	Do, C.	ENFL	484
Ding, S.	INOR	108	Distefano, M.D.	ORGN	447	Do, D.	BIOL	265
Ding, S.	INOR	331	Di Stefano, V.	AGFD	198	Do, J.Y.	INOR	576
Ding, S.	INOR	513	Dittmar, J.	COLL	512	Do, J.Y.	INOR	779
Ding, S.	INOR	1358	Dittrich, T.M.	ENVR	693	Do, L.	INOR	233
Ding, S.	INOR	850	Divakaran, A.	MEDI	38	Do, L.	INOR	692
Ding, Y.	PMSE	34	Divandari, M.	PMSE	549	Do, L.	INOR	896
Ding, Y.	PMSE	447	Divis, T.	CHED	1406	Do, L.	INOR	901
Ding, Y.	POLY	167	Divis, T.	CHED	1439	Do, L.	INOR	1110
Ding, Y.	POLY	501	Divisconti, F.E.	CHED	1073	Do, L.	POLY	29
Ding, Y.	MEDI	298	DiVita, D.	CHED	546	Do, M.	INOR	192
Ding, Z.	PMSE	558	DiVita, D.	CHED	593	Do, N.	MEDI	283
Dingemans, M.M.	CINF	107	Diwakar, M.K.	POLY	87	Do, O.	ORGN	644
Dingemans, T.J.	ENFL	48	Dixet, V.	INOR	496	Do, T.	COLL	661
Dingemans, T.J.	PHYS	115	Dixet, V.	PHYS	540	Do, T.	ENFL	7
Dingerville, R.	CHED	344	Dixit, M.	CATL	250	do Amaral Carminati, S.	INOR	1060
Dings, R.P.	COLL	594	Dixit, S.	ENVR	717	do Amaral Sobral, P.	AGFD	145
Dings, R.P.	COLL	753	Dixit, V.	INOR	707	Doan, H.A.	CATL	24
Dinh, A.N.	CHED	1418	Dixit, V.	INOR	1199	Doan, H.A.	CATL	137
Dinh, A.N.	ORGN	123	Dixit, V.	INOR	1200	Dobbs, A.A.	PHYS	469
Dinh, H.N.	BIOL	186	Dixit, V.	INOR	1276	Dobbs, A.A.	PHYS	486
Dinh, U.	CHED	596	Dixit, V.	INOR	1297	Dobbs, C.	CHED	781
Dini, V.	CHED	796	Dixon, A.L.	CHED	1388	Dobbs, H.A.	COLL	171
Dinnebier, R.E.	COLL	427	Dixon, D.A.	CHED	339	Dobbs, H.A.	COLL	530
Dinnocenzo, J.P.	CHED	1933	Dixon, D.A.	COMP	256	Dobbs, H.A.	COLL	531
Diomedes, P.	ENFL	114	Dixon, D.A.	COMP	285	Dobias, E.R.	CHED	1239
Dionisio, K.	ENVR	416	Dixon, D.A.	COMP	301	Dobosz, S.	CELL	269
Dionysiou, D.D.	ENVR	207	Dixon, D.A.	FLUO	7	Dobrenis, K.	CARB	11
Dionysiou, D.D.	ENVR	410	Dixon, D.A.	FLUO	21	Dobri, N.	MEDI	270
Diot-Néant, F.	POLY	584	Dixon, D.A.	INOR	22	Dobrucki, L.	BIOL	316
Di Palma, F.	COMP	356	Dixon, D.A.	INOR	284	Dobulis, M.	CHED	911
DiPasquale, M.	COLL	110	Dixon, D.A.	INOR	713	Doctor, N.	CHED	181
DiPietro, L.A.	MEDI	260	Dixon, D.A.	NUCL	11	Dodani, S.	BIOL	157
DiProspero, T.	POLY	80	Dixon, D.A.	NUCL	75	Dodd, M.C.	ENVR	50
DiRocco, D.	ORGN	193	Dixon, D.A.	NUCL	88	Dodd, M.C.	ENVR	74

Doddi, V.	BIOT	113	Dolstra, C.	COLL	468	Dong, L.	PMSE	359
Dodds, E.D.	CHED	459	Dolyniuk, J.	INOR	1224	Dong, M.	PMSE	587
Dodge, L.	CELL	115	Domaille, D.W.	POLY	409	Dong, M.	CHED	1545
Dodgen, L.	ENVR	151	Dombrowski, G.	POLY	362	Dong, P.	ORGN	521
Dodin, A.	PHYS	347	Dombrowski, G.	POLY	365	Dong, S.	BIOL	314
Dodin, A.	PHYS	397	Domcke, W.	MPPG	28	Dong, V.M.	WCC	16
Dodla, S.	ENVR	103	Domen, K.	ENFL	271	Dong, V.M.	ORGN	206
Dodson, L.	CHAS	10	Domena, J.	COLL	210	Dong, W.	CHED	720
Doe, E.	CHED	483	Dominguez, G.M.	MEDI	198	Dong, W.	ENVR	681
Doemling, A.	CINF	13	Dominguez, J.	CHED	550	Dong, W.	ENVR	681
Doemling, A.	MEDI	115	Dominguez, T.J.	CHED	278	Dong, X.	COMP	291
Doemling, A.	MEDI	116	Dominguez, T.J.	CHED	1327	Dong, X.	COLL	711
Doemling, A.	MEDI	276	Dominguez Medina, S.	BIOT	327	Dong, Y.	ENFL	6
Doemling, A.	MEDI	348	Dominy, B.N.	COMP	155	Dong, Y.	PMSE	455
Doemling, A.	ORGN	259	Domville, C.	CHED	980	Dong, Y.	CELL	140
Doemling, A.	PROF	4	Domville, C.	CHED	1881	Dong, Y.	CELL	189
Doering, S.R.	PROF	3	Dona, F.	COLL	770	Dong, Y.	ENVR	190
Doerksen, R.J.	COMP	413	Donadt, T.	INOR	341	Dong, Y.	ENVR	82
Doerksen, R.J.	MEDI	183	Donadt, T.	INOR	884	Dong, Y.	COLL	509
Doerksen, R.J.	MEDI	412	Donahue, C.M.	INOR	495	Dong, Y.	INOR	1411
Doerr, L.H.	INOR	93	Donahue, C.M.	INOR	1342	Dongare, P.	INOR	78
Doerr, L.H.	INOR	958	Donahue, E.	CHED	1299	Dongare, P.	INOR	532
Doerr, L.H.	INOR	1270	Donahue, I.	PMSE	444	Dongare, P.D.	COLL	759
Dogu, D.	I&EC	33	Donahue, J.P.	INOR	508	Donghia, N.	BIOT	226
Dogutan, D.K.	INOR	660	Donahue, J.P.	INOR	1310	Doninger, K.	BIOT	130
Doh, H.	ENFL	198	Donahue, J.P.	INOR	1312	Donley, M.	INOR	852
Doherty, C.	ANYL	37	Donahue, J.P.	INOR	1313	Donlic, A.	ORGN	364
Doherty, C.	CHED	626	Donahue, M.G.	CHED	2182	Donn, M.	GEOC	90
Doherty, M.	BIOT	500	Donahue, M.G.	ORGN	49	Donnadieu, B.	INOR	159
Doherty, W.	BIOT	185	Donahue, M.G.	CHED	48	Donnadieu, B.	INOR	1198
Dohnalkova, A.C.	INOR	45	Donahue, M.G.	CHED	2200	Donnarumma, F.	ANYL	102
Dohner, E.	INOR	4	Donahue, M.G.	MEDI	345	Donnarumma, F.	ANYL	112
Dohoney, R.	CHED	829	Donahue, M.G.	ORGN	326	Donnarumma, F.	ANYL	141
Doi, I.	MEDI	32	Donahue, M.G.	ORGN	643	Donnarumma, F.	ANYL	144
Doktycz, M.J.	ANYL	395	Donahue, M.G.	ORGN	643	Donnarumma, F.	ANYL	146
Dolan, M.	BIOT	335	Donald, C.	ENVR	514	Donnarumma, F.	ANYL	383
Dolan, M.	ENFL	446	Donalson, G.R.	INOR	245	Donnarumma, F.	ANYL	392
Dolan, S.	BIOT	280	Donate, F.	COLL	731	Donnell, T.M.	INOR	246
Dolar, D.	ENVR	354	Donate, M.J.	CHED	1262	Donnelly, D.F.	CHED	822
Doleschal, M.	CHED	1228	Donate, M.J.	CHED	1264	Donnelly, J.	CHED	2070
Dolga, A.	MEDI	276	Dondelinger, M.	ENFL	473	Donnelly, S.	CHED	32
Dolgoplova, E.	INOR	37	Doner, A.C.	INOR	372	Donner, E.	ENVR	441
Dolgoplova, E.	INOR	94	Doney, A.C.	MEDI	30	Donohue, M.	BIOL	271
Dolgoplova, E.	INOR	623	Dong, C.	ANYL	112	Donovan, A.	CHED	191
Dolinar, B.S.	INOR	423	Dong, C.	ANYL	141	Donovan, B.	POLY	807
Dolinar, B.S.	INOR	969	Dong, C.	CHED	2137	Donovan, B.R.	POLY	631
Dolinar, B.S.	INOR	1122	Dong, D.	COMP	410	Donovan-Merkert, B.T.	INOR	110
Dolinski, N.	PMSE	556	Dong, D.	ENFL	511	Donow, H.	POLY	711
Dolinski, N.	POLY	214	Dong, D.	PHYS	236	Donthula, S.	PMSE	137
Dolinski, N.	POLY	217	Dong, D.	PMSE	358	Donvito, G.	BIOL	227
Doll, P.	POLY	82	Dong, G.	MEDI	92	Doody, L.J.	CHED	2
Dollar, O.	GEOC	131	Dong, H.	INOR	205	Doody, L.J.	CHED	252
Dollar, O.	GEOC	155	Dong, H.	COLL	96	Doolan, K.M.	BIOT	257
Dolovanyuk, V.	MEDI	140	Dong, H.	ANYL	122	Dooley, D.	CHED	1919
Dolph, L.	CHED	1527	Dong, J.	ENVR	681	Dooley, K.S.	CHED	2140
			Dong, J.	ANYL	195			

Dooley, K.S.	ENVR	603	Doucet, G.	CHED	1822	Drain, C.M.	ORGN	424
Dooling, L.J.	PMSE	65	Doucette, G.	ENFL	4	Drake, C.	POLY	562
Doolittle, P.	ANYL	62	Doucette, G.	ENFL	28	Drake, H.	ENFL	73
Doolittle, P.	CHED	2022	Doud, E.	PROF	29	Drake, H.	ENFL	352
Dooney, D.	MEDI	69	Doudrick, K.	ENVR	397	Drake, J.	CHED	192
Doong, R.	ENVR	374	Dougherty, Q.	CHED	94	Drake, J.	COMP	97
Dorado, C.	CELL	245	Dougherty, Q.	CHED	1884	Drake, K.	CHED	373
Dorais, C.	GEOC	195	Dougherty, S.	ORGN	682	Drake, K.	CHED	637
Doran, S.	MEDI	321	Dougherty, W.G.	CHED	1082	Drake, K.	CHED	877
Dordick, J.S.	BIOT	266	Douglas, C.J.	PHYS	395	Drake, K.	CHED	896
Dordick, J.S.	BIOT	439	Douglas, J.F.	PMSE	201	Drake, K.	CHED	920
Dorfman, K.D.	PMSE	178	Douglas, M.	CHED	583	Drake, K.B.	SCHB	5
Dorfner, A.L.	INOR	308	Douglas, T.	PHYS	167	Drake, M.	AGFD	56
Doris, C.	BIOT	484	Douglas, T.	CHED	645	Drance, M.J.	INOR	1346
Doriya, K.	BIOT	242	Douglass, M.K.	CHED	153	Dransart, B.	BIOT	442
Dorko, M.	CHED	526	Doukkali, M.	COLL	616	Drapeau, D.	CHED	1885
Dorko, M.	CHED	644	Douma, E.D.	CHED	1084	Draper, S.R.	CHED	1364
Dorko, M.	PHYS	474	Douma, E.D.	CHED	1085	Dravid, V.	INOR	1226
Dorlus, T.	COLL	603	Dounay, A.B.	CHED	300	Dreaden, E.C.	COLL	600
Dorman, F.L.	GEOC	156	Dounay, A.B.	CHED	1180	Dreelin, E.	ENVR	96
Dorman, F.L.	GEOC	177	Dourado, F.	CELL	53	Drennan, C.	CATL	228
Dorman, J.A.	BIOT	56	Dourdain, S.	PHYS	28	Drennen, B.	MEDI	188
Dorman, J.A.	BIOT	374	Douskey, M.C.	CHED	2054	Drenski, M.F.	BIOT	182
Dorman, J.A.	BIOT	408	Doutch, J.	BIOT	50	Drenski, M.F.	POLY	218
Dorman, J.A.	CATL	187	Dove, A.M.	CHED	1524	Dreos, A.	ENFL	26
Dorman, J.A.	COMP	297	Dovichi, N.J.	ANYL	399	Dressler, J.J.	ORGN	465
Dorman, J.A.	INOR	1374	Dowd, J.	CHED	2195	Drevland, R.	BIOT	369
Dorman, J.A.	PHYS	403	Dowd, M.	ANYL	66	Drew, B.	BIOT	12
Dormi, S.S.	ORGN	176	Dowd, S.	CHED	118	Drew, B.	BIOT	258
Dorn, K.V.	INOR	1144	Dowding, P.J.	COLL	665	Drew, D.	CHED	1740
Dorn, R.	CHED	1641	Dowell, K.	INOR	8	Drew, M.F.	CHED	1119
Dornheim, M.	ENFL	150	Dowey, R.	MEDI	308	Drew, S.M.	CHED	406
Dornshuld, E.V.	INOR	496	Dowling, M.S.	MEDI	275	Drew, S.M.	CHED	409
Dornshuld, E.V.	INOR	707	Dowling, M.S.	ORGN	641	Drewett, N.	ENFL	305
Dornshuld, E.V.	INOR	1199	Down, K.	MEDI	246	Driscoll, D.	CATL	299
Dornshuld, E.V.	PHYS	540	Downes, C.	INOR	1272	Driscoll, J.N.	PRES	5
Dorogin, J.	CELL	97	Downes, F.E.	CHED	965	Driskell, J.D.	ANYL	350
Dorris, A.	PHYS	533	Downing, R.	COLL	764	Drollette, B.	ENVR	443
dos Anjos Cunha, L.	PHYS	424	Downs, T.	INOR	478	Dron, P.I.	COLL	414
Doser, D.	BIOT	175	Doyle, J.	PHYS	15	Dropinski, J.	MEDI	92
dos Passos Gomes, G.	CHED	1574	Dozier, C.	ENVR	66	Dror, R.O.	COMP	28
dos Passos Gomes, G.	CHED	1658	Drachuk, I.	COLL	703	Dror, R.O.	COMP	398
Dos Reis, I.	CHED	1353	Draeger, N.	COLL	522	Druelinger, M.L.	CHED	39
Dos Santos, J.L.	MEDI	73	Draetta, G.	MEDI	64	Druelinger, M.L.	CHED	215
Dos Santos, J.L.	MEDI	107	Draetta, G.	MEDI	359	Druelinger, M.L.	CHED	2199
Dostert-Azzarello, T.A.	CHED	1585	Dragan, Y.	MEDI	61	Druelinger, M.L.	YCC	4
Dostie, A.	PMSE	406	Draganov, A.	MEDI	176	Drummer, M.	PHYS	459
Do-Thanh, C.	I&EC	104	Draganski, A.	AGFD	121	Drummey, K.	PHYS	516
Do-Thanh, C.	PMSE	423	Drago, N.P.	INOR	1060	Drummond, C.	ORGN	720
Dottino, P.	COLL	677	Dragon, A.	CHED	79	Drummond, C.	PHYS	67
Dou, J.	CHED	1024	Dragulska, S.A.	COLL	677	Drummond, M.	INOR	620
Dou, J.	INOR	1175	Draguta, S.	PHYS	473	Drummy, L.F.	PMSE	66
Dou, L.	CELL	227	Drain, C.M.	CHED	2198	Drury, N.	ANYL	166
Dou, X.	MEDI	142	Drain, C.M.	INOR	1324	Drusch, S.	AGFD	162
Douberly, G.E.	PHYS	163	Drain, C.M.	NUCL	61	Drust, V.	INOR	275

Druwe, I.	CHED	1931	Dubas, S.T.	PMSE	479	Dufour, R.E.	COLL	250
Drvodelic, N.	ENFL	97	DuBay, K.	POLY	638	Dufresne, A.	CELL	167
Dryzhenko, T.	MEDI	139	Dube, D.H.	CARB	51	Dufresne, A.	CELL	267
Du, B.	ENVR	412	Dube, D.H.	CARB	52	Dufresne, P.	ENFL	95
Du, C.	BIOT	181	Dub�, M.A.	CELL	199	Dugan, N.	INOR	1089
Du, C.	BIOT	358	Dubecky, S.	CHED	497	Duggan, S.	MEDI	149
Du, D.	BIOL	112	Dubertret, B.	INOR	675	Dugger, J.	POLY	77
Du, F.	PMSE	249	Dubin, G.	MEDI	276	Dugger, M.	COLL	134
Du, F.	MEDI	75	Dubinsky, E.	GEOC	13	Dugger, M.	COLL	360
Du, H.	ENVR	124	Dubner, R.S.	BIOT	147	Dugo, G.	AGFD	198
Du, J.	CELL	121	Dubner, R.S.	BIOT	226	Duhaime, M.	ENVR	81
Du, L.	ANYL	313	Dubois, M.	NUCL	32	Duhamet, J.	COLL	456
Du, L.	COLL	586	Dubois, P.	PMSE	533	Duizer, L.	CELL	343
Du, L.	COLL	587	Du Bois, J.	ORGN	89	Duke, A.C.	INOR	296
Du, L.	CHED	709	Du Bois, J.	ORGN	556	Duke, A.C.	INOR	1232
Du, P.	PHYS	472	Dubos, A.E.	CHED	1756	Duke, M.	PRES	4
Du, P.	PHYS	484	Dubrovinskaia, N.	INOR	577	Duke, R.	ANYL	183
Du, P.	PHYS	500	Dubrovinsky, L.	INOR	577	Dukes, D.	MEDI	375
Du, W.	PMSE	349	Dubrovskiy, A.	MEDI	339	Dukovic, G.	INOR	97
Du, W.	PMSE	402	Dubrovskiy, A.	ORGN	676	Dukovic, G.	PHYS	33
Du, W.	PMSE	568	Dubrovskiy, O.	MEDI	197	Du Laing, G.	CELL	231
Du, X.	PHYS	368	Duca, J.	COMP	60	Dulaney, K.	INOR	198
Du, Y.	MEDI	199	Duca, R.	ANYL	431	Dulany, L.	BMGT	5
Du, Y.	MEDI	363	D�chene, L.	ENFL	274	Dulay, M.	ANYL	228
Du, Y.	INOR	831	Duchesneau, J.	CHED	443	Dulay, M.	ANYL	229
Du, Y.	GEOC	186	Duchniak, D.	CHAS	29	Dulay, M.	WCC	6
Du, Y.	CELL	379	Duckwall, M.J.	CHED	277	Duma, V.	ENFL	290
Du, Z.	MEDI	332	Duckwall, M.J.	CHED	746	Duman, L.M.	INOR	374
Du, Z.	CATL	325	Duckworth, O.	GEOC	165	Dumanli, A.G.	CELL	66
Du, Z.	CATL	326	Duckworth, R.	CHED	1754	Dumaresq, N.	CATL	184
Du, Z.	ENFL	406	Ducrot, P.	COMP	382	Dumaresq, N.	CATL	340
Du, Z.	BIOT	263	Duda, B.	FLUO	12	Dumas, L.	PMSE	533
Duan, A.	CATL	488	Duddleston, K.	ENVR	233	Dumeng Rodriguez, J.	CHED	931
Duan, A.	CATL	553	Dudek, J.B.	CHED	16	Dumesic, J.A.	CATL	264
Duan, A.	ENFL	512	Dudek, J.B.	PHYS	501	Dumesic, J.A.	I&EC	26
Duan, H.D.	BIOL	289	Dudek, R.C.	ANYL	136	Dunbar, K.R.	INOR	6
Duan, J.	INOR	283	Dudek, R.C.	CHED	12	Dunbar, K.R.	INOR	423
Duan, J.	MEDI	109	Dudek, R.C.	CHED	464	Dunbar, K.R.	INOR	969
Duan, J.	MEDI	178	Dudek, R.B.	ENFL	210	Dunbar, K.R.	INOR	970
Duan, J.	CELL	43	Dudgeon, T.	ENVR	518	Dunbar, K.R.	INOR	1115
Duan, S.	CARB	84	Dudipala, V.	POLY	524	Dunbar, K.R.	INOR	1117
Duan, S.	CELL	159	Dudley, L.	ENVR	426	Dunbar, K.R.	INOR	1122
Duan, X.F.	PHYS	369	Dudley, Q.	BIOT	155	Dunbar, K.R.	INOR	1257
Duan, X.	ORGN	378	Dudley, T.	INOR	238	Dunbar, K.R.	INOR	1341
Duan, Y.	COMP	368	Dudley, T.	INOR	474	Dunbar, M.	CHED	1666
Duan, Z.	ENVR	620	Dudley, T.	INOR	852	Dunbar, M.	INOR	895
Duan, Z.	ENVR	468	Dudney, N.J.	ENFL	465	Duncan, B.	ENFL	52
Duan, Z.	ENVR	745	Duenas, A.	INOR	874	Duncan, B.	ENVR	467
Duarte, A.	AGFD	12	Duerfeldt, A.S.	MEDI	89	Duncan, K.	CHED	6
Duarte, L.J.	CATL	226	Duerfeldt, A.S.	MEDI	142	Duncan, T.V.	PMSE	344
Duarte, M.	ENVR	663	Duerst, M.	HIST	10	Duncia, J.V.	MEDI	367
Duarte, R.	AGFD	12	Duffus, K.S.	AGFD	61	Dunckley, T.	MEDI	147
Duarte de Marins Costa, A.	ENVR	116	Duffy, E.M.	CHED	253	Dungan, S.R.	AGFD	172
Dub, P.A.	INOR	699	Duffy-Matzner, J.L.	ORGN	620	Dungan, S.R.	AGFD	173
Dub, P.A.	INOR	1084	Duffy-Matzner, J.L.	POLY	541	Dungan, S.R.	COLL	76

Dungan, S.R.	COLL	186	Dürauer, A.	BIOT	519	Dwyer, J.D.	INOR	145
Dungan, S.R.	COLL	789	Durbin, M.M.	POLY	352	Dwyer, J.D.	INOR	305
Dunham-Cheatham, S.	GEOC	15	Durfee, Q.C.	CHED	722	Dwyer, K.	ANYL	71
Dunietz, B.D.	COMP	65	Durfee, Q.C.	CHED	1889	Dyatkin, B.	GEOC	26
Dunkel, A.	AGFD	17	Durgaprasad, G.	INOR	340	Dyckman, A.J.	MEDI	20
Dunkelberger, A.	ENFL	78	Durgaprasad, G.	INOR	1080	Dyckman, A.J.	MEDI	91
Dunlap, B.I.	CATL	403	Durgun, E.	COLL	361	Dyer, J.	ANYL	189
Dunlap, C.J.	ANYL	74	Durham, O.Z.	POLY	101	Dyer, J.J.	CHED	1505
Dunlap, C.J.	ANYL	75	Durham-Brooks, T.	CHED	2148	Dyke, T.R.	FLUO	57
Dunlap, J.	CELL	218	Durkin, D.P.	ANYL	290	Dysleski, L.	CHED	35
Dunlap, N.K.	MEDI	130	Durkin, D.P.	ANYL	292	Dyson, P.	CATL	496
Dunlap, N.K.	ORGN	106	Durkin, D.P.	CELL	262	Dziatko, R.	PHYS	562
Dunlap, T.	CHED	679	Durkin, D.P.	CHED	1022	Dziedzic, J.	PHYS	52
Dunlap, V.K.	CHED	1225	Durkin, D.P.	CHED	1275	Dzisam, J.	ANYL	187
Dunlap, V.K.	CHED	1542	Durkin, D.P.	ENVR	24	Dziuba, C.	CELL	237
Dunn, J.A.	COLL	626	Durkin, D.P.	ENVR	392	Dzombak, D.A.	MPPG	4
Dunn, M.	CHED	1905	Durkin, K.	COLL	621	D'Amelio, J.	CHED	1003
Dunn, M.	PMSE	558	Durkin, K.	COLL	784	E, X.	ENFL	532
Dunn, M.	PMSE	73	Durmus, S.	BIOL	232	Eady, S.	I&EC	30
Dunn, P.	CHED	992	Dürri, C.	BIOT	493	Eagan, B.	BIOL	282
Dunn, P.	INOR	405	Durren, R.	CHED	32	Eagan, B.	BIOT	254
Dunn, P.	INOR	1345	Dursun, I.	ANYL	279	Earb, L.	COLL	303
Dunnigan, K.A.	INOR	606	Dursun, I.	PHYS	428	Earl, L.	I&EC	99
Dunning, S.	INOR	718	Dusharm, G.	CHED	2125	Earley, C.W.	COMP	1
Dunning, S.	INOR	1028	Dusselier, M.	CATL	542	Easdon, J.C.	CHED	1178
Dunning, S.	INOR	1243	Dustrud, S.	PHYS	529	Easdon, J.C.	CHED	1523
Dunning, S.G.	INOR	715	Duszynski, M.	COLL	257	Easley, S.	CHED	1672
Dunning, S.G.	INOR	1046	Dutcher, J.	PMSE	218	Easson, J.	BIOT	82
Dunning, T.H.	PHYS	37	Dutcher, J.	PMSE	219	Easterling, C.P.	POLY	351
Dunnivant, F.M.	CHED	962	Dutmer, B.C.	INOR	280	Easterling, D.	ENFL	191
Dunnivant, F.M.	CHED	969	Dutra, J.K.	MEDI	40	Easterling, D.	ENFL	194
Dunnivant, F.M.	ENVR	567	Dutt, G.	I&EC	145	Eastin, I.	CELL	291
Duong, H.	CHED	53	Dutta, A.	CATL	390	Easton, M.	ORGN	12
Duong, H.M.	CHED	1485	Dutta, M.	ENFL	286	Eaton, C.D.	CHED	262
Duong, H.M.	MEDI	190	Dutta, P.	PHYS	167	Eaton, M.	INOR	990
Duong, L.	MEDI	69	Dutta, S.	CATL	474	Eaton, M.	INOR	1258
Duong, M.M.	ANYL	319	Dutta, S.	CHED	1021	Eaton, T.	CATL	217
Duong, N.	I&EC	35	Dutta, S.	ANYL	153	Eaton, T.	I&EC	27
Duong, T.Q.	INOR	83	Dutta, S.	CATL	202	Ebeler, S.E.	AGFD	173
Duong, T.	CHED	1390	Dutton, K.G.	INOR	833	Ebeler, S.E.	COLL	186
Dupont, C.	CELL	131	Dutton, L.	PHYS	177	Ebelt, N.D.	BIOL	315
Dupont, C.	CELL	221	Dutton, S.	CHED	855	Eberhart, M.	INOR	1066
Dupont, C.	INOR	43	Duval, S.	NUCL	20	Eberle, F.	CHED	1122
Dupont, C.	MEDI	17	Duvva, N.	INOR	944	Eberlin, H.	ANYL	130
Dupont, M.	PHYS	68	Dvorak, B.	ENVR	196	Eberlin, H.	ANYL	149
Dupper, T.	INOR	600	Dvorak, K.	ANYL	75	Eberly, A.	NUCL	75
Dupree, L.	CHED	463	Dvornicky, J.	BIOT	537	Ebert, G.W.	ORGN	144
Dupree, P.	CELL	283	Dwarica, N.S.	CATL	546	Ebert, J.	ORGN	144
Dura, J.	ENFL	555	Dwelle, K.	CATL	32	Eble, D.	CHED	1567
Duran, D.	CHED	534	Dwivedi, S.	POLY	634	Ebrahimi, M.	CELL	112
Duran, R.	ANYL	146	Dwulet, G.	CHED	1043	Ebrahimi Majdar, R.	CELL	324
Duran Camacho, G.	CHED	1817	Dwyer, D.	CHED	1142	Ebrahimia, M.	PHYS	236
Durand, E.	FLUO	37	Dwyer, D.	INOR	376	Ebrahimia, M.	PHYS	514
Durand, H.	CELL	377	Dwyer, D.	INOR	1089	Ebrahimia, M.	PMSE	358
Durand-Reville, T.	MEDI	390	Dwyer, J.R.	ANYL	18	Ebule, R.	ORGN	255

Eceiza, A.	CELL	102	Edmunds, C.W.	CELL	306	Eiarag, G.L.	ORGN	409
Echave, J.	CATL	521	Edmunds, S.J.	ORGN	245	Eibenberger, S.	ANYL	210
Echeverria, J.	INOR	1252	Edobor, A.	CHED	354	Eichers, M.	CHED	663
Echeverria, J.	PHYS	643	Edobor, A.	CHED	534	Eichhorn, D.M.	INOR	870
Eckard, M.	CHED	1251	Edson, J.	BIOT	502	Eichhorn, S.J.	CELL	6
Eckenhoff, W.	INOR	360	Edstrom, K.	ENFL	302	Eichhorn, S.J.	CELL	310
Eckenhoff, W.	INOR	361	Edussuriya, M.	ENVR	643	Eichler, B.	BIOT	412
Eckenhoff, W.	INOR	362	Edussuriya, M.	ENVR	777	Eichler, J.F.	CHED	330
Eckenhoff, W.	INOR	924	Edvenson, G.M.	CHED	1089	Eichler, J.E.	COLL	442
Eckenhoff, W.T.	INOR	359	Edwards, A.	CHED	401	Eichmann, J.	BIOT	270
Eckenhoff, W.T.	INOR	941	Edwards, A.	CHED	1701	Eickhoff, L.	CHED	1412
Ecker, G.F.	CINF	59	Edwards, A.C.	CHED	1376	Eiermann, G.	MEDI	92
Ecker, G.F.	CINF	61	Edwards, D.	CHED	1188	Eiermann, G.	MEDI	93
Ecker, G.F.	MEDI	173	Edwards, D.	CHED	1192	Eijkhout, V.	PHYS	252
Ecker, G.F.	MEDI	174	Edwards, J.A.	CHED	884	Einkauf, J.D.	PMSE	343
Eckermann, A.L.	INOR	275	Edwards, J.	CINF	87	Einsla, B.	ENVR	694
Eckermann, A.L.	INOR	1365	Edwards, K.	COLL	747	Einsla, B.	POLY	699
Eckerstorfer, A.	CHED	932	Edwards, K.C.	INOR	915	Einsla, M.	POLY	645
Eckerstorfer, A.	CHED	1801	Edwards, M.	CHAS	31	Eiroa Lledo, C.	NUCL	37
Eckhart, R.	CELL	75	Edwards, M.	ENVR	98	Eis, E.	COLL	640
Eckhart, R.	CELL	259	Edwards, N.	CHED	1405	Eisenberg, R.	INOR	20
Eckroat, T.J.	CHED	1223	Edwards, N.	CHED	1453	Eisenreich, F.	PMSE	556
Eckroat, T.J.	CHED	1230	Edwards, N.	ORGN	284	Eisenreich, F.	POLY	217
Edamana, P.	ANYL	138	Edwards, S.W.	CINF	89	Eisler, C.	COLL	362
Edamana, P.	COLL	289	Edwards, V.	CELL	15	Eisold, S.	POLY	376
Edamana, P.	COLL	769	Edwards, V.	CELL	85	Eitel, E.	GEOC	106
Eddaoudi, M.	INOR	10	Edwards, V.	CELL	86	Eitel, E.	GEOC	183
Eddaoudi, M.	INOR	727	Eedugurala, N.	POLY	519	Ejaz, M.	PMSE	386
Eddy, M.A.	I&EC	146	Eerola, E.	CELL	294	Ejebavwo, O.	INOR	623
Edel, J.	PHYS	119	Effenberger, K.A.	ORGN	369	Ejim, J.	CHED	565
Edel, R.	CATL	152	Egap, E.	PHYS	385	Ek, M.K.	CELL	414
Edelman, R.	AGFD	120	Egap, E.	PMSE	71	Ekambaram, R.	MEDI	334
Eden, A.B.	CHED	1715	Egashira, H.	MEDI	32	Ekerdt, J.G.	COLL	526
Eden, J.	ENVR	25	Egbert, J.	CATL	428	Ekesan, S.	COMP	244
Edgar, B.A.	BIOL	248	Egbert, J.	ENFL	15	Ekins, S.	HIST	5
Edgar, K.J.	CELL	140	Egbon, E.	ENVR	624	Eklund, P.	CELL	220
Edgar, K.J.	CELL	189	Egejuru, O.U.	CHED	728	Eklund, S.E.	CHED	1137
Edgar, K.J.	CELL	191	Egelhofer, K.	ENVR	175	Eklund, S.E.	CHED	1145
Edgar, K.J.	COLL	224	Eggenberger, O.	COLL	19	Ekuma, C.	CATL	403
Edgar, K.J.	POLY	233	Eggers, E.J.	BIOL	63	El-Aasser, M.S.	POLY	219
Edgar, K.J.	POLY	259	Eggert, U.S.	COLL	770	Elabd, Y.A.	POLY	433
Edgar, K.J.	POLY	493	Eggmann, B.L.	COLL	192	Eladgham, E.	INOR	1241
Edgar, K.J.	POLY	586	Eggleston, G.	HIST	12	Elaigwu, S.	INOR	1162
Edgar, L.	CELL	159	Eggleton, C.	COLL	24	El-Alfy, A.	ORGN	46
Edgcomb, V.	CHED	992	Egidi, F.	PHYS	53	Elam, J.	ENFL	466
Edgewater, L.	ANYL	299	Egidi, F.	PHYS	322	Elam, J.	I&EC	11
Ediger, M.D.	POLY	679	Egiebor, N.	ENVR	42	Elander, R.	CATL	445
Edington, S.C.	BIOL	8	Egolf, D.S.	CHED	410	El-Araby, M.E.	MEDI	385
Ediriweera, D.	ANYL	395	Eguakun, M.	POLY	801	El Ashry, E.	ORGN	409
Edler, K.J.	CELL	310	Ehiwe, D.	ENVR	624	Elathram, N.	COLL	783
Edlin, D.	GEOC	219	Ehlen, F.	CELL	112	El-Baba, T.J.	CHED	1693
Edling, H.E.	PMSE	120	Ehlenberg, D.F.	POLY	309	El-Baba, T.J.	CHED	1739
Edlund, U.	CELL	320	Ehnbohm, A.	INOR	329	El-Baba, T.J.	CHED	1741
Edmunds, C.W.	CELL	128	Ehrlich, D.	POLY	633	Elbashier, E.	PHYS	405
Edmunds, C.W.	CELL	129	Ehrlich, E.	INOR	177	Elbert, J.E.	CHED	1406

Elbert, J.E.	CHED	1439	Ellebracht, S.	FLUO	68	Elschner, T.	CELL	373
Elbert, K.	COLL	119	Ellenbarger, J.	CHED	884	Elsenbeck, D.W.	ANYL	308
ElBidweihy, H.	CELL	262	Ellern, A.	CHED	1141	Elsenberg, S.	POLY	220
Eldabagh, N.	COLL	209	Elles, C.G.	CHED	1747	Elsenberg, S.	POLY	497
Eldabagh, N.	COLL	210	Elles, C.G.	INOR	1274	El-Senduny, F.	ORGN	322
Elder, A.C.	COLL	164	Elles, C.G.	PHYS	580	Elshaer, M.R.	CHED	747
Elder, D.L.	COMP	338	Ellett, T.R.	ANYL	293	El-Shinawi, H.	ENFL	49
Elder, E.	CHED	1170	Elling, L.	POLY	369	El-Shorbagy, W.	ENVR	310
Elder, T.J.	CATL	470	Ellinger, Y.	PHYS	633	El Sibai, M.	BIOL	287
Elder, T.J.	CELL	94	Ellington, M.	CHED	421	El Sibai, M.	INOR	589
Elder, T.J.	CELL	184	Ellington, T.L.	ORGN	492	El Sibai, M.	INOR	910
El Din, M.G.	ENFL	53	Ellington, T.L.	PHYS	535	Elsinga, P.	MEDI	276
Eldredge, A.	BIOL	313	Ellington, T.L.	PROF	45	Elstner, M.	COMP	390
Eldredge, A.	PMSE	562	Ellington, T.L.	YCC	20	Elston, H.J.	CHAS	6
Eldridge, G.T.	CHED	432	Elliott, A.	PMSE	511	Elston, H.J.	SCHB	24
Eldridge, H.	PMSE	117	Elliott, A.	POLY	314	El Tall, O.	INOR	168
Elenius, K.	MEDI	334	Elliott, D.W.	ENVR	129	El Tamany, E.	ORGN	409
Eletsckaya, A.A.	CINF	105	Elliott, D.C.	CATL	228	Eltayeb, Y.	INOR	905
El-Faham, A.	MEDI	105	Elliott, L.A.	CHED	492	Elumalai, P.	CATL	468
El-Faky, M.	MEDI	385	Elliott, S.J.	INOR	469	Elupula, R.	PMSE	92
El Gabalay, F.	ENFL	147	Ellipilli, S.	MEDI	302	Elupula, R.	PMSE	551
Elgammal, R.A.	ENFL	177	Ellis, B.	ENVR	31	El-Zaatari, B.	POLY	90
Elgammal, R.A.	ENFL	549	Ellis, D.	CHED	27	Elzatahry, A.	PMSE	581
Elgegren, M.	COLL	625	Ellis, E.	COMP	392	Elzinga, E.	GEOC	163
El Ghazi, I.	ANYL	431	Ellis, H.D.	CHED	959	Elzinga, E.	GEOC	229
Elgrishi, N.	INOR	669	Ellis, J.D.	MEDI	69	Elzinga, P.A.	MEDI	297
Elgrishi, N.	INOR	755	Ellis, K.	BIOT	500	El-Zohry, A.	ANYL	279
Elgrishi, N.	INOR	1170	Ellis, M.	PHYS	497	El-Zouki, E.	INOR	442
Elgrishi, N.	INOR	90	Ellis, M.	PHYS	498	Emadi, A.	MEDI	129
El Hayek, E.	GEOC	22	Ellis, M.	COLL	257	Emami, F.	COMP	408
El Hayek, E.	GEOC	128	Ellis, M.	MEDI	175	Emami, F.	ENVR	447
El-Hedok, I.	POLY	47	Ellis, S.	CHED	762	Emami, F.	ENVR	754
Elhiti, M.	ENVR	348	Ellis, T.	CHED	762	Emami, S.	COLL	638
Elias, D.	ENVR	281	Ellis, T.K.	CHED	435	Emami Khansari, M.	INOR	949
Elimelech, M.	ENVR	1	Ellis, T.K.	CHED	762	Emami Khansari, M.	ORGN	478
Elimelech, M.	ENVR	188	Ellis, T.K.	CHED	1352	Embry, C.	ORGN	423
Elimelech, M.	ENVR	311	Ellis, T.K.	CHED	1619	Embry, C.P.	MEDI	155
Elinburg, J.K.	INOR	212	Ellis, T.K.	CHED	1838	Embry, C.P.	ORGN	419
Elinburg, J.K.	INOR	958	Ellis, T.K.	INOR	965	Embury, M.	ORGN	705
Elinburg, J.K.	INOR	1270	Ellison, C.J.	PMSE	110	Emelko, M.	ENVR	6
Elinski, M.	COLL	131	Ellison, C.J.	POLY	94	Emerson, J.P.	INOR	388
Elinski, M.B.	CHED	1335	Ellison, M.C.	INOR	1412	Emerson, M.S.	PHYS	620
Elinski, M.B.	COLL	130	Ellison, T.	I&EC	130	Emerson-Stonnell, S.	CHED	32
Elinski, M.B.	COLL	132	Ellman, J.A.	ORGN	129	Emery, F.	MEDI	121
Elinski, M.B.	PROF	42	El Masri, Z.	INOR	589	Emery, J.	INOR	1157
Elisée, E.	COMP	381	Elmes, M.	MEDI	213	Emery, P.	CHED	201
Elizondo, F.	CHED	1289	El Mohtadi, F.	POLY	450	Emery, W.R.	BIOT	443
Elizondo, G.	CHED	1289	ElNamla, F.	PHYS	405	Emhoff, K.A.	INOR	956
Elizondo, M.	CHED	819	Elowsky, C.	BIOL	312	Emiroglu, C.D.	CELL	67
El Jaafari, S.	ANYL	431	El Roz, K.	INOR	1076	Emiroglu, C.D.	CELL	160
Elkhanoufi, R.	BIOT	56	El-Sagheer, A.	COLL	501	Emmerling, C.L.	CHED	1715
Elkhanoufi, R.	BIOT	408	Elsayed, N.	CATL	192	Emmerling, C.L.	CHED	88
El Khatib, M.	ORGN	293	El Sayed, K.A.	MEDI	137	Emmerling, C.L.	CHED	1856
Elkin, K.	MEDI	337	El Sayed, R.	FLUO	60	Emmerson, G.	BIOT	383
El-labbad, E.	MEDI	332	El-Sayed, M.M.	BIOT	299	Emmetiere, F.	ORGN	728

Emmett, S.N.	POLY	367	Enick, R.M.	COLL	566	Erlandsson, J.	CELL	431
Emory, S.R.	ANYL	461	Enkelmann, A.	CELL	348	Ermert, D.M.	INOR	603
Emory, S.R.	CHED	1896	Enneking, K.	CHED	807	Ermolieff, J.	MEDI	201
Empey, J.	PHYS	353	Enneking, K.	CHED	808	Ernouf, G.	ORGN	79
Emrani, J.	CHED	334	Ennist, J.H.	CHED	1667	Ernouf, G.	ORGN	738
Emrani, J.	CHED	806	Eno, N.	ENVR	474	Ernst, K.	COLL	374
Emrick, T.	PMSE	180	Enright, M.	INOR	592	Ernst, K.	PHYS	326
Emrick, T.	POLY	455	Enright, M.C.	CHED	2	Ernst, K.	PHYS	327
Emsley, L.	CATL	363	Enright, M.C.	CHED	2049	Ernst, M.	MEDI	113
Emsley, L.	POLY	132	Ensafi, A.	ANYL	347	Ernzerhof, M.	PHYS	316
Ementas, H.	MEDI	293	Ensafi, A.	ENFL	174	Erramilli, S.	ANYL	340
Ence, C.	CHED	1540	Ensano, B.B.	ENVR	193	Errington, W.J.	BIOT	528
Ence, C.	ORGN	172	Ensel, S.M.	CHED	194	Ertem, M.	ENFL	202
Enciso, C.	CHED	1517	Entwistle, D.	I&EC	149	Ertem, M.	INOR	1165
Enders, M.	INOR	152	Entwistle, J.	GEOC	98	Esakkimuthu, E.	CELL	219
Endicott, C.	BIOT	237	Entwistle, J.	GEOC	203	Eschliman, K.	ORGN	557
Endrodi, B.	ENFL	247	Enyedy, E.J.	CHED	1883	Escobar Avilés, S.M.	CHED	731
Ener, M.	INOR	628	Eom, Y.	INOR	1069	Escobar Avilés, S.M.	CHED	1875
Eng, P.J.	CATL	84	Eom, Y.	POLY	422	Escobedo, F.	I&EC	71
Eng, P.J.	GEOC	240	Epifanovsky, E.	PHYS	307	Escobedo, F.	PMSE	174
Eng, P.J.	GEOC	279	Eppinger, E.	INOR	226	Escobosa, A.C.	COLL	181
Eng, P.J.	PHYS	410	Eppley, H.J.	INOR	182	Escusa, C.	AGFD	44
Engberg, L.N.	CHED	765	Epplin, M.	MEDI	55	Esguerra, Z.A.	CHED	550
Engberg, L.N.	CHED	1018	Epplin, R.	CHED	1581	Eshaghi, B.	PHYS	615
Engebretson, D.A.	CHED	159	Epstein, I.R.	POLY	6	Eshon, J.	ORGN	174
Engebretson, D.A.	CHED	219	Eramo, A.	ENVR	12	Eshrat, H.M.	PROF	31
Engebretson, D.A.	CHED	1570	Eramo, A.	ENVR	14	Esjornson, D.J.	INOR	947
Engebretson, D.A.	PHYS	151	Eramo, A.	ENVR	516	Eskandari, S.	CATL	431
Engel, G.S.	ANYL	246	Erbach, T.	ANYL	166	Eskelsen, J.	GEOC	44
Engel, G.S.	ANYL	280	Erbe, A.	COLL	345	Esker, A.	CELL	256
Engel, G.S.	PHYS	430	Erbel, P.	MEDI	271	Esker, N.E.	NUCL	21
Engel, L.	AGFD	160	Ercek, D.T.	BIOT	225	Esko, J.	BIOL	103
Engel, S.	POLY	388	Ereck, R.	PMSE	330	Esparza, J.	BIOT	80
Engelberth, S.	GEOC	46	Erdelyi, M.	ORGN	585	Esper, A.	CHED	1007
Engelhard, C.	ANYL	235	Erdmann, E.	CELL	344	Espinal, L.	PHYS	504
Engelhard, M.	CATL	67	Erhard, J.	PHYS	142	Espinat, D.	ENFL	523
Engelhard, M.	CATL	380	Ericksen, S.S.	COMP	84	Espinha, A.	CELL	66
Engen, P.E.	PMSE	359	Ericksen, S.S.	MEDI	112	Espinosa, A.T.	CHED	1632
Engerer, L.	INOR	1379	Erickson, A.N.	INOR	277	Espinosa, P.	CHED	542
Engesser, C.	CHED	664	Erickson, A.	POLY	562	Espinosa, R.	BIOL	79
Enghauser, L.	BIOT	521	Erickson, K.	INOR	1005	Espinosa-Marzal, R.M.	COLL	49
Enghiad, B.	BIOT	224	Erickson, K.	INOR	1290	Espinosa-Marzal, R.M.	PHYS	624
Englaender, J.	BIOT	153	Erickson, K.	INOR	1295	Espinoza, D.N.	GEOC	282
Engle, J.	FLUO	59	Erickson, M.S.	CHED	1513	Espinoza-González, C.	AGFD	87
Engle, J.	INOR	1210	Erickson, N.R.	INOR	221	Espinoza-González, C.	ENFL	9
Engle, K.	CELL	64	Erickson, N.R.	INOR	222	Esposito, E.X.	COMP	184
Engle, M.	ANYL	125	Erickson, P.R.	ENVR	47	Esposito, M.	INOR	759
Engle, M.	GEOC	84	Eriksson, J.	FLUO	53	Esposito, M.	INOR	1167
Engler, A.	POLY	141	Eriksson, J.	COLL	747	Espro, C.	CELL	384
English, C.A.	BIOL	141	Erk, K.A.	POLY	510	Esquenazi, G.	CATL	527
Engstrand, T.O.	INOR	579	Erk, K.A.	POLY	613	Esquer, H.J.	ORGN	417
Engstrom, D.R.	ENVR	15	Erlandson, T.	BIOT	486	Ess, D.	CHED	2045
Engstrom, J.	CELL	295	Erlandsson, J.	CELL	171	Ess, D.	INOR	480
Engstrom, K.	INOR	987	Erlandsson, J.	CELL	338	Essader, A.S.	ENVR	425
Engstrom, L.D.	MEDI	146	Erlandsson, J.	CELL	354	Esseghir, M.	POLY	208

Essén, S.	ANYL	123	Evans, D.H.	INOR	395	Fabian, M.	PHYS	315
Esser, B.	ENVR	465	Evans, D.H.	INOR	1282	Fabini, D.H.	INOR	649
Esser-Kahn, A.P.	BIOL	27	Evans, E.	CHED	1289	Fabini, D.H.	INOR	674
Esser-Kahn, A.P.	BIOL	136	Evans, E.	CHED	1327	Fabrizio, K.	CHED	117
Esser-Kahn, A.P.	BIOL	313	Evans, E.	CHED	1628	Fabry, E.	BIOL	202
Esser-Kahn, A.P.	PMSE	562	Evans, E.	CHED	1890	Facchetti, A.	PMSE	466
Essex, J.	COMP	135	Evans, E.	PHYS	647	Facchine, E.	CELL	353
Essex, J.W.	COMP	11	Evans, H.	INOR	674	Facchine, E.	COLL	61
Essien, E.D.	ENVR	549	Evans, K.R.	CHED	395	Fadamin, A.	INOR	939
Essner, J.B.	CATL	544	Evans, K.R.	CHED	448	Fadeyi, O.	ORGN	348
Esson, J.M.	CHED	423	Evans, L.	ENFL	280	Fafarman, A.T.	CHED	1296
Esson, J.M.	CHED	469	Evans, P.	ORGN	27	Fagan, J.	INOR	795
Esson, J.M.	CHED	504	Evans, P.	ORGN	343	Faginas Lago, N.	PHYS	257
Estarellas San Miguel, N.I.	CHED	96	Evans, R.	COMP	284	Faheem, Y.	INOR	982
Estarellas San Miguel, N.I.	CHED	1804	Evans, R.W.	ORGN	171	Fahey, P.	ANYL	290
Estenoz, D.	CELL	109	Evans, R.W.	ORGN	188	Fahlman, B.D.	CHED	21
Estenoz, D.	CELL	344	Evans, R.W.	ORGN	354	Fahlman, B.D.	ENFL	123
Esterlen, B.	ANYL	179	Evans, S.T.	BIOT	6	Fahlman, B.D.	INOR	342
Estes, E.R.	GEOC	158	Evans, W.	ANYL	188	Fahmy, H.	CARB	73
Estes, E.R.	INOR	46	Evans, W.	CHED	2001	Fahrenfeld, N.	ENVR	12
Estes, S.L.	NUCL	19	Evans, W.J.	INOR	1132	Fahrenfeld, N.	ENVR	14
Estes, S.L.	NUCL	46	Evans, W.J.	INOR	1140	Fahrenfeld, N.	ENVR	350
Estes, S.L.	NUCL	48	Evans, W.J.	INOR	1147	Fahrenfeld, N.	ENVR	516
Estes, S.L.	NUCL	50	Evans, Z.	ENVR	343	Fahrner, R.	BIOT	557
Esteves, C.C.	POLY	295	Evanseck, J.D.	CHED	1820	Fährrolfes, R.	COMP	343
Estrella, L.A.	POLY	109	Evanseck, J.D.	COLL	185	Faieta, M.	AGFD	163
Estremera-Andújar, R.A.	CHED	89	Evanseck, J.D.	COMP	298	Fairbanks, B.D.	POLY	409
Estremera-Andújar, R.A.	CHED	1875	Evans-Nguyen, K.	ANYL	412	Fairbrother, A.	PMSE	588
Estroff, L.A.	GEOC	43	Evariste, S.	INOR	318	Fairbrother, H.	ENVR	24
Etheridge, F.	POLY	734	Even, R.	POLY	149	Fairbrother, H.	ENVR	88
Etschmann, B.	ENVR	441	Even, R.	POLY	292	Fairbrother, H.	ENVR	242
Etuk, S.	CHED	1664	Even, R.	POLY	365	Fairchild, D.	INOR	732
Etuk, S.M.	ORGN	220	Everett, A.	CHED	755	Fairchild, D.C.	ORGN	376
Etz, B.D.	COMP	207	Everett, A.	CHED	756	Fairclough, S.	COLL	649
Etzkorn, M.	FLUO	15	Everett, N.	NUCL	79	Fairfield, M.	COMP	229
Etzler, S.	CHED	692	Evers, F.	COLL	115	Fairfull-Smith, K.E.	POLY	284
Eubank, J.F.	CHED	1058	Evie, H.	CHED	1244	Fairhurst, R.A.	MEDI	243
Eubank, J.F.	CHED	1915	Evilevitch, A.	COLL	393	Fairley, M.	INOR	1331
Eubanks, A.N.	CHED	1144	Evilia, C.M.	BIOL	219	Fairweather, A.	CARB	41
Eubanks, C.S.	BIOL	28	Evilia, C.M.	BIOL	234	Faison, T.	BIOT	394
Euceda, B.	MEDI	380	Evilia, C.M.	BIOL	235	Faivre, D.	GEOC	21
Eular, D.	MEDI	69	Evilia, C.M.	BIOL	242	Faizal, F.	MEDI	57
Eulau, M.	PMSE	613	Evilia, C.M.	CHED	1848	Fakhraee, M.	GEOC	107
Eun Lee, Y.	ORGN	79	Ewald, J.M.	GEOC	104	Fakhrullin, R.	PMSE	153
Eustis, S.N.	ENVR	176	Ewing, J.	CHED	1769	Fakhrullin, R.	PMSE	154
Evangelist, G.	BIOT	16	Exner, T.	ENVR	518	Fakhrullin, R.	PMSE	155
Evangelista, F.A.	PHYS	424	Exton, D.B.	CHED	78	Fakhrullin, R.	PMSE	316
Evans, A.M.	POLY	636	Exton, D.B.	CHED	1939	Fakhrullina, G.	PMSE	317
Evans, B.	CELL	8	Eyckens, D.	ORGN	704	Falascino, E.	ENFL	520
Evans, B.	CELL	322	Eyres, G.	AGFD	206	Falat, A.	MEDI	186
Evans, B.	BIOT	3	Eytel, L.	PROF	5	Falatach, R.	COLL	629
Evans, B.S.	ANYL	38	Ezazi, A.	INOR	322	Falcone, M.	NUCL	31
Evans, B.	COLL	300	Ezazi, A.	INOR	838	Falconer, R.L.	CHED	197
Evans, C.M.	PHYS	524	Ezzawam, W.	POLY	669	Falconer, R.L.	CHED	1940
Evans, C.M.	PHYS	525	Ezzell, N.	PMSE	343	Falcones, I.B.	INOR	1143

Falcon Ontiveros, F.	CHED	1278	Fang, L.	CHED	1350	Fardim, P.E.	CELL	257
Falk, L.	ENVR	562	Fang, L.	ORGN	372	Fardim, P.E.	CELL	386
Falkenberg, K.	CHED	260	Fang, L.	ORGN	373	Fardim, P.E.	CELL	433
Falkner, D.	CHED	1269	Fang, L.	PMSE	142	Fares, H.M.	POLY	325
Fall, A.B.	CELL	65	Fang, L.	POLY	354	Fares, H.M.	POLY	783
Fall, B.	INOR	1123	Fang, L.	POLY	513	Fares, M.	BIOL	305
Fallah Tafti, F.	INOR	1229	Fang, L.	POLY	668	Farha, O.	CATL	194
Fallah Tafti, F.	INOR	1373	Fang, L.	POLY	765	Farha, O.	COLL	427
Faller, R.	COMP	339	Fang, L.	ENVR	224	Farha, O.	ENFL	492
Fallon, J.	POLY	759	Fang, Q.	CATL	525	Farha, O.	I&EC	69
Fallows, N.	ORGN	534	Fang, S.	CHED	1385	Farha, O.	INOR	122
Falls, B.	MEDI	152	Fang, S.	ORGN	447	Farha, O.K.	CATL	137
Falsig, H.	CATL	292	Fang, X.	ENFL	403	Farha, O.K.	COMP	61
Fan, A.	ENFL	64	Fang, X.	ENFL	405	Farha, O.K.	I&EC	67
Fan, C.	INOR	282	Fang, X.	ENVR	74	Farha, O.K.	INOR	35
Fan, C.	COLL	734	Fang, Y.	CHED	403	Farha, O.K.	INOR	283
Fan, D.	ENVR	287	Fang, Y.	CHED	873	Farha, O.K.	INOR	522
Fan, F.	BIOT	59	Fang, Y.	COMP	197	Farha, O.K.	INOR	625
Fan, H.	COLL	433	Fang, Y.	ENVR	393	Farha, O.K.	INOR	1334
Fan, J.	CATL	510	Fang, Y.	ENFL	348	Farhat, W.	CELL	276
Fan, J.	FLUO	48	Fang, Y.	INOR	731	Farhat, Z.	ENFL	236
Fan, J.	MEDI	36	Fang, Y.	INOR	752	Faria, J.	CATL	45
Fan, J.	PMSE	528	Fang, Y.	INOR	1389	Faria, J.	CATL	377
Fan, J.	CATL	488	Fang, Y.	BIOL	204	Faria, J.	CATL	504
Fan, J.	ENFL	512	Fang, Y.	BIOL	312	Faria, J.	CATL	521
Fan, J.	ENFL	208	Fang, Y.	ENFL	68	Faria, L.F.	PHYS	427
Fan, L.	CHED	1491	Fang, Z.	CATL	100	Farias, P.	CHED	1302
Fan, L.	ENFL	111	Fang, Z.	COMP	301	Farina, Z.T.	CHED	1819
Fan, L.	ENFL	137	Fanghanel, S.	PHYS	501	Farinas, A.	CHED	815
Fan, L.	ENFL	208	Fannin, H.B.	POLY	44	Farinas, E.T.	BIOL	48
Fan, L.	ENFL	520	Fannin, H.B.	POLY	537	Faris, J.	PMSE	117
Fan, M.	CATL	309	Fanning, K.A.	ANYL	154	Farkas, M.E.	BIOL	26
Fan, M.	CATL	310	Fanning, S.	ORGN	589	Farley, M.	PHYS	594
Fan, M.	I&EC	101	Fantini, M.	POLY	169	Farmer, J.	CHED	2115
Fan, M.	I&EC	102	Fantini, J.L.	CHED	1430	Farmer, P.J.	BIOL	288
Fan, M.	PMSE	567	Fantini, J.L.	CHED	1440	Farmer, P.J.	INOR	71
Fan, Q.	PMSE	503	Fantini, J.L.	ORGN	289	Farmer, P.J.	INOR	977
Fan, Q.	CHED	694	Fantle, M.S.	GEOC	136	Farmer, T.	ORGN	132
Fan, T.	CATL	483	Fantle, M.S.	GEOC	249	Farmer, W.M.	INOR	721
Fan, T.	COLL	487	Fanucci, G.E.	POLY	351	Farnsworth, A.	CHED	284
Fan, T.	ENFL	2	Faraggi, T.	ORGN	200	Farnsworth, J.	INOR	959
Fan, T.	ENFL	239	Faraggi, T.	ORGN	202	Farnum, B.H.	INOR	560
Fan, W.	CATL	375	Farago, O.	COLL	20	Farnum, B.H.	INOR	1014
Fan, X.	AGFD	83	Farahat, A.A.	BIOL	184	Farooqi, M.J.	CATL	148
Fan, Y.	BIOT	72	Farahat, A.A.	BIOL	190	Farquharson, E.	ANYL	319
Fan, Y.	MEDI	117	Farahat, A.A.	CARB	28	Farraj, M.Y.	CHED	122
Fan, Y.	POLY	464	Farahat, A.A.	MEDI	177	Farran, B.	ENVR	581
Fan, Z.	CATL	301	Farahat, A.A.	MEDI	365	Farrar, M.	CHED	699
Fang, C.	COMP	300	Faraudo, J.	PHYS	281	Farrar-Tobar, R.	INOR	1191
Fang, C.	ENVR	37	Farber, L.	CHED	1526	Farrell, J.R.	CHED	1074
Fang, C.	MPPG	12	Farber, L.	CHED	1881	Farrell, J.R.	INOR	963
Fang, F.	AGFD	218	Farberow, C.	CATL	283	Farrell, W.	I&EC	127
Fang, F.	MEDI	90	Farberow, C.	CATL	384	Farrell, W.	PMSE	472
Fang, H.	INOR	750	Farberow, C.A.	CATL	434	Farrell, Z.	COLL	696
Fang, J.	COLL	333	Farberow, C.A.	CATL	459	Farrer, R.A.	INOR	760

Farroni, A.	AGFD	24	Feghali, E.	CELL	366	Feng, X.	GEOC	243
Farshi, J.	CHED	521	Fehr, J.M.	CHED	903	Feng, X.	GEOC	270
Fasan, R.	BIOL	9	Fehrs, J.	INOR	1260	Feng, X.	ENFL	242
Fasan, R.	INOR	68	Fehrs, J.	INOR	1333	Feng, X.	ENFL	361
Fasan, R.	ORGN	77	Fei, H.	INOR	573	Feng, X.	ENFL	467
Fasciano, J.	CHED	402	Fei, Z.	PHYS	547	Feng, Y.	FLUO	71
Fasina, O.	CELL	94	Feierabend, K.J.	CHED	184	Feng, Y.	FLUO	74
Fasoli, E.	BIOT	328	Feierabend, K.J.	CHED	496	Feng, Z.	PMSE	537
Fast, W.	CHED	625	Feierabend, K.J.	PHYS	522	Fenge, C.	BIOT	309
Fast, W.	MEDI	390	Fein, J.	GEOC	112	Fenimore, P.	BIOL	7
Fataftah, M.S.	PHYS	60	Feinberg, A.M.	ORGN	291	Fennell, C.J.	COMP	42
Fatayer, S.	ENFL	462	Feinberg, A.W.	PMSE	308	Fennell, C.	COMP	241
Fatigante, W.	ANYL	412	Feist, M.	FLUO	5	Fennell, C.	ORGN	349
Fatila, E.M.	ORGN	282	Feit, C.	CELL	74	Fennell, C.	PROF	49
Fatino, A.	BIOL	255	Felber, O.B.	ENVR	539	Fennie, M.W.	ANYL	248
Fatino, A.	MEDI	358	Felberg, L.	COMP	43	Fennimore, A.	INOR	1038
Fatino, A.	ORGN	435	Feldman, K.E.	PMSE	38	Fenter, P.	GEOC	3
Fatino, A.	ORGN	557	Feldman, S.	PMSE	176	Fenter, P.	GEOC	6
Fatkullin, N.	POLY	605	Feldman, T.	ENFL	13	Fenter, P.	GEOC	52
Fatkullin, N.	POLY	606	Feldmann, J.	ENFL	43	Fenter, P.	GEOC	86
Fatkullin, N.	POLY	603	Felföldi, E.	BIOT	519	Fenter, P.	GEOC	141
Fatti, G.	COLL	133	Felgner, P.	BIOL	136	Fenter, P.	GEOC	170
Fattor, T.J.	BIOT	325	Felice, C.	BIOT	392	Fenter, P.	GEOC	279
Faul, M.	ORGN	6	Felice, K.M.	POLY	780	Fenton, A.D.	CHED	1385
Faulde, M.	POLY	381	Feliu, J.M.	CATL	143	Fenton, A.D.	ORGN	447
Faulds, C.	CELL	411	Feliu, N.	COLL	581	Fenton, A.	PHYS	537
Faulkner, D.	ENVR	363	Felix, K.H.	INOR	420	Fenton, J.L.	INOR	841
Faulkner, S.	INOR	998	Fellows, B.D.	CHED	590	Feola, S.	CHED	164
Faulkner, T.W.	PHYS	443	Felts, A.	MEDI	349	Ferdinando, P.	CHED	913
Faust, J.	ENVR	597	Felts, J.R.	COLL	131	Fereyduni, E.	ORGN	727
Fautch, J.M.	CHED	353	Fendorf, S.E.	ENVR	340	Ferguson, G.	CATL	390
Fautch, J.M.	CHED	420	Fendorf, S.E.	GEOC	123	Ferguson, G.	CHED	1614
Favazzo, K.	ANYL	74	Fendorf, S.E.	GEOC	124	Ferguson, K.	CHED	1400
Favazzo, K.	ANYL	75	Fendorf, S.E.	INOR	351	Ferguson, K.	CHED	793
Favela, K.A.	ENVR	421	Fendrick, C.M.	CHED	2152	Ferguson, K.	ORGN	435
Favre, E.	COLL	381	Feng, D.	MEDI	92	Ferguson, R.	CHED	228
Fawcett, A.	ORGN	564	Feng, D.	MEDI	93	Feringa, B.	CATL	159
Fawcett, L.	CHED	935	Feng, J.	ORGN	303	Feringa, B.	CHED	1983
Fayer, M.D.	ANYL	310	Feng, J.	MEDI	259	Feringa, B.	COLL	479
Fayer, M.D.	PHYS	340	Feng, J.A.	CINF	39	Feringa, B.	PHYS	325
Fayolle, D.	CHED	1268	Feng, K.	AGFD	15	Fermin, D.J.	CATL	178
Fayyad, E.M.	ENFL	236	Feng, L.	INOR	712	Fermin, D.J.	ENFL	23
Fayyaz, H.	ANYL	155	Feng, L.	ENVR	724	Fernandes, J.	BIOT	397
Fazende, K.F.	POLY	186	Feng, M.	ENFL	289	Fernandes, R.	COLL	752
Fazende, K.F.	POLY	479	Feng, P.	INOR	429	Fernandes, S.	ANYL	19
Fealy, L.M.	ORGN	668	Feng, R.	NUCL	74	Fernandez, C.	COLL	172
Featherston, G.	CHED	944	Feng, R.	NUCL	88	Fernandez, C.	ENFL	235
Featherston, G.	CHED	946	Feng, S.	COLL	216	Fernandez, C.	CHED	678
Featherston, G.	CHED	948	Feng, S.	ENFL	187	Fernandez, D.	ORGN	189
Febo, M.A.	ANYL	185	Feng, S.	PMSE	544	Fernandez, D.S.	CHED	1331
Fechler, N.	CATL	369	Feng, V.	CHED	555	Fernandez, D.S.	INOR	1243
Fedesco, M.	BIOT	537	Feng, V.	CHED	1332	Fernandez, F.M.	ANYL	377
Fedin, I.	COLL	149	Feng, V.	COLL	275	Fernandez, F.M.	ANYL	411
Fedin, I.	PHYS	241	Feng, V.	ENVR	20	Fernandez, F.O.	CHED	1080
Fedorov, D.G.	COMP	337	Feng, X.	ENFL	151	Fernandez, I.	INOR	511

Fernandez, I.	GEOC	119	Ferrer Torres, E.	CHED	1304	Figueredo-Sobrinho, F.	CELL	108
Fernandez, J.L.	INOR	273	Ferrer Torres, E.	CHED	1312	Figueroa, J.S.	INOR	106
Fernandez, J.L.	INOR	617	Ferrer Torres, E.	CHED	1314	Figueroa, J.S.	INOR	1308
Fernandez, J.F.	CATL	138	Ferrer Torres, E.	CHED	1318	Figueroa, J.S.	INOR	1346
Fernandez, N.	CHED	1842	Ferrer Torres, E.	CHED	1807	Figueroa, J.S.	INOR	1347
Fernandez, O.	CHED	1090	Ferrer Torres, E.	CHED	1808	Figueroa, W.	CHED	931
Fernandez, R.E.	BIOL	253	Ferrer Torres, E.	CHED	1812	Fike, D.	GEOC	134
Fernandez, S.	CATL	63	Ferrer Torres, E.	CHED	1813	Fikes, A.	INOR	1352
Fernandez, S.	CATL	489	Ferrer Torres, E.	CHED	1910	Filatov, A.	I&EC	174
Fernandez, W.	CHED	789	Ferrer-Ugalde, A.	INOR	1251	Filatov, A.	INOR	609
Fernández, A.	CHED	818	Ferreyra, G.	CHED	33	Filatov, M.	PHYS	356
Fernandez-Bravo, A.	INOR	175	Ferri, N.	PHYS	247	Filiciotto, L.	CATL	263
Fernandez- Cerezo, L.	BIOT	188	Ferrier, A.	ORGN	442	File, A.C.	CATL	276
Fernandez Fraguas, C.	COLL	224	Ferrier, M.G.	FLUO	67	Filion, D.M.	CHED	1730
Fernandez-Martinez, A.	GEOC	187	Ferrier, M.G.	INOR	1210	Filizola, M.	COMP	402
Fernandez-Nieves, A.	POLY	623	Ferrier, R.C.	POLY	635	Filler, M.	COLL	448
Fernandez-Nieves, A.	POLY	690	Ferriera, I.C.	CELL	133	Fillion, J.	PHYS	589
Fernandez Quintero, M.L.	COMP	432	Ferris, J.	CHED	596	Fillon, Y.	BIOT	356
Fernandez-Reyes, B.	ENVR	351	Ferry, J.	INOR	46	Filocamo, S.	COLL	695
Fernandez-Rodriguez, M.A.	POLY	792	Ferry, V.E.	INOR	590	Filpponen, I.	CELL	83
Fernández-Tavizón, S.	ENFL	9	Feske, B.D.	ORGN	107	Filpponen, I.	CELL	122
Fernando, A.	COLL	242	Feske, B.D.	ORGN	108	Finders, C.	INOR	139
Fernando, A.	COLL	786	Fessler, B.	COLL	785	Finders, C.	INOR	142
Fernando, D.P.	MEDI	275	Fetisov, E.O.	PHYS	655	Findlater, M.	INOR	1099
Fernando, D.P.	ORGN	641	Fetrow, T.V.	INOR	1010	Findlay, A.	INOR	46
Fernando, R.A.	ENVR	425	Fetterly, B.M.	CHED	29	Findley, B.	CHED	774
Fernando, S.	BIOT	91	Fetto, N.R.	PHYS	471	Findley, G.L.	PHYS	524
Ferran, S.	NUCL	5	Fevig, J.M.	ORGN	303	Findley, G.L.	PHYS	525
Ferrandon, M.	CATL	39	Fezouni, F.Y.	ORGN	650	Fine, J.	BIOL	159
Ferrante, T.C.	BIOT	226	Fhaner, M.J.	ANYL	217	Fine Nathel, N.F.	AGFD	27
Ferrara, S.J.	INOR	1312	Fiamingo, A.	PMSE	337	Fink, M.L.	CHED	32
Ferrari, A.	CELL	396	Fias, S.	PHYS	640	Fink, M.L.	CHED	84
Ferraris, D.	MEDI	127	Fichter, K.	COLL	197	Fink, Z.	CATL	36
Ferraris, D.	MEDI	128	Fichter, K.	COLL	205	Finka, G.	BIOT	218
Ferraris, D.	MEDI	129	Fichter, K.	COLL	208	Finke, K.	MEDI	166
Ferraris, J.P.	PMSE	385	Fichter, K.	COLL	257	Finke, K.	MEDI	315
Ferraris, J.P.	ENFL	107	Fichter, K.	COLL	680	Finke, N.	GEOC	151
Ferraris, J.P.	ENFL	386	Fiebre, K.D.	COMP	300	Finkenstaedt-Quinn, S.A.	CHED	2195
Ferraz, N.	CELL	395	Fiedler, A.T.	CHED	1994	Finlay, R.	MEDI	227
Ferraz, W.	MEDI	77	Field, J.A.	ENVR	713	Finley, B.	CINF	98
Ferreira, E.	ORGN	551	Field, J.A.	ENVR	787	Finley, D.	MEDI	230
Ferreira, G.	BIOT	6	Field, K.	CHED	1187	Finley, J.W.	AGFD	6
Ferreira, G.M.	MEDI	77	Fields, B.P.	GEOC	221	Finley, J.W.	AGFD	152
Ferreira, G.M.	MEDI	121	Fierros, S.	CATL	272	Finley, J.W.	AGFD	166
Ferreira, G.	BIOT	316	Fies, W.	BIOT	52	Finley, S.	I&EC	28
Ferreira, R.B.	INOR	685	Fietkau, R.	CHED	425	Finn, P.B.	ORGN	257
Ferrel, C.	COLL	591	Fietkau, R.	CHED	776	Finney, A.	GEOC	18
Ferrence, G.	INOR	778	Fietkau, R.	CHED	917	Finney, B.	NUCL	88
Ferrer, I.	ANYL	389	Fife, J.P.	CHED	93	Finney, B.	NUCL	92
Ferrer, I.	ENVR	735	Fife, J.P.	CHED	1824	Finney, J.	POLY	582
Ferreres, G.	BIOT	564	Figg, C.A.	COLL	124	Finze, M.	FLUO	39
Ferreres Cabanes, G.	COLL	518	Figg, C.A.	POLY	200	Finzel, K.	BIOL	6
Ferreri, J.N.	CHED	468	Figg, C.A.	POLY	212	Fiolek, T.	BIOL	130
Ferreria, J.C.	BIOL	189	Figueira, P.	CELL	235	Fiore, M.	CHED	1268
Ferrer Torres, E.	CHED	279	Figueiredo, J.S.	PMSE	468	Fiori, L.	ENVR	35

Florida, C.R.	CHED	395	Fisyuk, A.	BIOT	423	Fletcher, S.	MEDI	188
Florida, C.R.	CHED	448	Fitch, A.	BIOT	423	Fletcher, T.L.	INOR	967
Firestone, B.	MEDI	295	Fitch, R.W.	CHED	453	Fleury, E.	CELL	271
Firestone, M.A.	COLL	432	Fitch, R.W.	CHED	1224	Flint, A.	MEDI	165
Firestone, M.A.	ENFL	433	Fitschen, W.H.	CHED	1151	Flint, A.	MEDI	166
Firica, T.	CHED	588	Fitzek, M.	MEDI	244	Flint, A.	MEDI	315
Fischbach, C.	GEOC	43	Fitzgerald, C.E.	CHED	528	Flitsch, S.	CELL	21
Fischel, J.	GEOC	242	Fitzgerald, C.E.	CHED	577	Flood, A.H.	ENVR	377
Fischel, M.	GEOC	245	Fitzgerald, C.E.	CHED	681	Flood, A.H.	ENVR	646
Fischer, D.	CELL	397	Fitzgerald, J.	CHED	1105	Flood, A.H.	INOR	639
Fischer, H.	POLY	539	Fitzgerald, J.P.	CHED	1539	Flood, A.H.	MPPG	16
Fischer, K.	YCC	26	Fitzgerald, N.D.	CATL	282	Flood, A.H.	ORGN	282
Fischer, M.	CINF	58	Fitzgerald, B.R.	CHED	665	Flood, A.H.	ORGN	379
Fischer, N.	COLL	4	Fitzgerald-Quintel, D.	CINF	78	Flor, B.	PHYS	525
Fischer, P.J.	INOR	234	Fitzkee, N.	BIOL	113	Flora, J.	ENVR	36
Fischer, P.J.	INOR	235	Fitzkee, N.	CHED	706	Flora, J.	GEOC	276
Fischer, P.J.	INOR	475	Fitzkee, N.	COLL	8	Flores, B.	INOR	1288
Fischer, S.J.	ENVR	302	Fitzpatrick, N.	CHED	1832	Flores, C.	CHED	1327
Fischer, S.	CELL	258	Fitzpatrick, N.	INOR	253	Flores, G.A.	CHED	1101
Fischer, U.	CELL	258	Fitzpatrick, T.	INOR	402	Flores, J.	CHED	329
Fischer, V.	BIOT	329	Fitzsimmons, J.	NUCL	3	Flores, J.	BIOL	30
Fischer, W.	CELL	75	Fitzsimmons, J.	NUCL	42	Flores, K.	ANYL	205
Fischer, W.	GEOC	134	Fitzsimmons, J.M.	FLUO	63	Flores, L.	INOR	713
Fischesser, H.	BIOT	146	Fitzsimmons, J.M.	NUCL	54	Flores, M.	CHED	1816
Fischesser, H.	POLY	229	Fivizzani, K.P.	CHAS	17	Flores, M.	ENVR	565
Fish, C.	CHED	80	Flach, J.T.	PHYS	75	Florre, R.	CHED	1514
Fish, D.	CHED	1237	Flack, J.A.	CHED	871	Floto, M.	PMSE	52
Fish, D.	CHED	1319	Flaherty, D.	CATL	6	Flotteron, A.	CHED	393
Fish, D.	CHED	1421	Flaherty, D.	CATL	55	Flotteron, A.	CHED	1902
Fish, D.	CHED	1756	Flaherty, D.	CATL	233	Floudas, G.	PMSE	553
Fish, D.	CHED	1770	Flaherty, D.	I&EC	51	Flowers, S.E.	INOR	1302
Fish, D.	CHED	1783	Flahr, L.	ENVR	477	Floyd, J.	BIOT	120
Fish, D.	CHED	1870	Flake, M.	CATL	290	Floyd, T.	CELL	282
Fisher, C.J.	CARB	54	Flanagan, D.	POLY	303	Fluck, E.C.	COMP	430
Fisher, C.	CHED	1821	Flanagan, J.	ANYL	460	Flynn, E.D.	GEOC	180
Fisher, C.	ORGN	622	Flanagan, J.	COLL	713	Flynn, G.W.	PHYS	266
Fisher, G.H.	CHED	1874	Flanders, N.	POLY	636	Flynn, J.D.	COLL	543
Fisher, J.	BIOT	139	Flanders, N.	CATL	447	Flynn, N.O.	AGFD	74
Fisher, J.	PMSE	350	Flaris, V.	CHED	26	Flynn, N.T.	CHED	1305
Fisher, J.	POLY	508	Fleary, N.	CHED	1283	Flynn, N.T.	CHED	1320
Fisher, J.	CELL	292	Fleck, M.	COMP	309	Flynn, N.T.	CHED	1323
Fisher, K.	INOR	998	Fleegle, H.N.	CHED	1421	Flynn, N.T.	COLL	7
Fisher, M.A.	CHED	366	Fleiner, J.	ENVR	293	Flynn, S.M.	INOR	771
Fisher, M.A.	CHED	617	Fleming, A.M.	MEDI	298	Flynt, A.S.	POLY	410
Fisher, M.A.	CHED	636	Fleming, G.R.	PHYS	178	Flynt, A.S.	POLY	468
Fisher, M.A.	CHED	2040	Fleming, S.A.	CHED	1847	Fodor, A.	CHED	843
Fisher, T.J.	COLL	443	Flemington, V.	MEDI	293	Fodor, A.	PHYS	429
Fisher, V.	CHED	65	Flener-Lovitt, C.E.	CINF	98	Foerster, B.	PHYS	402
Fishovitz, J.	CHED	654	Flesch, M.M.	CHED	505	Fogarty, K.	CHED	1634
Fishovitz, J.	CHED	2121	Flesch, M.M.	CHED	516	Fogarty, K.	CHED	1697
Fisk, P.	BIOL	56	Fletcher, D.A.	COLL	637	Fogarty, K.H.	CHED	717
Fisk, P.	CHED	700	Fletcher, H.J.	CHED	553	Fogarty, K.H.	CHED	2134
Fister, T.	ENFL	419	Fletcher, N.	POLY	300	Fogel, A.	POLY	270
Fister, T.	GEOC	52	Fletcher, S.	MEDI	186	Fogel, A.L.	POLY	46
Fister, T.	GEOC	141	Fletcher, S.	MEDI	187	Fogel, A.L.	POLY	129

Fogel, A.L.	POLY	552	Forbes-Pentecost, S.	CHED	532	Fort, S.	CELL	377
Fogel, M.	GEOC	13	Forcino, R.	BIOT	144	Forte, J.E.	ORGN	364
Fogelstrom, L.	CELL	295	Ford, C.	INOR	620	Fortenberry, R.C.	CHED	872
Fogg, C.	CHED	896	Ford, E.	POLY	328	Fortenberry, R.C.	CHED	1683
Fokin, V.V.	CHED	1420	Ford, J.	MEDI	66	Fortenberry, R.C.	PHYS	89
Fokin, V.V.	ORGN	687	Ford, M.C.	MEDI	325	Fortenberry, R.C.	PHYS	137
Foley, A.	MEDI	25	Ford, M.E.	CATL	36	Fortenberry, R.C.	YCC	20
Foley, B.L.	BIOL	102	Ford, M.E.	CATL	382	Fortier, C.A.	AGFD	225
Foley, B.J.	INOR	689	Ford, P.C.	CATL	113	Fortier, S.	INOR	881
Foley, B.J.	INOR	890	Ford, P.C.	CATL	341	Fortier, S.	INOR	883
Foley, C.	MEDI	147	Ford, P.C.	INOR	457	Fortman, D.J.	CHED	1764
Foley, H.	BIOL	130	Ford, R.L.	CHED	2098	Fortman, D.J.	POLY	503
Folk, W.	ORGN	500	Forderhase, A.	CHED	1558	Fortman, G.	CATL	465
Folkerts, E.	GEOC	152	Fore, M.E.	PHYS	136	Fortner, J.	ENVR	17
Follink, B.	AGFD	9	Foreman-Ortiz, I.U.	PHYS	283	Fortner, J.	ENVR	280
Folluo, C.	BIOL	31	Forester, C.	CHED	1187	Fortunak, J.M.	I&EC	130
Folse, H.	CHED	633	Forgione, P.	ORGN	536	Fortunato, J.	GEOC	269
Folska, A.	CHED	1767	Forkosh, H.	ORGN	125	Fortunato, M.T.	CHED	1090
Folsom, J.A.	BIOL	85	Forman, H.	COLL	760	Fortune, B.B.	COLL	236
Foltz, J.C.	MPPG	10	Forman, H.J.	ENVR	91	Fortunelli, A.	COLL	371
Fomsgaard, I.S.	AGFD	90	Forman, M.A.	ORGN	507	Fortwengler, J.	CHED	447
Fomsgaard, I.S.	AGFD	185	Forman, M.A.	ORGN	508	Foss, F.W.	INOR	1354
Fomsgaard, I.S.	ANYL	445	Formica, S.	CHED	2100	Fossati, G.	MEDI	407
Fomsgaard, I.S.	ENVR	348	Forney, S.	BIOL	57	Fossépré, M.	COMP	403
Fomsgaard, I.S.	MEDI	223	Forney, S.	CHED	666	Fosshat, S.	INOR	976
Fong, K.D.	ENFL	355	Forney-Stevens, K.	BIOT	454	Foster, B.J.	COLL	197
Fong, P.P.	CHED	1286	Foronda, M.	CHED	1293	Foster, H.	CHED	644
Fonseca, D.	CELL	361	Foroozesh, M.	CHED	1171	Foster, I.	PMSE	26
Fontaine, B.	BIOL	123	Foroozesh, M.	CHED	1215	Foster, J.	AGFD	221
Fontaine, G.	PMSE	490	Foroozesh, M.	CHED	1227	Foster, J.	CHED	1136
Fontan, K.	CHED	1858	Foroozesh, M.	CHED	1234	Foster, J.	PMSE	23
Fontana, L.	PMSE	267	Foroozesh, M.	CHED	1246	Foster, J.	PMSE	40
Fontanesi, C.	PHYS	492	Foroozesh, M.	MEDI	394	Foster, J.	PMSE	272
Fontani, F.	PHYS	257	Foroozesh, M.	ORGN	219	Foster, J.	POLY	172
Fontenot, K.R.	CELL	15	Forrest, J.C.	CHED	272	Foster, J.	POLY	175
Fontenot, K.R.	CELL	86	Forrest, M.	CHED	813	Foster, J.	CELL	67
Fontenot, P.R.	INOR	354	Forrey, R.	PHYS	140	Foster, J.	CELL	394
Fontenot, P.R.	INOR	508	Fors, B.P.	CHED	1768	Foster, J.	PMSE	253
Fontenot, S.	CHED	903	Fors, B.P.	ENFL	182	Foster, J.	POLY	759
Foo, G.	CATL	52	Forsberg, K.	CHED	189	Foster, K.	ORGN	303
Foo, G.	CATL	271	Forse, A.	INOR	621	Foster, M.	INOR	928
Foo, G.	CATL	441	Forse, A.	INOR	1218	Foster, M.D.	PMSE	151
Foo, T.C.	ANYL	404	Forss, A.	BIOT	219	Foster, M.	CATL	397
Foppe, K.S.	ENVR	543	Forss, A.	BIOT	293	Foster, N.	CINF	27
Foran, G.	POLY	249	Forss, A.	BIOT	300	Foster, S.	PRES	4
Forbes, D.	CHED	1573	Forster, A.	CELL	67	Foster, S.	ENVR	417
Forbes, M.	CHED	1573	Forster, J.	ENFL	499	Foster-Spence, C.	PHYS	576
Forbes, T.	CHED	1040	Forster, W.	MEDI	109	Foston, M.B.	CATL	43
Forbes, T.	CHED	1161	Förster, A.	COLL	476	Foston, M.B.	CATL	514
Forbes, T.	GEOC	145	Forsyth, C.J.	ORGN	606	Foston, M.B.	CELL	8
Forbes, T.	INOR	745	Forsyth, M.	CATL	368	Foston, M.B.	CELL	12
Forbes, T.	INOR	1013	Forsyth, M.	ENFL	48	Fosu, S.	ORGN	558
Forbes, T.	INOR	1289	Forsyth, M.	PHYS	115	Foszcz, E.D.	INOR	456
Forbes, T.	NUCL	35	Forsyth, M.	PHYS	171	Foszcz, E.D.	PHYS	122
Forbes, T.	NUCL	77	Forsyth, M.	POLY	137	Fotie, J.	CHED	1002

Fotopoulos, A.	CELL	365	Francesconi, L.C.	NUCL	53	Frantzen, A.S.	ENVR	615
Foudazi, R.	CHED	1788	Francesconi, L.C.	NUCL	54	Frantzen, A.S.	GEOC	223
Fouke, B.	ENVR	80	Francesconi, L.C.	NUCL	58	Franz, A.K.	CATL	547
Fouke, B.	ENVR	82	Francis, A.	INOR	806	Franz, A.K.	CHED	1012
Foulon, N.G.	CHED	1474	Francis, D.	INOR	286	Franz, A.K.	ORGN	612
Fourches, D.	CINF	81	Francis, D.	INOR	787	Franz, K.J.	INOR	130
Fourches, D.	CINF	100	Francis, M.B.	BIOL	44	Franzese, R.	CHED	1664
Fourches, D.	COMP	73	Francis, M.B.	CATL	348	Franzese, R.W.	ORGN	220
Fourkas, J.T.	PHYS	617	Francis, M.B.	COLL	466	Franzini, R.M.	ORGN	51
Fourmann, O.	CELL	314	Francis, M.B.	INOR	1126	Frasch, S.	COMP	217
Fournier, C.	CHED	954	Francis, T.	COLL	366	Fraschini, C.	CELL	195
Fourqurean, J.	CHED	902	Francisco, J.S.	COLL	394	Fraschini, C.	CELL	199
Foust, B.J.	MEDI	372	Francisco, J.S.	PHYS	86	Fraser, B.H.	FLUO	49
Foust, R.D.	ANYL	301	Francl, M.M.	CHED	854	Frasor, J.M.	MEDI	197
Fout, A.R.	INOR	620	Francl, M.M.	SCHB	23	Frasor, J.M.	ORGN	589
Fout, A.R.	INOR	1339	Franco, J.	CHED	207	Fratia, G.	COLL	619
Fouts, L.	ENFL	96	Franco, M.S.	ORGN	338	Frau, A.	COMP	356
Fox, B.	CHED	1055	Francon, H.	CELL	171	Frazier, C.E.	CELL	93
Fox, B.G.	BIOT	84	Francon, H.	CELL	354	Frazier, C.E.	CELL	255
Fox, D.	POLY	115	Françon, H.S.	CELL	338	Frazier, M.	CHED	1199
Fox, D.	CELL	67	Franco-Perez, M.	PHYS	4	Freakley, S.	CATL	130
Fox, E.B.	ENFL	263	Franco-Pérez, M.	PHYS	637	Freakley, S.	ENFL	35
Fox, J.	BIOT	67	Franey, A.	CELL	196	Frech, C.B.	CHED	1833
Fox, M.T.	CHED	329	Frangiadis, A.	CHED	203	Frech, C.	BIOT	100
Fox, M.T.	PMSE	360	Franitza, L.	AGFD	114	Frechette, L.B.	COLL	41
Fox, P.	GEOC	67	Franjesevic, A.J.	CHED	1651	Frederick, K.	CHED	188
Fox, R.J.	ENFL	48	Franjesevic, A.J.	MEDI	62	Frederiksen, R.	COLL	234
Fox, T.S.	COMP	415	Franjesevic, A.J.	ORGN	223	Frederix, P.	ANYL	256
Fox, T.	BIOL	227	Frank, B.	ENVR	24	Fredin, L.A.	COLL	476
Fox Converse, C.F.	PMSE	504	Frank, D.J.	CHED	801	Fredon, A.	PHYS	311
Fox III, D.	MEDI	25	Frank, E.	CHED	842	Fredrickson, G.H.	MPPG	26
Foy, G.P.	CHED	98	Frank, G.T.	BIOT	139	Fredrickson, G.H.	PMSE	226
Foy, G.P.	CHED	99	Frank, J.	PMSE	343	Free, R.	MEDI	180
Foy, G.P.	CHED	100	Frank, L.	ANYL	214	Freedman, D.E.	INOR	450
Foy, G.P.	CHED	102	Frank, N.	WCC	7	Freedman, D.E.	PHYS	60
Foy, G.P.	CHED	103	Frank, R.	FLUO	68	Freeman, B.D.	PMSE	169
Foy, G.P.	CHED	104	Franke, M.C.	INOR	312	Freeman, C.A.	CHED	515
Foy, G.P.	CHED	203	Franke, M.	COLL	193	Freeman, C.	ENFL	319
Foy, G.P.	CHED	416	Franke, M.	COLL	377	Freeman, C.	GEOC	18
Foy, G.P.	CHED	419	Franke, R.	CHED	2095	Freeman, D.	GEOC	232
Foy, G.P.	ENVR	318	Frankenfield, A.	CHED	1692	Freeman, E.	MEDI	270
Fraczkiewicz, R.	COMP	105	Franklin, C.	CHED	1572	Freeman, G.	ENFL	142
Fraeyman, A.E.	CHED	1176	Franklin, J.	BIOT	395	Freeman, J.	BIOL	116
Fragola, N.	ANYL	35	Franklin, S.	CHED	1888	Freeman, J.	CHED	44
Fragola, N.	ANYL	271	Frankovsky, F.	INOR	824	Freeman, J.	CHED	1549
Frahm, E.	AGFD	157	Franks, C.E.	BIOL	90	Freeman, J.	CHED	1821
Fraire, C.R.	PHYS	457	Franks, M.A.	CHED	334	Freeman, K.T.	PROF	3
Fraire, C.R.	PHYS	513	Franks, M.A.	CHED	806	Freeman, L.	PMSE	432
Frame, A.	CINF	82	Franks, R.J.	ENFL	372	Freeman, M.	CHED	464
Frame, A.	COMP	21	Franks, R.J.	ENFL	382	Freeman, M.F.	BIOT	531
Frame, A.	ENVR	417	Franson, K.	CHAS	37	Freeman, S.	CHED	1963
Fran, X.	MEDI	75	Franson, K.	CHAS	40	Freeman, S.	CHED	2155
France, S.A.	I&EC	128	Frantzen, A.S.	CHED	220	Freeman, S.	CHED	2159
Franceschini Silva, E.R.	CHED	1830	Frantzen, A.S.	CHED	957	Freger, V.	PMSE	190
Francesconi, L.C.	NUCL	42	Frantzen, A.S.	CHED	2076	Freiberger, A.	CHED	1882

Freichel, T.	ORGN	586	Frielle, T.	CHED	414	Frye, C.W.	INOR	250
Freire, C.	CELL	149	Friemann, R.	MEDI	319	Frye, S.V.	COMP	377
Freire, C.	CELL	163	Friend, C.M.	CATL	237	Frye, Z.	BIOT	55
Freire, C.	CELL	235	Friend, C.M.	CATL	276	Fryfogle, P.	CHED	1550
Freire, C.	CELL	315	Friend, C.M.	COLL	158	Fu, C.	I&EC	4
Freire, C.	CELL	361	Frik, M.	INOR	272	Fu, G.C.	ORGN	56
Freire, D.M.	CARB	65	Frik, M.	INOR	1185	Fu, H.	CHED	790
Freire, L.	CELL	304	Frisbie, C.	COLL	475	Fu, H.	ENVR	286
Freire, M.	CELL	149	Frisbie, C.	COLL	481	Fu, H.	ENVR	430
Freire De Lima, M.E.	MEDI	78	Frisch, M.J.	COMP	384	Fu, H.	ENVR	493
Freire-de-Lima, C.G.	MEDI	78	Frisch, M.J.	PHYS	322	Fu, J.	CATL	281
Freitas, A.A.	PHYS	657	Frisch, M.J.	PHYS	477	Fu, J.	ENVR	724
Frempong, J.	INOR	59	Frischknecht, A.L.	POLY	68	Fu, J.	ENVR	773
Frempong, J.	INOR	188	Frisctic, T.	COLL	47	Fu, J.	ENFL	62
French, A.D.	CELL	251	Frisctic, T.	COLL	427	Fu, J.	PMSE	259
French, R.J.	CATL	390	Frisctic, T.	INOR	1326	Fu, L.	CELL	400
French, R.J.	CATL	391	Frisco, E.	CHED	1665	Fu, N.	AGFD	165
Frenette, L.	PHYS	350	Fritsch, C.	MEDI	243	Fu, Q.	CELL	79
Frenette, M.	ORGN	348	Fritsch, J.M.	CHED	195	Fu, R.	INOR	828
Frenkel, A.	CATL	276	Fritsch, J.M.	CHED	847	Fu, R.	CATL	465
Frenkel, A.	CATL	279	Fritsch, J.M.	INOR	227	Fu, R.	INOR	1268
Frenkel, A.	CATL	298	Fritz, C.	CELL	378	Fu, S.	INOR	943
Frenkel, A.	CATL	404	Fritz, K.E.	PMSE	89	Fu, S.	ENFL	521
Frenkel, A.	CATL	450	Frka-Petesic, B.	CELL	66	Fu, W.	ENVR	128
Frenkel, I.	CHED	1274	Frka-Petesic, B.	CELL	68	Fu, Y.	PMSE	49
Freppon, D.	INOR	1055	Frka-Petesic, B.	CELL	71	Fu, Z.	POLY	495
Frerichs, G.A.	CHED	2130	Frka-Petesic, B.	CELL	139	Fuchino, K.	MEDI	189
Fresco, R.B.	ORGN	712	Frochot, C.	MEDI	342	Fuchs, A.	POLY	11
Frese, D.	COLL	691	Froebel, S.	PHYS	353	Fuchs, J.	MEDI	87
Freshour, K.	CHED	1497	Froimowicz, P.	PMSE	182	Fuchs, J.	MEDI	344
Fretz, N.T.	INOR	27	Froimowicz, P.	PMSE	186	Fuchs, J.	MEDI	384
Freudensprung, I.	POLY	24	Froimowicz, P.	PMSE	231	Fuchs, J.E.	COMP	415
Freunberger, S.	CELL	75	Fromager, E.	PHYS	148	Fuchs, S.	GEOC	282
Freund, H.	CATL	157	Fromerth, M.J.	CHED	105	Fudala, R.	CHED	399
Frey, B.L.	CHED	1624	Fronczek, C.	ANYL	324	Fuentealba, P.	PHYS	44
Frey, B.L.	INOR	734	Fronczek, F.R.	INOR	363	Fuentes, O.	COMP	111
Frey, D.	BIOT	69	Fronczek, F.R.	INOR	380	Fuentes, S.	CHED	1817
Frey, D.	BIOT	184	Fronczek, F.R.	INOR	979	Fuentes-Fernandez, E.M.	INOR	738
Frey, D.	BIOT	299	Fronczek, F.R.	INOR	1203	Fuentes-Rivera, J.J.	CATL	307
Frey, D.	COLL	141	Fronczek, F.R.	YCC	23	Fuersattel, E.	POLY	785
Frey, H.	PMSE	326	Frontier, A.J.	ORGN	567	Fuertes, A.	ORGN	382
Frey, K.	CATL	107	Frontiera, R.R.	ANYL	312	Fufachev, E.	CATL	425
Frey, O.	COLL	774	Frontiera, R.R.	COLL	589	Fuhrer, T.J.	INOR	1369
Friar, Z.	COLL	612	Frontiera, R.R.	PHYS	180	Fujara, F.	POLY	603
Fridrihsone, V.	CELL	87	Frontiera, R.R.	PHYS	295	Fujii, K.	MEDI	379
Friebe, T.L.	ORGN	429	Frontiera, R.R.	PHYS	395	Fujii, S.	COLL	79
Frieberg, B.	POLY	89	Frost, J.A.	BIOL	73	Fujii, S.	COLL	80
Friedfeld, M.	COLL	365	Frost, L.D.	CHED	308	Fujikawa, H.	MEDI	157
Friedfeld, M.	INOR	594	Frost, L.R.	CHED	627	Fujimori, D.G.	BIOL	149
Friedkin, R.	CHED	175	Fruttero, R.	MEDI	73	Fujimoto, C.H.	POLY	68
Friedman, J.M.	AGFD	121	Fry, D.A.	ANYL	190	Fujimoto, K.	MEDI	189
Friedrich, C.	CELL	113	Fry, D.W.	MEDI	283	Fujioka, T.	ENVR	772
Friedrich, H.	POLY	295	Fry, J.	CHED	1744	Fujisawa, S.	CELL	14
Friedrich, K.J.	CHED	122	Fry, J.L.	ENVR	554	Fujita, E.	ENFL	202
Friedrich, K.J.	CHED	1176	Fry, J.	CHED	1846	Fujita, E.	INOR	568

Fujita, M.	INOR	637	Fura, A.	MEDI	6	Gadre, D.	BIOT	538
Fujita, M.	ENFL	367	Fura, A.	MEDI	35	Gadzikwa, T.	INOR	1424
Fujita, M.	PMSE	328	Fura, A.	MEDI	36	Gaertner, T.	COMP	50
Fujita, M.	PMSE	374	Fura, A.	MEDI	178	Gaff, D.	CHED	474
Fujita, M.	PMSE	375	Fura, A.	MEDI	297	Gaffney, A.M.	ENFL	318
Fujita, M.	PMSE	389	Furcht, C.	BIOT	298	Gage, S.	I&EC	137
Fujita, M.	PMSE	409	Furet, P.	MEDI	243	Gagliardi, A.L.	COMP	298
Fujita, M.	PMSE	430	Furgal, J.C.	POLY	440	Gagliardi, L.	CATL	24
Fujitani, T.	CATL	219	Furgione, M.	CHED	1514	Gagliardi, L.	CATL	194
Fukaya, Y.	POLY	442	Furigay, M.H.	CHED	1360	Gagliardi, L.	COMP	63
Fukuda, K.	ORGN	708	Furlong, E.T.	AGFD	156	Gagliardi, L.	COMP	162
Fukui, K.	MEDI	157	Furneaux, A.	ENVR	659	Gagliardi, L.	INOR	522
Fukuoka, S.	AGFD	1	Furness, J.W.	PHYS	604	Gagliardi, L.	INOR	526
Fukushima, K.	CELL	45	Furnish, T.	COLL	360	Gagliardi, L.	INOR	1166
Fukushima, T.	POLY	66	Furst, A.	BIOL	44	Gagliardi, L.	INOR	1295
Fulco, H.A.	POLY	237	Furst, A.L.	COLL	466	Gagliardi, L.	PHYS	95
Fullam, E.	CARB	57	Furst, A.L.	INOR	1126	Gagliardi, L.	PHYS	448
Fullam, E.	POLY	754	Furst, E.M.	BIOT	496	Gagliardi, T.	BIOT	187
Fuller, A.A.	CHED	300	Furtado, R.F.	POLY	588	Gagne, M.R.	ORGN	168
Fuller, A.A.	INOR	8	Furuhata, Y.	BIOT	414	Gagne, M.R.	ORGN	681
Fuller, D.	CHED	1693	Furukawa, H.	ENFL	491	Gagné, F.	ENVR	577
Fuller, D.	CHED	1739	Furukawa, K.	POLY	441	Gagnon, A.	ORGN	150
Fuller, D.	CHED	1741	Furukawa, S.	CELL	224	Gagnon, C.	ENVR	577
Fuller, G.G.	COLL	98	Furusho, H.	ANYL	95	Gagnon, G.A.	ENVR	28
Fuller, G.G.	COLL	560	Furusho, H.	BIOT	432	Gago-Ferrero, P.	ENVR	781
Fuller, J.T.	INOR	480	Fusco, N.D.	CHED	590	Gago-Ferrero, P.	ENVR	785
Fuller, J.F.	CHED	1023	Fusè, M.	PHYS	53	Gahlon, H.	COMP	131
Fuller, J.F.	CHED	2084	Fuson, M.M.	CHED	1729	Gahtory, D.	COLL	687
Fuller, M.	AGFD	195	Fuson, M.M.	PHYS	575	Gai, F.	ANYL	247
Fullerton, M.	BIOT	204	Fussel, R.	AGFD	179	Gai, F.	COLL	404
Fullerton, S.	INOR	1392	Fustin, C.	POLY	748	Gaidano, V.	MEDI	319
Fullilove, F.	CHED	1858	Futatsugi, K.	MEDI	275	Gaiduk, A.	GEOC	141
Fulmer, M.S.	CHED	417	Futia, R.	BIOT	22	Gaigeot, M.P.	GEOC	142
Fulton, B.	INOR	1366	Fuzawa, M.	ENVR	578	Gaigeot, M.P.	GEOC	146
Fultz, M.W.	CHED	91	Gaarde, M.	COMP	164	Gaigeot, M.P.	GEOC	148
Fultz, M.W.	CHED	142	Gaarde, M.	PHYS	528	Gaigeot, M.P.	PHYS	286
Fultz, M.W.	CHED	1357	Gaarde, M.	PHYS	646	Gaigeot, M.P.	PHYS	489
Fultz, M.W.	CHED	1359	Gabay, J.	CATL	14	Gaigneaux, E.M.	CATL	386
Fultz, M.W.	CHED	1361	Gabbai, F.P.	INOR	317	Gaiko, K.	INOR	935
Fultz, M.W.	CHED	1541	Gabbai, F.P.	INOR	555	Gaillard, J.	ENVR	240
Fultz, M.W.	CHED	1814	Gabbai, F.P.	INOR	673	Gaillard, N.	ENFL	272
Fultz, M.W.	CHED	1815	Gabbai, F.P.	INOR	1209	Gaines, C.S.	BIOL	24
Funahashi, Y.	POLY	760	Gabbai, F.P.	INOR	1208	Gaines, C.S.	COMP	215
Funai, R.	CHED	385	Gaborieau, M.	POLY	526	Gaines, M.	POLY	583
Funatsu, K.	CINF	111	Gaborieau, M.	POLY	530	Gaiter, L.	MEDI	295
Funatsu, K.	COMP	141	Gaborieau, M.	POLY	671	Gaito, A.	CHED	463
Fundator, M.	ANYL	223	Gaddam, B.	POLY	775	Gajdosechova, Z.	ENFL	39
Fundator, M.	BIOL	258	Gadgil, A.	ENVR	638	Gakhar, S.	COLL	332
Fung, E.	COLL	343	Gadgil, C.	BIOT	260	Gal, A.	GEOC	21
Fung, V.	CATL	235	Gadgil, M.	BIOT	260	Gal, N.	COLL	93
Fung, V.	CATL	271	Gadgil-Sharma, S.	CHED	2012	Galanti, A.	INOR	1316
Fungaro, D.A.	ENVR	698	Gadi, G.	CHED	1955	Galarreta, B.C.	ANYL	335
Fung-Leung, W.	CARB	84	Gadia, G.	CHED	782	Galarreta, B.C.	COLL	57
Funk, M.	CELL	362	Gadikota, G.	ENFL	553	Galaup, C.	CHED	1239
Funk, T.W.	CHED	1510	Gadikota, G.	ENFL	558	Galbraith, S.	BIOT	45

Galceran, M.	ENFL	305	Galloway, M.M.	CHED	950	Gann, J.C.	CHED	946
Galdi, S.	GEOC	175	Galloway, M.M.	CHED	964	Ganose, A.	INOR	1271
Gale, E.	INOR	587	Galloway, M.M.	ENVR	519	Ganose, A.	INOR	1398
Gale, E.	INOR	686	Gallup, N.M.	COLL	686	Ganow, K.	GEOC	156
Galella, M.A.	MEDI	6	Galuska, L.	PMSE	91	Ganske, J.A.	CHED	778
Galella, M.A.	MEDI	36	Galvagno, S.	CELL	384	Ganss, V.	CHED	94
Galella, M.A.	MEDI	109	Galvan, D.	ANYL	266	Ganss, V.	CHED	1884
Galella, M.A.	MEDI	202	Galvani, M.	PMSE	606	Gantier, R.	BIOT	312
Galella, M.A.	MEDI	297	Galy, T.	INOR	174	Gantier, R.	BIOT	384
Galella, M.A.	MEDI	367	Gam, K.	AGFD	160	Gantman, B.	CHED	708
Galemmo, R.A.	MEDI	65	Gama, M.	CELL	53	Ganzel, H.	CHED	1782
Galermo, A.G.	AGFD	43	Gamage, M.	INOR	1311	Gao, B.	ENVR	39
Galesic, A.	BIOL	127	Gamba, D.	POLY	449	Gao, B.	GEOC	73
Galhano, V.	ANYL	235	Gambino, G.	BIOL	100	Gao, B.	AGFD	64
Galik, C.	COLL	764	Gambrell, N.	GEOC	205	Gao, D.	COLL	683
Galimberti, D.	GEOC	142	Gambrell, N.	GEOC	206	Gao, F.	BIOL	82
Galimberti, D.	GEOC	148	Gamelin, B.	CHED	1178	Gao, F.	BIOL	98
Galimberti, D.	PHYS	489	Gamelin, D.R.	COMP	272	Gao, F.	BIOT	59
Galinat, K.	COLL	237	Gamelin, D.R.	INOR	564	Gao, F.	CATL	67
Galinato, M.I.	CHED	388	Gamelin, D.R.	INOR	593	Gao, F.	CATL	293
Galinato, M.I.	CHED	1078	Gamelin, D.R.	INOR	1050	Gao, F.	CATL	475
Galipeau, K.	BIOT	555	Games, D.N.	CHED	272	Gao, F.	CATL	494
Galkin, M.V.	CATL	46	Gamlath Mohottige, C.U.	AGFD	99	Gao, F.	COLL	168
Gallager, B.	CHED	1965	Gammell, P.	BIOT	142	Gao, F.	I&EC	13
Gallagher, K.R.	CHED	712	Gammell, P.	BIOT	544	Gao, F.	PHYS	36
Gallagher, M.	CHED	749	Gampp, T.	CHED	807	Gao, F.	POLY	465
Gallagher, M.	POLY	82	Gampp, T.	CHED	808	Gao, H.	POLY	316
Gallagher, M.J.	ENVR	242	Gampp, T.	CHED	2193	Gao, H.	INOR	54
Gallagher, N.	POLY	278	Gamrat, J.	ORGN	231	Gao, H.	I&EC	60
Gallant, N.	PMSE	410	Gan, H.	INOR	757	Gao, H.	CINF	56
Gallazzi, F.	FLUO	73	Gan, J.	AGFD	112	Gao, H.	MEDI	3
Gallazzi, F.	NUCL	45	Gan, L.	ENVR	116	Gao, H.	CELL	379
Gallei, M.	CELL	90	Gan, X.	INOR	719	Gao, H.	ANYL	53
Gallei, M.	PMSE	273	Ganan, P.F.	CELL	343	Gao, J.	BIOL	206
Gallei, M.	PMSE	278	Gandhi, H.	ENFL	142	Gao, J.	PMSE	476
Gallei, M.	PMSE	326	Gandon, V.	ORGN	33	Gao, J.	ENVR	328
Gallei, M.	PMSE	445	Gandon, V.	ORGN	328	Gao, J.	PMSE	361
Galle Kankanamge, S.	PHYS	483	Gandon, V.	ORGN	541	Gao, K.	COLL	19
Galle Kankanamge, S.	PHYS	484	Gandy, L.	CHED	1916	Gao, L.	ENVR	35
Galli, G.A.	CATL	31	Gane, P.	CELL	413	Gao, L.	ENFL	436
Galli, G.A.	COMP	91	Gane, P.	COLL	165	Gao, L.	AGFD	75
Galli, G.A.	ENFL	269	Ganesh, A.	PMSE	597	Gao, M.	NUCL	44
Galli, G.A.	GEOC	141	Ganeshraj, V.	COLL	301	Gao, M.	BIOT	548
Galli, G.A.	PHYS	302	Ganeshraj, V.	COLL	370	Gao, M.	ENFL	320
Galliher, M.S.	ORGN	683	Ganfoud, R.	CELL	425	Gao, M.	MEDI	60
Gallimore, A.	CHED	189	Ganfoud, R.	PMSE	187	Gao, M.	MEDI	132
Galliou, P.	ENFL	95	Gang, O.	COLL	347	Gao, P.	ENFL	293
Gallman, A.	POLY	19	Gang, W.	ENFL	405	Gao, P.	ENVR	396
Gallo, A.	AGFD	32	Ganguly, A.	COMP	205	Gao, R.	MEDI	51
Gallo, A.	CATL	231	Ganguly, A.	ORGN	603	Gao, S.	INOR	979
Gallo, D.	MEDI	240	Ganguly, I.	CELL	291	Gao, S.	COLL	285
Gallo, G.	MEDI	257	Ganguly, S.	INOR	825	Gao, S.	ANYL	242
Gallo, K.	CHED	867	Gani, T.Z.	CATL	118	Gao, W.	ANYL	23
Gallo Molina, A.C.	I&EC	166	Ganji, N.	COLL	90	Gao, W.	COLL	731
Galloway, M.M.	CHED	949	Ganley, J.M.	ORGN	618	Gao, W.	POLY	221

Gao, W.	POLY	292	García-Benitro, I.	ORGN	295	Garner, A.L.	ORGN	363
Gao, W.	POLY	365	García-Bosch, I.	INOR	118	Garner, A.J.	ENVR	586
Gao, W.	POLY	494	García-Bosch, I.	INOR	215	Garner, E.	ENVR	9
Gao, W.	POLY	496	García Carrillo, E.M.	AGFD	87	Garner, E.	ENVR	11
Gao, W.	POLY	497	García-Galán, M.	ENVR	354	Garner, M.H.	COLL	31
Gao, W.	CATL	412	García-Garibay, M.A.	COMP	245	Garner, R.N.	CHED	1054
Gao, W.	AGFD	197	García Gonzalez, P.	CHED	279	Garner, R.A.	CHED	182
Gao, X.	ENVR	750	García Gonzalez, P.	CHED	1304	Garnett, J.	COMP	83
Gao, X.	CATL	442	García Greca, L.	CELL	162	Garnica, R.	ENVR	472
Gao, X.	CATL	549	García Greca, L.	CELL	423	Garnier, G.	CELL	120
Gao, X.	CHED	401	García Greca, L.	CELL	399	Garnier, G.	CELL	308
Gao, X.	AGFD	12	García Hernandez, A.	ORGN	46	Garnier, G.	COLL	704
Gao, X.	CHED	741	García-Manyes, S.	COMP	358	Garnier, G.	POLY	591
Gao, Y.	PMSE	364	García Martinez, J.	CATL	222	Garniwan, A.	GEOC	244
Gao, Y.	COLL	305	García Martinez, J.	CATL	347	Garno, J.C.	COLL	262
Gao, Y.	COLL	443	García Martinez, J.	CATL	490	Garno, J.C.	INOR	794
Gao, Y.	ENFL	37	García Martinez, J.	ENFL	282	Garnsey, M.	ORGN	102
Gao, Y.	COLL	734	García Martinez, J.	ENFL	450	Garoutte, M.P.	CHED	80
Gao, Y.	COLL	549	García-Negron, V.	CELL	123	Garr, E.	BIOT	12
Gao, Y.	ENFL	134	García Perez, M.	CELL	127	Garr, E.	BIOT	250
Gao, Y.	ENFL	210	García-Pérez, S.	CELL	301	Garr, E.	BIOT	264
Gao, Z.	AGFD	15	García Rivera, D.	CHED	299	Garr, Z.	CATL	194
Gao, Z.	AGFD	37	García Rivera, D.	CHED	300	Garretson, S.	CHED	686
Gao, Z.	AGFD	109	García-Robles, G.	CHED	1264	Garrett, A.	POLY	580
Gaonkar, O.	ENVR	487	García-Sega, E.S.	CHED	2168	Garrett, M.D.	CHED	1034
Garand, D.	NUCL	79	García Torres, P.	CHED	923	Garrett, M.	PHYS	523
Garand, E.	YCC	26	García-Valdez, O.	CELL	232	Garrett, P.L.	COLL	269
Garber, A.	CHED	1453	García-Vargas, J.M.	CHED	1061	Garrett, T.	CHED	1006
Garbioglu, E.	CHED	936	Garde, S.	BIOT	517	Garrett-Roe, S.	CHED	80
Garbou, A.	ENVR	540	Garde, S.	COMP	12	Garrett-Roe, S.	PHYS	341
Garbutt, J.	CHED	758	Gardezi, S.	BIOL	22	Garrison, J.	NUCL	87
García, B.J.	INOR	1096	Gardiner, K.N.	POLY	577	Garrison, K.E.	CHED	382
García, D.R.	ORGN	636	Gardiner, S.	CHED	77	Garrison, K.E.	CHED	915
García, D.E.	CHED	847	Gardner, D.	MEDI	367	Garrod, R.T.	PHYS	308
García, H.	ENVR	134	Gardner, D.E.	CHED	227	Gartman, A.	INOR	46
García, H.	ENVR	663	Gardner, D.	CHED	1095	Gartner, T.E.	PMSE	198
García, H.	ENVR	667	Gardner, T.	POLY	328	Gartstein, Y.	PHYS	352
García, H.	ENVR	668	Gardner, T.H.	ENFL	33	Garvey, C.	COLL	704
García, J.	CHED	473	Garea, S.A.	PMSE	237	Garvey, C.	COLL	725
García, J.	CHED	518	Garfield, J.A.	CHED	1922	Garwin, J.	ORGN	596
García, J.	CHED	761	Garfield, J.A.	CHED	2048	Gary, B.	CHED	878
García, J.	ENVR	719	Garfola, C.	CHED	575	Gary, B.	INOR	30
García, J.A.	ENFL	107	Garg, N.K.	CATL	261	Gary, B.	INOR	441
García, M.	COLL	372	Garg, N.K.	ORGN	45	Gary, J.	INOR	536
García, N.	CELL	267	Garg, N.K.	ORGN	253	Gary, J.	INOR	700
García, R.A.	AGFD	48	Garg, N.K.	ORGN	550	Garza, A.J.	COMP	90
García, R.A.	ENVR	787	Garg, R.	COMP	179	Garza, J.	PHYS	41
García, R.	INOR	603	Garg, S.	ENVR	717	Garzón, L.L.	CATL	226
García, R.	INOR	31	Garg, S.	ENVR	114	Garzón, W.	I&EC	166
García, R.	PMSE	556	Gargava, A.	COLL	707	Gascon, J.	CATL	135
García, R.	POLY	217	Gargava, A.	COLL	777	Gascon, J.	I&EC	88
García, V.	ORGN	449	Garino, C.	MEDI	319	Gaspar, A.	CHED	1877
García, V.C.	ENFL	194	Garland, M.	ENVR	88	Gaspar, D.	ENFL	404
García, V.C.	ENFL	230	Garland, T.	CINF	47	Gasparrini, F.	ANYL	109
García Acosta, E.N.	CHED	1830	Garmany, A.	ENVR	533	Gass, K.M.	INOR	1211

Gassensmith, J.J.	PMSE	310	Gawlitzeck, M.	BIOT	42	Geise, G.M.	I&EC	98
Gassensmith, J.J.	PMSE	399	Gawrisch, K.	COLL	403	Geise, G.M.	PMSE	36
Gasser, U.	POLY	623	Gawryla, M.	PMSE	167	Geise, G.M.	POLY	67
Gastfriend, B.D.	BIOT	346	Gayen, P.	ENVR	191	Geise, G.M.	POLY	71
Gaston, T.	ORGN	473	Gaynes, A.	CHED	1849	Geiss, B.	ANYL	9
Gastreich, M.	COMP	102	Gaynor, A.L.	CHED	1025	Geiss, B.	ANYL	304
Gatenholm, P.	CELL	375	Gaynor, A.	BIOT	63	Geissler, P.L.	COLL	41
Gates, B.C.	PHYS	556	Gayton, J.N.	ORGN	292	Geldenhuys, W.J.	BIOL	264
Gates, I.D.	PHYS	419	Gayton, J.N.	PHYS	534	Gelder, J.I.	CHED	1939
Gates, K.	COLL	235	Gazica, K.E.	INOR	916	Geletii, Y.V.	CATL	295
Gato, W.E.	CHED	608	Gazit, O.	CATL	136	Gelis, A.	I&EC	124
Gato, W.E.	CHED	612	Gazit, O.	ENFL	31	Gelissen, A.	POLY	372
Gau, M.R.	INOR	1026	Gazquez, J.L.	PHYS	4	Gelissen, A.	POLY	385
Gaucher, E.A.	BIOL	293	Gazquez, J.L.	PHYS	636	Gelissen, A.	POLY	746
Gaucher, E.A.	BIOT	207	Gazquez, J.L.	PHYS	637	Gelissen, A.	POLY	792
Gaudé, A.	HIST	25	Ge, J.	INOR	831	Gellman, A.J.	CATL	202
Gaudet, R.	INOR	825	Ge, M.	ENFL	256	Gellman, A.J.	PHYS	9
Gaudin, T.	COMP	23	Ge, Q.	ENFL	120	Gembicky, M.	INOR	946
Gaulding, E.A.	INOR	770	Ge, T.	PMSE	606	Geme, G.	CHED	2083
Gaulier, F.	ENFL	523	Ge, Y.	INOR	324	Geme, G.	ENVR	158
Gaunt, L.	CHED	397	Ge, Y.	CHED	795	Gemechu, B.	CHED	1883
Gaur, K.	CHED	603	Ge, Y.	CHED	799	Gencer, A.	CELL	69
Gaur, R.	CATL	90	Ge, Y.	CHED	845	Geneste, H.	ORGN	655
Gautam, G.	ANYL	393	Gearba, I.	ORGN	284	Geng, Q.	ANYL	122
Gautam, G.S.	ENFL	419	Gearhart, J.	CHED	1882	Geng, Q.	ENVR	683
Gautam, M.	ENVR	348	Gebbie, M.A.	COLL	530	Geng, S.B.	BIOT	492
Gautam, S.	GEOC	280	Geck-Do, M.	MEDI	64	Geng, W.	CELL	273
Gautham, R.	ANYL	351	Geck-Do, M.	MEDI	359	Geng, X.	GEOC	277
Gauthe, D.	AGFD	157	Gee, A.	CHED	124	Gengler, R.	COLL	479
Gauthier, C.V.	CHED	1163	Gee, A.	CHED	415	Genix, A.	COLL	50
Gauthier, T.	BIOT	87	Gee, M.	POLY	252	Genix, A.	COLL	65
Gautreaux, D.P.	CHED	471	Geelhaar, L.	INOR	812	Gennett, T.	ENFL	148
Gautreaux, D.P.	CHED	477	Geer, P.	PROF	3	Gennett, T.	ENFL	204
Gautreaux, D.P.	CHED	480	Geerlings, P.F.	PHYS	640	Gennett, T.	ENFL	257
Gautreaux, D.P.	CHED	482	Geers, A.	CATL	376	Gennett, T.	ENFL	278
Gautreaux, D.P.	CHED	484	Geeson, M.B.	INOR	107	Gennett, T.	ENFL	340
Gautreaux, D.P.	CHED	486	Geeson, M.B.	INOR	550	Gennett, T.	ENFL	378
Gauvin, R.	CATL	367	Gefroh, E.	BIOT	331	Gennett, T.	ENFL	390
Gauvin, R.	CATL	413	Gehen, S.	AGFD	183	Gennett, T.	ENFL	391
Gavenonis, J.	CHED	135	Gehlen, D.	POLY	337	Gennity, I.	ENVR	556
Gavenonis, J.	CHED	698	Gehris, A.	POLY	31	Genova, A.	PHYS	99
Gavenonis, J.	CHED	1644	Geib, C.	POLY	80	Genovese, C.	CHED	1103
Gaviglio, K.	MPPG	15	Geier, B.	ANYL	104	Genovino, J.	ORGN	197
Gavin, J.	BIOT	80	Geiger, C.	CHED	1511	Genovino, J.	ORGN	348
Gavin, J.	BIOT	554	Geiger, D.K.	CHED	1489	Gentile, E.	PMSE	592
Gavin, J.	CHED	1087	Geiger, F.	ANYL	278	Gentile, M.	ORGN	619
Gavrylenko, O.	MEDI	170	Geiger, F.	COLL	2	Gentry, E.C.	ORGN	22
Gavrylenko, O.	MEDI	171	Geiger, F.	COLL	105	Genzer, J.	POLY	567
Gawalt, E.S.	CHED	1205	Geiger, F.	GEOC	32	Genzer, J.	POLY	632
Gawalt, E.S.	CHED	1206	Geiger, F.	GEOC	147	Geoffroy, P.	BIOT	112
Gawalt, E.S.	CHED	1761	Geiger, F.	PHYS	614	Geoghegan, K.F.	MEDI	321
Gawalt, E.S.	CHED	1820	Geiger, T.	CELL	430	Geoghegan, R.	CHED	1888
Gawalt, E.S.	COLL	185	Geiger, W.	ENFL	40	George, A.	CHED	196
Gawalt, E.S.	COMP	298	Geigle, P.	CELL	112	George, A.	ENFL	404
Gawel, R.J.	CHED	1286	Geiregat, P.	INOR	1051	George, A.	ENFL	455

George, C.	MEDI	66	German, J.	AGFD	112	Ghezzehei, T.A.	GEOC	9
George, H.E.	POLY	550	German, J.	AGFD	151	Ghezzehei, T.A.	GEOC	13
George, J.	PMSE	540	Germann, L.S.	COLL	427	Ghidey, Y.	INOR	833
George, J.	ORGN	325	Germann, M.W.	BIOL	188	Ghiladi, R.A.	CHED	623
George, J.	ORGN	602	Germann, M.W.	CARB	28	Ghilardi, N.	MEDI	7
George, M.	COMP	197	Gerontas, S.	BIOT	506	Ghim, D.	ENVR	185
George, M.	CHED	757	Gerrior, A.	BIOT	288	Ghimire, E.	POLY	579
George, M.	CHED	916	Gerrits, D.	POLY	230	Ghimire, M.	INOR	71
George, M.W.	INOR	704	Gerrity, D.	COLL	292	Ghimire, U.	ENFL	550
George, R.D.	COLL	274	Gershelis, S.	ORGN	155	Ghiringhelli, L.M.	CATL	170
George, R.D.	COLL	682	Gerspacher, M.	MEDI	243	Ghiringhelli, L.M.	COMP	51
George, S.	POLY	646	Gertzen, C.	COMP	39	Ghiviriga, I.	ENVR	147
George, S.	BIOL	176	Geruntho, J.J.	FLUO	69	Ghodbane, M.	BIOT	189
George, S.M.	COLL	74	Geruntho, J.J.	INOR	27	Ghoreishi, D.	COMP	216
George Parsons, K.S.	CHED	527	Gessner, V.H.	INOR	1204	Ghoreishi, D.	COMP	321
George Parsons, K.S.	CHED	680	Gething, C.	CHED	1882	Ghose, S.	BIOT	14
George Parsons, K.S.	CHED	1260	Getman, R.B.	CATL	24	Ghose, S.	BIOT	69
George Parsons, K.S.	CHED	1596	Getman, R.B.	CATL	137	Ghose, S.	BIOT	136
Georgieva, Z.	INOR	92	Getman, R.B.	CATL	232	Ghose, S.	BIOT	181
Georgiou, C.	COMP	380	Getman, R.B.	CATL	359	Ghose, S.	BIOT	358
Georg Moses, P.	CATL	292	Getman, R.B.	COMP	61	Ghose, S.	BIOT	376
Gepford, D.	CHED	1855	Getman, R.B.	COMP	123	Ghose, S.	BIOT	444
Geppi, M.	AGFD	163	Getson, B.H.	SCHB	1	Ghose, S.	BIOT	447
Geppi, M.	POLY	670	Gettel, D.L.	COLL	722	Ghose, S.	BIOT	509
Gerads, R.	ANYL	33	Gettens, C.P.	BIOL	228	Ghose, S.	BIOT	558
Gerald, K.	CHED	2093	Gettens, C.P.	MEDI	168	Ghosh, A.K.	BIOL	126
Gerasimchuk, N.	CHED	1133	Gettridge, C.	CHED	53	Ghosh, A.	MEDI	110
Gerasimchuk, N.	INOR	221	Gettridge, C.	CHED	1485	Ghosh, A.	PHYS	439
Gerasimchuk, N.	INOR	225	Gettridge, C.	MEDI	190	Ghosh, A.	ENFL	518
Gerasimova, Y.	BIOT	202	Gettys, K.E.	INOR	1294	Ghosh, A.K.	COMP	17
Gerasimova, Y.	BIOT	230	Getzler, Y.D.	PMSE	247	Ghosh, D.	BIOT	233
Gerasimova, Y.	BIOT	399	Geuchies, J.	COLL	120	Ghosh, I.	BIOL	144
Gerasimova, Y.	BIOT	402	Geuns-Meyer, S.	CINF	56	Ghosh, M.	CATL	454
Gerasimova, Y.	BIOT	410	Geva, E.	CHED	163	Ghosh, P.	INOR	2
Gerber, T.	CATL	158	Geva, E.	PHYS	578	Ghosh, P.	INOR	270
Gerberich, J.	MEDI	66	Gevers, L.	ENFL	296	Ghosh, P.	INOR	382
Gerdon, A.E.	ANYL	162	Gewirth, A.A.	ENFL	50	Ghosh, P.	INOR	513
Gerdon, A.E.	ANYL	163	Geyer, F.	PHYS	127	Ghosh, P.	INOR	918
Gerdon, A.E.	CHED	490	Geyer, S.	COLL	159	Ghosh, P.	INOR	1358
Gerdon, A.E.	COLL	467	Ghaadrgadr, Y.	GEOC	105	Ghosh, R.	BIOT	288
Gere, A.	CHED	1957	Ghadiri, M.	BIOL	14	Ghosh, R.	BIOT	210
Gere, A.	CHED	2195	Ghadouani, A.	ENVR	313	Ghosh, R.	BIOT	409
Gere, A.	AGFD	127	Ghaffari, H.	MEDI	34	Ghosh, R.	BIOT	475
Gergi, I.	CHED	965	Ghag, O.	POLY	616	Ghosh, S.	CINF	104
Gerhartz, B.	MEDI	271	Ghaghada, K.B.	FLUO	44	Ghosh, S.	COMP	162
Geri, J.B.	INOR	616	Ghali, M.	MEDI	205	Ghosh, S.C.	FLUO	72
Gericke, M.	CELL	348	Ghamdi, H.	ENFL	77	Ghosh, S.	PHYS	6
Gering, H.	BIOL	43	Ghanbaripour, R.	COLL	732	Ghosh, U.	ENVR	383
Gering, H.	CHED	1820	Ghann, W.	ENFL	399	Ghosh, U.	ENVR	751
Gerken, M.	FLUO	8	Ghaoui, S.	CHED	375	Ghoussoub, Y.	POLY	783
Gerlach, D.	INOR	1299	Ghatty, P.	BIOT	274	Giacherio, D.	CHED	961
Gerlach, D.	BIOT	270	Ghawas, H.M.	ORGN	322	Giacherio, D.	CHED	965
Gerlach, D.	BIOT	452	Ghebraniou, V.	POLY	244	Giacomini, K.	BIOL	222
Gerlinger, W.	POLY	364	Ghebraniou, V.	POLY	245	Giacomini, K.	MEDI	165
Germain, H.	MEDI	244	Gheorghe, A.	PHYS	110	Giacomini, K.	MEDI	166

Giacomini, K.	MEDI	315	Gibson, T.J.	CHED	1445	Gillespie, A.	BIOT	120
Giambasu, G.M.	COMP	221	Giddings, L.D.	ANYL	129	Gillespie, C.	BIOT	162
Giambasu, G.M.	COMP	397	Giddings, L.D.	ANYL	139	Gillespie, C.	BIOT	273
Giammar, D.	ENVR	26	Giddings, L.D.	ANYL	140	Gillespie, C.	BIOT	314
Giammar, D.	ENVR	27	Giddings, L.D.	CHED	792	Gillespie, R.D.	I&EC	87
Giammar, D.	ENVR	29	Giddings, L.D.	CHED	823	Gillette, M.U.	COLL	771
Giammar, D.	GEOC	60	Giddings, L.D.	CHED	1913	Gillett-Kunnath, M.M.	CHED	193
Giammar, D.	GEOC	241	Giddings, L.D.	CHED	2010	Gillett-Kunnath, M.M.	CHED	1968
Giampapa, R.M.	COMP	283	Gidh, A.	BIOT	144	Gillett-Kunnath, M.M.	CHED	2101
Giampapa, R.M.	COMP	277	Giebink, A.K.	ORGN	638	Gillett-Kunnath, M.M.	INOR	230
Gianandrea, M.M.	CHED	1649	Gier, E.	INOR	255	Gillett-Kunnath, M.M.	INOR	264
Gianneschi, N.C.	COLL	19	Gierasch, L.M.	BIOL	141	Gillett-Kunnath, M.M.	INOR	313
Gianneschi, N.C.	COLL	124	Gierhart, C.	COMP	241	Gillett-Kunnath, M.M.	INOR	319
Gianneschi, N.C.	POLY	23	Giesa, R.	POLY	785	Gillett-Kunnath, M.M.	INOR	1254
Gianneschi, N.C.	POLY	170	Giese, G.	BIOT	537	Gilliland, S.	ORGN	148
Gianneschi, N.C.	POLY	636	Giesen, J.A.	POLY	408	Gilliland, S.	ORGN	454
Gianolio, D.	CATL	373	Giger, W.	ENVR	303	Gilliland, S.	ORGN	455
Giardino, G.J.	CHED	1656	Giguere, D.	CARB	35	Gillis, K.D.	ORGN	13
Giarikos, D.G.	CHED	913	Giguere, D.	CARB	82	Gillis, S.K.	CHED	1535
Giarikos, D.G.	CHED	1056	Gijsen, H.	MEDI	189	Gillis, S.K.	CHED	1865
Gibb, B.C.	COMP	391	Gil, P.	PMSE	185	Gillooly, K.M.	MEDI	6
Gibb, B.C.	INOR	744	Gil, P.	PMSE	186	Gillooly, K.M.	MEDI	36
Gibb, B.C.	INOR	746	Gilbert, A.	BIOT	29	Gillooly, K.M.	MEDI	297
Gibb, B.C.	INOR	751	Gilbert, B.	ENVR	53	Gillott, B.	CHED	628
Gibb, B.C.	INOR	754	Gilbert, B.	ENVR	219	Gillott, B.	CHED	1008
Gibb, B.C.	INOR	757	Gilbert, B.D.	CHED	573	Gillott, B.	CHED	1850
Gibb, B.C.	INOR	1045	Gilbert, E.P.	POLY	671	Gillow, J.	GEOC	230
Gibb, B.C.	ORGN	329	Gilbert, P.	BIOT	302	Gilman, J.W.	CELL	33
Gibb, C.L.	ORGN	329	Gilbert, P.	BIOT	304	Gilman, J.W.	CELL	67
Gibbons, B.	COLL	387	Gilbert, P.	GEOC	20	Gilman, J.W.	CELL	160
Gibbons, C.	MEDI	369	Gilbert, T.M.	INOR	280	Gilmartin, P.H.	ANYL	248
Gibbons, F.D.	MEDI	293	Gilbert, Z.W.	CATL	551	Gilmer, C.	POLY	327
Gibbons, P.	CHED	162	Gilbert-Bass, K.	CHED	1165	Gilmer, D.	POLY	314
Gibbons, P.A.	COMP	16	Gilbert Gatty, M.	INOR	109	Gilmer, D.B.	PMSE	511
Gibbons, R.	CHED	2192	Gilbertson, J.D.	CHED	1003	Gilmore, C.A.	CHED	1693
Gibbons, R.	CHED	2194	Gilbertson, J.D.	INOR	216	Gilmore, C.A.	CHED	1739
Gibbons, R.	CHED	2196	Gilbertson, J.D.	INOR	224	Gilmore, C.A.	CHED	1741
Gibbons-Stovall, S.	ORGN	84	Gilbertson, J.D.	INOR	1041	Gilmore, D.	MEDI	337
Gibeault, E.	CHED	992	Gilbertson, L.M.	ENVR	88	Gilmore, J.L.	MEDI	20
Gibert, E.	COMP	74	Gildea, L.	CHED	431	Gilmore, J.L.	MEDI	91
Giberti, F.	GEOC	141	Gildner, M.B.	INOR	1107	Gilmore, K.M.	INOR	245
Gibson, C.	CHED	1172	Giles, S.L.	CATL	297	Gilmore, S.	BIOT	236
Gibson, D.	CHED	1469	Giles, S.L.	COLL	219	Gilmore, S.F.	COLL	4
Gibson, E.	CATL	130	Giles, S.L.	PMSE	101	Gilon, N.	ENFL	95
Gibson, E.P.	CHED	1599	Giliopoulos, D.	CELL	365	Gil-Rodriguez, P.	BIOT	424
Gibson, H.W.	PMSE	501	Giljohann, D.	INOR	656	Gil-San Millán, R.	CATL	347
Gibson, H.	FLUO	64	Gilkes, A.	BIOL	136	Gil-Sepulcre, M.	INOR	1280
Gibson, J.K.	NUCL	11	Gill, A.L.	MEDI	277	Gilson, J.	ENFL	333
Gibson, J.K.	NUCL	98	Gill, M.	MEDI	57	Gilson, M.K.	COLL	19
Gibson, L.	CHED	599	Gill, U.	CELL	167	Gim Aw, T.	ENVR	96
Gibson, M.I.	COLL	95	Gillan, E.G.	COLL	249	Ginder-Vogel, M.A.	GEOC	11
Gibson, M.I.	POLY	115	Gillard, K.	CHED	57	Ginder-Vogel, M.A.	GEOC	176
Gibson, M.I.	POLY	754	Gillard, K.	CHED	1167	Ginder-Vogel, M.A.	GEOC	178
Gibson, M.	CHED	133	Gille, A.L.	INOR	280	Gindulyte, A.	CHED	2169
Gibson, P.	CHAS	35	Gilles, B.C.	CHED	2005	Gindulyte, A.	CINF	4

Gindulyte, A.	CINF	21	Glaeser, R.	ENFL	449	Gloaguen, F.	INOR	514
Ginex, T.	COMP	74	Glagovich, N.M.	AGFD	201	Glotov, A.P.	CATL	487
Ginger, D.S.	COLL	418	Glantschnig, H.	MEDI	69	Glotov, A.P.	PMSE	362
Ginger, D.S.	INOR	1150	Glaser, R.	CHED	286	Glover, C.M.	INOR	55
Ginger, D.S.	PHYS	240	Glaser, R.	CHED	1969	Glover, D.	BIOT	311
Ginnetti, A.	MEDI	69	Glaser, R.	ENFL	145	Glover, S.	CHED	495
Ginsberg, L.D.	PHYS	120	Glaser, R.	ENVR	759	Glover, T.G.	PHYS	25
Ginsberg, N.S.	PHYS	120	Glaser, R.	ORGN	499	Glowacki, J.	BIOT	128
Gioia, C.	CELL	369	Glaser, R.	ORGN	500	Gludovatz, B.	PMSE	239
Gioia, M.	CHED	1094	Glaser, T.	INOR	582	Gluick, T.	CHED	2007
Giordan, J.C.	BMGT	1	Glasfeld, A.	BIOL	37	Glund, K.	MEDI	21
Giordan, J.C.	SCHB	7	Glasgow, E.	BIOT	84	Glunz, P.	MEDI	2
Giordano, L.	ENFL	187	Glasing, J.	CELL	197	Glusac, K.	ENFL	243
Giordano, L.	ENFL	469	Glasing, J.	POLY	163	Glusac, K.	ENFL	304
Giordano, N.	WCC	9	Glass, A.	ORGN	622	Glusac, K.	INOR	1072
Giorgi, N.	INOR	307	Glass, J.	GEOC	268	Glynn, S.	CHED	482
Giorgio, K.	CHED	1826	Glass, R.S.	INOR	395	Gmernicki, K.R.	PMSE	108
Giorgis, M.	MEDI	319	Glass, R.S.	INOR	1282	Gmernicki, K.R.	POLY	350
Giorno-McConnell, R.	CHED	531	Glass, R.S.	POLY	397	Gmurczyk, M.U.	CHAS	15
Giraldo, J.	ANYL	16	Glass, R.	CHED	1787	Gnanasekaran, K.K.	BIOL	81
Giraldo, J.	ANYL	194	Glass, T.E.	ORGN	13	Gnegy, M.	ENVR	513
Girard, P.	INOR	1097	Glasser, R.	BIOL	232	Go, D.	COMP	147
Giraud, E.	MEDI	319	Glatz, B.	COLL	266	Go, D.	INOR	1392
Giri, A.K.	MEDI	78	Glatzhofer, D.T.	ORGN	501	Go, D.	POLY	622
Giri, B.	ANYL	76	Glazier, D.A.	CARB	44	Go, S.	ORGN	182
Giri, B.	ANYL	78	Glazier, D.A.	CARB	45	Gobec, S.	MEDI	222
Giri, B.	ANYL	79	Glazier, S.	CHED	11	Gobec, S.	ORGN	67
Giri, N.C.	INOR	632	Glazier, S.	CHED	1436	Gober, C.B.	INOR	188
Giribabu, L.	INOR	944	Glazier, S.	CHED	1733	Gobet, M.	POLY	317
Giroir-Fendler, A.	CHED	1061	Glazyrin, K.	INOR	577	Góbi, S.	PHYS	92
Girolami, G.S.	INOR	615	Gleason, J.	ENVR	291	Gobler, C.J.	ENVR	766
Girones, J.	CELL	304	Gleason, J.	ENVR	388	Goda, K.	ANYL	403
Gisewhite, D.	INOR	934	Gleason, K.	INOR	1057	Goddard, J.M.	CELL	201
Gisewhite, D.R.	INOR	929	Gleason, K.	PMSE	378	Goddard, W.A.	CATL	460
Gish, M.K.	INOR	1066	Gleason, K.	PMSE	563	Goddard, W.A.	CATL	465
Gish, M.K.	PHYS	175	Gleason, K.S.	CHED	453	Goddard, W.A.	INOR	1268
Gittus, O.	PHYS	411	Glebov-McCloud, A.	CHED	701	Goddard, W.A.	PHYS	96
Giuliani, V.	MEDI	64	Gleisner, R.	CELL	93	Godderis, L.	ANYL	431
Giuliano, M.W.	ORGN	591	Glendening, E.D.	CHED	838	Godfrey, S.	BIOT	364
Giuliano, M.W.	ORGN	724	Glendening, E.D.	CHED	841	Godfrey, S.	BIOT	483
Giulianotti, M.A.	PROF	3	Glenn, J.R.	CHED	888	Godfrey, S.	BIOT	557
Giummarella, N.	CELL	280	Glenny, J.	CHED	1878	Godiksen, A.	CATL	292
Giunta, C.J.	HIST	34	Glessner, C.E.	CHED	109	Godinez, J.	CHED	2048
Giust, D.	COLL	161	Gleuwitz, R.	CELL	113	Godinez, J.L.	CHED	1709
Givens, R.S.	CHED	1747	Glezakou, V.	CATL	216	Godinez, J.L.	CHED	1922
Givens, R.S.	ORGN	313	Glezakou, V.	CATL	541	Godinez, S.	POLY	42
Gjoka, X.	BIOT	312	Glezakou, V.	COLL	143	Godman, N.	POLY	544
Gjoka, X.	BIOT	384	Glezakou, V.	COMP	122	Godman, N.	POLY	631
Gkoutos, G.	ENVR	518	Glezakou, V.	ENFL	235	Godula, K.	BIOL	165
Gladhill, E.	INOR	928	Glezakou, V.	ENFL	319	Godula, K.	BIOL	318
Gladly-Croue, J.	ENVR	523	Glezakou, V.	ENVR	756	Godula, K.	CARB	54
Gladysz, J.A.	INOR	329	Glezakou, V.	PHYS	233	Godwin, W.	MEDI	67
Gladysz, J.A.	CATL	162	Glick, H.	CHED	1430	Godwin, W.	MEDI	68
Glaeser, R.	CATL	213	Glick, M.	COMP	165	Goedecker, S.	CATL	74
Glaeser, R.	CATL	266	Glisson, K.C.	ORGN	286	Goedhart, C.S.	HIST	45

Goekjian, P.	CARB	63	Goldberg, D.P.	INOR	635	Gomez, E.	POLY	594
Goel, A.	COLL	540	Goldberg, D.	ENVR	157	Gomez, E.	POLY	667
Goel, A.	GEOC	149	Goldberg, I.	POLY	637	Gomez, E.	POLY	714
Goel, E.	ANYL	454	Goldberg, J.M.	INOR	125	Gomez, E.	POLY	716
Goel, G.	BIOT	430	Goldberg, J.M.	CATL	208	Gomez, E.	POLY	768
Goel, G.	BIOT	431	Goldberg, J.M.	CATL	465	Gomez, E.	POLY	771
Goel, G.	BIOT	490	Goldberg, J.M.	INOR	1268	Gomez, E.	POLY	772
Goel, G.	PMSE	210	Goldberg, K.I.	CATL	208	Gomez, T.	CHED	529
Goel, H.	ENVR	706	Goldberg, K.I.	INOR	268	Gomez, V.	POLY	19
Goel, H.	PHYS	603	Goldberg, K.I.	INOR	438	Gomez Gualdrón, D.	COMP	61
Goelitz, P.K.	HIST	33	Goldberg, K.I.	INOR	441	Gomez Gualdrón, D.	I&EC	70
Goeltz, J.C.	CHED	2027	Golden, K.	MEDI	270	Gomez Gualdrón, D.	I&EC	142
Goeltz, J.C.	PHYS	451	Golder, M.	POLY	113	Gomez-Gualdrón, D.	ENFL	492
Goerke, A.	BIOT	505	Golder, M.	POLY	315	Gomez Hoyos, C.	CELL	343
Goerl, K.	CHED	1143	Golder, M.	POLY	633	Gómez Maldonado, D.	CELL	83
Goerling, A.	PHYS	142	Golderos-Trujillo, C.D.	CHED	1804	Gómez-Maldonado, D.	CELL	385
Goettel, J.T.	FLUO	2	Goldfarb, J.L.	ENVR	35	Gómez-Monedero, B.	CATL	45
Goetz, J.	POLY	505	Goldfarb, J.L.	ENVR	159	Gómez-Velázquez, L.	CATL	452
Goetzke, W.	MEDI	118	Goldman, A.S.	CATL	141	Gomis, J.F.	BIOT	560
Goff, D.	CELL	343	Goldman, A.S.	I&EC	77	Gompa, T.P.	INOR	1142
Goff, G.	INOR	1146	Goldman, E.	ORGN	432	Gomperts, R.	COMP	384
Goff, S.	CHED	1869	Goldman, L.	CHED	1963	Goncalves, R.	CHED	1825
Goforth, R.	BIOL	82	Goldman, T.	POLY	409	Goncalves, R.	POLY	471
Goforth, S.K.	CHED	2025	Goldman, T.	POLY	546	Gondal, A.N.	ENFL	381
Gogarnoiu, E.	CHED	1872	Goldsmith, B.R.	CATL	170	Gonell, S.	INOR	667
Gogotsi, Y.	ENFL	103	Goldsmith, C.	INOR	392	Gonella, G.	ANYL	402
Gogotsi, Y.	ENFL	488	Goldsmith, C.	INOR	898	Gong, A.	MEDI	134
Gogotsi, Y.	GEOC	26	Goldsmith, C.R.	INOR	62	Gong, A.	CELL	77
Gogotsi, Y.	GEOC	49	Goldsmith, M.A.	MEDI	277	Gong, H.	ANYL	7
Gogotsi, Y.	MPPG	18	Goldsmith, M.R.	MEDI	84	Gong, H.	MEDI	6
Goh, G.	COMP	109	Goldsmith, R.H.	PHYS	647	Gong, H.	MEDI	36
Goh, H.	BIOT	256	Goldson-Barnaby, A.	AGFD	61	Gong, H.	MEDI	109
Goh, T.	INOR	1088	Goldwyn, H.J.	PHYS	77	Gong, H.	MEDI	297
Gohari, Z.	ENVR	640	Golen, J.A.	INOR	83	Gong, H.	COLL	245
Gohlke, H.	COMP	39	Golitsyn, Y.	POLY	134	Gong, H.	PMSE	446
Gohlke, H.	COMP	138	Golius, A.	COMP	208	Gong, J.P.	POLY	609
Goi, Y.	CELL	27	Gollapudi, A.	MEDI	92	Gong, K.	COMP	371
Goicochea-Alvarado, C.	CHED	1807	Gollapudi, A.	MEDI	93	Gong, K.	ANYL	263
Goins, C.M.	CHED	268	Golod, A.	CHED	747	Gong, K.	ENFL	314
Gois, P.M.	MEDI	292	Golotvin, S.	ANYL	25	Gong, L.	PMSE	293
Gokcan, H.	COMP	270	Goloverda, G.Z.	CHED	1586	Gong, X.	ANYL	195
Gokcan, H.	COMP	431	Golovin, K.	PMSE	520	Gong, Y.	CATL	343
Gokhale, V.	COMP	140	Goltz, M.N.	ENVR	22	Gong, Y.	ENFL	377
Gokhale, V.	MEDI	147	Golub, O.	BIOL	39	Gong, Y.	MEDI	75
Goklen, K.E.	BIOT	342	Gomaa, A.	ENFL	233	Gong, Z.	COLL	668
Goklen, K.E.	BIOT	388	Gomes, M.	GEOC	134	Gonsior, M.	ENVR	228
Goklen, K.E.	BIOT	542	Gomes, M.	CHED	1214	Gonsior, M.	ENVR	282
Gokturk, E.	POLY	659	Gomes Rodrigues, D.	ORGN	698	Gonsior, M.	ENVR	310
Gokus, T.	ANYL	457	Gomes Souza, F.	PMSE	270	Gonzales, B.V.	ANYL	83
Gokus, T.	CELL	339	Gomes Souza, F.	PMSE	434	Gonzalez, A.G.	CARB	63
Gokus, T.	COLL	142	Gomez, A.	CATL	430	Gonzalez, A.G.	MEDI	59
Gokus, T.	INOR	703	Gomez, A.	INOR	284	Gonzalez, A.	BIOL	8
Gokus, T.	ORGN	584	Gomez, A.	NUCL	11	Gonzalez, A.	CHED	387
Gokus, T.	POLY	73	Gomez, C.L.	COLL	415	Gonzalez, A.	CHED	1817
Goldberg, A.	CHED	854	Gomez, E.	PMSE	269	Gonzalez, B.L.	CHED	146

Gonzalez, B.L.	CHED	833	Goodrich, E.M.	BIOT	247	Gorey, T.J.	CATL	151
Gonzalez, B.L.	CHED	2036	Goodrich, E.M.	BIOT	277	Gorham, J.M.	COLL	653
Gonzalez, B.	COMP	299	Goods, J.	I&EC	114	Gorham, J.M.	ENVR	87
Gonzalez, D.	ANYL	205	Goodson, A.	PMSE	177	Gorham, J.M.	PMSE	34
Gonzalez, D.	ANYL	206	Goodson, A.	PMSE	363	Gori-Giorgi, P.	PHYS	317
Gonzalez, D.	ANYL	211	Goodson, A.	PMSE	602	Gorimbo, J.	CATL	526
Gonzalez, E.	POLY	472	Goodson, H.V.	ANYL	72	Gorina, M.	CHAS	21
Gonzalez, G.	ORGN	727	Goodson, H.V.	ENVR	407	Gorman, A.	CHED	278
Gonzalez, J.	BIOT	43	Goodson, M.	BIOT	245	Gorman, A.	CHED	1327
Gonzalez, J.A.	MEDI	81	Goodson, M.	BIOT	396	Gorney, C.	CHED	1773
Gonzalez, K.E.	CHED	1424	Goodwill, J.	ENVR	355	Goronzy, D.P.	COLL	686
Gonzalez, K.	INOR	931	Goodwin, A.P.	COLL	545	Goronzy, D.P.	PHYS	496
Gonzalez, L.Y.	CHED	303	Goodwin, D.	PMSE	588	Gorr, I.	BIOT	131
Gonzalez, L.	CATL	148	Goodwin, D.G.	ENVR	87	Gorske, B.C.	ORGN	127
Gonzalez, L.	BIOT	296	Goodwin, N.C.	ORGN	307	Gorske, B.C.	ORGN	688
Gonzalez, L.	BIOT	310	Goodwine, C.	BIOT	1	Gorske, B.C.	ORGN	725
Gonzalez, M.	ORGN	221	Goodwine, C.	BIOT	539	Gorski, C.	GEOC	249
Gonzalez, M.	INOR	1399	Goos, A.G.	INOR	313	Gorski, C.	GEOC	253
Gonzalez, M.I.	INOR	32	Gopalakrishnan, S.	BIOT	279	Gorski, C.	GEOC	254
Gonzalez, M.I.	INOR	621	Gopalakrishnan, S.	BIOT	281	Gorski, C.	GEOC	269
Gonzalez, M.I.	INOR	1218	Gopalan, P.	BIOT	124	Gorski, J.	MEDI	92
Gonzalez, P.	ORGN	70	Gopalan, P.	PMSE	217	Gorski, J.	MEDI	93
Gonzalez, P.	ORGN	424	Gopalan, P.	PMSE	382	Gorti, U.	PHYS	364
Gonzalez, R.	CELL	230	Gopalan, P.	PMSE	576	Gorti, U.	PHYS	541
Gonzalez, R.	CELL	423	Gorb, L.	COMP	208	Goryunov, G.P.	INOR	487
Gonzalez, Y.T.	COLL	770	Gorbachevskiy, M.V.	COLL	743	Gosavi, A.A.	CATL	424
González del Campo, M.	PMSE	152	Gord, J.R.	PHYS	507	Gosavi, A.A.	ENVR	761
Gonzalez del Rio, B.	PHYS	98	Gord, J.	YCC	19	Gosavi, A.A.	I&EC	66
González-Espinoza, C.	PHYS	273	Gorden, A.E.	INOR	1014	Gosciniak, K.B.	CHED	6
González-Espinoza, C.	PHYS	569	Gorden, A.E.	INOR	1047	Gosciniak, K.B.	CHED	1799
Gonzalez Gomez, R.	INOR	171	Gorden, J.D.	CHED	1199	Gospodarek, A.	BIOT	134
González-González, K.	CHED	1264	Gorden, J.D.	INOR	392	Goss, G.	GEOC	152
González-López, M.L.	CHED	1875	Gorden, J.D.	INOR	1014	Goss, V.	BIOT	401
Gonzalez Martinez, M.	CELL	221	Hordeyeva, K.	CELL	65	Goss, V.	CHED	758
González Mederos, A.	CHED	1830	Gordon, B.	COLL	395	Gosting, S.	POLY	241
González-Medina, M.	COMP	143	Gordon, B.	COLL	787	Goswami, O.	GEOC	191
Gonzalez-Ponce, K.	CHED	158	Gordon, E.P.	COLL	206	Goswami, S.	INOR	1334
Gonzalez Solveyra, E.	PHYS	334	Gordon, J.	MEDI	51	Goto, H.	POLY	489
Gonzalo, E.	ENFL	305	Gordon, J.C.	INOR	1084	Gotoh, H.	COMP	313
Good, G.N.	CHED	1647	Gordon, M.S.	COMP	213	Gottfried, A.C.	CHED	163
Goodacre, S.	MEDI	7	Gordon, M.S.	COMP	280	Gottfried, J.	COLL	193
Goodell, J.R.	CHED	1679	Gordon, M.S.	COMP	347	Gottfried, J.	COLL	377
Gooding, J.	CHED	1531	Gordon, M.S.	COMP	388	Gottfried, J.	PMSE	503
Goodman, E.	CATL	37	Gordon, M.S.	NUCL	89	Gottlieb, L.	BIOT	106
Goodman, E.	CATL	464	Gordon, M.S.	PHYS	40	Gotwals, A.	CHED	172
Goodman, E.	COLL	593	Gordon, M.S.	PHYS	355	Gouadar, C.	BIOT	109
Goodman, E.D.	CATL	231	Gordon, M.S.	PHYS	358	Gough, S.	BIOT	82
Goodman, E.D.	CATL	461	Gordon, M.S.	PHYS	465	Goulas, K.	CATL	357
Goodman, J.A.	ORGN	698	Gordon, V.	COLL	101	Goulbourne, C.	INOR	1371
Goodman, K.R.	CATL	154	Gordon, W.O.	CATL	296	Gould, H.	ORGN	467
Goodman, S.	ENVR	645	Gordon, W.O.	CATL	297	Gould, I.R.	COMP	243
Goodman, S.	INOR	581	Gordon, W.O.	CATL	298	Goulette, T.	AGFD	230
Goodnough, J.A.	CHED	418	Gordon, W.O.	CATL	404	Goulian, M.	COLL	12
Goodpaster, J.	CATL	29	Gordon, W.O.	CATL	450	Gounder, R.	CATL	356
Goodrich, E.M.	BIOT	163	Gordon, Z.	INOR	620	Gounder, R.	I&EC	54

Gounder, R.	I&EC	89	Graham, A.	CHED	996	Grattan, T.	MEDI	335
Gourdin, G.	POLY	141	Graham, B.	POLY	115	Gratton, E.	BIOL	40
Gourdon, C.	CELL	221	Graham, B.	CHED	1814	Grau-Atienza, A.	CATL	347
Gourley, B.L.	YCC	3	Graham, D.E.	GEOC	44	Graugnard, E.D.	CHED	1281
Gourley, B.L.	YCC	8	Graham, D.	CHED	619	Graul, T.	ANYL	414
Govind, N.	COLL	59	Graham, E.	BIOL	162	Gravel, S.	ORGN	228
Govind, N.	COMP	162	Graham, G.	CATL	231	Gravelle, S.J.	CHED	638
Govindan, R.	MEDI	324	Graham, J.	PHYS	425	Gravelle, S.J.	CHED	1718
Govindan, R.	MEDI	330	Graham, J.O.	CHED	1504	Gravelle, S.J.	CHED	1719
Govindasamy, S.	ORGN	678	Graham, M.A.	MEDI	293	Graves, A.	INOR	361
Govorov, A.O.	PHYS	241	Graham, M.	PHYS	60	Gray, C.	ENVR	330
Goward, G.R.	POLY	249	Graham, T.	COLL	59	Gray, D.G.	CELL	30
Goward, G.R.	POLY	527	Graham, T.	COLL	298	Gray, D.G.	CELL	136
Gowda, A.S.	INOR	1307	Graham, T.	GEOC	105	Gray, D.G.	CELL	196
Gowtham, Y.	BIOT	279	Graham, U.	ENFL	292	Gray, E.	CHED	105
Gowtham, Y.	BIOT	281	Grailot, A.	POLY	205	Gray, G.	INOR	1108
Goyal, N.	CHED	1171	Gramigna, K.M.	INOR	710	Gray, H.B.	INOR	448
Goyal, N.	CHED	1215	Gramigna, K.M.	INOR	989	Gray, H.B.	INOR	464
Goyal, N.	CHED	1227	Gramigna, K.M.	INOR	1388	Gray, H.B.	INOR	533
Goyal, N.	CHED	1234	Gramm, J.D.	COMP	274	Gray, H.B.	INOR	563
Goyal, N.	CHED	1246	Granados Focil, S.	POLY	323	Gray, J.T.	CATL	133
Goyal, N.	MEDI	394	Granberg, H.	CELL	171	Gray, J.	AGFD	156
Goyal, P.	MEDI	319	Granberg, H.	CELL	338	Gray, J.	CHED	1191
Graanberg, A.	BIOT	285	Granberg, H.	CELL	354	Gray, J.	INOR	186
Graanberg, A.	BIOT	291	Grande, R.	CELL	98	Gray, J.	INOR	584
Graanberg, A.	BIOT	379	Grandinetti, P.J.	GEOC	209	Gray, J.	INOR	902
Graanberg, A.	BIOT	544	Grandy, S.	GEOC	35	Gray, K.A.	CATL	424
Grabias, K.A.	CHED	1789	Grangeon, S.	GEOC	59	Gray, K.A.	ENVR	240
Grabnic, T.	CATL	152	Grangeon, S.	GEOC	160	Gray, K.A.	ENVR	761
Grabow, L.	CATL	197	Granier, M.	INOR	764	Gray, L.	CHED	523
Grabow, L.	CATL	357	Granite, E.J.	I&EC	122	Gray, M.	CATL	288
Grabow, L.	CATL	506	Grannas, A.M.	ENVR	490	Gray, N.R.	WCC	10
Grabow, L.	ENVR	449	Granqvist, N.	BIOT	398	Gray, P.J.	ANYL	3
Grabow, L.	INOR	292	Grant, A.	ENVR	536	Gray, P.J.	ANYL	36
Grabowski, J.P.	CHED	1417	Grant, A.M.	PMSE	569	Gray, S.E.	POLY	126
Grace, D.N.	CHED	950	Grant, A.M.	POLY	258	Gray, S.E.	POLY	575
Grace, D.N.	CHED	964	Grant, A.M.	POLY	276	Gray, S.	ENVR	725
Grace, D.N.	ENVR	519	Grant, C.	GEOC	45	Graybill, A.	CHED	1461
Grace, I.	COLL	112	Grant, E.R.	ANYL	98	Graybill, A.	CHED	1472
Grace, I.	COLL	413	Grant, J.S.	COLL	788	Grayson, M.	INOR	1226
Graceffa, R.	MEDI	3	Grant, J.M.	INOR	993	Grayson, S.M.	CHED	2107
Gracheva, N.	NUCL	8	Grant, O.C.	BIOL	102	Grayson, S.M.	HIST	7
Gracia Colon, R.	CHED	1804	Grant, P.M.	NUCL	71	Grayson, S.M.	PMSE	92
Graczyk, P.P.	MEDI	90	Grant, R.	MEDI	127	Grayson, S.M.	PMSE	109
Grady, B.P.	COLL	83	Grant, S.	ENVR	94	Grayson, S.M.	PMSE	150
Grady, B.P.	COLL	228	Granvogel, M.	AGFD	114	Grayson, S.M.	PMSE	198
Graetz, J.A.	ENFL	275	Granvogel, M.	AGFD	205	Grayson, S.M.	PMSE	335
Graf, R.	POLY	65	Grapperhaus, C.	INOR	960	Grayson, S.M.	PMSE	366
Graf, R.	POLY	671	Grassian, V.H.	CATL	242	Grayson, S.M.	PMSE	383
Graff, A.H.	BIOL	58	Grassian, V.H.	CHED	233	Grayson, S.M.	PMSE	386
Graffam, M.	ENVR	457	Grassian, V.H.	CHED	461	Grayson, S.M.	PMSE	419
Graft, S.L.	CHED	939	Grassian, V.H.	COLL	280	Grayson, S.M.	PMSE	426
Grafton, L.	CHED	547	Grassian, V.H.	COLL	699	Grayson, S.M.	PMSE	551
Graham, A.	CHED	901	Grassian, V.H.	ENFL	510	Grayson, S.M.	PMSE	552
Graham, A.	CHED	995	Grassian, V.H.	I&EC	155	Grayson, S.M.	POLY	283

Grayson, S.M.	POLY	406	Greene, G.	ORGN	589	Gripenburg, J.C.	BIOT	195
Grayson, S.M.	POLY	408	Greene, L.H.	BIOL	244	Gripenburg, J.C.	BIOT	198
Grayson, S.M.	POLY	411	Greene, L.H.	COMP	86	Gripenburg, J.C.	BIOT	464
Grazioli, G.	COMP	81	Greene, L.H.	COMP	353	Gries, T.W.	INOR	320
Greathouse, J.A.	CATL	406	Greenhalgh, P.	BIOT	273	Griesser, T.	CELL	296
Greathouse, J.A.	GEOC	28	Greening, S.	CHED	2114	Griffin, C.	CHED	1467
Greathouse, J.A.	INOR	498	Greenlee, L.F.	ENVR	132	Griffin, C.	CHED	1470
Greaves, T.L.	PHYS	67	Greenlee, L.F.	MPPG	13	Griffin, C.	CHED	1471
Grecco, A.	BIOT	296	Greenlee, L.F.	PRES	4	Griffin, G.B.	CHED	1787
Greco, N.J.	CHED	549	Greenman, K.M.	PMSE	62	Griffin, J.	CATL	424
Greco, M.N.	INOR	1240	Greenwood, O.	CHED	815	Griffin, J.	ENVR	761
Green, A.	MEDI	69	Greenwood II, J.	BIOT	295	Griffin, J.	MEDI	232
Green, B.	PMSE	509	Greer, A.	PHYS	662	Griffin, J.R.	ORGN	596
Green, B.	POLY	98	Greer, J.R.	POLY	84	Griffin, J.	BIOL	14
Green, D.	ANYL	413	Greer, S.M.	INOR	710	Griffin, K.	CHED	661
Green, D.B.	ANYL	145	Greer, S.	CHED	1198	Griffin, M.	CATL	390
Green, D.B.	INOR	227	Greer, S.	CHED	1245	Griffin, M.	CATL	391
Green, J.R.	ORGN	90	Greer, S.	CHED	1917	Griffin, R.J.	COLL	594
Green, J.R.	ORGN	160	Gregersen, P.L.	MEDI	223	Griffin, R.J.	COLL	753
Green, K.N.	CHED	1846	Gregoire, J.	ENFL	244	Griffin, S.	MEDI	41
Green, K.N.	INOR	586	Gregoire, J.	INOR	1058	Griffin-Hare, R.	INOR	185
Green, K.	INOR	1277	Gregoire, J.	PMSE	80	Griffith, A.L.	INOR	706
Green, M.	COLL	649	Gregorio, N.E.	CHED	2204	Griffith, D.	CHED	1561
Green, M.	COLL	770	Gregory, A.	ORGN	170	Griffith, D.R.	ENVR	175
Green, M.J.	CELL	194	Gregory, B.W.	CHED	443	Griffith, D.R.	ENVR	227
Green, M.J.	CHAS	3	Gregory, B.W.	CHED	1410	Griffith, E.C.	CINF	77
Green, M.J.	COLL	140	Gregory, C.G.	POLY	239	Griffith, K.	CHED	717
Green, M.J.	COLL	438	Grein, T.	BIOT	40	Griffith, K.	CHED	1697
Green, M.J.	COLL	645	Grein, T.	BIOT	172	Griffith, K.	CHED	2134
Green, M.J.	INOR	815	Grein, T.	BIOT	315	Griffith, W.	POLY	645
Green, M.	INOR	1133	Greiner, A.	PMSE	141	Griffiths, H.D.	AGFD	192
Green, M.	MEDI	14	Gremillion, A.	INOR	1018	Griffiths, P.	COLL	86
Green, N.S.	CHED	363	Grenader, K.	PHYS	327	Griffiths, P.R.	PMSE	292
Green, N.S.	CHED	604	Grennell, J.	CHED	124	Griffiths-Jones, C.	MEDI	278
Green, R.	INOR	310	Grenning, A.J.	ORGN	256	Griggs, C.	CHED	654
Green, S.A.	ANYL	337	Grenning, A.J.	ORGN	727	Griggs, C.S.	PRES	4
Green, S.	ANYL	178	Grenning, A.J.	ORGN	728	Griggs, L.	ORGN	707
Green, S.	MEDI	244	Greskovich, K.M.	CHED	1576	Grigoreva, D.	I&EC	161
Green, W.H.	CATL	171	Greskovich, K.M.	INOR	783	Grigoriadis, D.E.	MEDI	280
Green, Z.	PHYS	285	Greulich, K.	PMSE	503	Grigsby, C.	ANYL	104
Greenbaum, S.	POLY	317	Grewe, P.	PHYS	570	Grillo, M.	BIOT	203
Greenbaum, S.	ANYL	256	Grey, J.K.	PHYS	128	Grillo, M.	CHED	753
Greenberg, M.M.	ORGN	272	Grey, J.K.	PHYS	181	Grim, S.	GEOC	134
Greenberg, M.	INOR	1380	Grey, J.K.	PHYS	547	Grima, T.	CELL	231
Greenberg, M.	PHYS	562	Greytak, A.B.	COLL	136	Grimaud, N.	CHED	1883
Greenbowe, T.J.	CHED	78	Greytak, A.B.	COLL	367	Grimes, D.	PHYS	110
Greenbowe, T.J.	CHED	230	Greznik, A.	CHED	745	Grimes, K.	ENVR	77
Greenbowe, T.J.	CHED	1939	Gribik, C.	CHED	618	Grimm, C.C.	AGFD	72
Greene, A.F.	INOR	508	Grice, A.	CHED	749	Grimm, C.C.	AGFD	76
Greene, A.F.	PMSE	279	Grice, K.A.	INOR	17	Grimm, C.C.	AGFD	77
Greene, A.F.	PMSE	350	Grice, K.A.	MEDI	110	Grimm, J.	NUCL	61
Greene, A.F.	POLY	273	Griebenow, K.	ORGN	729	Grimme, S.	PHYS	608
Greene, A.F.	POLY	413	Grieco, C.	ENFL	4	Grinevich, D.	ANYL	37
Greene, A.F.	POLY	508	Grieco, C.	ENFL	28	Grinnell, C.	MEDI	341
Greene, A.F.	POLY	509	Griep, M.H.	INOR	194	Grinstead, J.	CHED	1170

Grish, V.	BIOT	316	Grove, N.P.	CHED	807	Grundy, W.	PHYS	529
Grissom, T.	CATL	296	Grove, N.P.	CHED	808	Grune, E.	PMSE	326
Grissom, T.	ORGN	462	Grove, N.P.	CHED	2193	Gruner, S.M.	INOR	1372
Griswold, E.	CHED	911	Grover, M.	PMSE	261	Grunlan, J.C.	PMSE	47
Griswold, O.	INOR	368	Grover, M.	PMSE	462	Grunlan, J.C.	PMSE	52
Griswold, O.	INOR	369	Grover, N.	BIOT	522	Grunlan, J.C.	PMSE	118
Grizer, C.	CHED	769	Groves, C.	CINF	78	Grunlan, J.C.	PMSE	424
Grochala, W.	FLUO	22	Groves, J.T.	COLL	544	Grunlan, M.	POLY	610
Grochala, W.	PHYS	639	Groves, J.T.	CATL	465	Grusenmeyer, T.A.	INOR	706
Groendyke, B.J.	CHED	1363	Groves, J.T.	INOR	460	Grushow, A.	CHED	80
Groenenboom, G.C.	PHYS	135	Groves, J.T.	INOR	1268	Grushow, A.	CHED	861
Groenenboom, M.	CATL	467	Groves, M.	PHYS	460	Grushow, A.	CHED	2082
Groenevelt, J.M.	CARB	64	Groves, M.	CATL	351	Grushow, A.	CHED	2139
Groenevelt, J.M.	CHED	1855	Groves, M.	COMP	53	Gruszka, A.	CHED	1867
Groenonboom, M.	CATL	124	Groysman, S.	INOR	488	Gruzd, A.	COLL	756
Groenonboom, M.	INOR	17	Grubb, M.F.	ORGN	303	Gryczynski, I.	CHED	399
Gröning, J.	INOR	226	Grubbe, W.	BIOT	155	Grygorenko, O.	ORGN	344
Gronke, R.	BIOT	356	Grubbs, E.	CHED	1578	Grzelczak, M.	COLL	500
Grönlund, S.	BIOT	544	Grubbs, R.B.	POLY	710	Grønli, M.	ENFL	14
Gronroos, T.	CELL	404	Grubbs, R.H.	BIOT	57	Gschneidner, T.	COLL	491
Grooms, A.	ENVR	377	Grubbs, R.H.	CATL	209	Gu, B.	GEOC	44
Grooms, G.	ORGN	46	Grubbs, R.H.	ORGN	55	Gu, B.	GEOC	111
Grootenhuis, P.	MEDI	228	Grubbs, R.H.	PMSE	163	Gu, J.	POLY	777
Groover, A.D.	CHED	690	Grubbs, R.H.	POLY	84	Gu, J.	BIOT	305
Gros, M.	AGFD	209	Grubbs, W.T.	COMP	290	Gu, J.	CELL	432
Grosdemange-Billiard, C.	CHED	1579	Grubel, K.	INOR	863	Gu, J.	ENFL	402
Grosdemange-Billiard, C.	CHED	1666	Gruber, D.	BIOT	506	Gu, L.	MEDI	176
Groso, E.J.	ORGN	531	Gruber, M.M.	ANYL	184	Gu, M.	ANYL	321
Gross, A.	CATL	144	Grudnik, P.	MEDI	276	Gu, M.	ANYL	326
Gross, E.	PHYS	267	Grudt, R.O.	COLL	53	Gu, M.	ANYL	356
Gross, E.	CATL	129	Gruebele, M.	ANYL	275	Gu, M.	INOR	664
Gross, E.	CATL	203	Gruebele, M.	COLL	630	Gu, M.	AGFD	109
Gross, G.	CELL	300	Gruebele, M.	COLL	633	Gu, Q.	COLL	271
Gross, K.	ENFL	395	Gruenwald, M.	PHYS	11	Gu, X.	PMSE	91
Gross, L.	CHED	2081	Grulke, C.	ANYL	28	Gu, X.	POLY	309
Gross, L.	CHED	1924	Grulke, C.	ANYL	387	Gu, X.	POLY	516
Gross, L.	ENFL	462	Grulke, C.	CINF	15	Gu, X.	POLY	545
Gross, M.L.	ANYL	150	Grulke, C.	CINF	19	Gu, X.	POLY	715
Gross, M.L.	ANYL	368	Grulke, C.	CINF	60	Gu, X.	PMSE	588
Gross, T.	INOR	490	Grulke, C.	CINF	83	Gu, X.	COLL	362
Grossarth, S.N.	CHED	280	Grulke, C.	CINF	86	Gu, Y.	PMSE	281
Grosshans, S.	BIOT	135	Grulke, C.	CINF	87	Gu, Y.	PMSE	537
Grosshans, S.	BIOT	474	Grulke, C.	CINF	106	Gu, Y.	POLY	76
Grossman, J.	WCC	4	Grulke, C.	CINF	110	Gu, Y.	POLY	93
Grosso, B.	CHED	543	Grulke, C.	ENVR	359	Gu, Y.	POLY	140
Grosso Giordano, N.	CATL	493	Grulke, C.	ENVR	416	Gu, Y.	POLY	267
Grosso-Giordano, N.G.	CATL	383	Grulke, C.	ENVR	417	Gu, Y.	POLY	287
Grossutti, M.	PMSE	218	Grulke, C.	ENVR	422	Guadalupe, K.	PHYS	432
Grossutti, M.	PMSE	219	Grulke, C.	ENVR	731	Guagnano, V.	MEDI	243
Grote, D.L.	MEDI	381	Grumbles, W.M.	CHED	518	Guan, C.	BIOL	263
Grotjahn, D.B.	INOR	867	Grumbles, W.M.	CHED	922	Guan, H.	CHED	1035
Grotzinger, J.	GEOC	134	Grumstrup, E.	PHYS	71	Guan, H.	CHED	1538
Groult, H.	FLUO	37	Grumstrup, E.	PHYS	458	Guan, H.	MEDI	92
Grounds, O.	CHED	335	Grundler, J.	POLY	315	Guan, H.	MEDI	93
Grounds, O.	CHED	1696	Grundy, J.	ENVR	674	Guan, H.	AGFD	86

Guan, H.	ENVR	616	Guichard, B.	ENFL	291	Gunsch, M.	CHED	445
Guan, J.	INOR	861	Guichard, B.	ENFL	523	Gunter, A.J.	BIOL	91
Guan, R.	BIOL	264	Guidetti, G.	CELL	66	Gunter, A.J.	CHED	659
Guan, W.	ORGN	474	Guidetti, G.	CELL	68	Gunther, S.	INOR	879
Guan, W.	ORGN	102	Guidetti, G.	CELL	71	Gunther, S.	INOR	1298
Guan, X.	ENVR	387	Guidez, E.	COMP	388	Gunther, T.	GEOC	195
Guan, X.	ANYL	360	Guifarro, C.R.	INOR	873	Gunther, T.	GEOC	212
Guan, X.	ANYL	362	Guifarro, C.R.	INOR	1085	Gunther, T.	GEOC	213
Guan, X.	ANYL	426	Guifarro, C.R.	INOR	1304	Gunther, W.	CATL	414
Guan, Y.	ORGN	234	Guigo, N.	CELL	425	Guo, A.	ENVR	50
Guan, Y.	ORGN	237	Guigo, N.	PMSE	187	Guo, B.	PMSE	104
Guan, Z.	BIOL	313	Guillaneuf, Y.	POLY	467	Guo, B.	ENVR	544
Guan, Z.	PMSE	562	Guillaneuf, Y.	POLY	698	Guo, C.	POLY	727
Guarina, S.	ORGN	156	Guillaudeu, S.J.	POLY	33	Guo, C.	CHED	286
Guazzelli, L.	ANYL	258	Guillet, G.	POLY	126	Guo, D.	CHED	1724
Gubaev, K.	COMP	79	Guin, D.	COLL	633	Guo, E.	BIOT	178
Guchhait, S.K.	ORGN	41	Guin, T.	POLY	631	Guo, F.	CELL	207
Guchhait, S.K.	ORGN	48	Guiton, B.	INOR	1231	Guo, H.	COLL	642
Gucik, M.L.	PMSE	240	Gukasyan, H.	MEDI	268	Guo, H.N.	POLY	506
Guckavan, M.	CHED	803	Gulati, P.	AGFD	234	Guo, H.	CHED	1331
Guda, B.	MEDI	67	Gulder, T.	ORGN	278	Guo, H.	INOR	1243
Guddneppanavar, R.	MEDI	66	Gulder, T.	ORGN	674	Guo, H.	PHYS	107
Gude, V.	CHED	2004	Guldi, D.	INOR	497	Guo, H.	BIOT	69
Gude, V.	ENFL	94	Gulick, A.M.	MEDI	101	Guo, H.	BIOT	184
Gude, V.	ENFL	459	Gulick, D.	MEDI	231	Guo, J.	CATL	412
Gude, V.	ENFL	526	Gulla, E.	CHED	1263	Guo, J.	ENFL	441
Gude, V.	ENFL	550	Gulsevin, A.	MEDI	349	Guo, J.	CELL	399
Gudejko, M.	CHED	1597	Gultneh, Y.	ANYL	137	Guo, J.	ENFL	147
Gudhka, R.B.	BIOT	99	Gumidyala, A.	CATL	362	Guo, J.	ENFL	499
Gudhka, R.B.	BIOT	322	Gumidyala, A.	ENFL	264	Guo, J.	ENFL	415
Gudmundsdottir, A.D.	ORGN	519	Gumina, B.	CELL	384	Guo, J.	MEDI	35
Guduru, S.	ORGN	340	Gummagatta, P.	CHED	845	Guo, J.	MEDI	178
Guduru, S.	ORGN	671	Gummuluru, S.	PHYS	615	Guo, J.	MEDI	199
Guégan, P.	POLY	564	Gunaratne, P.	COLL	229	Guo, J.	MEDI	363
Guenaga, J.	CHED	1267	Gunasekaran, S.	COLL	115	Guo, L.	ENVR	606
Guenard, R.	BIOT	78	Gunathilake, C.	CELL	434	Guo, M.	ENFL	208
Guerchais, V.	INOR	1316	Gunathilake, C.	I&EC	100	Guo, M.	ENFL	520
Guerin, D.	CELL	332	Gunatilleke, W.	INOR	523	Guo, M.	CATL	288
Guerrero, M.	MEDI	110	Gunawan, A.	CHED	341	Guo, P.	BIOL	184
Guerrini, L.	COLL	580	Gunawardana, C.A.	INOR	572	Guo, P.	BIOL	190
Guertin, S.L.	INOR	409	Gunawardana, C.A.	INOR	1337	Guo, P.	CARB	28
Guerzoni, L.	POLY	369	Gunawardhana, R.	PMSE	340	Guo, P.	MEDI	365
Guerzoni, L.P.	POLY	337	Gunaydin-Sen, O.	INOR	828	Guo, R.	BIOL	206
Guetzloff, M.B.	CHED	1357	Gunaydin-Sen, O.	INOR	1160	Guo, R.	PMSE	254
Guetzloff, M.B.	CHED	1359	Gundampati, R.K.	COLL	200	Guo, S.	ENVR	741
Guetzloff, M.B.	CHED	1361	Gunduz, S.	I&EC	33	Guo, S.	BIOT	294
Guetzloff, T.F.	CHED	1357	Gunina, A.	PHYS	355	Guo, S.	BIOT	323
Guetzloff, T.F.	CHED	1359	Gunlycke, D.	CATL	403	Guo, S.	ENVR	449
Guetzloff, T.F.	CHED	1361	Gunnell, C.	CHED	823	Guo, T.	PHYS	352
Guevara, E.	ANYL	83	Gunnell, C.	CHED	1913	Guo, W.	POLY	559
Guevara, J.L.	MEDI	339	Gunnell, M.	CELL	294	Guo, W.	POLY	566
Guevarra, D.	ENFL	244	Gunnoe, T.B.	CATL	465	Guo, W.	CATL	298
Guevarra, D.	INOR	1058	Gunnoe, T.B.	INOR	700	Guo, W.	MEDI	297
Guglielmo, S.	MEDI	73	Gunnoe, T.B.	INOR	1268	Guo, X.	CATL	525
Gui, X.	INOR	578	Gunsch, M.	CHED	437	Guo, X.	ENFL	113

Guo, X.	ENFL	249	Gupton, F.	CHED	1423	Guymon, A.	PMSE	509
Guo, X.	ENFL	297	Gupton, F.	ORGN	148	Guymon, A.	POLY	35
Guo, X.	ENFL	299	Gupton, F.	ORGN	268	Guymon, A.	POLY	98
Guo, X.	ENFL	300	Gupton, F.	ORGN	454	Guymon, A.	POLY	800
Guo, X.	ENFL	301	Gupton, F.	ORGN	455	Guymon, A.	POLY	802
Guo, X.	PMSE	526	Gupton, J.T.	HIST	27	Guz, N.	POLY	260
Guo, X.	ANYL	13	Gurau, G.	ANYL	261	Guzman, A.	CHED	1805
Guo, X.	COLL	412	Gurav, H.	CATL	273	Guzman, J.	CATL	14
Guo, X.	ENFL	165	Gurinova, J.	CINF	59	Guzman, K.	CHED	1185
Guo, X.	ENFL	359	Gurinova, J.	CINF	61	Guzman, K.B.	ORGN	439
Guo, X.	PMSE	364	Gurinova, J.	MEDI	173	Guzman, L.	BIOL	296
Guo, X.	POLY	166	Gurkan, B.	PHYS	118	Guzman, S.	CHED	33
Guo, Y.	POLY	86	Gurney, R.W.	CHED	1751	Guzman Juarez, B.	POLY	13
Guo, Y.	INOR	141	Gurramkonda, C.	BIOT	184	Guzman Juarez, B.I.	POLY	531
Guo, Y.	ENFL	408	Gurtler, J.	AGFD	83	Guzman-Perez, A.	MEDI	3
Guo, Y.	ENFL	68	Gurung, K.	ENVR	744	Guzman Sosa, M.	CHED	715
Guo, Z.	CATL	439	Gurung, R.K.	ENFL	547	Gwin, P.T.	INOR	804
Guo, Z.	PMSE	142	Gurung, R.	ANYL	393	Gwyn, L.	CHED	277
Guo, Z.	PMSE	21	Guryanov, I.	PMSE	154	Gwyn, L.	CHED	734
Guo, Z.	PMSE	391	Gusa, A.	GEOC	276	Gwyn, L.	CHED	746
Gupta, A.	CHED	1029	Gust, D.	INOR	1163	Gwyn, L.	CHED	1838
Gupta, A.	ENFL	175	Gustafson, J.R.	INOR	280	Gyamfi, H.	BIOL	114
Gupta, A.	BIOT	163	Gustafson, J.	CHED	1390	Gyawali, G.	COMP	210
Gupta, A.	CELL	421	Gustafson, J.	CHED	1418	Gygi, D.	INOR	21
Gupta, A.	INOR	832	Gustafson, J.	CHED	1425	Gygi, D.	INOR	1218
Gupta, A.	MEDI	109	Gustafson, J.	MEDI	4	Ha, C.S.	PMSE	50
Gupta, B.M.	BIOT	263	Gustafson, J.	ORGN	118	Ha, D.	BIOT	404
Gupta, H.	COLL	598	Gustafson, J.	ORGN	123	Ha, G.	ENVR	711
Gupta, H.	POLY	737	Gustafson, J.	ORGN	238	Ha, L.	MEDI	388
Gupta, H.	POLY	743	Gustafson, J.	ORGN	449	Ha, M.	CATL	414
Gupta, K.	ENVR	126	Gustafson, J.	ORGN	451	Ha, S.	CATL	133
Gupta, K.	ENVR	246	Gustafson, K.	MEDI	11	Haaf, M.	CHED	1760
Gupta, K.	ENVR	672	Gustafsson, E.	CELL	293	Haag, R.	POLY	373
Gupta, M.	POLY	276	Gustafsson, S.	BIOT	338	Haagenson, D.C.	CHED	217
Gupta, M.	POLY	721	Gutarra, A.	PHYS	551	Haakansson, K.	CELL	261
Gupta, N.	BIOT	392	Gutekunst, W.R.	POLY	26	Haapanen, J.	CELL	294
Gupta, N.	COMP	199	Guth, E.	CHED	959	Haapanen, J.	COLL	690
Gupta, N.	CHED	2184	Guthausen, G.	POLY	600	Haas, B.C.	CHED	1779
Gupta, P.	COMP	235	Gutheil, W.G.	BIOL	246	Haas, C.	INOR	340
Gupta, P.	COMP	394	Gutierrez, J.	COLL	380	Haas, C.	INOR	1080
Gupta, R.	CATL	189	Gutierrez, K.	INOR	232	Haas, D.	CHED	699
Gupta, R.	INOR	1036	Gutierrez Acebo, E.	CATL	432	Haas, K.L.	CHED	2121
Gupta, R.	PMSE	174	Gutierrez-Tinoco, O.Y.	ENFL	15	Haasch, R.T.	ENFL	50
Gupta, R.	INOR	226	Gutmann, J.	POLY	145	Haase, A.A.	BIOL	80
Gupta, S.T.	BIOT	84	Gutowksi, K.E.	POLY	203	Haase, D.N.	POLY	495
Gupta, S.	INOR	418	Gutowski, M.	ENFL	494	Haataja, M.	COLL	718
Gupta, S.	INOR	809	Gutsche, N.	PMSE	247	Habarakada Liyanage, T.	ANYL	373
Gupta, S.	INOR	837	Gutsev, L.	INOR	601	Habarakada Liyanage, T.	COLL	291
Gupta, S.	INOR	843	Gutzler, A.	BIOT	513	Habarakada Liyanage, T.	COLL	576
Gupta, S.	ORGN	314	Guven Kuzey, N.	INOR	1212	Habas, S.	CATL	285
Gupta, S.	BIOL	173	Guy, M.	CATL	366	Habas, S.	CATL	384
Gupta, S.	PMSE	478	Guy, M.	CHED	546	Habas, S.	CATL	391
Gupta, S.	POLY	294	Guy, M.	CHED	582	Habas, S.	CATL	392
Gupta, S.	PHYS	565	Guy, M.	CHED	584	Habas, S.	CATL	393
Gupta, T.	CHED	170	Guy, M.	CHED	593	Habas, S.	CATL	394

Habashita, H.	MEDI	32	Hadf, R.G.	INOR	1381	Hain, T.	INOR	297
Habboush, D.A.	CHED	455	Haefner, S.C.	CHED	1149	Haines, C.A.	CHED	511
Habboush, D.A.	CHED	1073	Haefner, S.C.	INOR	992	Haines, L.G.	ENVR	425
Habelitz, S.	GEOC	46	Haensch, V.	FLUO	2	Hairston, A.R.	CHED	1191
Haber, A.L.	INOR	272	Hafner, J.H.	PHYS	333	Hairston, A.R.	INOR	186
Haber, A.L.	INOR	1185	Haga, M.	INOR	1131	Hairston, A.R.	INOR	584
Haber, H.L.	CELL	422	Hagan, T.E.	CHED	599	Hajaligol, M.	HIST	29
Haber, J.	ENFL	244	Hagan, T.E.	CHED	631	Hakala, J.	GEOC	154
Haber, J.	INOR	1058	Hageman, T.	BIOT	14	Hakim, K.A.	CHED	807
Haber, L.H.	COMP	163	Hagemann, H.	ENFL	274	Hakim, K.A.	CHED	808
Haber, L.H.	PHYS	455	Hagen, A.L.	ENVR	591	Hakk, H.	ORGN	691
Haber, L.H.	PHYS	479	Hagen, A.L.	ENVR	592	Haky, J.E.	CHED	199
Haber, L.H.	PHYS	480	Hagen, A.L.	ENVR	598	Haky, J.E.	PMSE	342
Haber, L.H.	PHYS	549	Hagen, D.	PMSE	424	Halade, G.	PMSE	456
Haber, L.H.	PHYS	649	Hagen, J.A.	ANYL	104	Halas, N.J.	COLL	759
Haberman, V.	ORGN	590	Hagen, J.A.	COLL	231	Halas, N.J.	PHYS	294
Habgood, L.G.	INOR	239	Hagen, T.J.	MEDI	381	Halasyamani, S.	PROF	33
Habib, T.	COLL	140	Hagenbach, A.	INOR	1120	Halbert, M.	CHED	713
Habibi, Y.	CELL	50	Hager, C.	PMSE	546	Haldar, K.	MEDI	76
Habibi, Y.	CELL	82	Hagerman, A.E.	AGFD	203	Halder, A.	CATL	155
Habibi, Y.	CELL	106	Hagerman, A.E.	AGFD	219	Halder, M.	PHYS	434
Habibi, Y.	CELL	107	Hagerman, A.E.	BIOL	129	Hale, M.	MEDI	208
Habibi, Y.	PMSE	482	Hagerman, M.E.	COLL	187	Hale, M.	ORGN	22
Habibi, Y.	POLY	589	Hagerman, M.E.	ENVR	613	Hales, D.A.	CHED	1693
Habib-Zadeh, F.	INOR	468	Hagerman, M.E.	ENVR	614	Hales, D.A.	CHED	1739
Habib-Zadeh, F.	INOR	1285	Hägglad-Sahlberg, S.	BIOT	373	Hales, D.A.	CHED	1741
Habicht, K.	INOR	1397	Haggett, J.	CHED	1018	Hales, L.M.	BIOT	462
Habtemichael, A.	CHED	735	Hagihara, S.	ORGN	410	Haley, A.T.	CHED	1050
Habuchi, S.	PMSE	302	Hagiwara, R.	FLUO	38	Haley, M.M.	CHED	903
Haby, T.	BIOT	427	Hagler, L.	MEDI	305	Haley, M.M.	CHED	1533
Hacaloğlu, J.	POLY	289	Haglund, P.	ENVR	474	Haley, M.M.	PROF	5
Hackel, B.J.	BIOT	498	Hagner-McWhirter, Å.	BIOT	373	Haley, R.A.	CHED	1019
Hackel, B.J.	POLY	457	Hagstrom, A.	BIOT	363	Halfen, D.T.	PHYS	587
Hackenburg, S.	CHED	1532	Hagwood, A.M.	ORGN	444	Halingten-Verville, G.A.	PHYS	564
Hacker, C.A.	COLL	476	Hahn, C.	HIST	46	Hall, C.A.	ENFL	423
Hacker, T.	BIOT	503	Hahn, C.	INOR	1096	Hall, C.A.	ENFL	424
Hackey, M.E.	CHED	1371	Hahn, C.	CATL	345	Hall, C.A.	ENFL	425
Hackey, M.E.	CHED	1892	Hahn, J.M.	ORGN	496	Hall, C.A.	ENFL	426
Hackley, V.A.	COLL	653	Hahn, P.A.	CHED	574	Hall, C.A.	ENFL	428
Hackner, E.	BIOT	47	Hahn, T.	BIOT	7	Hall, C.A.	ENFL	474
Hadad, C.M.	CHED	1651	Hahn, T.	BIOT	8	Hall, C.A.	ENFL	477
Hadad, C.M.	MEDI	62	Hahn, T.	BIOT	66	Hall, C.A.	ENFL	478
Hadad, C.M.	ORGN	223	Hahn, T.	BIOT	102	Hall, C.A.	ENFL	479
Haddad, S.	CHED	1745	Hahn, T.	BIOT	513	Hall, C.A.	ENFL	504
Haddleton, D.M.	POLY	213	Haider, M.A.	CATL	550	Hall, C.A.	ENFL	507
Hadi, P.	ENVR	564	Haider, S.	COMP	20	Hall, C.	ORGN	517
Hadi, P.	ENVR	651	Haider, S.	ENVR	360	Hall, C.	BIOL	222
Hadida-Ruah, S.S.	MEDI	250	Haider, S.W.	ENVR	32	Hall, C.	MEDI	165
Hadim, H.	COLL	616	Haiges, R.M.	FLUO	7	Hall, C.	MEDI	315
Hadjichristidis, N.	PHYS	491	Haiges, R.M.	FLUO	13	Hall, D.B.	BIOT	462
Hadjichristidis, N.	PMSE	599	Haigh, S.	GEOC	274	Hall, D.G.	MEDI	290
Hadjidemetriou, M.	COLL	89	Haigler, C.H.	CELL	249	Hall, G.S.	INOR	738
Hadjithomas, M.	BIOT	470	Hain, E.	ENVR	228	Hall, H.L.	NUCL	66
Hadler, J.A.	CHAS	4	Hain, E.	ENVR	232	Hall, H.L.	NUCL	87
Hadley, M.	CHED	223	Hain, E.R.	ENVR	512	Hall, J.	CATL	459

Hall, J.	CHED	1836	Hamad-Schifferli, K.	COLL	87	Hammarstrom, L.	INOR	1173
Hall, L.	CHED	442	Hamaker, B.	CELL	319	Hamme, A.	ORGN	450
Hall, L.	CHED	1888	Hamaker, C.	INOR	957	Hammer, B.	CATL	122
Hall, M.	CHED	523	Hamal, K.	PMSE	365	Hammer, I.	CHED	1019
Hall, M.F.	CHED	525	Hamal, P.	PHYS	549	Hammer, N.	CHED	58
Hall, M.	POLY	120	Hamal, P.	PHYS	649	Hammer, N.	CHED	837
Hall, M.	BIOT	303	Hamamoto, Y.	CATL	511	Hammer, N.	CHED	1691
Hall, M.	BIOT	309	Hamann, A.	MEDI	351	Hammer, N.	CHED	1732
Hall, M.B.	INOR	2	Hamann, L.G.	MEDI	295	Hammer, N.	CHED	1734
Hall, M.B.	INOR	108	Hamann, T.	CATL	176	Hammer, N.	CHED	1737
Hall, M.B.	INOR	271	Hamann, T.	INOR	161	Hammer, N.	CHED	1742
Hall, M.B.	INOR	329	Hamann, T.	INOR	468	Hammer, N.	CHED	1743
Hall, M.B.	INOR	331	Hamann, T.	INOR	1285	Hammer, N.	COMP	288
Hall, M.B.	INOR	373	Hamsch, S.	COLL	345	Hammer, N.	INOR	508
Hall, M.B.	INOR	513	Hamburger, S.	CHED	1352	Hammer, N.	INOR	1070
Hall, M.B.	INOR	520	Hamdan, S.M.	CATL	476	Hammer, N.	INOR	1199
Hall, M.B.	INOR	861	Hamdan, S.M.	ORGN	110	Hammer, N.	INOR	1276
Hall, M.B.	INOR	925	Hamdi, J.	ORGN	497	Hammer, N.	ORGN	292
Hall, M.B.	INOR	1358	Hamdi, S.	CELL	269	Hammer, N.	ORGN	469
Hall, M.	CATL	297	Hamdouchi, C.	MEDI	307	Hammer, N.	PHYS	527
Hall, M.	INOR	1089	Hamed, M.	CELL	171	Hammer, N.	PHYS	533
Hall, R.H.	CHED	1520	Hamel, C.M.	POLY	143	Hammer, N.	PHYS	534
Hall, S.C.	INOR	834	Hamel, J.	ENFL	356	Hammer, N.	PHYS	535
Hall, T.L.	CHED	1842	Hamelberg, D.	COMP	251	Hammer, N.	PHYS	540
Hall, T.	CHED	1190	Hamers, R.J.	CHED	555	Hammer, N.	PHYS	564
Hall, W.	CHED	2028	Hamers, R.J.	COLL	157	Hammer, N.	PHYS	658
Hallam, S.	GEOC	227	Hamers, R.J.	ENVR	654	Hammer, N.	YCC	17
Hallberg, M.	CHED	674	Hamers, R.J.	INOR	785	Hammer, N.	YCC	23
Halligan, K.M.	CHED	1457	Hamers, R.J.	PHYS	647	Hammer, S.E.	CHED	1908
Halligan, K.M.	CHED	1504	Hamers, R.J.	PROF	11	Hammer, S.E.	INOR	280
Halligan, K.M.	CHED	1950	Hamid, S.A.	COMP	18	Hammers, M.	BIOL	309
Hallinan, D.	ENFL	252	Hamilton, A.D.	BIOL	38	Hammers, M.	ORGN	447
Halling, D.B.	BIOL	8	Hamilton, A.D.	BIOL	266	Hammes-Schiffer, S.	COMP	64
Halling, M.D.	CHED	952	Hamilton, A.D.	ORGN	335	Hammes-Schiffer, S.	COMP	67
Halling, M.D.	CHED	953	Hamilton, G.	COMP	16	Hammes-Schiffer, S.	INOR	23
Halling, M.D.	CHED	955	Hamilton, H.	INOR	155	Hammes-Schiffer, S.	INOR	521
Hallmark, B.L.	ENVR	720	Hamilton, J.	GEOC	114	Hammes-Schiffer, S.	INOR	559
Hallock, J.L.	ENFL	425	Hamilton, J.	GEOC	116	Hammes-Schiffer, S.	INOR	1163
Hallock, J.L.	ENFL	426	Hamilton, M.M.	MEDI	64	Hammes-Schiffer, S.	MPPG	29
Halls, M.	PMSE	184	Hamilton, M.M.	MEDI	359	Hammick, M.R.	COLL	222
Halterman, R.L.	CHED	2037	Hamilton, P.	ORGN	590	Hammond, G.B.	INOR	698
Halverson, K.	POLY	152	Hamilton, S.K.	CHED	1792	Hammond, G.B.	ORGN	255
Halwani, M.N.	CHED	1977	Hamilton, S.K.	CHED	1828	Hammond, J.R.	PHYS	38
Ham, J.	ENVR	101	Hamilton, S.K.	POLY	473	Hammond, M.	MEDI	300
Ham, J.	ORGN	736	Hamilton, S.	PMSE	420	Hammond, P.T.	COLL	600
Hama, N.	ORGN	521	Hamilton, T.	CHED	1874	Hammond, P.T.	PMSE	60
Hama, T.	PHYS	314	Hamilton, T.D.	CHED	1584	Hammons, J.	POLY	528
Hama, T.	PMSE	29	Hamilton, T.D.	CHED	2108	Hammontree, I.	ENVR	626
Hamachi, L.	INOR	675	Hamilton, T.D.	ORGN	537	Hammoudi, N.	MEDI	120
Hamachi, L.	INOR	1380	Hamkins-Indik, T.	COLL	637	Hamon, J.	COLL	83
Hamachi, L.	INOR	1400	Hammache, S.	ENFL	87	Hamon, J.	COLL	228
Hamad, W.Y.	CELL	66	Hamman, C.	MEDI	100	Hampton, J.R.	COLL	182
Hamada, I.	CATL	511	Hammarstrom, L.	INOR	25	Hampton, J.R.	COLL	284
Hamadani, K.	BIOT	19	Hammarstrom, L.	INOR	109	Hampton, J.R.	COLL	378
Hamadani, K.	CHED	2026	Hammarstrom, L.	INOR	279	Hampton - Marcell, J.	BIOT	401

Hamrick, J.	MEDI	309	Hancock, J.C.	INOR	771	Hansen, H.	INOR	152
Hamry, S.R.	CHED	733	Hancock, R.E.	POLY	284	Hansen, J.A.	CHED	1437
Hamto, O.	PHYS	161	Hancock, W.	CHAS	47	Hansen, J.A.	CHED	1578
Han, B.	COLL	771	Hancox, U.	MEDI	244	Hansen, J.A.	CHED	1663
Han, C.	ANYL	110	Hand, S.	ENVR	216	Hansen, J.A.	ORGN	571
Han, D.	ENVR	106	Hand, S.	ENVR	774	Hansen, L.	MEDI	315
Han, D.	INOR	1392	Handa, H.	COLL	750	Hansen, M.	POLY	35
Han, E.	COLL	160	Handali, P.R.	INOR	187	Hansen, M.	POLY	247
Han, G.	CATL	352	Handford, M.	CHED	1266	Hansen, M.	POLY	248
Han, G.	INOR	1403	Handlin, L.	CHED	1557	Hansen, R.R.	CHED	1455
Han, H.	INOR	162	Handy, S.	ORGN	68	Hansen, S.J.	CHED	2112
Han, J.	COLL	537	Handy, S.	ORGN	374	Hansen, W.	ANYL	152
Han, J.	CHED	1420	Handy, S.T.	ORGN	608	Hanshaw, R.G.	SCHB	3
Han, J.	ENFL	350	Hanessian, S.	CARB	79	Hanske, J.	CARB	8
Han, J.	COLL	490	Haney, O.	ORGN	436	Hanslip, S.	BIOT	144
Han, J.	ENFL	120	Hang, M.	ENVR	654	Hansmann, B.	BIOT	280
Han, J.	ANYL	359	Hang, M.N.	CHED	555	Hanson, A.	ENVR	504
Han, J.	GEOC	64	Hango, C.	POLY	459	Hanson, A.	GEOC	139
Han, K.	CATL	171	Hanhauser, E.	ANYL	239	Hanson, C.	COLL	489
Han, K.	COLL	486	Haniff, H.	CARB	13	Hanson, C.	CHED	505
Han, L.	ENVR	171	Hanigan, D.	ENVR	88	Hanson, C.	CHED	516
Han, L.	COLL	166	Hanigan, D.	ENVR	461	Hanson, J.	I&EC	169
Han, L.	PMSE	185	Hanisch, R.J.	CINF	108	Hanson, K.	INOR	742
Han, L.	PMSE	186	Hankard, M.	CHED	982	Hanson, K.	INOR	1068
Han, L.	PMSE	231	Hanke, A.T.	BIOT	2	Hanson, K.	ORGN	9
Han, L.	PMSE	234	Hanks, C.	ORGN	557	Hanson, K.	PHYS	174
Han, L.	PMSE	495	Hanley, J.	PHYS	529	Hanson, K.	PHYS	370
Han, M.	MEDI	359	Hanlon, A.	POLY	418	Hanson, K.	PHYS	511
Han, M.	ENVR	68	Hanlon, A.	POLY	420	Hanson, L.	COLL	362
Han, O.	POLY	69	Hanlon, A.	POLY	554	Hanson, L.	COLL	763
Han, P.	ENVR	712	Hanlon, A.	POLY	570	Hanson, P.	INOR	895
Han, R.	INOR	1231	Hanna, A.	CHED	813	Hanson, P.R.	ORGN	603
Han, S.	COMP	2	Hanna, A.	CHED	1841	Hanson, R.L.	ANYL	305
Han, S.	COMP	125	Hanna, B.S.	CATL	489	Hanson, S.	INOR	116
Han, W.	CATL	306	Hanna, B.S.	INOR	76	Hantman, I.	CHAL	2
Han, W.	I&EC	112	Hanna, E.	CHED	1062	Hantman, I.	SCHB	2
Han, W.	I&EC	143	Hanna, H.	GEOC	193	Hanzly, L.	CELL	51
Han, W.	INOR	339	Hanna, J.M.	CHED	1222	Hao, B.	I&EC	138
Han, X.	ENFL	345	Hanna, M.	CHED	1428	Hao, F.	ENVR	685
Han, X.	INOR	71	Hannibal, L.	ANYL	129	Hao, J.	AGFD	14
Han, Y.	AGFD	15	Hannibal, L.	CHED	823	Hao, J.	ANYL	199
Han, Y.	AGFD	37	Hannig, C.	AGFD	18	Hao, J.	CHED	1794
Han, Y.	ENVR	153	Hannig, M.	AGFD	18	Hao, J.	CHED	1795
Han, Y.	ENVR	265	Hannigan, S.	INOR	1270	Hao, L.	COLL	664
Han, Y.	ORGN	656	Hannon, H.C.	INOR	566	Hao, M.	COMP	196
Han, Y.	COLL	490	Hannon, J.	CATL	287	Hao, N.	CELL	204
Han, Y.	COMP	22	Hanrahan, M.P.	CATL	518	Hao, N.	CELL	218
Han, Y.	INOR	1370	Hanrahan, M.P.	INOR	848	Haon, M.	CELL	417
Han, Y.	ENFL	484	Hanrahan, M.P.	INOR	1152	Happel, O.	ENVR	764
Hanamura, M.	BIOT	313	Hanrath, T.	CATL	307	Haque, F.M.	HIST	7
Hanamura, M.	BIOT	326	Hansel, T.	CHED	694	Haque, F.M.	PMSE	92
Hananel, U.	PHYS	102	Hansen, A.	BIOT	378	Haque, F.M.	PMSE	150
Hanaoka, M.	AGFD	186	Hansen, E.E.	ENFL	92	Haque, F.M.	PMSE	198
Hance, H.	CHED	1429	Hansen, G.	CHED	1851	Haque, F.M.	PMSE	335
Hancock, A.	INOR	397	Hansen, H.A.	CATL	120	Haque, F.M.	PMSE	366

Haque, F.M.	PMSE	552	Harjono, V.	CHED	715	Harris, J.M.	ANYL	204
Haque, H.	INOR	749	Harjumäki, R.	COLL	709	Harris, J.M.	ANYL	406
Haque, L.	MEDI	109	Hark, R.R.	ORGN	509	Harris, J.M.	BIOT	425
Harada, A.	PMSE	547	Harkens, E.	CHED	1177	Harris, J.M.	COLL	104
Harada, A.	POLY	441	Harki, D.A.	MEDI	38	Harris, J.M.	COLL	700
Harada, A.	POLY	442	Harki, D.A.	MEDI	258	Harris, J.	COLL	566
Harada, A.	POLY	444	Harkness, B.S.	CHED	2150	Harris, K.	POLY	33
Harada, A.	POLY	446	Harland, R.	MEDI	308	Harris, L.	CHED	1864
Harada, A.	POLY	447	Harling, J.D.	MEDI	312	Harris, M.	PHYS	516
Harada, A.	POLY	448	Harman, W.	INOR	854	Harris, M.	PMSE	351
Harada, A.	POLY	460	Harman, W.	INOR	862	Harris, M.	BIOL	21
Haranahalli, K.	CHED	1231	Harman, W.	INOR	871	Harris, M.	BIOL	22
Haranahalli, K.	MEDI	371	Harman, W.	INOR	1098	Harris, M.	BIOL	203
Haratipour, Z.	COMP	86	Harman, W.	ORGN	85	Harris, M.	COMP	237
Harb, H.	CHED	162	Harmer, A.	CINF	75	Harris, M.R.	CHED	2143
Harb, H.	NUCL	100	Harmon, C.	CHED	1543	Harris, N.	INOR	874
Harb, M.	CATL	41	Harmon, K.	GEOC	141	Harris, N.	INOR	877
Harbaugh, S.	BIOT	245	Harmon, N.M.	MEDI	372	Harris, R.	CHED	2159
Harbaugh, S.	BIOT	396	Harmon, W.	PHYS	580	Harris, R.J.	CHED	2009
Harbaugh, S.	COLL	703	Harper, D.	CHED	1259	Harris, R.J.	ORGN	135
Harber, G.M.	INOR	766	Harper, D.P.	CELL	123	Harris, S.	BIOT	440
Harbin, B.	MEDI	122	Harper, D.P.	CELL	203	Harris, T.E.	BIOL	90
Harbron, E.J.	INOR	566	Harper, D.P.	CELL	268	Harrison, A.	ENVR	633
Harcum, S.W.	BIOT	173	Harper, D.P.	CELL	350	Harrison, D.P.	INOR	238
Hardacre, C.	PHYS	662	Harper, J.K.	ORGN	376	Harrison, D.	BIOT	264
Hardcastle, F.D.	INOR	1225	Harper, M.	ENFL	158	Harrison, E.	COMP	268
Hardee, A.	CHED	517	Harper, M.	ENFL	159	Harrison, E.E.	CHED	1510
Hardelin, L.	CELL	104	Harper, M.	ENFL	162	Harrison, G.	BIOT	206
Harder, E.	COMP	379	Harper, M.	ENFL	462	Harrison, J.A.	COLL	424
Harder, E.	COMP	416	Harper, T.	ORGN	303	Harrison, K.	ENVR	75
Hardick, O.	BIOT	318	Harper-Leatherman, A.S.	CHED	433	Harrison, N.	FLUO	4
Hardie, M.	INOR	1044	Harper-Leatherman, A.S.	CHED	468	Harrison, R.J.	NUCL	66
Hardin, I.	CELL	74	Harrelson, J.	CHED	730	Harrison, R.J.	NUCL	86
Harding, D.P.	COMP	387	Harrelson, T.	COMP	339	Harrison, R.J.	PHYS	183
Harding, J.	GEOC	18	Harries, R.	COLL	710	Harrison, R.J.	PHYS	250
Harding-Marjanovic, K.	ENVR	713	Harriman, B.H.	AGFD	158	Harruff, S.	CHED	1460
Hardtle, C.A.	CHED	476	Harrington, C.	BIOT	112	Harruff, S.	ORGN	694
Hardwick, D.	CHED	1681	Harrington, H.	COMP	395	Harshman, J.	CHED	258
Hardy, B.	ENVR	518	Harrington, J.M.	ENVR	425	Hart, A.	ANYL	239
Hardy, C.D.	INOR	196	Harrington, L.	BIOT	454	Hart, A.	ORGN	326
Hardy, D.	INOR	1323	Harriott, N.D.	MEDI	280	Hart, A.	ORGN	643
Hardy, D.A.	INOR	1363	Harris, A.	MEDI	64	Hart, M.D.	INOR	225
Hardy, L.	CARB	84	Harris, A.E.	INOR	799	Hart, M.E.	CHED	1219
Hare, J.	PHYS	524	Harris, C.N.	CHED	727	Hart, R.	BIOT	515
Hare, J.	PHYS	525	Harris, C.E.	CHED	1465	Hart, S.	BIOT	178
Hare, S.R.	COMP	172	Harris, C.	MEDI	244	Hart, S.C.	GEOC	40
Harford, A.	CHED	961	Harris, D.	INOR	124	Hart-Cooper, W.M.	ENVR	363
Hargrove, A.E.	BIOL	28	Harris, D.	INOR	1177	Hartel, R.W.	AGFD	101
Hargrove, A.E.	ORGN	364	Harris, D.	CHED	651	Hartenbach, I.	INOR	1144
Haribal, V.	ENFL	91	Harris, H.	CHED	386	Harth, E.	PMSE	474
Harika, N.	BIOL	184	Harris, J.D.	INOR	799	Harth, E.	PMSE	531
Harika, N.	BIOL	190	Harris, J.D.	INOR	800	Harth, E.	POLY	452
Harika, N.	CARB	28	Harris, J.D.	INOR	804	Harthcock, K.	CHED	1559
Harika, N.	BIOL	188	Harris, J.D.	INOR	834	Harthong, B.	CELL	332
Hariyani, S.	INOR	296	Harris, J.M.	ANYL	197	Hartings, M.R.	POLY	657

Hartings, M.R.	SCHB	22	Hasler, R.	NUCL	8	Haugland, O.	ENVR	134
Hartings, M.R.	YCC	14	Haslop, B.	CHED	1089	Hauk, G.	BIOL	87
Hartland, G.V.	COLL	670	Haslun, J.	INOR	139	Hauk, G.	MEDI	161
Hartland, G.V.	PHYS	297	Haslun, J.	INOR	142	Haupt, A.	FLUO	12
Hartland, G.V.	PHYS	398	Hassaan, E.	MEDI	118	Haupt, G.	CHED	2167
Hartley, A.C.	CHED	339	Hassan, A.	I&EC	44	Hauschild, G.	ANYL	152
Hartley, A.C.	CHED	1843	Hassan, H.A.	BIOL	224	Hauser, A.	ANYL	120
Hartley, A.C.	NUCL	75	Hassan, H.A.	MEDI	167	Hauser, A.	CHED	488
Hartley, C.	CHED	212	Hassan, H.A.	MEDI	406	Hauser, K.	COMP	344
Hartley, J.	MEDI	131	Hassan, M.K.	ENFL	236	Hauser, K.	COMP	417
Hartman, J.	CHED	37	Hassan, M.K.	POLY	360	Hauser, K.	MEDI	152
Hartmann, E.	COMP	285	Hassan, M.K.	ENFL	544	Hausmann, D.	COLL	522
Hartmann, L.	ORGN	586	Hassan, M.K.	POLY	408	Hausmann, M.	CELL	72
Hartmann, L.	POLY	307	Hassan, M.K.	POLY	735	Hausmann, M.	CELL	314
Hartmann, S.	ANYL	235	Hassan, S.A.	PHYS	284	Hautzinger, M.P.	POLY	638
Hartmann, T.	PHYS	17	Hassoun, J.	POLY	317	Hauwiller, M.R.	COLL	36
Hartshorn, L.G.	SCHB	16	Hastings, H.M.	PHYS	495	Hauwiller, M.R.	COLL	41
Hartson, S.	ORGN	349	Hastings, M.	AGFD	183	Haverhals, L.	ANYL	290
Hartstein, K.	INOR	564	Hastings, P.	CHED	32	Haverhals, L.M.	ANYL	292
Hartwick, C.J.	ORGN	120	Hasty, S.	CHED	1416	Haverhals, L.M.	CHED	1022
Hartwick, C.J.	ORGN	638	Hasty, S.	CHED	1672	Haverhals, L.M.	CHED	1275
Hartwig, J.F.	ORGN	25	Hasty, S.	CHED	1674	Havlik, M.D.	CHED	1330
Hartwig, J.F.	ORGN	545	Hata, A.	MEDI	133	Hawker, C.J.	ENFL	45
Hartzell, E.	BIOT	150	Hatanaka, T.	INOR	912	Hawker, C.J.	PMSE	123
Hartzell, E.	BIOT	501	Hatch, C.D.	CHED	944	Hawker, C.J.	PMSE	124
Haruk, A.M.	CHED	326	Hatch, C.D.	CHED	946	Hawker, C.J.	PMSE	162
Harvey, B.	ORGN	640	Hatch, C.D.	CHED	948	Hawker, C.J.	PMSE	556
Harvey, E.L.	CHED	2163	Hatch, H.W.	BIOT	491	Hawker, C.J.	POLY	214
Harvey, J.	CATL	406	Hatcher, J.	NUCL	42	Hawker, C.J.	POLY	217
Harvey, M.	INOR	365	Hatcher, J.	NUCL	54	Hawker, C.J.	POLY	560
Harvey, N.	CHED	1005	Hatcher, J.	NUCL	58	Hawker, C.J.	POLY	581
Harvey, Z.	BIOT	22	Hatcher, N.	MEDI	69	Hawker, C.J.	POLY	626
Harville, L.K.	CHED	1333	Hatcher, P.G.	GEOC	236	Hawker, C.J.	POLY	786
Harville, L.K.	CHED	1347	Hatfield, J.P.	CHED	39	Hawker, D.	POLY	203
Harville, P.A.	CHED	721	Hatfield, J.P.	CHED	2199	Hawkins, B.	ENVR	421
Harville, P.A.	CHED	864	Hatfield, R.D.	CELL	217	Hawkins, C.M.	BIOL	65
Harwood, C.J.	CHED	2052	Hati, S.	COMP	223	Hawkins, C.	ORGN	500
Harwood, D.B.	PHYS	655	Hatit, M.	BIOL	94	Hawkins, C.	NUCL	99
Hasa, E.	POLY	802	Hatstat, A.K.	ORGN	420	Hawkins, C.A.	NUCL	36
Hasan, F.	ENVR	701	Hattar, K.	CHED	344	Hawkins, C.A.	NUCL	38
Hasan, M.H.	INOR	936	Hattar, K.	COLL	53	Hawkins, J.	ORGN	264
Hasan, M.H.	ORGN	478	Hattaway, M.	ENVR	415	Hawkins, L.	ENVR	602
Hasanayn, F.	INOR	120	Hatton, F.	CELL	295	Hawkins, O.M.	INOR	853
Hasanayn, F.	INOR	865	Hatton, F.	POLY	105	Hawkins, O.M.	INOR	1113
Hasanayn, F.	INOR	1406	Hatton, F.	POLY	107	Hawkins, P.C.	CINF	46
Hasegawa, D.	MEDI	90	Hatton, T.	COLL	567	Hawks, A.	CHED	726
Haseleu, J.	CHED	557	Hatton, T.	ENVR	213	Haworth, N.	COLL	118
Haseleu, J.	PROF	49	Hatton, T.	ENVR	214	Hay, E.	BIOL	34
Haselwandter, K.	GEOC	221	Hattori, N.	POLY	195	Hay, M.B.	GEOC	228
Hasenfus, E.	BIOT	108	Hau, W.	ORGN	640	Hay, M.B.	GEOC	230
Hashemnejad, S.	POLY	343	Haudin, J.	CELL	304	Hay, W.	CELL	300
Hashimoto, T.	ORGN	141	Haufe, G.	FLUO	14	Hayakawa, M.	BIOL	163
Hashimoto, T.	POLY	448	Haugen, A.	CHED	1675	Hayakawa, R.	COLL	345
Hashimoto, Y.	ENVR	510	Hauger, T.	COLL	383	Hayakawa, T.	PMSE	75
Haskell-Luevano, C.	PROF	3	Haugh, D.	INOR	230	Hayakawa, T.	PMSE	325

Hayakawa, T.	PMSE	390	Hayton, T.W.	INOR	50	He, T.	INOR	864
Hayakawa, T.	PMSE	453	Hayton, T.W.	INOR	458	He, T.	MEDI	56
Hayano, S.	POLY	536	Haywood, B.J.	ENVR	612	He, W.	BIOL	187
Hayashi, A.	ENFL	470	Haywood, B.J.	GEOC	41	He, W.	CHED	524
Hayashi, A.	ENFL	472	Haywood, B.J.	GEOC	115	He, X.	ANYL	283
Hayashi, F.	INOR	912	Haywood, B.J.	GEOC	234	He, X.	I&EC	101
Hayashi, F.	COLL	715	Haywood, B.J.	GEOC	235	He, X.	I&EC	102
Hayashi, F.	COLL	716	Hazari, N.	INOR	115	He, X.	PMSE	567
Hayashi, H.	COMP	17	Hazari, N.	INOR	1416	He, X.	ANYL	50
Hayashi, H.	POLY	447	Hazarika, A.	COLL	346	He, X.	PHYS	168
Hayashi, N.	CELL	7	Hazlitt, R.	MEDI	204	He, X.	PMSE	368
Hayashi, S.	COMP	234	Hazlitt, R.	MEDI	376	He, X.	PMSE	448
Hayashi, T.	ORGN	726	Hazzard, K.	PHYS	18	He, X.	BIOT	551
Hayashi, T.	INOR	497	He, C.	PHYS	345	He, X.	BIOT	68
Hayashi, Y.	POLY	444	He, C.Q.	ORGN	111	He, X.	BIOT	348
Haydel, P.	COLL	303	He, D.	CATL	268	He, X.	POLY	542
Hayden, K.	COLL	395	He, D.	CATL	423	He, Y.	ENFL	48
Hayden, K.L.	CHED	690	He, D.	ENFL	335	He, Y.	CATL	40
Hayden, K.L.	CHED	696	He, D.	INOR	847	He, Y.	CATL	105
Hayden, K.L.	CHED	2072	He, D.	ENVR	192	He, Y.	CELL	204
Hayden, S.C.	CATL	489	He, F.	COLL	166	He, Y.	ORGN	381
Hayden, S.C.	COLL	53	He, F.	ENFL	84	He, Y.	POLY	18
Hayden, S.C.	INOR	76	He, F.	ENFL	398	He, Y.	AGFD	218
Hayden, T.R.	CHED	895	He, G.	MEDI	295	He, Y.	INOR	1181
Hayden, T.R.	CHED	1427	He, H.	CATL	331	He, Y.	GEOC	113
Hayden, T.R.	CHED	1843	He, H.	INOR	425	He, Z.	POLY	469
Hayek, N.	CATL	136	He, H.	ENVR	74	Head, A.R.	CATL	158
Hayes, C.	ORGN	719	He, H.	PMSE	367	Head, M.L.	CHED	189
Hayes, D.	INOR	1381	He, J.	ENVR	714	Head, M.L.	CHED	1941
Hayes, J.L.	CHED	30	He, J.	COLL	674	Headen, T.	ENFL	552
Hayes, J.L.	CHED	2206	He, J.	COLL	729	Headford, B.R.	ORGN	145
Hayes, K.F.	GEOC	87	He, J.	ENVR	221	Head-Gordon, M.P.	COMP	90
Hayes, K.F.	GEOC	92	He, J.	CATL	308	Head-Gordon, M.P.	PHYS	193
Hayes, M.	CHED	1396	He, J.	CARB	50	Head-Gordon, M.P.	PHYS	218
Hayes, M.P.	GEOC	235	He, J.	INOR	1059	Head-Gordon, T.L.	BIOL	5
Hayes, R.	PHYS	116	He, J.	INOR	1028	Head-Gordon, T.L.	COMP	43
Hayes, R.	PHYS	548	He, K.	INOR	724	Head-Gordon, T.L.	COMP	405
Hayes, R.	PHYS	656	He, K.	INOR	725	Head-Gordon, T.L.	PHYS	250
Hayes, S.	CHED	1851	He, K.	INOR	726	Headley, A.D.	CHED	46
Hayes, T.E.	BIOL	207	He, K.	INOR	1233	Heagy, M.	ENFL	76
Hayes, T.E.	CHED	710	He, K.	ENVR	228	Heald, L.	PHYS	518
Hayes, T.	ENVR	464	He, K.	ENVR	232	Healy, M.R.	NUCL	78
Haygood, M.	INOR	42	He, L.	AGFD	16	Heaney, P.	GEOC	103
Hayner, G.A.	CARB	59	He, L.	AGFD	108	Heaney, P.	GEOC	162
Haynes, C.	BIOT	74	He, L.	COLL	776	Heaney, P.	GEOC	240
Haynes, C.L.	CHED	555	He, L.	PMSE	274	Heard, G.L.	PROF	17
Haynes, C.L.	CHED	1925	He, M.	COLL	668	Heberling, F.	GEOC	184
Haynes, C.L.	COLL	9	He, P.	ORGN	607	Hebert, B.	POLY	271
Haynes, C.L.	COLL	275	He, Q.	ENFL	35	Hecht, E.S.	ENFL	329
Haynes, C.L.	ENVR	242	He, Q.	ENVR	455	Hecht, Z.H.	INOR	1377
Haynes, C.L.	ENVR	654	He, Q.	BIOL	282	Hecht PhD, S.	PMSE	556
Haynes, C.L.	ENVR	655	He, Q.	BIOT	486	Hecht PhD, S.	POLY	217
Haynes, K.M.	MEDI	100	He, Q.	ENVR	769	Heck, K.	ENVR	405
Haynes, L.	BIOL	245	He, R.	POLY	487	Heck, K.	ENVR	449
Hays, B.	PHYS	134	He, S.	COLL	68	Heckler, R.	CHED	1514

Hedhammar, M.	BIOT	117	Heinicke, J.	INOR	318	Hench, K.	ENFL	169
Hedhammar, M.	CELL	297	Heinisch, T.	INOR	70	Hench, K.	ENFL	290
Hedhili, M.	CATL	41	Heinold, A.L.	CHED	1581	Henchey, L.	CHED	1894
Hedhili, M.	INOR	168	Heinonen, M.	CELL	316	Henckel, D.	INOR	561
Hedhli, J.	BIOL	316	Heinrichson, K.	AGFD	185	Hendel, S.J.	BIOL	300
Hedrick, J.	INOR	1314	Heins, S.P.	INOR	440	Henderleiter Aldrich, J.	CHED	129
Hedrick, J.L.	AGFD	27	Heinz, O.	PMSE	447	Hendersen, R.	BIOL	82
Hedstrom, S.	ENFL	80	Heinze, T.J.	CELL	190	Hendershot, L.	BIOL	303
Hedstrom, S.	ENFL	173	Heinze, T.J.	CELL	348	Henderson, A.	INOR	982
Heemstra, J.M.	MEDI	302	Heinze, T.J.	CELL	373	Henderson, A.	CHED	1577
Heeney, M.J.	PHYS	547	Heinze, T.J.	CELL	386	Henderson, A.	CHED	1584
Heer, J.	MEDI	25	Heinze, T.J.	COLL	676	Henderson, A.	ORGN	169
Heeren, N.	MEDI	315	Heiser, U.	MEDI	21	Henderson, B.	YCC	24
Hees, T.	PMSE	369	Heisler, J.	BIOL	111	Henderson, C.	CHED	1921
Heffernan, T.	MEDI	64	Heissler, S.	BIOT	135	Henderson, C.	CHED	1324
Heffernan, T.	MEDI	359	Hejazifar, M.	PHYS	659	Henderson, J.	COMP	151
Heffron, T.P.	MEDI	248	Hejl, A.	POLY	699	Henderson, J.	CHED	2164
Heffron, T.P.	MEDI	269	Hejnosz, S.	CHED	1070	Henderson, K.	POLY	700
Hegde, G.A.	COMP	207	Heki, L.	CHED	1702	Henderson, L.C.	COLL	781
Hegde, G.A.	PROF	12	Hekstra, D.	ANYL	256	Henderson, L.C.	ORGN	704
Hegde, M.	PHYS	115	Helbling, A.	COMP	226	Henderson, P.T.	COLL	4
Hegde, M.	PMSE	114	Helbling, D.E.	ENVR	780	Henderson, T.J.	MEDI	327
Hege, M.	COMP	212	Heldebrant, D.J.	ENFL	199	Hendon, C.H.	AGFD	221
Hegg, E.L.	INOR	139	Heldebrant, D.J.	ENFL	319	Hendon, C.H.	INOR	123
Hegg, E.L.	INOR	142	Heldebrant, D.J.	ENVR	756	Hendon, C.H.	INOR	1177
Heggstad, J.	BIOT	155	Heldebrant, D.J.	INOR	1367	Hendon, C.H.	INOR	1260
Heggset, E.	CELL	237	Heldebrant, D.J.	PHYS	233	Hendon, C.H.	INOR	1325
Heggset, E.	CELL	388	Heldin, E.	BIOT	285	Hendon, C.H.	INOR	1333
Heibati, M.	ENVR	237	Heldt, C.	BIOT	37	Hendon, C.H.	INOR	1425
Heick, K.H.	CHED	1600	Heldt, C.	BIOT	526	Hendren, K.D.	PMSE	253
Heidarizad, M.	CATL	245	Helgert, T.R.	INOR	159	Hendrich, M.P.	INOR	604
Heidary, D.K.	BIOL	268	Helgren, T.R.	INOR	298	Hendrich, M.P.	INOR	632
Heidar-Zadeh, F.	COMP	3	Heller, D.	COLL	234	Hendrich, M.P.	INOR	1017
Heidar-Zadeh, F.	PHYS	641	Hellgren, N.	CHED	1110	Hendricks, M.P.	INOR	1400
Heideman, C.	CHED	1138	Helling, R.	CHED	246	Hendrickson, C.	ENFL	464
Heiden, Z.M.	INOR	273	Hellinger, J.R.	ANYL	230	Hendrickson, H.P.	CHED	163
Heiden, Z.M.	INOR	617	Hellstrom, W.J.	AGFD	131	Hendrickson, H.P.	COMP	395
Heiden, Z.M.	INOR	1247	Hellweg, T.	POLY	688	Hendrickson, K.R.	COLL	85
Heidenreich, D.	MEDI	63	Helm, L.	GEOC	90	Hendrickson, K.R.	COLL	238
Heiderscheit, T.	PHYS	299	Helm, S.	CHED	1020	Hendrix, S.A.	ANYL	154
Heifetz, P.	BIOT	294	Helman, G.	CINF	88	Hendrix-Doucette, T.	POLY	472
Heijbel, A.	BIOT	292	Helman, G.	ENVR	361	Hendsey, J.	CHED	1602
Heikal, A.A.	PHYS	568	Helmin, A.	CHED	1778	Henebry, J.E.	INOR	93
Heikkila, M.W.	CELL	404	Helminen, J.K.	CELL	28	Hengel, M.	ENVR	498
Heiling, C.	CHED	907	Helminen, J.K.	CELL	355	Hengne, A.	ENFL	296
Heilmann, M.	INOR	812	Helms, B.	ENFL	189	Henke, A.	CHED	1737
Heilshorn, S.C.	PMSE	4	Helms, B.	POLY	787	Henke, W.C.	INOR	1128
Heilweil, E.J.	CHAS	4	Helmus, R.	ANYL	30	Henke, W.C.	INOR	1274
Heim, G.P.	INOR	705	Helmus, R.	ENVR	89	Henkelis, J.	INOR	1044
Heim, G.P.	INOR	333	Helmus, R.	ENVR	349	Henkelman, G.A.	COMP	404
Heimann, J.	INOR	115	Helmus, R.	ENVR	784	Henkelman, G.A.	INOR	718
Heindel, J.	PHYS	539	Helmy, S.	CHED	1355	Henkelman, G.A.	INOR	1243
Heinecke, C.L.	COLL	250	Hemagiri, H.	MEDI	109	Henkels, C.	CHED	1832
Heinekey, D.M.	CATL	208	Hemmer, J.R.	POLY	626	Hennan, J.	MEDI	35
Heinekey, D.M.	INOR	30	Hemmingsen, S.L.	CHED	832	Henne, W.A.	MEDI	207

Hennessy, M.G.	POLY	62	Heo, T.	ENFL	276	Hernandez, N.	POLY	762
Hennig, C.	NUCL	16	Heo, T.	ENFL	277	Hernandez, N.	CHED	1279
Hennig, P.T.	FLUO	39	Heo, T.	ENFL	495	Hernandez, R.	COLL	9
Henning, B.	INOR	1379	Heppler, B.	CHED	1483	Hernandez, R.	ENVR	655
Henning, M.L.	MEDI	337	Hequet, E.	ANYL	459	Hernandez, R.	PHYS	283
Henning-Knechtel, A.	BIOL	266	Heran, M.	ENVR	238	Hernandez, R.	PHYS	585
Hennkens, H.M.	NUCL	56	Herath, A.	ENVR	502	Hernandez, R.	PROF	2
Hennkens, H.M.	FLUO	73	Herath, A.	ENVR	505	Hernandez, S.	PHYS	528
Hennkens, H.M.	NUCL	45	Herbers, R.	CHED	470	Hernandez, S.	PHYS	646
Henrie, S.A.	CHED	1545	Herbert, C.	COMP	38	Hernandez, S.	CHED	1325
Henrie, S.A.	CHED	1558	Herbst, E.	PHYS	588	Hernandez, S.	PMSE	37
Henrikson, J.C.	CHED	435	Herbst, E.	PHYS	626	Hernandez, Y.	ANYL	238
Henrikson, J.C.	CHED	1838	Herbst, E.	PHYS	627	Hernandez, Y.	COLL	57
Henriksson, G.	CELL	277	Herderich, M.	AGFD	208	Hernández-Esparza, R.	PHYS	41
Henriksson, G.	CELL	280	Heres, M.	PHYS	344	Hernández García, Y.	ANYL	335
Henriques, D.C.	PHYS	435	Heres, M.F.	PHYS	538	Hernandez-Lamoneda, R.	ENFL	494
Henry, A.	BIOT	508	Heres, M.F.	PMSE	351	Hernandez Lozada, N.J.	BIOT	157
Henry, A.T.	INOR	259	Hergenrother, P.J.	MEDI	282	Hernandez Sanchez, R.	INOR	1339
Henry, A.T.	INOR	260	Hering, J.	GEOC	89	Hernandez-Sanchez, B.A.	CHED	134
Henry, C.	ANYL	9	Herke, S.W.	ANYL	141	Hernandez-Sanchez, B.A.	INOR	178
Henry, C.	ANYL	304	Herm, Z.	INOR	32	Hernandez Vargas, S.	FLUO	72
Henry, C.	ANYL	338	Herman, E.K.	GEOC	117	Hernangomez-Perez, D.	COLL	115
Henry, C.	ANYL	455	Herman, E.S.	POLY	623	Héroguez, V.	CELL	198
Henry, C.	POLY	201	Herman, S.	CHED	495	Heroux, D.S.	CHED	129
Henry, E.B.	POLY	244	Hermanowicz, S.	ENVR	63	Heroux, D.S.	CHED	976
Henry, G.E.	CHED	1461	Hermans, I.	CATL	229	Heroux, D.S.	I&EC	139
Henry, G.E.	CHED	1472	Hermans, I.	CATL	253	Heroux, J.B.	PMSE	29
Henry, G.E.	CHED	1490	Hermans, I.	CATL	264	Herr, C.T.	ORGN	712
Henry, M.	BIOT	385	Hermans, P.	BIOT	105	Herr, J.E.	INOR	1151
Henry, P.S.	AGFD	180	Hermans, T.M.	POLY	60	Herranz, J.	INOR	812
Henry, R.L.	BIOL	82	Hermanson, R.	NUCL	88	Herreira, A.I.	BIOL	110
Henry, R.M.	CHED	1995	Hermosilla, M.A.	PHYS	511	Herrera, A.	MEDI	404
Henry, V.J.	CHED	1587	Hernandes, L.	CHED	1188	Herrera, F.	PHYS	62
Henry, V.J.	CHED	1876	Hernandez, A.	COLL	381	Herrera, F.	COMP	147
Henry de Frahan, V.	ANYL	65	Hernandez, A.V.	CHED	271	Herrera, J.	ANYL	85
Henry de Frahan, V.	ANYL	73	Hernandez, A.V.	CHED	1890	Herrera, J.	CELL	126
Hens, Z.	COLL	445	Hernandez, A.	CHED	592	Herrera, L.	CATL	430
Hens, Z.	INOR	675	Hernandez, A.E.	CHED	89	Herrera, S.	CHED	928
Hens, Z.	INOR	1051	Hernandez, A.E.	CHED	1169	Herrera, V.	INOR	913
Hens, Z.	PROF	7	Hernandez, A.J.	ENVR	351	Herrera, Z.J.	MEDI	359
Hensen, E.	CATL	536	Hernandez, B.	CHED	1222	Herrero, A.	COMP	74
Henshall, J.	MEDI	25	Hernandez, C.	MEDI	165	Herrero, E.	COMP	74
Hensiek, S.	CHED	2052	Hernandez, C.	MEDI	166	Herres-Pawlis, S.	CATL	479
Henske, J.	BIOT	236	Hernandez, C.	MEDI	315	Herres-Pawlis, S.	INOR	64
Hensley, A.	I&EC	90	Hernandez, D.	CHED	1402	Herres-Pawlis, S.	INOR	65
Hensley, J.	ENVR	633	Hernandez, D.	CHED	1403	Herres-Pawlis, S.	INOR	680
Hensley, J.	CATL	283	Hernandez, E.A.	CHED	1580	Herring, A.M.	ENFL	483
Hensley, J.	CATL	284	Hernandez, F.	CHED	2070	Herring, A.M.	PRES	4
Hensley, J.	CATL	384	Hernandez, F.	PHYS	101	Herring, D.W.	CELL	302
Hensley, J.	CATL	434	Hernandez, F.	PHYS	380	Herring, J.	CHED	1048
Henson, J.A.	GEOC	165	Hernandez, H.W.	ENFL	168	Herring, J.	CHED	1053
Hentges, T.	CHED	1551	Hernandez, J.	CHED	1879	Herring, S.	ENVR	48
Henzan, M.	AGFD	186	Hernandez, L.G.	CHED	1192	Herrington, B.	MEDI	403
Heo, J.	ANYL	157	Hernandez, L.A.	GEOC	282	Herrington, D.G.	CHED	150
Heo, J.	COLL	369	Hernandez, M.D.	ENFL	547	Herrington, D.G.	CHED	185

Herrington, D.G.	CHED	253	Heuls, M.	POLY	671	Hickey, S.P.	CHED	2064
Herrington, D.G.	CHED	2113	Heux, L.	CELL	68	Hickey, S.P.	CHED	2189
Herrington, N.B.	ORGN	486	Heux, L.	CELL	139	Hickey, S.P.	CHED	2208
Herrli, J.A.	CHED	981	Heux, L.	CELL	165	Hickey, S.P.	PRES	6
Herrli, J.A.	ENVR	112	Heux, L.	CELL	247	Hickman, P.	PHYS	258
Herrmann, C.	COLL	32	Heux, L.	CELL	248	Hickner, M.A.	PMSE	33
Herrmann, C.	COLL	345	Heux, L.	CELL	425	Hickner, M.A.	POLY	38
Herrmann, S.	CATL	64	Hevus, I.	POLY	706	Hickner, M.A.	POLY	67
Herschbach, D.R.	HIST	41	Hewavitharana, I.	COLL	431	Hicks, B.	BIOL	193
Hershberger, J.	MEDI	337	Hewavitharanage, P.	CHED	1567	Hicks, C.M.	PHYS	468
Hershberger, S.A.	CHED	40	Hewawasam, R.	POLY	423	Hicks, E.	CHED	1352
Hershberger, S.A.	CHED	2104	Hewitt, D.	POLY	710	Hicks, E.	CHED	1838
Hershock, C.	CHED	2012	Hewitt, J.	ANYL	459	Hicks, J.	MEDI	92
Hertel, S.	AGFD	18	Hewitt, W.M.	MEDI	11	Hicks, J.C.	CATL	274
Hervy, M.	CELL	54	Heyblom, R.A.	CHED	1455	Hicks, J.C.	COMP	147
Hervy, M.	CELL	91	Heyden, A.	CATL	20	Hicks, L.	ANYL	96
Hervy, M.	CELL	401	Heyden, A.	CATL	358	Hicks, L.	ANYL	188
Hervy, M.	CELL	402	Heyduk, A.F.	INOR	85	Hicks, L.M.	ANYL	42
Hervy, M.	CELL	403	Heyduk, A.F.	INOR	1134	Hicks, L.M.	ANYL	273
Herwig, K.	ENFL	489	Heyduk, A.F.	PROF	34	Hicks, L.P.	CHED	116
Herzberg, M.	PMSE	190	Heyen, B.J.	CHED	276	Hicks, M.G.	CINF	6
Herzberg, M.	PMSE	191	Heyer, A.	INOR	871	Hicks, S.	CHED	1877
Herzog, N.	CELL	90	Heyert, A.J.	COMP	230	Hickson, K.M.	PHYS	254
Herzog, N.	COLL	614	Heyert, A.J.	PHYS	413	Hidaka, H.	PHYS	314
Herzog-Arbeitman, A.	POLY	310	Heyes, A.	ENVR	228	Hieftje, G.M.	ANYL	230
Herzon, S.	ORGN	361	Heyes, A.	ENVR	282	Hieftje, G.M.	ANYL	236
Herzon, S.	ORGN	568	Heyes, A.	ENVR	310	Hierlemann, A.	COLL	774
Hesk, D.	MEDI	175	Heyes, C.D.	BIOL	82	Hiester, W.	POLY	575
Hesk, D.	ORGN	184	Heyes, C.D.	BIOL	134	Higaki, Y.	PMSE	204
Hesk, D.	ORGN	194	Heyes, C.D.	COLL	188	Higashi, M.	COMP	222
Hesk, D.	ORGN	203	Heyes, C.D.	COLL	200	Higashi, M.	COMP	233
Heskamp, S.	POLY	230	Heyes, C.D.	PHYS	348	Higginbotham, E.	ENVR	533
Hesketh, T.	CINF	55	Heyl, T.	PMSE	185	Higgins, B.	HIST	40
Hess, B.J.	CELL	202	Heyl, T.	PMSE	186	Higgins, C.P.	ENVR	179
Hess, C.	INOR	499	Heyman, H.	BIOT	532	Higgins, C.P.	ENVR	393
Hess, C.	INOR	1118	Heymann, H.	AGFD	116	Higgins, D.A.	ANYL	405
Hess, D.W.	COLL	608	Heymann, W.	BIOT	330	Higgins, D.A.	ANYL	407
Hess, K.	CHED	599	Heymann, W.	BIOT	375	Higgins, D.A.	I&EC	136
Hess, K.	CHED	1057	Heyob, K.M.	GEOC	150	Higgins, D.	COLL	387
Hess, R.F.	INOR	498	Hiaki, T.	ANYL	106	Higgins, K.	CHED	394
Hesse, S.A.	PMSE	89	Hiaki, T.	ENVR	590	Higgins, K.A.	INOR	931
Hesslein, A.	BIOT	186	Hibbard, H.	CATL	547	Higgins, M.	PMSE	108
Hessler, N.	CELL	362	Hibbard, H.	MEDI	326	Higgins, R.	INOR	512
Hestekin, J.	BIOT	206	Hibberd, R.	GEOC	273	Higgins, S.J.	COLL	112
Hester, H.	POLY	19	Hibbert, K.	ENVR	733	Higgins, S.J.	COLL	117
Hestrin, R.	ENVR	747	Hibbing, M.E.	MEDI	143	Higgins, S.J.	COLL	340
Hethcox, S.	CHED	539	Hibbitts, D.	CATL	356	Higgins, S.J.	COLL	413
Hethcox, S.	CHED	540	Hibbitts, D.	CATL	458	Higgins, S.J.	PHYS	247
Hettiarachchi, M.A.	COLL	67	Hibbs, M.R.	PMSE	240	Higgins, S.R.	GEOC	6
Hettige, J.J.	PHYS	440	Hibino, M.	CHED	1252	Higgins, S.R.	GEOC	7
Hetts, S.	POLY	176	Hickam, B.	CHED	1725	Higgins, S.R.	GEOC	211
Heuer, W.B.	CHED	1158	Hickey, D.	BIOT	232	Higgins, T.J.	CHED	1240
Heuer, W.B.	CHED	1334	Hickey, E.	CHED	1654	Higgins, W.T.	POLY	796
Heugebaert, T.	ORGN	16	Hickey, J.	ANYL	440	Higginson, C.J.	PMSE	488
Heugebaert, T.	ORGN	579	Hickey, M.B.	ORGN	216	Higgs, C.	COMP	416

Highland, Z.L.	INOR	794	Hillmyer, M.A.	POLY	261	Hirano, T.	POLY	776
Highsmith, A.	COLL	173	Hillmyer, M.A.	POLY	503	Hirano, T.	POLY	781
Hight, M.	MEDI	205	Hill-Odom, M.	CHED	1215	Hiranpattanakul, P.	PMSE	371
Higson, M.	BIOT	314	Hill-Odom, M.	CHED	1227	Hirata, S.	PMSE	244
Hildebrand, M.	CATL	513	Hill-Odom, M.	CHED	1234	Hirata, S.	PMSE	303
Hildén, K.	CELL	110	Hill-Odom, M.	MEDI	394	Hirauchi, T.	AGFD	122
Hildén, K.	CELL	119	Hills, R.D.	COMP	134	Hirayama, T.	MEDI	379
Hilgar, J.	INOR	1288	Hills, R.D.	COMP	224	Hird, K.	CHED	735
Hilger, C.	CHED	1657	Hillwig, M.	CHED	557	Hirn, U.	CELL	296
Hilimire, T.	CARB	15	Hillyer, M.B.	INOR	757	Hirohsige, S.	POLY	371
Hilker, A.P.	CHED	816	Hiltbrunner, J.	NUCL	32	Hirons, A.C.	CHED	913
Hill, A.	CHED	1050	Hiluf, H.	ENVR	297	Hirose, D.	CELL	81
Hill, A.P.	COLL	178	Himeda, Y.	ENFL	202	Hirose, D.	CELL	124
Hill, A.P.	COLL	502	Himmelberger, D.	COLL	565	Hirose, H.	MEDI	133
Hill, A.A.	CHED	1301	Himmelberger, J.A.	CHED	628	Hirota, S.	COMP	222
Hill, A.	PHYS	71	Himo, F.	INOR	69	Hiroto, N.	BIOT	333
Hill, A.	PHYS	458	Himo, F.	ORGN	392	Hiroto, N.	BIOT	479
Hill, C.W.	BIOT	462	Hinchliffe, D.	AGFD	227	Hirsch, K.	PHYS	558
Hill, C.L.	CATL	295	Hinde, R.J.	PHYS	590	Hirsh, D.J.	BIOL	46
Hill, C.L.	CATL	298	Hinderliter, B.	CHED	1754	Hirsh, D.J.	CHED	660
Hill, C.L.	CATL	299	Hindle, R.	ENVR	230	Hirsh, D.J.	ORGN	415
Hill, C.L.	CATL	300	Hinds, J.R.	CHED	1509	Hirst, J.D.	COMP	50
Hill, C.L.	CATL	404	Hines, J.K.	BIOL	92	Hirst, J.D.	PHYS	156
Hill, C.L.	CATL	405	Hines, J.K.	CHED	1937	Hitchcock, S.R.	CHED	1555
Hill, D.R.	BIOT	275	Hines, K.G.	COLL	403	Hitchcock, S.R.	CHED	1646
Hill, D.	CHED	556	Hinestroza, J.P.	ENVR	278	Hitchcock, S.R.	CHED	1648
Hill, E.	CHED	1754	Hingu, J.	POLY	502	Hitchcock, S.R.	ORGN	215
Hill, E.	INOR	609	Hinkel, T.	CELL	122	Hitchcock, S.	CHED	1902
Hill, E.	INOR	1017	Hinker, P.	ANYL	442	Hitt, J.	CHED	365
Hill, G.A.	PHYS	421	Hinker, P.	COMP	59	Hix, M.A.	COMP	424
Hill, I.	BIOT	199	Hinkle, A.	COLL	134	Hixon, A.E.	NUCL	18
Hill, J.L.	CHED	280	Hinkle, M.A.	GEOC	103	Hixon, A.E.	NUCL	80
Hill, J.M.	ENVR	644	Hinkle, M.A.	GEOC	180	Hixson, S.H.	CHED	1928
Hill, L.J.	COLL	372	Hinkley, B.	PMSE	370	Hixson, W.	COLL	783
Hill, L.J.	PMSE	370	Hinkley, T.	AGFD	107	Hizny, W.J.	I&EC	63
Hill, M.	PMSE	229	Hinkley, T.	ANYL	319	Hjelt, T.	COLL	539
Hill, M.P.	CHED	10	Hinman, N.	GEOC	233	Hjelvik, E.	CHED	1322
Hill, R.	BIOL	113	Hinojos Madrid, L.	CHED	545	Hjelvik, E.	CHED	1891
Hill, S.P.	PHYS	511	Hinrichs, K.	GEOC	139	Hjorth, C.	CHED	645
Hill, S.	INOR	710	Hinthorne, J.	POLY	79	Hjorth, C.	CHED	1909
Hill, S.	MEDI	411	Hinton, D.E.	ENVR	681	Hlangothi, D.	AGFD	63
Hill, T.	CHED	1171	Hinton, T.V.	INOR	903	Hlangothi, D.	AGFD	194
Hill, T.	CHED	1227	Hinton, T.	PMSE	308	Hlangothi, D.	MEDI	217
Hill, T.	MEDI	394	Hintz, H.A.	ORGN	464	Hmeluk, N.	CHED	1254
Hill, T.D.	BIOL	251	Hinze, S.	CATL	214	Hnatchuk, N.	CHED	1037
Hill, T.D.	BIOL	270	Hinze, S.	INOR	1191	Hnatek, J.	COLL	381
Hill, V.	POLY	236	Hipp, K.N.	ANYL	105	Ho, A.	ORGN	113
Hill, W.	CHED	1838	Hippman, R.	CHED	1530	Ho, E.	COLL	718
Hillebrandt, N.	BIOT	205	Hirai, M.	INOR	1208	Ho, F.	ENFL	443
Hiller, G.	BIOT	557	Hirai, M.	AGFD	122	Ho, J.	PHYS	75
Hiller, T.	BIOT	493	Hirakawa, B.	MEDI	19	Ho, K.	ENVR	19
Hilliard, C.R.	POLY	210	Hiramatsu, A.	MEDI	32	Ho, K.	POLY	164
Hillman, A.	PHYS	114	Hirani, Z.	CHED	1617	Ho, P.S.	MEDI	325
Hillmyer, M.A.	PMSE	164	Hirani, Z.	CHED	1639	Ho, S.V.	BIOT	80
Hillmyer, M.A.	PMSE	178	Hirani, Z.	ORGN	480	Ho, S.H.	BIOL	297

Ho, S.	CHED	581	Hoffman, A.	CHED	581	Holappa, R.	CHED	949
Ho, T.A.	GEOC	28	Hoffman, A.	CHED	610	Holappa, R.	ENVR	519
Ho, T.A.	GEOC	283	Hoffman, A.	CHED	667	Holbrey, J.D.	INOR	1251
Hoang, J.	COLL	229	Hoffman, A.	CHED	1216	Holbrook, J.	CHED	1674
Hoang, K.	CHED	555	Hoffman, B.M.	INOR	517	Holbrook, T.	PMSE	372
Hoang, V.	BIOL	255	Hoffman, B.M.	INOR	920	Holck, J.	CELL	111
Hoang, V.	MEDI	358	Hoffman, I.D.	MEDI	22	Holcomb, R.	ANYL	129
Hoang, V.	ORGN	434	Hoffman, M.Z.	CHED	296	Holcomb, R.	ANYL	139
Hoang, V.	ORGN	436	Hoffman, N.	INOR	1089	Holcomb, R.	ANYL	140
Hoang, V.	CHED	1890	Hoffman, T.J.	FLUO	70	Holcomb, R.	CHED	792
Hoarau, M.	BIOL	311	Hoffman, T.J.	FLUO	71	Holcomb, R.	CHED	2010
Hoare, M.	BIOT	188	Hoffmann, A.	CATL	479	Holden, D.	CHED	489
Hoare, T.	CELL	97	Hoffmann, A.	INOR	64	Holder, A.	INOR	1156
Hoare, T.	CELL	393	Hoffmann, A.	INOR	65	Holder, A.	INOR	1227
Hoare, T.	POLY	739	Hoffmann, A.	INOR	680	Holder, A.A.	ENFL	547
Hoare, T.	POLY	793	Hoffmann, A.	CELL	258	Holder, K.	PMSE	47
Hoare, T.	POLY	794	Hoffmann, C.	GEOC	258	Holderer, O.	COLL	659
Hobbs, C.E.	POLY	30	Hoffmann, E.A.	CHED	2208	Holechek, J.	MEDI	127
Hobden, J.	BIOL	99	Hoffmann, E.A.	CINF	17	Holechek, J.	MEDI	128
Hobisch, M.A.	CELL	75	Hoffmann, E.A.	CINF	19	Holeman, E.J.	CHED	1649
Hochbaum, A.	COLL	14	Hoffmann, F.M.	COMP	84	Holeman, E.J.	CHED	1889
Hochbaum, A.	COLL	174	Hoffmann, F.M.	MEDI	112	Holladay, J.	CATL	216
Hochbaum, A.	INOR	600	Hoffmann, R.	COLL	31	Holladay, J.	CATL	428
Hochella, M.F.	CHED	179	Hoffmann, T.	MEDI	21	Holladay, J.	ENFL	15
Hochella, M.F.	GEOC	75	Hofmann, M.	POLY	603	Holladay, S.	CHED	292
Hochella, M.F.	GEOC	120	Hofmann, T.	ENVR	86	Holland, A.	CHED	714
Hochuli, J.	COMP	226	Hofmann, T.	AGFD	17	Holland, E.	CHED	632
Höck, H.	POLY	388	Hofmann, T.	AGFD	18	Holland, E.	ENVR	291
Hockenberry, B.	CHED	1633	Hofmann, T.	AGFD	42	Holland, G.P.	COLL	19
Hodas, N.	COMP	109	Hofmeister, G.E.	CHED	842	Holland, G.P.	POLY	728
Hodge, G.	CHED	1589	Hofmockel, K.	GEOC	36	Holland, L.A.	CHED	421
Hodges, R.	CHED	1112	Hofstetter, T.B.	GEOC	253	Holland, P.L.	INOR	113
Hodges, S.	CELL	131	Hofstetter, T.B.	GEOC	254	Holland, P.L.	INOR	636
Hodges, S.	CHED	329	Hofzumahaus, C.	POLY	379	Holland, P.L.	INOR	1024
Hodgman, E.	BIOT	12	Hofzumahaus, C.	POLY	691	Holland, P.L.	INOR	1338
Hodgman, E.	BIOT	264	Hogan, N.	PHYS	296	Hollenbeck, E.	COLL	98
Hodgson, R.	MEDI	257	Hogan, N.	PHYS	543	Hollender, J.	ANYL	29
Hoefelmeyer, J.D.	INOR	287	Hogan, V.	INOR	1015	Hollender, J.	CINF	106
Hoegg, E.	ANYL	231	Hogarth, G.	COLL	649	Hollender, J.	ENVR	738
Hoegg, E.	ANYL	234	Hogg, J.M.	INOR	1251	Hollender, J.	ENVR	784
Hoehn, R.M.	PROF	1	Hoggard, A.	PHYS	402	Hollender, J.	ENVR	787
Hoelder, S.	MEDI	63	Högqvist, M.	BIOT	117	Hollerbach, M.R.	ORGN	251
Hoener, B.	PHYS	384	Hogue, M.E.	CHED	909	Hollett, J.W.	COMP	159
Hoener, B.S.	PHYS	299	Hogue, M.E.	CHED	1835	Holliday, D.L.	AGFD	152
Hoepfner, M.	ENFL	163	Hohan, S.R.	BIOL	239	Holliger, N.	COLL	270
Hoepfner, M.	ENFL	232	Hohman, F.M.	CATL	119	Hollingsworth, J.	CHED	1289
Hoepfner, M.	ENFL	552	Hohn, C.	MEDI	118	Hollingsworth, J.	CHED	1890
Hoerrner, S.	MEDI	327	Hohn, K.L.	CATL	436	Hollingsworth, J.A.	CHED	1980
Hoerter, T.N.	SCHB	20	Höhner, R.R.	POLY	375	Hollingsworth, J.A.	COLL	432
Hoet, R.	BIOT	492	Hohol, R.	ORGN	623	Hollingsworth, J.A.	COLL	489
Hoevelmann, C.	PMSE	94	Hoja, J.	COMP	56	Hollingsworth, J.A.	PHYS	352
Hoffman, A.	CATL	132	Hojilla-Evangelista, M.	CELL	300	Hollingsworth, T.	INOR	488
Hoffman, A.	CATL	231	Hokelek, T.	INOR	1212	Hollinsworth, T.	BIOT	412
Hoffman, A.	CATL	464	Holahan, M.	MEDI	191	Hollis, T.K.	INOR	496
Hoffman, A.	CATL	356	Holak, T.	MEDI	276	Hollis, T.K.	INOR	690

Hollis, T.K.	INOR	707	Hong, C.M.	INOR	748	Hopkins, A.	BIOT	389
Hollis, T.K.	INOR	1197	Hong, C.M.	INOR	1042	Hopkins, A.	COLL	398
Hollis, T.K.	INOR	1198	Hong, E.	PMSE	511	Hopkins, B.M.	CHED	470
Hollis, T.K.	INOR	1200	Hong, E.	POLY	314	Hopkins, B.M.	CHED	517
Hollis, T.K.	INOR	1276	Hong, E.	CHED	463	Hopkins, C.	MEDI	151
Hollis, T.K.	PHYS	540	Hong, H.	ENVR	381	Hopkins, M.D.	CHED	865
Hollis, T.K.	YCC	23	Hong, J.I.	ORGN	330	Hopkins, M.D.	CHED	1626
Hollis, T.K.	INOR	159	Hong, K.L.	BIOL	237	Hopkins, M.D.	INOR	1104
Hollis, T.K.	INOR	485	Hong, K.	ENFL	484	Hopkins, Z.	ENVR	231
Hollis, T.K.	INOR	882	Hong, M.	CELL	1	Hopkins, Z.	ENVR	292
Hollis, T.K.	INOR	1199	Hong, P.	ANYL	415	Hopkinson, D.P.	PMSE	239
Hollis, W.	CHED	216	Hong, S.	ORGN	181	Hopko, M.	CHED	930
Hollis, W.	CHED	1426	Hong, S.	ORGN	182	Hoppe, K.	GEOC	119
Hollis, W.	CHED	1432	Hong, T.	PMSE	108	Hoppe, M.D.	CHED	475
Hollis, W.	CHED	1438	Hong, T.	PMSE	140	Hoppe Alvarez, L.	POLY	746
Holloway, L.R.	ORGN	385	Hong, W.	COLL	113	Hoppe-Jones, C.	ENVR	477
Holloway, L.R.	ORGN	479	Hong, X.	COMP	292	Hopper, R.	CHED	846
Holman, B.	BIOT	276	Hong Ha, T.	PHYS	407	Hopper, T.G.	CINF	56
Holman, J.	CHED	5	Hongo, K.	COLL	536	Hopps, M.	CHED	1392
Holman, K.	INOR	1326	Hongo, K.	INOR	1213	Hopson, R.	POLY	640
Holman, T.R.	INOR	634	Hongo, K.	PMSE	451	Horan, J.	ENFL	483
Holmberg, V.	CHED	1316	Hongo, K.	POLY	641	Hore, D.K.	COLL	397
Holme, T.	CHED	140	Hongpeng, Z.	COLL	313	Hore, M.	PMSE	498
Holme, T.	CHED	1960	Honold, T.	POLY	687	Hore, M.J.	PMSE	116
Holme, T.	CHED	2061	Hood, A.	PMSE	344	Hore, M.J.	PMSE	198
Holme, T.	CHED	2117	Hood, J.	CHED	2200	Hore, M.J.	POLY	287
Holmes, B.	CHED	1552	Hood, J.	PHYS	58	Horenstein, N.	MEDI	182
Holmes, N.	CARB	60	Hood, T.	BIOT	174	Horenstein, N.	MEDI	349
Holmes, S.L.	ORGN	439	Hood, Z.	ENFL	308	Horgan, C.	CHED	1751
Holmgren, D.	CELL	242	Hood, Z.	ENFL	471	Hori, A.	MEDI	310
Hölsch, N.	PHYS	228	Hooe, S.	INOR	554	Hori, H.	ORGN	30
Holsen, T.M.	ENVR	586	Hoogerbrugge, A.	INOR	977	Hori, H.	ORGN	142
Holst, H.	CHED	1172	Hoogesteijn von Reitzenstein, N.	ENVR	152	Horikawa, M.	POLY	22
Holstein, M.	BIOT	273	Hooijmans, C.	ENVR	667	Horikawa, Y.	CELL	177
Holstein, M.	BIOT	314	Hooijmans, C.	ENVR	668	Horiuchi, S.	ORGN	717
Holt, B.	PMSE	327	Hooker, C.	BIOT	547	Horiuchi, S.	ORGN	718
Holt, B.	POLY	228	Hooley, R.J.	ORGN	283	Horiuchi, S.	ORGN	719
Holt, J.S.	INOR	1379	Hooley, R.J.	ORGN	385	Horkay, F.	BIOT	197
Holt, L.	ORGN	166	Hooley, R.J.	ORGN	479	Horkay, F.	POLY	281
Holten-Andersen, N.	PMSE	14	Hoop, C.	BIOL	140	Horkayne-Szakaly, I.	BIOT	197
Holten-Andersen, N.	PMSE	68	Hooper, R.	INOR	876	Horn, J.R.	MEDI	381
Holton, A.	CHED	237	Hooper, R.	CHED	73	Horn, J.	PHYS	504
Holtzman, G.	CHED	1631	Hooper, R.	POLY	121	Horn, M.N.	CHED	1230
Hom, K.	MEDI	395	Hooshmand, K.	AGFD	90	Horn, M.A.	CHED	1700
Homburger, N.	CHED	426	Hoover, A.	ORGN	184	Horn, M.A.	CHED	1727
Homma, K.	COLL	751	Hoover, A.	ORGN	194	Horn, M.A.	CHED	1728
Homs Ortiz, A.	CHED	738	Hoover, J.M.	CHED	1096	Horn, S.	CELL	405
Hon, V.	I&EC	39	Hoover, J.M.	INOR	444	Hornak, V.	COMP	60
Honda, K.	PMSE	98	Hoover, J.M.	INOR	1277	Hornback, S.	PHYS	467
Hondrogianis, E.	ANYL	214	Hoover, J.M.	INOR	1307	Hornbuckle, K.C.	GEOC	104
Hondrogianis, N.	INOR	1322	Hoover, S.	INOR	987	Horner, G.	BIOL	96
Hone, J.	PHYS	248	Hopanna, M.	ENVR	524	Horner, G.	BIOL	175
Honeycutt, A.P.	CHED	1096	Hopcroft, P.J.	MEDI	293	Horner, G.	CHED	671
Honeycutt, A.P.	INOR	444	Hopke, P.	ENVR	447	Horner, M.	BIOT	175
Honeyman, B.	GEOC	63	Hopke, P.	ENVR	754	Horning, D.P.	BIOL	291

Hornsby, S.B.	PMSE	35	Houghten, R.A.	PROF	3	Howitz, W.J.	PMSE	562
Hornus, M.N.	CELL	83	Houk, A.L.	CHED	1747	Howlader, A.	ORGN	670
Horsley, H.T.	MEDI	25	Houk, K.N.	COLL	686	Howland, W.	INOR	1170
Horsley, K.	ENFL	272	Houk, K.N.	COMP	245	Howland, W.C.	INOR	90
Horst, S.	PHYS	632	Houk, K.N.	COMP	291	Howlett, P.	COLL	425
Horton, A.V.	CHED	494	Houk, K.N.	MPPG	25	Howlett, P.	PHYS	171
Horvath, A.	PHYS	117	Houk, K.N.	ORGN	111	Hoye, A.T.	ORGN	42
Horváth, B.	BIOT	107	Houle, C.	MEDI	321	Hoye, T.R.	CHED	1375
Horvath, D.	CINF	113	Houlihan, M.	INOR	351	Hoyo, J.	COLL	520
Horváth, H.	ENFL	201	Houndonougbo, Y.A.	BIOT	435	Hoyo, J.	COLL	676
Horwath, W.	GEOC	34	House, C.	ORGN	553	Hoyt, D.W.	CATL	51
Hosack, H.N.	CHED	1071	House, K.	PHYS	548	Hoyt, D.W.	CATL	514
Hosack, H.N.	CHED	1870	Houseknecht, J.	CHED	211	Hoyt, D.W.	CATL	515
Hosbein, K.	CHED	138	Houser, H.	COMP	427	Hoyt, D.W.	CATL	516
Hosein, I.D.	POLY	8	Houshyar Azar, S.	COMP	411	Hoyt, D.W.	GEOC	238
Hosek, M.	COLL	402	Houston, J.	POLY	792	Hoyt, H.M.	INOR	229
Hosfelt, J.T.	CHED	436	Houston, Z.	POLY	11	Hoyt, K.	ANYL	157
Hosfelt, J.T.	CHED	1722	Houston, Z.	POLY	300	Hrabal, J.S.	PMSE	141
Hoshan, L.	BIOT	263	Houtz, E.	ENVR	713	Hratchian, H.P.	CHED	162
Hoshan, L.	BIOT	393	Höveler, K.	PHYS	228	Hratchian, H.P.	COMP	352
Hoshino, R.	CELL	124	Howard, A.	BIOL	134	Hratchian, H.P.	COMP	383
Hoshino, Y.	ANYL	403	Howard, B.	ENFL	529	Hratchian, H.P.	NUCL	100
Hoshino, Y.	POLY	336	Howard, B.	I&EC	122	Hristovski, K.D.	ENVR	152
Hosho, K.	POLY	389	Howard, D.	ENVR	441	Hruby, V.J.	MEDI	78
Hosier, C.	INOR	1318	Howard, D.	CHED	262	Hruska, H.L.	CHED	1093
Hosoya, T.	CELL	46	Howard, E.D.	CHED	559	Hrycyna, C.	CHED	2075
Hospied, A.	CELL	305	Howard, E.D.	CHED	1248	Hsia, S.V.	MEDI	137
Hospital, A.	CHED	1241	Howard, J.C.	PHYS	52	Hsiao, B.S.	ENVR	564
Hossain, A.	ANYL	114	Howard, J.R.	CHED	337	Hsiao, B.S.	ENVR	651
Hossain, A.	INOR	936	Howard, J.L.	AGFD	157	Hsiao, C.C.	MEDI	372
Hossain, A.	INOR	949	Howard, K.	ENVR	696	Hsieh, C.	BIOL	173
Hossain, A.	ORGN	331	Howard, L.M.	CHED	1643	Hsieh, C.	INOR	270
Hossain, A.	ORGN	478	Howard, L.	CELL	274	Hsieh, C.	INOR	1358
Hossain, M.	BIOL	217	Howard, M.	CHED	81	Hsieh, H.	ENVR	21
Hossain, S.	BIOT	440	Howard, T.	MEDI	293	Hsieh, J.M.	CHED	1849
Hossan, M.	COLL	767	Howarter, J.A.	PMSE	32	Hsieh, K.	PMSE	39
Hosseinaei, O.	CELL	123	Howarter, J.A.	PMSE	440	Hsieh, T.	ENFL	520
Hosseinali, F.	COLL	358	Howarter, J.A.	PMSE	580	Hsieh, Y.P.	ENVR	507
Hosseini, S.	PMSE	608	Howarter, J.A.	PROF	27	Hsieh-Wilson, L.C.	CELL	20
Hossen, M.	ANYL	441	Howarth, A.	COLL	427	Hsu, C.S.	ENFL	99
Hossen, A.	CHED	1270	Howarth, A.	I&EC	69	Hsu, C.	ENFL	109
Hotchkiss, A.	CHED	577	Howdle, S.M.	POLY	453	Hsu, C.	INOR	52
Hou, B.	ENFL	349	Howdle, S.M.	POLY	707	Hsu, C.	ENVR	374
Hou, G.	CATL	44	Howe, K.	ENVR	4	Hsu, C.	BIOT	259
Hou, G.	CATL	525	Howe, K.	ENVR	251	Hsu, C.	ANYL	39
Hou, J.	POLY	18	Howe, L.	CHED	420	Hsu, H.	ANYL	118
Hou, J.	ENVR	501	Howell, B.A.	POLY	236	Hsu, H.	PMSE	29
Hou, K.	ENFL	491	Howell, B.A.	POLY	237	Hsu, J.H.	CHED	1760
Hou, L.	ENFL	171	Howell, B.A.	POLY	358	Hsu, K.J.	BIOT	147
Hou, S.	ANYL	374	Howell, B.A.	POLY	399	Hsu, K.J.	BIOT	226
Hou, S.	MEDI	343	Howell, C.	COLL	15	Hsu, K.	BIOL	90
Hou, S.	COLL	519	Howell, M.	CATL	451	Hsu, K.	BIOL	158
Hou, X.J.	MEDI	321	Howells, N.	CHED	1819	Hsu, K.	BIOL	227
Houck, M.B.	ORGN	501	Howerth, E.W.	CHED	608	Hsu, S.L.	POLY	348
Hough, S.	INOR	8	Howitz, W.J.	BIOL	313	Hsu, S.L.	POLY	498

Hsu, T.	ENFL	231	Hu, Y.	GEOC	278	Huang, L.	PHYS	366
Hsueh, H.	PMSE	588	Hu, Y.	ENFL	307	Huang, L.	PHYS	391
Hsu-Kim, H.	ENVR	244	Hu, Y.	ENFL	467	Huang, L.	ANYL	90
Hsu-Kim, H.	ENVR	281	Hu, Y.	AGFD	111	Huang, L.	POLY	518
Htoon, H.	COLL	489	Hu, Y.	ORGN	370	Huang, L.	POLY	556
Htoon, H.	PHYS	352	Hu, Y.	COLL	683	Huang, L.	CHED	112
Hu, B.	CHED	2112	Hu, Y.	CATL	89	Huang, L.	CHED	426
Hu, D.	CATL	553	Hu, Y.	ENFL	292	Huang, L.	MEDI	69
Hu, G.	CATL	52	Hu, Y.	INOR	174	Huang, L.	CELL	392
Hu, G.	ENFL	179	Hu, Y.	ORGN	621	Huang, L.	COLL	195
Hu, H.	CATL	372	Hu, Y.	ENFL	306	Huang, M.	BIOT	427
Hu, H.	ORGN	31	Hu, Y.	ANYL	97	Huang, M.	ENFL	187
Hu, H.	COMP	223	Hu, Y.	I&EC	121	Huang, M.	PMSE	544
Hu, J.	ANYL	371	Hu, Y.H.	ENFL	180	Huang, M.	AGFD	135
Hu, J.	BIOT	413	Hu, Y.H.	ENFL	316	Huang, Q.	PHYS	118
Hu, J.	ENFL	206	Hu, Y.H.	MPPG	2	Huang, Q.	GEOC	243
Hu, J.	ENFL	117	Hu, Z.	ENVR	544	Huang, Q.	AGFD	35
Hu, J.	AGFD	222	Hu, Z.	ENFL	350	Huang, Q.	AGFD	36
Hu, J.	ENVR	573	Hu, Z.	ENFL	519	Huang, Q.	AGFD	69
Hu, J.	ANYL	437	Hu, Z.	COLL	489	Huang, Q.	ENVR	57
Hu, J.	ANYL	463	Hu, Z.	PHYS	57	Huang, Q.	CELL	73
Hu, J.	CATL	311	Hua, D.H.	I&EC	138	Huang, R.	ENVR	37
Hu, J.	CATL	312	Hua, G.	ENVR	463	Huang, R.	ENVR	308
Hu, J.	CATL	313	Hua, G.	ENVR	776	Huang, R.	ENVR	752
Hu, J.	CATL	314	Hua, Y.	ORGN	613	Huang, R.	MPPG	12
Hu, L.	CELL	39	Hua, Z.	PMSE	23	Huang, R.	ENFL	53
Hu, L.	CELL	56	Huan, S.	CELL	265	Huang, R.	ENVR	257
Hu, L.	CELL	77	Huan, S.	CELL	342	Huang, R.	CATL	421
Hu, L.	CELL	172	Huan, S.	CELL	387	Huang, R.	ENVR	379
Hu, L.	MEDI	153	Huang, Z.	COLL	704	Huang, S.	POLY	36
Hu, M.	MEDI	92	Huang, A.	MEDI	368	Huang, S.	POLY	425
Hu, M.	MEDI	93	Huang, A.	BIOT	226	Huang, S.	INOR	783
Hu, M.Z.	CATL	379	Huang, B.	ENVR	469	Huang, T.	INOR	1164
Hu, M.Z.	I&EC	144	Huang, B.	I&EC	123	Huang, T.	CATL	316
Hu, M.	ENVR	345	Huang, C.	PHYS	598	Huang, T.	CATL	335
Hu, M.	PHYS	110	Huang, C.	ENVR	296	Huang, T.	CATL	198
Hu, M.	COLL	383	Huang, C.	BIOT	89	Huang, T.	AGFD	178
Hu, P.	ENVR	333	Huang, C.	ENVR	25	Huang, T.	CELL	346
Hu, Q.	CATL	503	Huang, D.	COLL	287	Huang, T.	I&EC	119
Hu, Q.	INOR	1025	Huang, D.	PHYS	394	Huang, V.	ORGN	162
Hu, Q.	BIOL	125	Huang, D.	CHED	723	Huang, W.	COLL	595
Hu, S.	ENVR	225	Huang, H.	AGFD	64	Huang, W.	INOR	134
Hu, T.	AGFD	58	Huang, H.	POLY	219	Huang, W.	ENFL	79
Hu, T.	ANYL	256	Huang, H.	AGFD	153	Huang, W.	COLL	541
Hu, W.	POLY	779	Huang, H.	ORGN	411	Huang, W.	ENVR	616
Hu, W.	BIOT	15	Huang, H.	MEDI	75	Huang, W.	CATL	204
Hu, W.	BIOT	26	Huang, J.	BIOL	206	Huang, W.	CATL	519
Hu, W.	BIOT	27	Huang, J.	CATL	417	Huang, W.	ENFL	540
Hu, W.	BIOT	110	Huang, J.	POLY	682	Huang, W.	INOR	1088
Hu, X.	ENVR	329	Huang, K.	CATL	264	Huang, X.	ENFL	452
Hu, X.	COLL	428	Huang, K.	ENFL	285	Huang, X.	INOR	459
Hu, X.	PMSE	373	Huang, K.	PMSE	440	Huang, X.	ENVR	564
Hu, Y.	ENVR	26	Huang, K.	ENFL	296	Huang, X.	CHED	601
Hu, Y.	ENVR	29	Huang, L.	BIOT	497	Huang, X.	CHED	1821
Hu, Y.	GEOC	6	Huang, L.	PHYS	246	Huang, X.	PMSE	577

Huang, X.	COMP	400	Hubert, M.	COLL	593	Hufstедler, H.	CHED	1860
Huang, Y.	CHED	759	Hubin, T.J.	INOR	964	Hugerat, M.	CHED	234
Huang, Y.	CHED	1248	Hubin, T.J.	INOR	965	Hugerat, M.	CHED	283
Huang, Y.	ENFL	74	Hubin, T.J.	INOR	966	Huges, A.	COLL	8
Huang, Y.	ENFL	374	Hubin, T.J.	INOR	967	Huggins, M.T.	ORGN	475
Huang, Y.	PHYS	385	Hubmann, M.	ENVR	43	Huggins, W.	MEDI	48
Huang, Y.	PMSE	537	Huckaba, A.	INOR	1070	Hughes, C.	CHED	719
Huang, Y.	POLY	808	Huckaba, A.	ORGN	292	Hughes, D.J.	POLY	670
Huang, Y.	INOR	761	Huckaba, A.	PHYS	534	Hughes, M.	ENFL	61
Huang, Y.	GEOC	80	Huda, M.	POLY	346	Hughes, P.S.	AGFD	115
Huang, Y.	BIOT	14	Hudak, B.M.	INOR	1231	Hughes, S.	CHED	383
Huang, Y.	ENVR	404	Hudalla, G.	CARB	95	Hughes, S.	CHED	1284
Huang, Z.	COLL	307	Huddleston, N.E.	CHED	494	Hughes, T.S.	CHED	811
Huang, Z.	CELL	77	Huddleston, N.E.	CHED	1762	Hughes, T.S.	ORGN	639
Huang, Z.	BIOT	286	Hudnall, T.W.	INOR	1107	Hughes, T.	CHED	1238
Huang, Z.	CATL	313	Hudnall, T.W.	ORGN	397	Hughes, T.	CINF	12
Huang, Z.	PMSE	149	Hudson, A.	CHED	352	Hugo, M.	COLL	256
Huang, Z.	GEOC	85	Hudson, A.	PMSE	308	Hugo, R.C.	COLL	754
Huang, Z.	CATL	264	Hudson, B.	COLL	196	Huh, D.N.	INOR	265
Huang, Z.	PHYS	349	Hudson, B.	COLL	353	Huh, D.N.	INOR	1140
Huang, Z.	ANYL	450	Hudson, B.	PHYS	645	Huh, J.	INOR	1426
Huang, Z.	CHED	430	Hudson, C.M.	ENFL	404	Huhn, T.	COLL	345
Huang, Z.	CHED	446	Hudson, E.R.	PHYS	232	Huhn, W.	PHYS	381
Huang, Z.	CHED	1027	Hudson, G.	ORGN	583	Huhn, W.P.	PHYS	382
Huang, Z.	CHED	1029	Hudson, G.A.	BIOL	118	Huhn, W.P.	PHYS	414
Huang, Z.	CHED	1269	Hudson, J.	MEDI	293	Hui, L.	BIOL	98
Huang, Z.	ENFL	175	Hudson, K.	NUCL	21	Hui, L.	POLY	465
Huang, Z.	INOR	345	Hudson, K.	MEDI	244	Hui, T.	COLL	701
Huangfu, X.	ENVR	257	Hudson, M.H.	INOR	410	Hui, T.	PMSE	314
Huard, K.	MEDI	275	Hudson, M.L.	INOR	1011	Hulangamuwa, W.W.	ORGN	435
Hubaud, A.	GEOC	52	Hudson, P.	COMP	98	Hulangamuwa, W.W.	ORGN	553
Hubbard, A.	POLY	567	Hudson, R.	CATL	87	Hull, C.	CHED	383
Hubbard, S.E.	CHED	153	Hudson, S.	PHYS	504	Hull, K.L.	ENFL	234
Hubbard, S.E.	CHED	466	Hudson-Smith, N.V.	CHED	2062	Hull, K.	CHED	119
Hubbard, S.E.	CHED	514	Hudson-Smith, N.V.	ENVR	654	Hull, T.	COLL	299
Hubbard, S.E.	CHED	1904	Hudspeth, J.	PMSE	74	Hulley, E.B.	INOR	1082
Hubbuck, J.	BIOT	7	Hue, B.T.	ENFL	62	Hulley, E.B.	INOR	1100
Hubbuck, J.	BIOT	8	Hueffer, T.	ENVR	86	Hulley, E.B.	INOR	1190
Hubbuck, J.	BIOT	17	Huelsey, M.	CATL	523	Hulley, E.B.	INOR	1303
Hubbuck, J.	BIOT	66	Huerfano, L.J.	INOR	1077	Hulley, E.B.	INOR	1377
Hubbuck, J.	BIOT	102	Huerta, A.D.	CHED	315	Hulme, C.	MEDI	147
Hubbuck, J.	BIOT	135	Huerta, J.	BIOT	370	Hultgren, S.J.	MEDI	143
Hubbuck, J.	BIOT	205	Huerta, K.	CHED	1726	Hulvey, Z.	ENFL	146
Hubbuck, J.	BIOT	217	Huerta, N.	ENFL	235	Humagain, S.	ANYL	256
Hubbuck, J.	BIOT	474	Huerta, S.S.	ANYL	83	Humbert, P.	BIOL	292
Hubbuck, J.	BIOT	493	Hueske, C.	CHED	1060	Hume, J.	ORGN	326
Hubbuck, J.	BIOT	494	Huestis, M.P.	ORGN	131	Hume, J.	ORGN	643
Hubbuck, J.	BIOT	513	Huff, A.	PHYS	450	Humeidi, R.	MEDI	196
Hubbuck, J.	BIOT	521	Huff, A.K.	PHYS	454	Humke, J.	CHED	1401
Hubbuck, M.	CHED	1593	Huff, L.	CHED	802	Hummel, J.	BIOT	384
Huber, A.T.	MEDI	113	Huff, M.	ENVR	107	Hummel, J.	ORGN	129
Huber, D.	COLL	569	Huffman, B.	BIOT	190	Hummel, M.	CELL	264
Huber, G.W.	CATL	264	Huffman, S.	INOR	778	Hummel, M.	CELL	326
Huber, J.	INOR	8	Hufford, H.	CHED	1860	Humpert, D.	CELL	112
Huber, M.	COMP	225	Huffstetler, J.	PMSE	610	Humphrey, J.M.	ORGN	220

Humphrey, S.M.	CHED	1331	Huo, F.	COLL	595	Huston, H.K.	CHED	1509
Humphrey, S.M.	ENVR	131	Huo, L.	ORGN	130	Hutchens, C.	BIOT	80
Humphrey, S.M.	INOR	306	Huo, P.	MEDI	327	Hutchings, G.	CATL	130
Humphrey, S.M.	INOR	309	Huo, P.	COMP	329	Hutchings, G.	ENFL	34
Humphrey, S.M.	INOR	715	Huo, Q.	COLL	88	Hutchings, G.	ENFL	35
Humphrey, S.M.	INOR	718	Huo, S.	INOR	408	Hutchings, M.	MEDI	25
Humphrey, S.M.	INOR	1028	Huo, S.	ORGN	130	Hutchins, G.D.	MEDI	60
Humphrey, S.M.	INOR	1046	Huo, X.	ENVR	135	Hutchins, G.D.	MEDI	132
Humphrey, S.M.	INOR	1243	Huo, X.	ENVR	391	Hutchins, S.	BIOT	44
Humphries, M.	INOR	1386	Huo, X.	ENVR	393	Hutchins, S.	BIOT	262
Humphries, N.T.	ENFL	383	Huoth, L.	CHED	1883	Hutchinson, C.P.	ENVR	227
Hums, M.E.	ENFL	61	Huovinen, P.	CELL	294	Hutchinson, C.	COLL	681
Huncik, K.	ANYL	390	Hupaylo, D.	SCHB	27	Hutchinson, T.	INOR	898
Hung, J.	BIOT	436	Hupp, A.M.	ANYL	268	Hutchison, C.R.	PHYS	658
Hung, J.	BIOT	495	Hupp, J.T.	CATL	137	Hutchison, J.E.	COLL	654
Hung, S.	ANYL	135	Hupp, J.T.	CATL	194	Hutchison, J.M.	ENVR	390
Hungerford, J.A.	CHED	1870	Hupp, J.T.	COMP	61	Hutchison, P.	INOR	359
Hunnicut, A.	BIOT	547	Hupp, J.T.	I&EC	69	Huther, A.	CATL	546
Hunnicut, S.S.	CHED	80	Hupp, J.T.	INOR	122	Hutson, B.	INOR	1322
Hunnicut, S.S.	CHED	129	Hupp, J.T.	INOR	283	Hutson, K.	BIOL	251
Hunnicut, S.S.	CHED	2082	Hupp, J.T.	INOR	522	Huuk, T.	BIOT	7
Hunnicut, S.S.	CHED	2139	Hupp, J.T.	INOR	1334	Huuk, T.	BIOT	66
Hunsen, M.	CHED	214	Huq, A.	ENFL	431	Huuk, T.	BIOT	102
Hunsen, M.	CHED	1974	Huq, A.	ENFL	465	Huuk, T.	BIOT	513
Hunt, A.	INOR	200	Hura, N.	ORGN	48	Huynh, M.T.	INOR	1163
Hunt, B.	CHED	563	Hurlbert, J.C.	MEDI	335	Huynh, S.	CHED	1327
Hunt, B.	ORGN	652	Hurlburt, T.	CATL	348	Huynh, T.	POLY	137
Hunt, C.	INOR	470	Hurley, M.	BIOT	53	Huynh, U.G.	POLY	399
Hunt, C.	INOR	1267	Hurley, M.	COLL	96	Huynh, W.	INOR	708
Hunt, D.A.	ORGN	415	Hurley Predecki, A.	CHED	1226	Huyseune, S.	AGFD	189
Hunt, D.A.	ORGN	624	Hurley Predecki, A.	CHED	1228	Hwang, B.	GEOC	209
Hunt, D.A.	ORGN	625	Hürlimann, F.	COLL	774	Hwang, B.	ORGN	736
Hunt, J.	BIOL	113	Hurlock, M.	ENFL	373	Hwang, D.	BIOT	465
Hunt, J.R.	PHYS	536	Hurst, K.	ENFL	278	Hwang, H.	MEDI	72
Hunt, L.A.	INOR	508	Hurst, P.J.	ORGN	740	Hwang, N.	MEDI	199
Hunt, L.A.	PHYS	534	Hurst, S.K.	CHED	1048	Hwang, N.	MEDI	363
Hunt, P.	CINF	27	Hurst, S.K.	CHED	1053	Hwang, O.	ENVR	106
Hunt, P.	CINF	55	Hurt, M.	ENFL	288	Hwang, S.	INOR	21
Hunt, P.	COMP	24	Hurt, M.	ENFL	290	Hwang, S.	ENFL	303
Hunt, P.	MEDI	185	Hurt, M.	I&EC	92	Hwang, S.	INOR	937
Hunt, S.	BIOT	325	Hurtig, J.E.	BIOL	58	Hwang, S.	CHED	1912
Hunter, A.K.	BIOT	103	Hurtig, J.E.	CHED	1222	Hwang, W.	BIOL	154
Hunter, A.K.	BIOT	538	Hurwitz, E.	ANYL	161	Hwang, Y.	ENVR	34
Hunter, C.	CHED	1891	Husek, J.	PHYS	32	Hyatt, I.D.	ORGN	686
Hunter, C.	PHYS	177	Husic, B.E.	COMP	80	Hyatt, I.	ORGN	677
Hunter, J.	CHED	1698	Huskens, J.	COLL	548	Hyde, E.	CHED	989
Hunter, N.H.	COMP	392	Husremovic, S.	INOR	772	Hyde, L.	MEDI	257
Hunter, R.A.	CHED	365	Hussain, A.S.	I&EC	37	Hyeon, C.	COLL	720
Hunter, R.A.	CHED	1310	Hussain, A.S.	I&EC	38	Hyeon, J.	ENVR	609
Hunter, S.J.	POLY	107	Hussain, T.	PMSE	572	Hyeon, T.	INOR	791
Hunter, S.	CHED	246	Hussain, T.	PMSE	585	Hyeon, T.	INOR	792
Hunting, J.L.	CHED	1147	Hussaini, S.	CATL	333	Hyeon, T.	INOR	793
Hunting, J.L.	CHED	1155	Hussey, C.L.	PHYS	658	Hyers, M.J.	CHED	843
Hunting, J.L.	CHED	1165	Husson, S.M.	PMSE	190	Hyers, M.J.	PHYS	429
Huntsman, A.C.	MEDI	384	Husted, B.	ANYL	124	Hyland, K.	ENVR	411

Hyllested, L.	COLL	31	Idrees, K.B.	CHED	1081	Ilic, S.	ENFL	243
Hyman, M.	ENVR	710	Idrees, K.B.	ORGN	163	Ilies, M.A.	COLL	3
Hymel, G.T.	CHED	1265	Idris, N.	INOR	436	Ilies, M.A.	COLL	620
Hymel, G.T.	CHED	93	Idriss, H.	ENFL	77	Ilies, M.A.	MEDI	311
Hymel, G.T.	CHED	1824	Idso, M.	POLY	248	Ilies, M.	CHED	242
Hynes, J.	MEDI	36	Ievlev, A.	GEOC	6	Ilin, Y.	BIOT	44
Hynes, J.	MEDI	178	Ievlev, A.	GEOC	7	Ilin, Y.	BIOT	262
Hyolmo, P.	CHED	1606	Ifijeh, G.	CHED	754	Iliopoulou, E.	CELL	145
Hyslop, R.M.	BIOL	77	Igarashi, K.	CELL	179	Illy, G.	COLL	208
Hyslop, R.M.	BIOL	85	Igbokwe, E.	ORGN	71	Illy, G.K.	COLL	205
Hyslop, R.M.	BIOL	88	Iglesia, E.	CATL	64	Illy, G.K.	COLL	680
Hyslop, R.M.	CHED	173	Iglesia, E.	CATL	196	Illy, N.	POLY	564
Hyster, T.	ORGN	7	Iglesia, E.	CATL	361	Ilott, A.J.	BIOT	178
Hyun, S.P.	GEOC	87	Iglesia, E.	CATL	491	Ilton, E.	GEOC	121
Hyvacko, U.T.	CELL	135	Iglesia, E.	I&EC	31	Ilton, E.	GEOC	261
Hyväkkö, U.	CELL	119	Iglesia, E.	I&EC	49	Ilton, E.	GEOC	272
Hyvarinen, S.	CHED	199	Iglesias, A.	BIOT	211	Ilton, E.S.	GEOC	186
Iacono, S.T.	INOR	953	Iglesias, M.C.	CELL	93	Iluno, C.	CHED	938
Iacono, S.T.	INOR	1230	Iglesias, M.	CELL	344	Iluno, C.	CHED	1159
Iacono, S.T.	PMSE	334	Iglesias-Juez, A.	CATL	193	Im, C.	MEDI	72
Iacono, S.T.	PMSE	431	Ignant, A.	CHED	1849	Ima, M.	MEDI	32
Iacono, S.T.	PMSE	438	Ignat'ev, N.V.	FLUO	39	Imada, H.	MEDI	22
Iacono, S.T.	PMSE	607	Ignatchenko, A.	CATL	387	Imagawa, A.	MEDI	32
Iacono, S.T.	POLY	543	Ignatchenko, A.	CHED	1659	Imai, T.	CELL	42
Iacono, S.T.	POLY	544	Iguchi, D.	PMSE	185	Imam, Z.	COLL	635
Iacono, S.T.	POLY	549	Iguchi, D.	PMSE	186	Imanishi, S.	CELL	124
Iafe, R.G.	CHED	1395	Iguchi, H.	AGFD	186	Imanishimwe, A.	CHED	1422
Ianiro, A.	POLY	295	Iguchi, M.	ENFL	197	Imbach-Weese, P.	MEDI	243
Iannone, G.	CHED	507	Ihde, M.	ENVR	400	Imbault, D.	CELL	332
Iannuzzi, T.	PROF	9	Ihlenfeldt, W.	CINF	7	Imberti, S.	PHYS	63
Ibanez, J.	CATL	102	Ihns, K.	CHED	1860	Imberti, S.	PHYS	656
Ibáñez, M.	INOR	1051	Iisa, K.	CATL	390	Imbrogno, J.	POLY	635
Ibarboure, E.	COLL	108	Iisa, K.	CATL	391	Immethun, C.	BIOT	551
Ibarra, C.	BIOL	174	Iizuka, A.	ENVR	150	Inagaki, K.	CATL	511
Ibeji, C.U.	INOR	1360	Ike, I.	PRES	4	Inam, E.	ENVR	549
Ibrahim, E.	POLY	79	Ikeda, A.	ORGN	680	Inam, E.J.	GEOC	99
Ibrahim, K.	PHYS	374	Ikeda-Ohno, A.	NUCL	20	Indralingam, R.	CHED	2203
Ibrahim, M.	COLL	86	Ikeue, K.	INOR	758	Infante, I.	INOR	1054
Ibrahim, N.	INOR	301	Ikuma, K.	ENVR	355	Ing, N.	COLL	174
Ibrahimova, V.	POLY	748	Ilani Kashkouli, P.	GEOC	5	Ingall, E.D.	ENVR	308
Ichake, S.	ORGN	32	Ilani Kashkouli, P.	GEOC	210	Ingato, D.	BIOT	502
I-Chia Wu, J.	PHYS	453	Ilawe, N.V.	POLY	770	Ingle, K.	PMSE	456
Ichibha, T.	POLY	641	Iles, P.J.	ANYL	129	Inglefield, D.	PMSE	439
Ichiishi, N.	FLUO	50	Iles, P.J.	ANYL	139	Inglefield, D.	POLY	500
Ichire, O.	CHED	1180	Iles, P.J.	ANYL	140	Ingram, B.J.	ENFL	419
Ichiyé, T.	COMP	7	Iles, P.J.	ANYL	152	Ingram, J.C.	ANYL	297
Ichiyé, T.	COMP	129	Iles, P.J.	CHED	792	Ingram, J.C.	ENVR	689
Ickes, C.	AGFD	117	Iles, P.J.	CHED	823	Ingrand, V.	ENVR	783
Ida, D.	PMSE	199	Iles, P.J.	CHED	1913	Inking, K.	INOR	366
Ide, B.	CHED	90	Iles, P.J.	CHED	2010	Inkpen, M.S.	COLL	340
Ide, B.	CHED	1393	Ilg, S.	AGFD	44	Inkpen, M.S.	COLL	477
Ide, B.	CHED	1886	Ilgen, A.	COLL	53	Inlow, D.	BIOT	44
Ide, N.D.	MEDI	283	Ilgen, A.	GEOC	168	Inlow, D.	BIOT	262
Ide, Y.	ANYL	386	Ilgen, A.	GEOC	252	Innerlohinger, J.	CELL	260
Ideker, T.	BIOT	30	Ilgen, A.	GEOC	283	Innis, E.	ANYL	75

Innocenti Malini, R.	GEOC	18	Isaacs, K.	CINF	110	Ismail, M.	ENFL	163
Inostroza, N.	PHYS	360	Isaacs, K.	ENVR	416	Ismail, M.	INOR	379
Inoue, H.	PMSE	374	Isaacs, K.	ENVR	731	Ismail, M.	MEDI	80
Inoue, M.	ORGN	521	Isaacs, L.D.	ORGN	484	Ismail, M.M.	MEDI	387
Inoue, T.	CELL	55	Isaacs, M.	CATL	374	Ismail, O.	ANYL	109
Inoue, T.	FLUO	38	Isaacson, E.	CHED	1675	Ismail-Beigi, S.	PHYS	186
Inouye, M.	CATL	351	Isaacson, E.	COMP	303	Isobe, N.	CELL	161
Insaidoo, F.K.	BIOT	514	Isaak, D.	CHED	1906	Isogai, A.	CELL	4
Inselman, D.W.	CELL	360	Isakova, A.	POLY	7	Isogai, A.	CELL	26
Intelli, A.	CHED	1514	Isakson, G.	PHYS	333	Isogai, A.	CELL	27
Inutan, E.	COMP	175	Isayev, O.	COMP	54	Isogai, A.	CELL	206
Inwards, E.	CHED	1258	Isayev, O.	COMP	114	Isogai, A.	CELL	334
Ioannidis, H.	COMP	380	Isayev, O.	COMP	115	Ison, E.A.	INOR	1413
Ioerger, T.R.	MEDI	95	Isayev, O.	COMP	264	Isono, T.	PMSE	98
Iorga, B.I.	COMP	381	Isayev, O.	COMP	276	Isono, T.	PMSE	449
Iovan, D.	INOR	709	Isayev, O.	COMP	341	Isono, T.	PMSE	457
Iovine, P.M.	CHED	1773	Isayev, O.	PHYS	253	Isono, T.	PMSE	603
Iovine, P.M.	CHED	1774	Isayeva, I.	PMSE	306	Israel, S.J.	ENVR	580
Iovine, P.M.	CHED	1775	Isborn, C.	COMP	71	Israel, S.	PMSE	176
Iovine, P.M.	CHED	1776	Isborn, C.	COMP	350	Israelachvili, J.N.	COLL	171
Iovine, P.M.	CHED	1777	Isheim, D.	ENFL	446	Israelachvili, J.N.	COLL	530
Iovu, H.	PMSE	237	Ishida, H.	PMSE	130	Israelachvili, J.N.	COLL	531
Ip, C.	MEDI	37	Ishida, H.	PMSE	185	Issa, A.A.	POLY	360
Ipek, H.	POLY	289	Ishida, H.	PMSE	186	Issa, A.	INOR	995
Ipek, S.	COLL	361	Ishida, H.	PMSE	231	Istasse, T.	ORGN	337
Ippoliti, J.T.	CHED	38	Ishida, H.	PMSE	234	Istre, H.	CHED	1483
Ippoliti, J.T.	CHED	1076	Ishida, H.	PMSE	540	Istre, J.	ORGN	673
Ippoliti, J.T.	CHED	1217	Ishida, K.P.	ENVR	253	Iszler, A.M.	ORGN	491
Ippoliti, J.T.	CHED	1218	Ishida, K.P.	ENVR	388	Itami, K.	ORGN	410
Ippoliti, J.T.	CHED	1229	Ishida, K.P.	ENVR	482	Ithurria, S.	INOR	675
Ippoliti, J.T.	CHED	1240	Ishida, K.P.	ENVR	728	Ito, A.	ORGN	708
Ippoliti, J.T.	CHED	1408	Ishida, K.P.	ENVR	772	Ito, H.	COMP	313
Ippoliti, J.T.	CHED	1779	Ishida, N.	INOR	912	Ito, H.	MEDI	189
Ippolito, J.	GEOC	126	Ishihara, K.	COLL	376	Ito, H.	MEDI	310
Iqbal, E.S.	BIOL	41	Ishihara, S.	ANYL	186	Ito, L.M.	CHED	1455
Iradukunda, A.M.	INOR	298	Ishii, J.	PMSE	375	Ito, T.	BIOT	339
Irgibayeva, I.	ENVR	550	Ishii, M.	COLL	260	Ito, T.	ANYL	405
Irgibayeva, I.	PHYS	436	Ishii, N.	MEDI	201	Ito, T.	I&EC	136
Iriarte-Gross, J.M.	BMGT	3	Ishii, Y.	POLY	722	Ito, T.	ANYL	403
Iriarte-Gross, J.M.	CINF	78	Ishiwari, F.	POLY	66	Ito, Y.	BIOL	119
Irias, A.	CHED	645	Iskakov, S.	PHYS	84	Ito, Y.	BIOL	163
Irie, K.	AGFD	122	Iskhakov, D.	NUCL	53	Ito, Y.	CELL	19
Irle, S.	COMP	337	Iski, E.V.	CHED	1333	Itoh, T.	PMSE	497
Irle, S.	COMP	390	Iski, E.V.	CHED	1347	Itschner, M.	PMSE	247
Irle, S.	COMP	425	Islam, A.	COLL	189	Iuliucci, R.	ANYL	432
Irvine, G.	ENFL	435	Islam, M.	BIOT	91	Iuliucci, R.	CHED	436
Irvine, J.	ENFL	435	Islam, M.S.	ORGN	322	Iuliucci, R.	CHED	1173
Irving, H.	INOR	503	Islam, M.	POLY	620	Iuliucci, R.	CHED	1722
Isa, L.	POLY	792	Islam, M.	POLY	624	Ivan, A.D.	INOR	1018
Isa, Z.	CHED	1853	Islam, M.S.	INOR	1226	Ivan, D.	CHED	1907
Isaac, E.	CHED	1863	Islam, S.	PMSE	37	Ivanic, J.	PHYS	357
Isaacs, A.K.	CHED	1534	Islam, S.	INOR	930	Ivanoff, D.	POLY	183
Isaacs, A.K.	CHED	1602	Islam, S.	ENVR	678	Ivanov, A.	CATL	470
Isaacs, D.	CHED	1082	Islam Khan, M.	INOR	798	Ivanov, E.	CATL	487
Isaacs, K.	ANYL	28	Ismael, A.	COLL	413	Ivanov, E.	PMSE	362

Ivanov, I.	ENFL	252	Jackson, H.E.	CHED	1708	Jagirdar, B.R.	I&EC	135
Ivanov, I.	ANYL	58	Jackson, I.	FLUO	50	Jahan, M.	CATL	475
Ivanov, I.	ORGN	426	Jackson, J.	CHED	703	Jahan, M.	ENFL	542
Ivanov, S.	COLL	575	Jackson, J.	INOR	387	Jahnke, J.	ENFL	451
Ivanov, S.	INOR	1349	Jackson, K.T.	ANYL	198	Jahnke, J.P.	COLL	96
Ivanova, A.	COLL	520	Jackson, K.T.	INOR	311	Jahns, E.	POLY	364
Ivanova, A.	COLL	676	Jackson, K.	ENVR	439	Jaimes, J.	INOR	1018
Ivanova, K.	CELL	349	Jackson, L.	AGFD	174	Jaimes, J.	MEDI	339
Ivanova, K.	COLL	520	Jackson, M.	INOR	453	Jaimes-Lizcano, Y.A.	COLL	99
Ivanova, K.	COLL	597	Jackson, N.	BIOT	511	Jain, A.	BIOL	136
Ivanova, K.	COLL	676	Jackson, R.	MEDI	309	Jain, A.R.	BIOT	116
Ivanovic-Burmazovic, I.	CATL	479	Jackson, T.	CHED	1171	Jain, A.R.	BIOT	239
Ivanovic-Burmazovic, I.	INOR	62	Jackson, T.	CHED	1227	Jain, A.	PMSE	469
Ivarson, A.	ENVR	27	Jackson, T.A.	INOR	211	Jain, A.	POLY	400
Ivask, A.	INOR	1390	Jackson, T.A.	INOR	932	Jain, A.D.	MEDI	260
Iverson, B.L.	BIOL	40	Jackson, V.	MEDI	25	Jain, K.	INOR	944
Iverson, J.	BIOL	34	Jacob, L.	COLL	9	Jain, M.	ENVR	70
Iwabata, K.	PMSE	436	Jacob, L.M.	ENVR	655	Jain, P.	I&EC	68
Iwasa, S.	ORGN	26	Jacobs, B.P.	INOR	440	Jain, P.	CATL	257
Iwasaki, S.	MEDI	133	Jacobs, D.L.	CHED	266	Jain, P.	I&EC	59
Iwashita, H.	MEDI	22	Jacobs, D.L.	MEDI	194	Jain, P.	ORGN	439
Iyemperumal, S.	ENFL	241	Jacobs, D.J.	COMP	152	Jain, P.	ORGN	671
Iyer, R.	MEDI	390	Jacobs, G.	ENFL	88	Jain, S.	ANYL	132
Iyer, S.	CHED	2102	Jacobs, G.	ENFL	292	Jain, T.	PMSE	306
Izaki, A.	ORGN	30	Jacobs, H.	CHED	1611	Jain, V.	CATL	255
Ize-Iyamu, O.	ENVR	624	Jacobs, J.D.	CHED	1610	Jain, V.	CATL	540
Ize-Iyamu, O.	ENVR	624	Jacobs, J.D.	CHED	1889	Jaishankar, A.	COLL	129
Izmer, V.V.	INOR	487	Jacobs, M.	ENVR	518	Jaisi, D.	GEOC	39
Izumi, M.	MEDI	379	Jacobs, M.B.	CHED	412	Jake, B.	I&EC	90
Izvekov, S.	COMP	34	Jacobs, M.B.	CHED	1060	Jakes, J.	CELL	278
Izzo, F.	ORGN	43	Jacobs, M.B.	INOR	978	Jakobsen, R.	PHYS	411
J.A Don, I.	POLY	404	Jacobs, M.	BIOT	112	Jakobsen, R.	PHYS	412
Jaafar, Z.	CELL	164	Jacobs, T.D.	COLL	428	Jakobson, C.	BIOT	22
Jääskeläinen, A.	CELL	253	Jacobsen, C.C.	INOR	964	Jakobson, C.	BIOT	225
Jääskeläinen, A.	CELL	420	Jacobsen, C.S.	ORGN	446	Jakubikova, E.	INOR	201
Jaber, A.	CHED	1751	Jacobsen, E.	CHED	1646	Jakubikova, E.	INOR	471
Jabin, I.	INOR	29	Jacobson, C.	MEDI	390	Jakuboski, N.	ANYL	232
Jablonski, M.N.	POLY	96	Jacobson, L.D.	CATL	172	Jakubowski, H.V.	CHED	1242
Jacek, P.	BIOL	53	Jacobson, L.D.	COMP	190	Jaladanki, M.	COMP	395
Jacek, P.	CELL	356	Jacobson, M.	MPPG	1	Jalal, A.H.	ANYL	287
Jackowski, S.T.	ORGN	710	Jacobson, R.	ANYL	398	Jalal, A.H.	ANYL	288
Jackson, A.	COLL	52	Jacomette, C.	PMSE	370	Jalalian, M.	CELL	370
Jackson, A.	ENFL	83	Jacquemart, R.	BIOT	457	Jalbert, R.	CHED	383
Jackson, A.	INOR	1271	Jacquemin, J.	PHYS	662	Jalid, F.	CATL	550
Jackson, A.	ORGN	123	Jacquin, C.	ENVR	238	Jalil, A.	INOR	1123
Jackson, A.C.	CHED	1418	Jacunski, K.	CHED	1177	Jam, L.	BIOL	242
Jackson, B.P.	ANYL	2	Jad, Y.E.	MEDI	105	Jamadar, S.	AGFD	180
Jackson, B.	CHED	1822	Jaeger, H.	COLL	160	Jamboretz, J.W.	CHED	1128
Jackson, C.S.	CHED	1244	Jaen, A.	ENVR	354	Jamboretz, J.W.	CHED	1134
Jackson, D.	CHED	2180	Jaeschke, J.B.	GEOC	84	Jameel, H.	CATL	334
Jackson, E.M.	PMSE	356	Jafari, M.	CHED	163	Jameel, H.	CELL	121
Jackson, E.M.	POLY	352	Jafarzade Ghadimi, S.	ENVR	669	Jameel, H.	CELL	230
Jackson, E.D.	ENFL	124	Jaffe, A.	INOR	4	Jameel, H.	CELL	371
Jackson, F.	CHAS	47	Jaffe, M.	PMSE	119	Jameer, A.	CHED	197
Jackson, G.	ENFL	489	Jagger, A.	CHED	1588	James, A.	PHYS	424

James, E.	BIOL	284	Jankowiak, R.	PHYS	404	Jasti, R.	ORGN	317
James, E.I.	POLY	246	Jankowski, K.	CHED	200	Jasti, R.	ORGN	488
James, E.I.	PROF	43	Janot, R.	ENFL	154	Jasti, R.	ORGN	493
James, I.C.	ANYL	128	Jans, A.	POLY	369	Jasti, R.	ORGN	605
James, L.I.	COMP	377	Jansen, J.M.	COMP	107	Jastrzebski, R.	CATL	95
James, M.	CHED	1864	Jansen, J.M.	COMP	198	Jasulaityte, G.	BIOT	302
James, M.	MEDI	12	Jansen, P.	PHYS	228	Javed, E.	INOR	408
James, N.	COLL	160	Jansen Labby, K.	CHED	1175	Javed, E.	ORGN	130
James, S.	CHED	1936	Janser, I.	ORGN	429	Javed, S.	ORGN	603
James, T.	INOR	423	Jansone-Popova, S.	NUCL	78	Javey, A.	ANYL	56
Jameson, C.	COLL	554	Jansons, A.	COLL	654	Javis, K.	INOR	1243
Jameson, D.L.	INOR	630	Janssen, D.	CATL	115	Javner, C.	CHED	235
Jameson, P.	CHED	1965	Jansson, R.	BIOT	117	Jawaid, A.	COLL	650
Jamet, H.	INOR	1355	Jansto, A.B.	ENFL	102	Jawerth, M.	CELL	369
Jamieson, E.R.	INOR	182	Janzen, D.E.	INOR	240	Jaworska, M.	COMP	279
Jamieson, J.	GEOC	109	Janzen, D.E.	INOR	891	Jayachandran, M.	BIOL	223
Jamieson, M.	I&EC	168	Jaramillo, D.	INOR	1222	Jayalath, S.	COLL	280
Jamison, C.	ORGN	554	Jaramillo, M.	ENVR	115	Jayanthi, S.	BIOL	134
Jamison, J.	BIOT	183	Jaramillo, T.F.	CATL	231	Jayaprakasha, G.K.	AGFD	215
Jampani, P.	INOR	756	Jaramillo, T.F.	CATL	345	Jayaraman, A.	PMSE	70
Janakiraman, V.	BIOT	82	Jaramillo, T.F.	COLL	387	Jayaraman, A.	PMSE	198
Janaky, C.	ENFL	25	Jaramillo, T.F.	ENFL	178	Jayarathna, C.U.	POLY	81
Janaky, C.	ENFL	247	Jaramillo, T.F.	INOR	1065	Jayarathna, C.U.	POLY	643
Janet, J.	CATL	118	Jaramillo, V.I.	CHED	265	Jayarathne, U.	INOR	1416
Janet, J.	COMP	113	Jaramillo, V.I.	CHED	1879	Jayasinghe, A.S.	CHED	1040
Janetka, J.W.	MEDI	143	Jarand, C.W.	PMSE	419	Jayasinghe, A.S.	INOR	745
Janetos, A.	ENFL	190	Jardim, R.	CATL	182	Jayasinha Arachchige, R.	GEOC	24
Janetos, A.	ENFL	194	Jardji, A.	POLY	260	Jayasinhe, T.	ENFL	60
Janezic, D.	COMP	75	Jarho, E.M.	MEDI	33	Jayawickramage, R.	ENFL	386
Janezic, D.	COMP	342	Jarisz, T.	COLL	397	Jayawickramarajah, J.	BIOL	75
Janezic, D.	MEDI	222	Jariwala, P.	CHED	273	Jayawickramarajah, J.	CHED	2105
Jang, D.	BIOT	376	Jarjoura, G.	ENFL	236	Jayawickramarajah, J.	CHED	2106
Jang, H.	INOR	378	Järn, M.	COLL	165	Jayawickramarajah, J.	ORGN	484
Jang, H.	COMP	127	Jaroentomeechai, T.	BIOT	147	Jayich, A.	PHYS	160
Jang, H.	ENVR	105	Jaroentomeechai, T.	BIOT	468	Jeakle, M.M.	BIOT	415
Jang, J.	GEOC	204	Jaroniec, M.	CELL	434	Jeakle, M.M.	MEDI	328
Jang, J.	PMSE	387	Jaroniec, M.	ENVR	697	Jean, B.R.	CELL	68
Jang, J.	PMSE	413	Jaroniec, M.	I&EC	100	Jean, B.R.	CELL	139
Jang, S.	COLL	85	Jarosz, D.F.	BIOT	22	Jean, B.R.	CELL	165
Jang, S.	COLL	238	Jarowski, P.D.	POLY	209	Jean-Francois, A.	CHED	1914
Jang, S.	PMSE	392	Jarrell, T.	ORGN	12	Jean-Hubert, O.	ORGN	247
Jang, W.	CATL	330	Jarret, R.L.	ANYL	213	Jeanmairet, G.	PHYS	452
Jang, W.	CATL	332	Jarrett, J.	PROF	30	Jean-Pierre, G.	COLL	381
Jang, W.	CATL	333	Jarvi, M.	ORGN	663	Jeanvoine, Y.	PHYS	259
Jang, W.	CATL	342	Jarvinen, A.	BIOT	398	Jebeli, S.H.	COLL	759
Jang, W.	ENFL	383	Jarvis, E.A.	CHED	1947	Jebeli, S.H.	PHYS	384
Jangam, A.	BIOL	253	Jarvis, M.	CATL	390	Jeday, M.	I&EC	94
Jangam, A.	ENFL	70	Jarvoll, P.	ORGN	585	Jedrzęczak-Krzepkowska, M.	CELL	356
Jani, M.	CHED	1788	Jaryenneh, J.	BIOT	222	Jedvert, K.	CELL	327
Janik, I.	PHYS	409	Jasinskas, A.	BIOL	136	Jee, H.	GEOC	101
Janik, M.J.	CATL	30	Jasinski, J.	INOR	148	Jeedimalla, N.	ORGN	685
Janik, M.J.	ENFL	8	Jassas, M.	PHYS	401	Jefcoat, J.A.	ENVR	703
Janik, M.	CATL	44	Jassby, D.	ENVR	125	Jefferies, L.	INOR	255
Jankó, B.	PHYS	494	Jassby, D.	ENVR	215	Jefferson, A.J.	GEOC	118
Jankowiak, R.	PHYS	401	Jasti, R.	ORGN	15	Jefferson, K.	CHAS	19

Jefferson, K.	CHED	1860	Jensen, G.	CHED	938	Jha, S.	PHYS	250
Jefferson, K.	CHED	1211	Jensen, H.	PHYS	80	Jha, V.	CHED	53
Jeffrey, W.	ENVR	581	Jensen, J.	AGFD	53	Jha, V.	CHED	1485
Jeffrey, W.	ENVR	582	Jensen, K.F.	I&EC	21	Jha, V.	MEDI	190
Jeffrey, W.	ENVR	583	Jensen, M.P.	I&EC	146	Ji, B.Y.	ENVR	574
Jeffreys, A.	CHED	614	Jensen, M.P.	NUCL	27	Ji, G.	ENFL	133
Jeffries, H.	ENFL	194	Jensen, R.	BIOT	155	Ji, K.	MEDI	332
Jeffries, H.	ENFL	228	Jensen, R.	HIST	2	Ji, K.	CHED	1846
Jeffries-El, M.	CHED	1699	Jensen-Pergakes, K.	MEDI	19	Ji, L.	ANYL	38
Jehng, J.	CATL	193	Jenson, J.A.	CHED	221	Ji, L.	CELL	205
Jehng, J.	CATL	382	Jenssen, H.	COLL	232	Ji, L.	CELL	118
Jeitler, J.R.	INOR	1114	Jentoft, F.	CATL	375	Ji, M.	CELL	35
Jeitler, M.	INOR	1114	Jentsch, N.	MEDI	345	Ji, M.	ENFL	118
Jelfs, K.	PMSE	31	Jentsch, N.	ORGN	643	Ji, P.	I&EC	145
Jelinek, S.N.	COMP	259	Jentsch, N.G.	ORGN	326	Ji, S.	ANYL	326
Jelinek, S.N.	COMP	287	Jeon, B.	ENFL	393	Ji, X.	ENVR	146
Jellen, M.J.	COMP	245	Jeon, B.	ENVR	711	Ji, X.	PMSE	452
Jelowicki, A.	INOR	195	Jeon, B.	GEOC	204	Ji, X.	ENFL	116
Jena, K.	COLL	397	Jeon, C.	CHED	701	Ji, X.	POLY	354
Jenda, O.	CHED	331	Jeon, H.	CELL	105	Ji, X.	MEDI	240
Jenkins, C.	PMSE	421	Jeon, I.	INOR	124	Ji, X.	MEDI	329
Jenkins, C.	POLY	357	Jeon, J.	PMSE	392	Ji, X.	MEDI	332
Jenkins, C.	POLY	398	Jeon, J.	ORGN	613	Ji, X.	CATL	329
Jenkins, C.	POLY	434	Jeon, Y.	INOR	502	Ji, Z.	COLL	578
Jenkins, D.M.	INOR	1327	Jeong, C.	ENVR	100	Jia, H.	BIOL	124
Jenkins, K.	CHED	1883	Jeong, C.	ENVR	101	Jia, H.	ENVR	686
Jenkins, K.	CHED	1456	Jeong, D.	COLL	720	Jia, H.	CHED	1526
Jenkins, L.	POLY	246	Jeong, G.	INOR	1242	Jia, H.	CHED	1881
Jenkins, L.	PROF	43	Jeong, H.	ENVR	608	Jia, J.	ENVR	271
Jenkins, R.	CATL	446	Jeong, H.	INOR	377	Jia, J.	INOR	727
Jenkins, R.	INOR	146	Jeong, H.	INOR	1426	Jia, K.	BIOL	70
Jenkins, S.V.	CHED	13	Jeong, H.	ENFL	198	Jia, L.	BIOT	489
Jenkins, S.V.	COLL	594	Jeong, J.	INOR	1395	Jia, L.	CINF	56
Jenkins, S.V.	COLL	753	Jeong, K.	ORGN	736	Jia, L.	POLY	272
Jen-La Plante, I.	INOR	675	Jeong, S.	ENFL	499	Jia, L.	BIOT	437
Jen-La Plante, I.	INOR	1371	Jerezano, G.	ORGN	676	Jia, L.	PMSE	495
Jennen, D.	ENVR	518	Jernberg, A.	CHED	270	Jia, L.	ENFL	349
Jenness, G.R.	ENVR	707	Jernigan, F.E.	MEDI	382	Jia, X.	INOR	700
Jennings, J.	PMSE	521	Jeske, R.	CHED	1919	Jia, X.	INOR	762
Jennings, J.	CHED	1012	Jessop, J.L.	POLY	802	Jia, X.	PMSE	483
Jennings, J.	ORGN	612	Jessop, P.G.	CELL	197	Jia, Y.	ENVR	454
Jennings, M.	ORGN	225	Jessop, P.G.	POLY	163	Jia, Y.	POLY	12
Jennings, M.P.	ORGN	668	Jessup, K.	PHYS	631	Jian, W.	BIOL	11
Jennings, P.	ENVR	518	Jesudason, C.D.	MEDI	262	Jian, Y.	ENFL	516
Jenny, S.E.	INOR	852	Jewell, K.S.	ENVR	782	Jiang, B.	MEDI	178
Jensen, A.	COLL	31	Jewett, J.C.	BIOL	191	Jiang, B.	BIOL	281
Jensen, A.W.	CHED	1594	Jewett, M.C.	BIOT	90	Jiang, B.	INOR	404
Jensen, C.J.	ORGN	620	Jewett, M.C.	BIOT	155	Jiang, C.	BIOT	275
Jensen, C.M.	ENFL	204	Jewett, M.C.	BIOT	468	Jiang, C.	ORGN	546
Jensen, C.M.	ENFL	339	Jewett, M.C.	CHED	2204	Jiang, C.	ANYL	189
Jensen, C.M.	ENFL	340	Jewett, M.C.	BIOT	147	Jiang, C.	COLL	37
Jensen, C.M.	ENFL	378	Jewett, M.C.	BIOT	226	Jiang, D.	CATL	52
Jensen, C.M.	ENFL	496	Jez, J.M.	BIOL	128	Jiang, D.	CATL	70
Jensen, C.M.	INOR	777	Jha, D.	AGFD	182	Jiang, D.	CATL	235
Jensen, E.A.	CHED	1877	Jha, M.K.	ENVR	442	Jiang, D.	CATL	271

Jiang, D.	CATL	421	Jiang, Y.	POLY	633	Jin, Y.	PHYS	150
Jiang, D.	ENFL	103	Jiang, Y.	MEDI	64	Jin, Z.	COLL	587
Jiang, D.	ENFL	179	Jiang, Y.	MEDI	359	Jinadasa, R.	ORGN	370
Jiang, D.	INOR	1031	Jiang, Y.	PMSE	599	Jinasena, D.	BIOL	114
Jiang, F.	CELL	39	Jiang, Y.	ANYL	89	Jindal, A.	PMSE	404
Jiang, F.	CELL	256	Jiang, Z.	CHED	171	Jindra, S.	GEOC	6
Jiang, G.	COLL	734	Jiang, Z.	MEDI	95	Jindra, S.	GEOC	7
Jiang, G.	ENVR	210	Jiang, Z.	MEDI	98	Jindra, S.	GEOC	211
Jiang, G.	ENVR	304	Jiang, Z.	COLL	543	Jing, Y.	MEDI	366
Jiang, G.	ENVR	384	Jiang, Z.	MEDI	220	Jing, Z.	COMP	254
Jiang, G.	ENVR	685	Jianxin, J.	CELL	205	Jingwen, Z.	CATL	456
Jiang, G.	ENVR	138	Jiao, F.	CATL	466	Jinju, A.	POLY	401
Jiang, G.	ENFL	512	Jiao, P.	ENVR	682	Jishkariani, D.	COLL	119
Jiang, H.	PHYS	63	Jiao, T.	INOR	747	Jiu, A.	CHED	1214
Jiang, H.	PHYS	292	Jiarong, T.	ENVR	676	Jo, M.	PMSE	376
Jiang, H.	POLY	616	Jiaxiong, L.	CATL	423	Jo, M.	PMSE	377
Jiang, H.	COLL	81	Jiaxiong, L.	INOR	847	Jo, M.	PMSE	433
Jiang, H.	COLL	212	Ji Chen, Y.	WCC	11	Jo, W.	INOR	1057
Jiang, H.	CHED	845	Jie, L.	PHYS	554	Jo, W.	PMSE	378
Jiang, H.	INOR	727	Jilling, A.	GEOC	35	Joachim, M.	BIOT	452
Jiang, H.	INOR	1223	Jimenez, F.	ENFL	389	Joaquim, A.	PMSE	379
Jiang, H.Z.	ENFL	491	Jimenez, M.	MEDI	393	Joaquim, A.	POLY	801
Jiang, H.Z.	INOR	1221	Jimenez, R.	PHYS	337	Joaquin, D.	ANYL	440
Jiang, J.	BIOT	55	Jiménez, J.R.	INOR	236	Jobst, K.	ENVR	734
Jiang, J.	ENFL	401	Jimenez Quero, A.	CELL	280	Jocelyn, B.K.	CELL	294
Jiang, J.	CARB	83	Jimenez Quero, A.	CELL	317	Jocic, N.	CHED	1079
Jiang, J.	CHED	709	Jimenez Saelices, C.	CELL	382	Jocic, N.	INOR	856
Jiang, J.	INOR	1069	Jiménez-Serratos, G.	I&EC	42	Joesten, W.	CHED	616
Jiang, K.	CATL	533	Jin, C.	ENVR	6	Joester, D.	GEOC	19
Jiang, L.	POLY	394	Jin, C.	PMSE	514	Joffre, S.D.	COLL	284
Jiang, N.	POLY	277	Jin, G.	NUCL	50	Joffre, S.D.	COLL	378
Jiang, Q.	COLL	285	Jin, J.	COMP	399	Jogalekar, A.	MEDI	277
Jiang, Q.	ENVR	185	Jin, J.	GEOC	14	Joh, Y.	ORGN	258
Jiang, Q.	COLL	538	Jin, J.	CELL	409	Johann, C.	POLY	220
Jiang, Q.	CELL	370	Jin, J.	CELL	169	Johann, C.	POLY	497
Jiang, R.	BIOT	271	Jin, J.	CELL	170	Johannes, J.W.	ORGN	348
Jiang, S.	CATL	186	Jin, K.	POLY	733	Johansen, A.	CHED	244
Jiang, T.	COMP	146	Jin, K.	PMSE	603	Johansen, A.M.	ENVR	90
Jiang, W.	INOR	642	Jin, L.	ENVR	13	Johanson, K.E.	ORGN	219
Jiang, W.	MEDI	395	Jin, L.	ENVR	555	Johansson, H.J.	BIOT	302
Jiang, W.	CHED	111	Jin, L.	ENVR	753	Johansson, H.J.	BIOT	304
Jiang, X.	CELL	121	Jin, M.	BIOT	133	Johansson, L.	CELL	413
Jiang, X.	CELL	371	Jin, M.	COLL	691	Johansson, M.K.	CELL	369
Jiang, X.	CHED	280	Jin, M.	CELL	218	Johll, M.E.	CHED	1836
Jiang, X.	CHED	580	Jin, R.	COLL	356	John, A.	ORGN	84
Jiang, X.	CHED	1095	Jin, S.	BIOT	194	John, B.R.	ENVR	276
Jiang, X.	CHED	1097	Jin, S.	CHED	1136	John, K.D.	FLUO	67
Jiang, X.	ANYL	38	Jin, S.	COLL	61	John, V.	BIOT	562
Jiang, X.	COMP	245	Jin, T.	PHYS	385	John, V.T.	BIOT	204
Jiang, X.	ORGN	25	Jin, X.	ENVR	594	John, V.T.	CATL	188
Jiang, Y.	INOR	550	Jin, X.	ENFL	104	John, V.T.	COLL	11
Jiang, Y.	I&EC	96	Jin, X.	ENVR	685	John, V.T.	COLL	18
Jiang, Y.	ANYL	344	Jin, Y.	PHYS	145	John, V.T.	COLL	564
Jiang, Y.	COLL	734	Jin, Y.	PHYS	605	John, V.T.	COLL	646
Jiang, Y.	POLY	278	Jin, Y.	PHYS	94	John, V.T.	COLL	674

John, V.T.	COLL	729	Johnson, J.A.	ENFL	187	Johnson, Q.R.	COLL	210
John, V.T.	COLL	733	Johnson, J.A.	PMSE	145	Johnson, R.D.	POLY	44
John, V.T.	ENVR	718	Johnson, J.A.	PMSE	196	Johnson, R.	ORGN	431
John, V.T.	PMSE	206	Johnson, J.A.	PMSE	544	Johnson, R.	GEOC	124
John, V.T.	PMSE	317	Johnson, J.A.	POLY	76	Johnson, R.	INOR	974
John, V.T.	PMSE	321	Johnson, J.A.	POLY	93	Johnson, R.L.	CATL	518
John, V.T.	POLY	277	Johnson, J.A.	POLY	113	Johnson, S.	CHED	291
John, V.T.	POLY	294	Johnson, J.A.	POLY	140	Johnson, S.M.	MEDI	308
Johns, J.E.	INOR	1395	Johnson, J.A.	POLY	234	Johnson, S.	BIOT	394
Johns, J.	ORGN	682	Johnson, J.A.	POLY	267	Johnson, S.N.	PHYS	658
Johns, N.	INOR	1121	Johnson, J.A.	POLY	268	Johnson, S.N.	YCC	22
Johns, P.	COLL	670	Johnson, J.A.	POLY	278	Johnson, S.	INOR	1343
Johnson, A.	COMP	16	Johnson, J.A.	POLY	287	Johnson, T.R.	CHED	939
Johnson, A.	MEDI	7	Johnson, J.A.	POLY	315	Johnson, T.	MEDI	328
Johnson, A.R.	INOR	182	Johnson, J.A.	POLY	633	Johnson, T.	MEDI	64
Johnson, A.R.	INOR	228	Johnson, J.	CHED	1702	Johnson, T.	MEDI	359
Johnson, A.R.	INOR	477	Johnson, J.	PHYS	571	Johnson, W.H.	ENVR	134
Johnson, A.	I&EC	51	Johnson, J.	COLL	572	Johnson, W.P.	CHED	551
Johnson, A.	CHED	1197	Johnson, J.	CHED	338	Johnson, Z.	CHED	1290
Johnson, A.	INOR	695	Johnson, J.	CHED	679	Johnston, A.	CHED	1383
Johnson, A.L.	MEDI	221	Johnson, J.C.	PHYS	125	Johnston, C.	ORGN	198
Johnson, A.M.	CELL	43	Johnson, K.E.	COLL	332	Johnston, D.B.	AGFD	48
Johnson, A.M.	CELL	105	Johnson, K.	COMP	148	Johnston, D.H.	CHED	1863
Johnson, A.M.	CELL	321	Johnson, K.	CHED	1821	Johnston, D.H.	INOR	985
Johnson, A.S.	BIOT	252	Johnson, K.	INOR	422	Johnston, H.M.	INOR	586
Johnson, A.	CHED	766	Johnson, K.J.	INOR	421	Johnston, J.N.	ORGN	126
Johnson, B.J.	INOR	301	Johnson, K.E.	CHED	866	Johnston, J.	COMP	365
Johnson, B.J.	INOR	302	Johnson, K.E.	CHED	868	Johnston, J.	CHED	77
Johnson, B.J.	CHED	1087	Johnson, K.E.	CHED	869	Johnston, J.	CHED	876
Johnson, B.	INOR	52	Johnson, K.	PMSE	612	Johnston, J.	PHYS	561
Johnson, B.	CHED	1130	Johnson, K.P.	COLL	275	Johnston, J.	PHYS	572
Johnson, C.	CHAS	11	Johnson, K.P.	ENVR	20	Johnston, J.J.	PROF	24
Johnson, C.V.	CHED	638	Johnson, L.A.	CHED	1909	Johnston, K.	CATL	513
Johnson, C.K.	PHYS	432	Johnson, L.K.	CHED	1610	Johnston, K.	NUCL	8
Johnson, C.J.	PHYS	231	Johnson, L.E.	COMP	338	Johnston, K.A.	CHED	54
Johnson, C.J.	PHYS	526	Johnson, L.E.	COMP	350	Johnston, K.P.	BIOT	436
Johnson, C.	INOR	949	Johnson, M.	INOR	1302	Johnston, K.P.	BIOT	495
Johnson, C.M.	CHED	702	Johnson, M.A.	CHED	1455	Johnston, K.P.	COLL	537
Johnson, C.M.	CHED	707	Johnson, M.A.	PHYS	293	Johnston, K.P.	COLL	566
Johnson, C.M.	CHED	1410	Johnson, M.A.	YCC	25	Johnston, R.	CHED	497
Johnson, D.	POLY	174	Johnson, M.R.	ORGN	741	Johnston, R.C.	CATL	470
Johnson, D.W.	CHED	903	Johnson, M.G.	CHED	698	Johnston, S.M.	ORGN	108
Johnson, D.W.	COLL	654	Johnson, M.K.	CHED	527	Johnston, S.	CHED	1306
Johnson, D.W.	PROF	5	Johnson, N.	CHED	1321	Johnstone, C.P.	BIOT	406
Johnson, D.K.	CATL	445	Johnson, N.W.	CHED	977	Johnstone, C.	MEDI	25
Johnson, D.	MEDI	108	Johnson, N.W.	ENVR	283	Johnston-Hall, G.	POLY	526
Johnson, D.	MEDI	154	Johnson, N.W.	ENVR	288	Johnston-Peck, A.C.	CATL	461
Johnson, D.S.	MEDI	321	Johnson, N.W.	GEOC	110	Johs, A.	GEOC	217
Johnson, E.J.	INOR	1263	Johnson, N.	ENVR	763	Jokerst, J.V.	INOR	811
Johnson, E.R.	COMP	335	Johnson, N.	COLL	68	Jolliffe, K.	ORGN	281
Johnson, E.R.	PHYS	219	Johnson, P.	CHED	1820	Jonah, T.	CHED	1090
Johnson, E.R.	PHYS	321	Johnson, P.A.	COMP	345	Jonah, T.	CHED	1101
Johnson, G.	ANYL	152	Johnson, Q.	COLL	209	Jonas, S.	COLL	519
Johnson, G.	MEDI	270	Johnson, Q.	COLL	261	Jonas, S.	COLL	746
Johnson, J.	MEDI	378	Johnson, Q.	COLL	643	Jones, A.	CHED	1857

Jones, A.C.	PHYS	75	Jones, R.V.	AGFD	177	Joseph, C.	ORGN	222
Jones, B.M.	CHED	122	Jones, R.G.	ENVR	744	Joshi, G.	POLY	758
Jones, B.	CARB	71	Jones, R.L.	POLY	89	Joshi, H.	INOR	329
Jones, B.P.	MEDI	283	Jones, S.	CHED	1905	Joshi, P.	ANYL	177
Jones, C.	CATL	477	Jones, S.	BIOL	55	Joshi, P.	GEOC	249
Jones, C.	CHED	956	Jones, S.J.	COLL	176	Joshi, P.	GEOC	254
Jones, C.	MEDI	293	Jones, S.B.	CATL	228	Joshi, P.	BIOT	37
Jones, C.W.	CATL	34	Jones, T.C.	COLL	371	Joshi, P.	CELL	424
Jones, C.W.	I&EC	14	Jones, T.N.	CHED	1667	Joshi, R.	BIOT	356
Jones, C.W.	I&EC	125	Jones, W.	CHED	1176	Joshi, S.	GEOC	39
Jones, C.D.	MEDI	293	Jones, W.	INOR	376	Joshi, R.	ENVR	59
Jones, C.	BIOT	403	Jones, W.	INOR	1089	Joshi, R.	ENVR	594
Jones, D.S.	ENVR	346	Jones, W.E.	CHED	1142	Joshi-Imre, A.	POLY	330
Jones, D.S.	GEOC	110	Jones, W.E.	PMSE	360	Josland, G.	BIOT	256
Jones, D.	BIOT	523	Jones, W.E.	POLY	568	Joss, A.	ENVR	293
Jones, D.	COMP	369	Jones, W.E.	POLY	628	Josse, T.	PMSE	93
Jones, D.	PHYS	415	Jones, W.	COLL	48	Joudan, S.	ENVR	155
Jones, D.	PROF	11	Jones, Z.	CATL	341	Joudan, S.	ENVR	352
Jones, D.	INOR	964	Jongerius, A.L.	CELL	254	Jouffret, L.	NUCL	32
Jones, E.	COLL	354	Jonkheijm, P.	COLL	548	Jouiad, M.	CATL	140
Jones, G.O.	ORGN	388	Jonnalagadda, S.	COLL	599	Jovan, S.	ENVR	554
Jones, G.	POLY	213	Jons, S.	MPPG	14	Jovert, E.	CHED	813
Jones, G.	CINF	5	Jönsson, B.	COLL	455	Jovinelli, D.J.	INOR	1026
Jones, G.	CINF	19	Joo, F.	ENFL	201	Joy, A.	CHED	1769
Jones, I.A.	CATL	24	Joo, Y.L.	ENFL	128	Joy, A.	PMSE	306
Jones, J.	AGFD	201	Joo, Y.	POLY	666	Joy, A.	POLY	695
Jones, J.R.	INOR	217	Joplin, A.	PHYS	384	Joyce, G.F.	BIOL	170
Jones, J.R.	INOR	1116	Joplin, A.	PHYS	394	Joyce, G.F.	BIOL	205
Jones, J.	AGFD	206	Jordan, A.	INOR	1184	Joyce, G.F.	BIOL	291
Jones, J.	CHED	347	Jordan, A.M.	INOR	878	Joyner, P.M.	ORGN	425
Jones, J.	CHED	797	Jordan, A.	INOR	883	Ju, L.	PMSE	380
Jones, J.	CHED	1277	Jordan, A.M.	PMSE	443	Ju, L.	PMSE	575
Jones, J.	INOR	781	Jordan, F.	BIOL	48	Ju, X.	ENFL	441
Jones, K.A.	CHED	329	Jordan, J.H.	INOR	744	Juarez Contreras, I.	BIOT	529
Jones, K.	CHED	1210	Jordan, J.H.	ORGN	329	Juarez Diaz, E.	INOR	305
Jones, K.	MEDI	16	Jordan, K.D.	YCC	18	Juarez-Diaz, E.	INOR	145
Jones, K.	ENFL	61	Jordan, K.D.	YCC	24	Juarez-Saldivar, A.	BIOL	79
Jones, K.J.	CHED	1271	Jordan, R.F.	INOR	695	Juaristi, E.	HIST	28
Jones, K.	BIOT	511	Jordan, T.	CHED	19	Jubb, A.M.	ANYL	125
Jones, L.	ANYL	366	Jorgensen, K.R.	CHED	885	Jubsilp, C.	PMSE	230
Jones, M.	BIOL	73	Jorgensen, K.R.	COMP	275	Jubsilp, C.	PMSE	236
Jones, M.E.	CINF	31	Jorgensen, K.R.	COMP	348	Judkins, J.	MEDI	321
Jones, M.	ENFL	153	Joris, B.	ORGN	67	Judson, R.	CINF	60
Jones, M.	ENFL	435	Jorn, R.	PHYS	484	Judson, R.	CINF	82
Jones, M.	GEOC	158	Jorner, K.	ENFL	26	Judson, R.	CINF	83
Jones, M.R.	COLL	41	Jos, S.	MEDI	324	Judson, R.	CINF	87
Jones, M.R.	INOR	659	Josef, R.	INOR	991	Judson, R.	ENVR	359
Jones, M.K.	CHED	1017	Joseph, B.	CATL	192	Judson, R.	ENVR	416
Jones, M.E.	GEOC	123	Joseph, B.	CATL	437	Judson, R.	ENVR	417
Jones, M.W.	INOR	993	Joseph, B.	ENFL	135	Judson, R.	ENVR	422
Jones, P.	MEDI	64	Joseph, C.	CHED	1874	Juengst, B.	BIOL	133
Jones, P.	MEDI	359	Joseph, E.A.	ENFL	73	Juhasz, M.A.	CHED	1043
Jones, R.	INOR	1058	Joseph, E.A.	ENFL	348	Juhasz, M.A.	INOR	1250
Jones, R.M.	CHED	1954	Joseph, E.A.	ENFL	352	Jui, N.	ORGN	209
Jones, R.E.	GEOC	169	Joseph, S.	CHED	961	Jukic, M.	MEDI	222

Jukič, M.	ORGN	67	Jurss, J.W.	INOR	501	Kagawa, N.	AGFD	186
Julian, M.	BIOT	121	Jurss, J.W.	INOR	509	Kageyama, H.	INOR	570
Julian, M.	BIOT	177	Jurss, J.W.	INOR	995	Kageyama, H.	INOR	768
Julian, R.	ORGN	385	Jurss, J.W.	INOR	1070	Kahali, B.	FLUO	42
Julin, M.	CHED	999	Jurss, J.W.	INOR	1075	Kähäri, V.	MEDI	334
Juminaga, A.	BIOT	155	Just, C.L.	BIOL	183	Kahk, J.	CATL	80
Jun, Y.	ENVR	92	Just, C.L.	ENVR	180	Kähkönen, M.	CELL	119
Jun, Y.	ENVR	185	Just, C.L.	ENVR	539	Kahl, A.	CHED	178
Jun, Y.	ENVR	243	Just, C.L.	ENVR	739	Kahle, K.	BIOT	456
Jun, Y.	ENVR	462	Justic, D.	AGFD	153	Kahn, D.	BIOT	80
Jun, Y.	ENVR	771	Justik, M.W.	CHED	1482	Kahr, B.E.	PHYS	278
Jun, Y.	GEOC	23	Jusuifi, A.	COLL	129	Kaht, K.L.	ANYL	447
Jun, Y.	GEOC	53	Kaar, J.	BIOT	48	Kai, Z.	AGFD	88
Jun, Y.	GEOC	256	Kaar, J.	BIOT	522	Kaifer, A.E.	ORGN	334
Jun, Y.	GEOC	271	Kaar, J.	COLL	629	Kaimakliotis, H.Z.	ANYL	373
Juneja, P.	COMP	355	Kaar, J.	COLL	632	Kairalapova, A.	YCC	18
Juneja, T.	CHED	913	Kabakoff, B.	BIOT	213	Kairouz, V.	CHED	2126
Jung, C.	BIOT	168	Kabalnov, A.	COLL	319	Kairouz, V.	ORGN	458
Jung, C.	BIOT	189	Kabanov, A.	BIOT	465	Kais, S.	COMP	389
Jung, H.	ENVR	243	Kabanov, A.V.	CINF	41	Kais, S.	PHYS	57
Jung, H.	ENVR	462	Kabanov, A.V.	POLY	4	Kaiser, J.	POLY	142
Jung, H.	GEOC	271	Kabb, C.P.	PMSE	229	Kaiser, K.A.	CHED	160
Jung, H.	COLL	744	Kabel, M.	CELL	407	Kaiser, R.	PHYS	92
Jung, J.	ENVR	662	Kabelac, M.	GEOC	231	Kaiser, R.	PHYS	255
Jung, J.	INOR	938	Kabengi, N.	GEOC	5	Kaiser, S.	ENFL	383
Jung, J.	CELL	226	Kabengi, N.	GEOC	140	Kaji, H.	POLY	138
Jung, K.	MEDI	74	Kabengi, N.	GEOC	210	Kakimoto, Y.	COLL	558
Jung, L.	ENVR	424	Kabir, E.	INOR	1309	Kakuchi, T.	PMSE	603
Jung, M.E.	MEDI	286	Kabir, S.	ENFL	257	Kakumanu, S.	INOR	983
Jung, M.	CHED	1751	Kablaoui, N.	MEDI	14	Kalach, B.	CHED	1881
Jung, O.	INOR	670	Kabza, A.	BIOL	274	Kalaj, M.	NUCL	34
Jung, Y.	ENFL	7	Kachel, S.R.	COLL	193	Kalana, I.	POLY	423
Jung, Y.	COMP	14	Kachel, S.R.	COLL	377	Kalantar, T.H.	POLY	33
Jungbauer, A.	BIOT	519	Kachian, J.	COLL	73	Kalantari, A.	CHED	642
Jungjohann, K.	COLL	53	Kaczocha, M.	MEDI	213	Kalantari, A.	CHED	646
Jungong, A.	CHED	856	Kadam, A.A.	ORGN	99	Kalantari, M.	CATL	480
Jungwirth, P.	PHYS	652	Kadar, S.	CHED	1744	Kalantar-zadeh, K.	COLL	511
Junk, M.	POLY	248	Kadasala, N.	COLL	738	Kalantar-zadeh, K.	INOR	1317
Junk, T.	INOR	1203	Kadasala, N.	MEDI	67	Kalas, V.	MEDI	143
Jupke, A.	POLY	381	Kadassery, K.	INOR	208	Kalashnikov, P.	BIOT	337
Jura, N.	BIOL	151	Kadayat, T.M.	MEDI	50	Kalathil, A.A.	BIOL	249
Jurcheschu, O.D.	ORGN	243	Kadel, L.	INOR	870	Kalb, E.	CHED	639
Jurewicz, I.	COLL	710	Kadokami, K.	AGFD	95	Kalbarczyk, K.Z.	BIOT	93
Jurisson, S.S.	FLUO	70	Kaebert, P.	PHYS	17	Kalbitz, K.	ENVR	89
Jurisson, S.S.	FLUO	71	Kaefer, K.	PHYS	402	Kale, L.	PHYS	185
Jurisson, S.S.	FLUO	73	Kaehr, B.	ORGN	242	Kaleas, K.	BIOT	76
Jurisson, S.S.	FLUO	74	Kaehr, B.	ORGN	463	Kaledin, A.	CATL	299
Jurisson, S.S.	I&EC	126	Kaeley, D.K.	CHED	93	Kaleta, J.	COLL	414
Jurisson, S.S.	NUCL	45	Kaeley, D.K.	CHED	1824	Kalette, S.	CHED	839
Jurisson, S.S.	NUCL	52	Kær, S.K.	ENFL	324	Kalette, S.	CHED	840
Jurss, J.W.	ENFL	172	Kaese, T.	INOR	1244	Kali, S.	ENVR	172
Jurss, J.W.	ENFL	325	Kaewaramsri, N.	PMSE	381	Kalihari, V.	COLL	609
Jurss, J.W.	INOR	358	Kafle, A.	ORGN	68	Kalinichev, A.G.	GEOC	51
Jurss, J.W.	INOR	380	Kafri, R.	CHED	1184	Kalinichev, A.G.	GEOC	237
Jurss, J.W.	INOR	381	Kagan, C.R.	COLL	119	Kalinichev, A.G.	GEOC	264

Kalinowski, M.	COLL	565	Kamita, G.	CELL	68	Kang, E.	POLY	87
Kalisman, Y.	CELL	136	Kamita, G.	CELL	71	Kang, E.	POLY	445
Kaliszewski, C.	COMP	388	Kamitakahara, H.	CELL	152	Kang, E.	COLL	775
Kalkan, K.	ANYL	458	Kamitono, J.	CHED	822	Kang, E.	BIOT	228
Kallan, N.C.	CHED	1593	Kamm, G.E.	ENFL	126	Kang, H.	PMSE	392
Kallenbach, C.	GEOC	35	Kamm, G.E.	INOR	288	Kang, I.	COLL	643
Kallioinen, M.	CELL	406	Kammerdiener, K.	CHED	2115	Kang, J.	MEDI	239
Kalliola, A.K.	CELL	406	Kammoun, M.	ORGN	337	Kang, J.	INOR	938
Kalman, R.K.	CHED	1834	Kammoun, M.	PMSE	90	Kang, J.	ENFL	85
Kalman, S.E.	CATL	465	Kamp, K.	PMSE	421	Kang, J.	I&EC	10
Kalman, S.E.	INOR	1268	Kamp, K.	POLY	357	Kang, J.	CATL	542
Kalomeris, T.	BIOT	112	Kamysbayev, V.	PHYS	618	Kang, J.	I&EC	79
Kalousek, V.	INOR	758	Kan, E.	ENVR	105	Kang, J.	I&EC	93
Kalow, J.A.	ORGN	377	Kan, K.	INOR	1058	Kang, J.	INOR	174
Kalow, J.A.	ORGN	399	Kanagy, C.J.	AGFD	156	Kang, M.	NUCL	83
Kalow, J.A.	PMSE	67	Kanagy, L.K.	AGFD	156	Kang, M.	COMP	357
Kalow, J.A.	POLY	692	Kanan, M.	INOR	80	Kang, Q.	INOR	1063
Kalsotra, A.	MEDI	305	Kanani, D.	BIOT	133	Kang, S.	INOR	348
Kaltenbrunner, O.	BIOT	5	Kanaras, A.	COLL	161	Kang, S.	INOR	349
Kalubowilage, M.	BIOL	115	Kanaras, A.	COLL	501	Kang, S.	INOR	350
Kalubowilage, M.	I&EC	157	Kanaras, A.	COLL	752	Kang, S.	INOR	821
Kalubowilage, M.	MEDI	111	Kanatizidis, M.G.	INOR	645	Kang, S.	INOR	822
Kalubowilage, M.	MEDI	354	Kanatizidis, M.G.	INOR	649	Kang, S.	CELL	170
Kalubowilage, M.	ORGN	324	Kanatizidis, M.	INOR	1226	Kang, S.	ORGN	665
Kalyani, D.	ORGN	136	Kandanoool, D.	AGFD	51	Kang, S.	ENFL	276
Kam, D.	CELL	136	Kandathil, V.	CATL	323	Kang, S.	ENFL	277
Kamalanathan, I.	ENVR	390	Kandel, A.	INOR	289	Kang, S.	ENFL	495
Kamali, R.	CHED	118	Kandel, S.	INOR	1382	Kang, S.	ENFL	496
Kamalinia, G.	BIOL	121	Kandemir, B.	INOR	90	Kang, S.	CARB	31
Kamaloo, E.	BIOT	12	Kandemir, B.	INOR	141	Kang, Z.	MEDI	64
Kamaloo, E.	COLL	559	Kandemir, B.	INOR	1170	Kang, Z.	MEDI	359
Kamarulzaman, E.E.	MEDI	342	Kanduc, M.	COLL	453	Kangwansupamonkon, W.	CELL	286
Kamarulzaman, E.E.	MEDI	357	Kane, A.	ENVR	358	Kania, C.	CHED	1092
Kamash, P.S.	CHED	1486	Kane, E.	BIOT	475	Kanitkar, S.	CATL	139
Kamat, P.V.	ENFL	25	Kane, L.	GEOC	203	Kanitkar, S.	ENFL	34
Kamat, P.V.	INOR	1153	Kane, M.A.	BIOL	11	Kannadasan, S.	MEDI	106
Kamat, S.	MEDI	43	Kane, M.A.	INOR	194	Kannagara, D.B.	PHYS	530
Kamath, P.	CHED	792	Kane, T.	GEOC	228	Kanno, M.	BIOT	550
Kamath, P.	CHED	2010	Kanega, R.	ENFL	202	Kanno, R.	ENFL	469
Kamber, D.N.	BIOL	298	Kaneko, T.	POLY	432	Kanoh, B.	BIOT	280
Kambhampati, P.	PHYS	351	Kaneko, T.	POLY	470	Kansiusarulsamy, C.K.	PMSE	382
Kamdar, Z.	PHYS	510	Kaneko, T.	POLY	634	Kantak, A.	SCHB	6
Kameda, T.	MEDI	157	Kaneko, T.	POLY	655	Kantar, C.	ENVR	332
Kamel, A.S.	CINF	82	Kaneko, T.	POLY	758	Kantar, C.	ENVR	636
Kamenik, A.S.	COMP	415	Kaneko, T.	POLY	760	Kantor, J.	POLY	395
Kamenik, A.S.	COMP	432	Kanel, S.R.	ENVR	22	Kantrow, E.	MEDI	394
Kamermans, B.	GEOC	136	Kaner, R.B.	COLL	511	Kanungo, R.	ENFL	129
Kamigaito, M.	PMSE	601	Kaner, R.B.	INOR	763	Kao, K.	CELL	218
Kamiguchi, N.	MEDI	22	Kaner, R.B.	INOR	808	Kao, K.	CHED	1837
Kamil, R.	ENFL	66	Kaner, R.B.	INOR	1317	Kao, W.Y.	CHED	2204
Kaminaga, S.	ENFL	343	Kaner, R.B.	PMSE	577	Kaoud, T.S.	BIOL	87
Kaminski, G.	CHED	858	Kaneza, N.	ENFL	176	Kaoud, T.S.	BIOL	224
Kaminsky, C.J.	INOR	453	Kang, B.	MEDI	160	Kaoud, T.S.	BIOL	315
Kamischke, A.D.	CHED	837	Kang, D.	PMSE	392	Kaoud, T.S.	MEDI	161
Kamischke, A.D.	CHED	1734	Kang, E.	COLL	102	Kaoud, T.S.	MEDI	162

Kaoud, T.S.	MEDI	167	Kardas, K.	CHED	1109	Karouta, C.	BIOT	495
Kaoud, T.S.	MEDI	406	Kardash, C.	CHED	1956	Karp, E.	BIOT	350
Kapadia, N.R.	MEDI	402	Kareem, O.	PMSE	383	Karp, E.	CATL	217
Kapelewski, M.	ENFL	491	Kareem, O.	PMSE	426	Karp, E.	I&EC	27
Kapelewski, M.	INOR	32	Karg, M.	POLY	687	Karp, G.M.	MEDI	253
Kapelewski, M.	INOR	1221	Kargbo, R.B.	ORGN	104	Karp, G.M.	ORGN	369
Kaphan, D.	CATL	408	Kargl, R.	CELL	373	Karpiak, J.	COMP	400
Kaplan, A.	ENFL	369	Kargl, R.	CELL	374	Karpovich, D.S.	CHED	911
Kappe, C.	CELL	144	Karim, A.	PMSE	565	Karpovich, D.S.	CHED	2042
Kappe, C.	ORGN	262	Karim, A.	PMSE	581	Karpovich, D.S.	CHED	2150
Kappe, C.	ORGN	573	Karim, A.	POLY	125	Karr, J.W.	CHED	1819
Kappe, C.	ORGN	574	Karim, A.	BIOT	155	Karslioglu, O.	CATL	157
Kappell, A.	ENVR	75	Karim, A.M.	CATL	53	Karslioglu, O.	CATL	158
Kappes, B.	CATL	443	Karim, A.M.	CATL	132	Karst, D.J.	I&EC	17
Kappler, A.	ENVR	218	Karim, A.M.	I&EC	8	Karstens, H.W.	CHED	1213
Kappler, A.	ENVR	219	Karim, A.M.	INOR	1349	Kartheuser, B.	CATL	386
Kappler, A.	GEOC	80	Karim, A.M.	COLL	575	Karthikeyan, K.G.	PROF	1
Kapteijn, F.	CATL	135	Karim, F.	BIOT	423	Karthikeyan, M.	CINF	2
Kapteijn, F.	I&EC	88	Karimi, M.A.	COLL	345	Karthikeyan, M.	CINF	9
Kapur, A.	COLL	578	Karimi, Z.	CELL	302	Karty, J.	ORGN	282
Kapur, M.	COLL	609	Karimkhani, V.	CELL	88	Karukstis, K.K.	CHED	2149
Kapustin, E.A.	INOR	38	Karimova, N.	PHYS	329	Karukstis, K.K.	COLL	246
Kapustin, E.A.	INOR	748	Karina, R.	INOR	477	Karume, I.	CATL	476
Kar, S.	CINF	104	Karis, D.	PMSE	384	Karunadasa, H.	INOR	4
Karaaslan, M.	CELL	43	Kariyawasam Manachhige, N.K.	COMP	6	Karunadasa, H.	INOR	650
Karaaslan, M.	CELL	321	Kariyawasam Pathirana, K.	INOR	270	Karunaratne, W.V.	PHYS	440
Karaaslan, M.	CELL	325	Karjala, T.	I&EC	59	Karunaweera, C.	PMSE	385
Karabaeva, K.	PHYS	499	Karkamkar, A.J.	COLL	172	Karuthaka, M.	INOR	179
Karadeniz, E.	ORGN	631	Karkamkar, A.J.	ENFL	548	Karwa, R.	ANYL	302
Karagas, M.	ANYL	1	Karkamkar, A.J.	INOR	77	Karwacki, C.J.	CATL	315
Karagas, M.	ANYL	2	Karkas, M.D.	ORGN	565	Kasai, M.	ORGN	141
Karageorgos, I.	BIOT	491	Karki, C.M.	INOR	287	Kasai, S.	MEDI	133
Karagiannidis, K.	CELL	365	Karl, D.M.	ENVR	590	Kasak, P.	ENFL	544
Karagoez, F.	COLL	561	Karl, D.M.	GEOC	197	Kashif, M.	BIOT	428
Karagoez, F.	POLY	304	Karla, A.	CHED	1639	Kashinski, D.	PHYS	258
Karahan, S.	ORGN	119	Karlberg, T.	MEDI	127	Kashiwagi, Y.	CELL	55
Karajic, A.	ANYL	51	Karlberg, T.	MEDI	128	Kasiraju, S.	ENVR	449
Karak, M.	ORGN	258	Karlen, S.	CELL	217	Kaskel, S.	INOR	427
Karakoulia, S.	CELL	145	Karlin, K.D.	INOR	118	Kasko, A.	COLL	293
Karam, T.E.	COMP	163	Karlin, K.D.	INOR	137	Kasko, A.M.	CATL	108
Karam, T.E.	PHYS	480	Karlin, K.D.	INOR	530	Kasprow, R.P.	BIOT	143
Karamad, M.	CATL	533	Karlov, D.	BIOL	59	Kasprzyk-Hordern, B.	ENVR	764
Karande, P.	BIOT	210	Karlsson, P.	CELL	313	Kassab, S.E.	MEDI	42
Karande, P.	BIOT	409	Karman, A.	AGFD	173	Kassel, R.E.	CHED	2034
Karande, P.	BIOT	475	Karman, A.	COLL	186	Kassel, W.S.	CHED	1082
Karandish, F.	COLL	517	Karmarkar, A.	MEDI	109	Kassel, W.S.	INOR	852
Karanian, D.	MEDI	321	Karna, S.P.	PHYS	337	Kassem, S.	ORGN	298
Karanikola, V.	ENVR	189	Karna, S.P.	PHYS	373	Kassie, A.A.	INOR	34
Kararo, A.T.	CHED	172	Karnes, J.J.	COMP	173	Kassim, Z.	I&EC	40
Kararo, A.T.	CHED	782	Karnes, J.J.	PHYS	34	Kasson, S.P.	BIOT	231
Kararo, A.T.	CHED	1955	Karney, M.J.	CHED	2125	Kastantin, M.	BIOT	522
Karas, D.	ENFL	27	Karney, W.L.	ORGN	516	Kastelic, M.	CATL	437
Karawdeniya, B.I.	ANYL	18	Karnik, R.	ANYL	239	Kasten, B.	FLUO	48
Karayilan, M.	POLY	397	Karod, M.	ENVR	159	Kastl, C.	COLL	379
Karazsia, B.T.	CHED	184	Karouta, C.	BIOT	436	Kastl, C.	INOR	767

Kästner, J.	PHYS	359	Kauloorkar, S.	MEDI	190	Keating, J.J.	PMSE	86
Kasuga, T.	CELL	161	Kaur, A.	MEDI	81	Keatinge-Clay, A.	BIOT	533
Kasumba, J.	BIOL	276	Kaur, M.	CHED	1298	Keating-Zaid, A.	CHED	500
Kasumba, J.	ENVR	705	Kaur, R.	CHED	685	Keck, P.	COMP	315
Kasunic, P.T.	CHED	909	Kaur, S.	INOR	749	Keck, T.	MEDI	180
Kasunic, P.T.	CHED	1835	Kaur, S.	POLY	695	Kecsenovity, E.	ENFL	247
Kasunic, P.T.	CHED	2046	Kautzky, J.	ORGN	171	Kedia, S.	ANYL	288
Kasuya, M.	COLL	426	Kautzky, J.	ORGN	354	Kedzior, S.A.	CELL	196
Kataoka, K.	POLY	2	Kauzlarich, S.	CHED	1064	Kedzior, S.A.	CELL	199
Katare, Y.	POLY	794	Kauzlarich, S.	INOR	1	Kedziora, G.	PMSE	41
Katepalli, H.	COLL	567	Kavallieratos, K.	CHED	1090	Kedziora, G.	POLY	312
Kates, P.A.	INOR	460	Kavallieratos, K.	CHED	1101	Kedziora, G.S.	PMSE	315
Kathan, M.	FLUO	12	Kavallieratos, K.	PROF	50	Keefe, H.	BIOT	334
Kathó, Á.	ENFL	201	Kavanaugh, M.C.	ENVR	129	Keefe, M.H.	POLY	700
Kathyola, T.A.	COLL	665	Kavousi, S.	COLL	17	Keehn, P.	CHED	384
Katic, D.	CHED	1118	Kavunja, H.W.	BIOL	130	Keene, J.D.	CHED	116
Katila, P.	MEDI	50	Kavunja, H.W.	CARB	56	Keene, J.D.	CHED	1121
Katila, P.	MEDI	209	Kavunja, H.W.	CARB	60	Keener, M.	INOR	470
Katner, A.	CHAS	31	Kawahara, S.	POLY	253	Keenum, I.	ENVR	9
Kato, A.	MEDI	310	Kawahara, T.	AGFD	122	Keeton, S.	COMP	212
Kato, F.	INOR	676	Kawamoto, D.	GEOC	31	Keever, J.M.	ORGN	441
Kato, M.	INOR	192	Kawamoto, K.	POLY	278	Kehlbeck, J.D.	COLL	187
Kato, R.	CHED	845	Kawamoto, K.	POLY	287	Kehoe, H.P.	BIOT	151
Katona, A.	PHYS	508	Kawamura, K.	COLL	240	Keiluweit, M.	ENVR	340
Kats, H.	CHED	991	Kawanami, H.	ENFL	197	Keiluweit, M.	ENVR	492
Katsaras, J.	COLL	21	Kawano, H.	CELL	152	Keirstead, A.E.	CHED	95
Katsaras, J.	COLL	335	Kawasaki, M.	MEDI	22	Keirstead, A.E.	CHED	206
Katsaras, J.	COLL	403	Kawashima, N.	CELL	124	Keirstead, A.E.	CHED	1844
Katsev, S.	GEOC	107	Kawashima, T.	PMSE	497	Keith, A.D.	ENFL	494
Katsiev, K.	ENFL	77	Kawashima, T.E.	ORGN	15	Keith, C.A.	GEOC	223
Katsogiannis, I.	ENVR	95	Kawi, S.	ENFL	70	Keith, J.M.	CHED	851
Katsuhara, S.	PMSE	449	Kay, S.	CHED	19	Keith, J.A.	CATL	124
Katsura, H.	NUCL	70	Kaya, E.	POLY	651	Keith, J.A.	CATL	191
Kattas, J.	CINF	26	Kayasuga, K.	MEDI	32	Keith, J.A.	CATL	467
Kattel, S.	CATL	230	Kayser, A.K.	CHED	788	Keith, J.A.	CHED	889
Kattel, S.	CATL	495	Kayser, L.V.	PMSE	83	Keith, J.A.	INOR	17
Kattel, S.	COMP	124	Kayser, L.V.	POLY	720	Keithley, R.B.	CHED	428
Katz, A.S.	CATL	383	Kazakova, M.	CATL	418	Kecec, A.	MEDI	92
Katz, A.S.	CATL	493	Kazerouni, A.M.	ORGN	730	Kekre, K.M.	ENVR	373
Katz, A.S.	INOR	75	Kazmierczak, M.	ORGN	412	Kelanne, N.	AGFD	71
Katz, E.	POLY	260	KC, P.	ENVR	744	Kelber, J.	CHED	1117
Katz, J.E.	CHED	1072	Kdeiss, S.R.	CHED	2036	Kelch, S.	GEOC	175
Katz, L.	ENFL	404	Ke, A.	BIOL	199	Kelgokmen, Y.	ORGN	631
Katz, L.E.	ENVR	201	Ke, C.	PMSE	557	Kelinske, M.	ANYL	5
Katz, L.E.	ENVR	649	Ke, M.	CATL	484	Kelkar, D.	MEDI	43
Katz, L.E.	ENVR	665	Ke, M.	CATL	498	Kellam, B.	MEDI	411
Katz, L.E.	ENVR	666	Ke, Y.	PMSE	373	Kellar, J.J.	INOR	424
Katz, L.E.	ENVR	674	Ke, Y.	PMSE	459	Kellar, T.	COMP	16
Katz, L.E.	GEOC	64	Kean, Z.	INOR	82	Kellas, N.	COMP	53
Katz, L.E.	GEOC	202	Kearney, L.	PMSE	440	Kelleher, C.	CHED	1998
Katz, R.	INOR	249	Kearns, F.	COMP	98	Kelleher, P.J.	YCC	25
Kauffman, A.	CHED	1131	Kearns, J.	ENVR	431	Keller, B.	CARB	8
Kauffman, D.	CATL	278	Kearns, N.M.	PHYS	75	Keller, C.	CHED	1846
Kaufman, Y.	PMSE	191	Keating, A.E.	BIOT	86	Keller, C.B.	PMSE	386
Kauloorkar, S.	CHED	1174	Keating, C.D.	CHED	1716	Keller, J.S.	ANYL	98

Keller, J.S.	PHYS	21	Kemp, R.A.	INOR	498	Kenny, J.	MEDI	7
Keller, M.	MEDI	216	Kempa, T.J.	COLL	63	Kensy, V.	ORGN	398
Keller, M.A.	ENVR	148	Kempe, D.K.	INOR	1117	Kensy, V.	POLY	393
Kellett, C.W.	INOR	553	Kempf, S.	CHED	1852	Kent, D.B.	GEOC	68
Kelley, E.G.	COLL	555	Kempisty, D.M.	ENVR	22	Kent, D.B.	GEOC	84
Kelley, R.B.	CHED	1415	Kempster, P.	INOR	1399	Kent, D.B.	GEOC	229
Kelley, R.B.	CHED	1610	Kempson, J.	MEDI	35	Kent, I.A.	COLL	744
Kelley, R.B.	CHED	1649	Kempson, J.	MEDI	178	Kent, P.	ENFL	103
Kelley, S.A.	ORGN	645	Kemraj, A.	BIOL	140	Kent, P.	ENFL	488
Kelley, S.S.	CELL	282	Kendall, A.J.	INOR	121	Kent, P.	GEOC	50
Kelley-Loughnane, N.	ANYL	104	Kendall, A.	CELL	240	Kent, P.	GEOC	258
Kelley-Loughnane, N.	ANYL	322	Kendell, S.M.	CATL	272	Kenton, N.	ORGN	606
Kelley-Loughnane, N.	BIOT	245	Kender, W.T.	INOR	6	Kenttamaa, H.I.	ANYL	89
Kelley-Loughnane, N.	BIOT	396	Kendhammer, L.K.	CHED	2110	Kenttamaa, H.I.	ENFL	411
Kelley-Loughnane, N.	COLL	231	Kendrick, A.	PMSE	276	Kenttamaa, H.I.	ORGN	12
Kelley-Loughnane, N.	COLL	703	Kendrick, B.	PHYS	109	Kenttamaa, H.I.	ORGN	386
Kellner, M.D.	CHED	1508	Kendrick, B.	PHYS	470	Kenwright, A.	INOR	998
Kellogg, S.	CHED	2034	Kendrick, S.D.	PROF	44	Keophimphone, B.	CHED	1831
Kellogg, T.	BIOT	139	Kendrick, S.	BIOT	134	Keown, W.	INOR	536
Kells, A.	COMP	38	Kendrick-Murphy, M.J.	CHED	427	Kephart, J.	INOR	1377
Kellum, M.G.	POLY	207	Kendrick-Murphy, M.J.	CHED	431	Ker, J.	MPPG	9
Kelly, A.	ORGN	241	Kendrick-Murphy, M.J.	CHED	456	Kerbersky, M.	CHED	90
Kelly, A.	CHED	388	Kennedy, A.	BIOL	228	Keren, R.	ENVR	560
Kelly, D.	ANYL	8	Kennedy, A.	MEDI	168	Kerger, P.	CATL	158
Kelly, D.C.	INOR	83	Kennedy, A.M.	ORGN	444	Kerisit, S.N.	GEOC	186
Kelly, G.	PMSE	150	Kennedy, B.	CHED	1172	Kerisit, S.N.	GEOC	272
Kelly, G.	PMSE	335	Kennedy, B.J.	CHED	68	Kermanshahi Pour, A.	ENVR	769
Kelly, G.	PMSE	552	Kennedy, C.L.	PHYS	71	Kern, J.C.	COMP	298
Kelly, J.W.	BIOL	148	Kennedy, C.L.	PHYS	458	Kern, J.	ENVR	99
Kelly, J.T.	YCC	17	Kennedy, G.	ORGN	420	Kerns, E.	INOR	1153
Kelly, J.T.	YCC	20	Kennedy, J.	MEDI	25	Kerns, R.J.	MEDI	398
Kelly, J.T.	YCC	21	Kennedy, J.	MEDI	26	Kerr, J.D.	GEOC	220
Kelly, J.E.	BIOL	58	Kennedy, J.L.	CHAL	3	Kerr, R.	ENFL	48
Kelly, K.	INOR	365	Kennedy, J.L.	CHAL	4	Kerr, R.	PHYS	115
Kelly, M.	POLY	438	Kennedy, J.	CHED	927	Kerr, T.	INOR	1269
Kelly, P.J.	INOR	690	Kennedy, M.	ORGN	66	Kerr, W.	ORGN	577
Kelly, R.M.	CHED	297	Kennedy, M.	CHED	616	Kerrigan, J.F.	ENVR	15
Kelly, R.M.	CHED	302	Kennedy, R.	I&EC	11	Kerrigan, P.K.	CHED	1868
Kelly, R.M.	BIOT	221	Kennedy, S.A.	CHED	729	Kersker, N.	BIOT	243
Kelsey, L.E.	CHED	1190	Kennedy, S.M.	CHED	543	Kerstiens, G.	CHED	2054
Kelterer, A.	CHED	860	Kennedy, S.M.	CHED	1535	Kertesz, V.	ANYL	382
Kelts, J.	CHED	622	Kennedy, S.M.	CHED	1624	Kerwin, B.	BIOT	120
Kemner, K.M.	ENVR	222	Kennedy, S.M.	CHED	1638	Kesavan, J.	PHYS	462
Kemner, K.M.	GEOC	65	Kennedy, S.M.	CHED	1645	Kesavan, P.	CHED	1853
Kemner, K.M.	GEOC	207	Kennedy, S.M.	CHED	1647	Kesharwani, T.	ORGN	534
Kemner, K.M.	GEOC	222	Kennedy, S.M.	CHED	2024	Kesharwani, T.	ORGN	535
Kemnitz, E.	FLUO	5	Kennehan, E.	ENFL	4	Kesharwani, T.	ORGN	647
Kemnitz, E.	FLUO	6	Kennehan, E.	ENFL	28	Kessel, J.	NUCL	75
Kemnitz, E.	FLUO	17	Kennehan, E.R.	ENFL	24	Kessl, J.	MEDI	345
Kemnitz, E.	FLUO	20	Kennemur, J.G.	CHED	1757	Kessl, J.	ORGN	326
Kemnitz, E.	FLUO	26	Kennemur, J.G.	PMSE	276	Kessl, J.	ORGN	643
Kemp, D.	MEDI	92	Kennemur, J.G.	POLY	652	Kessler, J.	CHED	697
Kemp, D.	MEDI	93	Kennerly, W.	CHED	188	Kessler, J.	CHED	2133
Kemp, I.	BIOT	144	Kenney, E.N.	CHED	93	Kester, B.	BIOT	352
Kemp, K.	CHED	1352	Kenney, E.N.	CHED	1824	Kester, M.	BIOL	227

Ketchem, R.	BIOT	120	Khan, P.	PMSE	210	Kholodar, S.	BIOL	126
Keten, S.	CELL	67	Khan, S.	CELL	353	Khon, D.	COLL	269
Ketoja, J.	CELL	435	Khan, S.	CELL	383	Khosravi, M.	BIOT	427
Ketoja, J.	COLL	539	Khan, S.	COLL	61	Khoury, R.	PHYS	455
Ketring, A.	FLUO	71	Khan, S.	PMSE	439	Khoury, R.A.	PHYS	479
Kett, P.J.	CHED	1684	Khan, S.	POLY	500	Khoury, R.A.	PHYS	480
Kett, P.J.	CHED	1685	Khan, S.I.	INOR	763	Khoury, R.A.	PHYS	649
Kett, P.J.	CHED	1748	Khan, S.	COMP	94	Khouryieh, H.	AGFD	229
Kett, P.J.	CHED	1750	Khan, S.	INOR	1171	Khurana, I.	I&EC	54
Ketterer, M.E.	ANYL	300	Khan, S.A.	BIOL	275	Khusnutdinova, J.	INOR	153
Keul, H.	POLY	375	Khan, S.	PHYS	444	Khvostichenko, D.	POLY	210
Keul, H.	POLY	388	Khan, S.	PHYS	467	Khwaja, E.	CHED	2198
Keul, H.	POLY	390	Khan, S.	ORGN	535	Kiakos, K.	MEDI	131
Keum, J.K.	CELL	364	Khan, T.S.	CATL	550	Kibbe, A.	CHED	1197
Keum, J.K.	ENFL	308	Khan, W.	MEDI	51	Kida, T.	ENFL	66
Keum, J.K.	POLY	275	Khanal, O.	BIOT	444	Kidd, B.E.	POLY	724
Keung, W.	MEDI	201	Khanal, P.C.	ANYL	463	Kidd, R.	CINF	5
Key, B.	ENFL	419	Khanal, S.R.	COLL	428	Kidder, K.	CHED	1537
Key, B.	ENFL	430	Khandelwal, P.	BIOT	295	Kidder, M.	CATL	254
Key, R.	CATL	321	Khanehzar, A.	COLL	679	Kidder, M.	CATL	271
Key, R.	INOR	1187	Khanfar, M.	FLUO	1	Kiddle, J.J.	ENVR	290
Keyes, J.	CHED	1689	Khanna, N.	ENFL	443	Kiddle, J.J.	ORGN	649
Keyes, P.V.	ORGN	698	Khanna, S.N.	ORGN	455	Kidwell, R.	CHED	769
Keynton, R.S.	ANYL	447	Khanna, V.	ENFL	57	Kieber, R.J.	CHED	1757
Keys, A.	CHED	329	Khanna, V.	ENVR	186	Kieber, R.J.	POLY	652
Khachatryan, L.	ENFL	379	Kharel, G.	ENFL	547	Kieber-Emmons, M.T.	CHED	1082
Khachatryan, L.	ENFL	407	Kharel, G.	ENVR	41	Kieber-Emmons, M.T.	INOR	261
Khachatryan, L.	ENVR	701	Kharel, G.	I&EC	110	Kiefer, G.	INOR	419
Khade, R.	ORGN	73	Kharel, K.	INOR	828	Kiefer, J.	POLY	33
Khader, M.M.	ENFL	525	Kharel, K.	INOR	1160	Kieffer, I.A.	INOR	1247
Khaksari, M.	ENVR	478	Kharel, P.	INOR	803	Kiel, S.	ENVR	554
Khalaf, R.	BIOT	2	Kharel, S.	INOR	329	Kiely, C.	CATL	130
Khalafi, L.	ANYL	62	Kharlampieva, E.P.	ANYL	219	Kiely, C.	ENFL	35
Khaled, M.	ORGN	180	Kharlampieva, E.P.	COLL	776	Kiemle, S.N.	CELL	182
Khaledi, M.	BIOT	438	Kharlampieva, E.P.	PMSE	274	Kienle, D.F.	COLL	629
Khalifehzadeh, R.	POLY	642	Kharlampieva, E.P.	PMSE	456	Kiernicki, J.J.	INOR	616
Khalil, C.	INOR	589	Kharlampieva, E.P.	POLY	507	Kierulf-Vieira, W.	CATL	453
Khalili, K.	CATL	95	Kharlampieva, E.P.	POLY	796	Kiesewetter, M.K.	POLY	423
Khalili, K.	BIOL	316	Kharod, R.A.	CHED	798	Kiess, J.	CHED	1867
Khamespanah, F.	INOR	363	Khattab, R.	CHED	568	Kiessling, L.L.	CARB	1
Khamo, J.	COLL	218	Khayat, M.T.	MEDI	385	Kiessling, L.L.	CELL	154
Khan, A.	AGFD	196	Khayyat, A.	MEDI	385	Kiessling, L.L.	POLY	114
Khan, I.H.	CHED	1753	Khazraee Zamanpour, M.	ENVR	758	Kieu, L.	GEOC	84
Khan, J.	ORGN	338	Khazri, M.	INOR	1097	Kigen, G.	ANYL	302
Khan, J.	ORGN	679	Khedr, M.A.	MEDI	42	Kight, A.	BIOL	82
Khan, J.	MEDI	35	Khereid, N.	BIOT	441	Kightlinger, W.	BIOT	90
Khan, J.	MEDI	109	Khereid, N.	BIOT	480	Kiick, K.L.	POLY	302
Khan, J.	MEDI	178	Khimyak, Y.Z.	CELL	310	Kijima, H.	MEDI	32
Khan, J.	MEDI	202	Khmelnitskiy, A.	PHYS	401	Kiker, M.	INOR	359
Khan, M.	MEDI	208	Khmelnitskiy, A.	PHYS	404	Kiker, M.	INOR	361
Khan, M.	BIOL	55	Khnyazer, R.S.	INOR	589	Kikla, A.	BIOT	434
Khan, M.S.	BIOT	58	Khnyazer, R.S.	INOR	910	Kikuchi, C.	CELL	159
Khan, M.S.	ENVR	406	Khokhar, M.	INOR	76	Kikuchi, N.	BIOT	407
Khan, M.	ENVR	760	Kholmicheva, N.N.	COLL	42	Kikuchi, T.	PHYS	488
Khan, N.	PHYS	456	Kholod, Y.	CHED	2030	Kilaru, P.	ORGN	139

Kilaru, P.	ORGN	597	Kim, D.	POLY	595	Kim, J.	I&EC	105
Kilbey, M.	PMSE	69	Kim, E.	INOR	621	Kim, J.	I&EC	109
Kilbey, M.	PMSE	84	Kim, E.	INOR	84	Kim, K.	POLY	421
Kilbey, M.	PMSE	506	Kim, E.	NUCL	69	Kim, K.	POLY	13
Kilgore, J.	CHED	936	Kim, E.	NUCL	72	Kim, K.	POLY	531
Kilgore, U.J.	INOR	480	Kim, E.	GEOC	101	Kim, K.	ORGN	330
Killer, C.	CHED	852	Kim, G.	I&EC	118	Kim, K.	PMSE	605
Killgore, J.	PMSE	34	Kim, G.	ENFL	183	Kim, K.	PHYS	647
Killgore, J.	POLY	167	Kim, H.	ENVR	534	Kim, K.	MEDI	74
Killian, O.	BIOT	92	Kim, H.H.	INOR	915	Kim, K.	CHED	904
Killner, M.H.	ANYL	266	Kim, H.	INOR	1172	Kim, K.	CHED	972
Kilmer, M.D.	COLL	150	Kim, H.	BIOT	501	Kim, K.	ENVR	212
Kilos, B.A.	I&EC	66	Kim, H.	CELL	84	Kim, K.	ENVR	671
Kilos, B.A.	I&EC	80	Kim, H.	CELL	217	Kim, K.	PMSE	392
Kilos, B.A.	I&EC	93	Kim, H.	ORGN	330	Kim, M.	ENVR	216
Kilpatrick, M.	CHED	1341	Kim, H.	ENVR	608	Kim, M.	POLY	457
Kilpatrick, P.K.	ENFL	162	Kim, H.H.	BIOT	48	Kim, M.	CARB	31
Kilpeläinen, I.A.	CELL	28	Kim, H.	PMSE	160	Kim, M.	INOR	397
Kilpeläinen, I.A.	CELL	355	Kim, H.	NUCL	82	Kim, M.	CHED	1671
Kilpeläinen, P.	CELL	135	Kim, H.	ENVR	534	Kim, M.	PMSE	528
Kilpeläinen, P.	CELL	318	Kim, H.	ENFL	445	Kim, M.	POLY	454
Kilyanek, S.M.	INOR	389	Kim, H.	ENVR	300	Kim, M.	INOR	378
Kilyanek, S.M.	INOR	394	Kim, H.	AGFD	170	Kim, M.	ENVR	211
Kilyanek, S.M.	INOR	1281	Kim, I.	CATL	39	Kim, M.	CATL	295
Kim, A.	INOR	378	Kim, I.	INOR	522	Kim, M.	CATL	300
Kim, A.	MEDI	92	Kim, J.	AGFD	47	Kim, M.J.	CHED	1603
Kim, B.	BIOT	405	Kim, J.	ENVR	236	Kim, M.J.	CHED	1821
Kim, B.	GEOC	87	Kim, J.	PMSE	588	Kim, M.	ENVR	600
Kim, B.	GEOC	246	Kim, J.	ENFL	493	Kim, M.	BIOT	400
Kim, B.	COMP	212	Kim, J.	MEDI	390	Kim, M.	BIOT	405
Kim, B.	CATL	304	Kim, J.	ENVR	608	Kim, M.	INOR	935
Kim, B.	CATL	305	Kim, J.	ENVR	609	Kim, P.	COLL	746
Kim, B.	PMSE	589	Kim, J.	ENVR	610	Kim, P.	INOR	378
Kim, B.	COLL	369	Kim, J.	INOR	502	Kim, P.	CELL	422
Kim, C.	ENVR	125	Kim, J.	INOR	580	Kim, S.	ANYL	356
Kim, C.	CELL	282	Kim, J.	INOR	821	Kim, S.	COLL	775
Kim, C.	BIOT	422	Kim, J.	INOR	822	Kim, S.	INOR	937
Kim, C.	ENVR	280	Kim, J.	ENFL	371	Kim, S.	CATL	449
Kim, C.	INOR	377	Kim, J.H.	ENVR	363	Kim, S.	COMP	149
Kim, C.	INOR	378	Kim, J.	PHYS	375	Kim, S.H.	CELL	142
Kim, C.	INOR	937	Kim, J.	COMP	147	Kim, S.H.	COLL	45
Kim, C.	INOR	938	Kim, J.	ENVR	609	Kim, S.	ORGN	330
Kim, C.	ORGN	88	Kim, J.	COLL	369	Kim, S.	PROF	26
Kim, C.	INOR	92	Kim, J.	ENFL	198	Kim, S.	CATL	330
Kim, C.S.	GEOC	200	Kim, J.	PMSE	376	Kim, S.	COMP	388
Kim, C.S.	GEOC	201	Kim, J.	PMSE	377	Kim, S.	PHYS	465
Kim, C.	INOR	348	Kim, J.	PMSE	433	Kim, S.	PMSE	8
Kim, C.	INOR	349	Kim, J.	NUCL	44	Kim, S.F.	ORGN	410
Kim, C.	INOR	350	Kim, J.	AGFD	110	Kim, S.	ENFL	419
Kim, C.	INOR	821	Kim, J.	BIOL	192	Kim, S.	INOR	502
Kim, D.	ENFL	298	Kim, J.	PMSE	469	Kim, S.	POLY	422
Kim, D.	INOR	113	Kim, J.	POLY	400	Kim, S.	MEDI	72
Kim, D.	ENVR	243	Kim, J.	PMSE	208	Kim, S.	INOR	348
Kim, D.	ENVR	462	Kim, J.	ENVR	711	Kim, S.	INOR	349
Kim, D.	GEOC	23	Kim, J.	PHYS	593	Kim, S.	INOR	821

Kim, S.	INOR	822	Kimura, H.	POLY	674	King, S.	COLL	731
Kim, S.	ENFL	496	Kimura, K.	CATL	307	Kinghorn, A.D.	MEDI	384
Kim, S.	ORGN	161	Kimura, M.	PMSE	415	Kinghorn, M.	ORGN	715
Kim, S.	ENFL	445	Kimura, S.	CELL	139	Kingsley, K.	POLY	45
Kim, S.	ENFL	489	Kimura, S.	CELL	143	Kingsley, N.B.	CHED	1946
Kim, S.	CHED	2169	Kimura, T.	COMP	414	Kingsley, N.B.	INOR	281
Kim, S.	CINF	43	Kimura, T.	CELL	141	Kinler, Z.	POLY	473
Kim, S.	CINF	93	Kimura, Y.	BIOL	119	Kinler, Z.K.	CHED	1828
Kim, S.	COMP	2	Kimura, Y.	BIOL	163	Kinler, Z.K.	PMSE	420
Kim, S.	MEDI	295	Kimura, Y.	MEDI	157	Kinnan, M.K.	CATL	406
Kim, S.	COLL	625	Kimura, Y.	GEOC	31	Kinney, K.A.	ENVR	134
Kim, T.	ENVR	69	Kimutai, B.	BIOL	107	Kinnison, K.	COLL	236
Kim, T.	AGFD	47	Kina, A.	MEDI	133	Kinnison, K.	COLL	754
Kim, T.	INOR	811	Kinaci, E.	PMSE	388	Kino, H.	CATL	164
Kim, T.	ORGN	350	Kinaci, E.	PMSE	523	Kinoshita, K.	MEDI	225
Kim, T.	CATL	234	Kinane, C.	CHED	1076	Kinsel, G.R.	CHED	492
Kim, T.	ORGN	736	Kincaid, T.	PMSE	279	Kinsela, A.	GEOC	122
Kim, T.	ENVR	499	Kindermans, P.	CATL	117	Kinsella, J.	CHED	1934
Kim, T.	ENVR	600	Kindle, C.	CHED	2061	Kinsey, S.	CHED	1251
Kim, T.	ENVR	534	King, A.	COLL	434	Kinsey, T.	PMSE	275
Kim, T.	BIOL	316	King, A.	COLL	710	Kinsley, J.	INOR	376
Kim, T.	ENVR	600	King, A.A.	COLL	619	Kintz, H.	CHED	1209
Kim, T.	COMP	14	King, A.	CELL	28	Kinyua, J.	CHED	997
Kim, T.	GEOC	269	King, A.	CELL	355	Kinyua, J.	ENVR	414
Kim, T.D.	CHED	328	King, A.	ANYL	461	Kinzlmaier, D.	BIOT	277
Kim, T.	ENVR	633	King, A.E.	COLL	489	Kiplinger, J.L.	INOR	1005
Kim, W.	PMSE	603	King, A.M.	INOR	155	Kiplinger, J.L.	INOR	1290
Kim, W.	NUCL	83	King, B.	BIOT	204	Kiplinger, J.L.	INOR	1295
Kim, W.	COLL	70	King, C.	ENFL	258	Kippelen, B.	CELL	37
Kim, Y.	BIOT	129	King, C.	ENFL	259	Kippenhan, E.P.	CHED	93
Kim, Y.	BIOT	565	King, C.	ENFL	260	Kippenhan, E.P.	CHED	241
Kim, Y.	CHED	1191	King, C.	ENFL	261	Kippenhan, E.P.	CHED	1824
Kim, Y.	INOR	584	King, C.	ENFL	311	Kiran, A.	ANYL	21
Kim, Y.	INOR	902	King, C.	ENFL	475	Kiratitanavit, W.	CELL	16
Kim, Y.	ENFL	509	King, C.D.	CHED	899	Kirby, C.A.	MEDI	295
Kim, Y.	ENVR	3	King, C.D.	CHED	997	Kirby, S.M.	COLL	389
Kim, Y.	COLL	19	King, D.	CHED	1124	Kircher, M.	INOR	1324
Kim, Y.	ENVR	608	King, D.A.	CHED	1970	Kircher, M.	NUCL	61
Kim, Y.	ENVR	609	King, D.B.	CHED	190	Kirchhoff, M.M.	CHAS	15
Kim, Y.	ENVR	610	King, D.R.	POLY	609	Kirchhoff, M.M.	CHED	2166
Kim, Y.	PMSE	526	King, D.	ORGN	737	Kirchner, B.	PHYS	119
Kim, Y.	COLL	345	King, G.M.	ENFL	446	Kirchner, S.R.	PHYS	299
Kim, Y.	ORGN	736	King, J.	CHED	1909	Kirchner, S.R.	PHYS	384
Kim, Y.	COLL	758	King, J.W.	CELL	274	Kirchon, A.	ENFL	362
Kim, Y.H.	ORGN	416	King, J.W.	I&EC	168	Kirchon, A.	INOR	712
Kim, Y.	ORGN	666	King, K.	ANYL	224	Kireev, D.	BIOL	10
Kim, Y.	PMSE	387	King, L.	MEDI	25	Kireev, D.	COMP	377
Kim, Y.	ANYL	53	King, M.E.	COLL	672	Kiriakou, M.	CELL	199
Kim, Y.	CELL	74	King, M.E.	COLL	744	Kirianchuk, V.	POLY	45
Kim, Y.	INOR	991	King, M.E.	INOR	74	Kirilin, A.	I&EC	79
Kimble, K.A.	CHED	1345	King, M.	CHED	750	Kirisits, M.J.	ENVR	79
Kimble, M.	ANYL	224	King, R.	MEDI	230	Kirisits, M.J.	ENVR	661
Kimrey, C.D.	CHED	1078	King, R.	CHED	792	Kirisits, M.J.	ENVR	674
Kimukai, H.	GEOC	197	King, S.	AGFD	158	Kirisits, M.	ENVR	69
Kimura, F.	CELL	141	King, S.	INOR	174	Kirk, C.	CATL	533

Kirk, J.S.	CHED	1313	Kjellson, A.H.	CHED	1884	Klingberg, M.P.	CHED	93
Kirk, J.S.	CHED	1317	Kjoller, K.	PMSE	295	Klingberg, M.P.	CHED	1824
Kirk, J.S.	CHED	1888	KK, M.	CHED	817	Klinke, D.J.	I&EC	6
Kirkegaard, M.C.	NUCL	17	Klacic, T.	PHYS	505	Klippenstein, S.J.	PHYS	188
Kirkegaard, M.C.	NUCL	65	Klajn, R.	INOR	1043	Kliskey, A.	MPPG	10
Kirkegaard, M.C.	NUCL	73	Klamp, T.	BIOT	493	Klitgaard, K.	ENFL	478
Kirkland, J.K.	INOR	374	Klapper, M.	COLL	561	Klockars, K.	CELL	162
Kirkman, W.L.	CHED	1464	Klapper, M.	POLY	24	Klok, H.A.	POLY	232
Kirkman, W.L.	ORGN	694	Klapper, M.	POLY	304	Kloppenborg, H.	INOR	490
Kirkpatrick, C.L.	ANYL	96	Klarich, K.	ENVR	483	Klose, A.	NUCL	79
Kirkpatrick, C.L.	ANYL	188	Klarich, K.L.	ENVR	485	Klosin, J.	CATL	160
Kirkpatrick, J.	MEDI	122	Klasson, T.	AGFD	228	Kloska, K.	CHED	1683
Kirkpatrick, R.	GEOC	237	Klatt, J.	GEOC	134	Kloska, K.A.	PHYS	89
Kirkpatrick, R.	GEOC	238	Klaus, M.V.	BIOT	206	Kloskowski, J.	ORGN	625
Kirkpatrick, R.	GEOC	264	Klausen, R.S.	COLL	339	Kloster, A.	POLY	154
Kirkwood, K.L.	MEDI	122	Klausmeyer, K.	INOR	977	Kloster, A.	POLY	803
Kirmizialtin, S.	COMP	206	Klaver, C.	BIOT	169	Klotz, M.G.	INOR	48
Kirpas, J.	INOR	963	Klebanoff, L.	ENFL	277	Kloxin, C.J.	POLY	90
Kirsch, B.J.	BIOT	252	Klebe, G.	MEDI	118	Kloxin, C.J.	POLY	95
Kirtland, A.	ANYL	158	Kleber, M.	ENVR	492	Kluck, B.	BIOT	442
Kischuk, E.	BIOL	159	Kleij, A.W.	INOR	1383	Klug, C.M.	INOR	665
Kiser, E.	CHED	1864	Kleiman, V.D.	PHYS	511	Klumpers, L.	CHAS	12
Kishani, S.	CELL	323	Klein, B.P.	COLL	193	Klumpers, L.	CHAS	37
Kisiliak, R.	AGFD	120	Klein, B.P.	COLL	377	Klumpers, L.	CHAS	40
Kiskan, B.	PMSE	535	Klein, D.	MEDI	191	Klussmann, A.	CHED	1821
Kisley, L.	BIOT	327	Klein, G.C.	ENFL	384	Kluthe, K.	POLY	24
Kisley, L.	COLL	630	Klein, I.M.	INOR	829	Kmak, K.	NUCL	22
Kisley, L.	COLL	633	Klein, J.D.	ENVR	703	Knapik-Kowalczuk, J.	PHYS	343
Kisley, L.	POLY	83	Klein, L.C.	CHED	1010	Knapp, C.	CHED	1676
Kisliuk, A.	COLL	50	Klein, M.	CHED	1859	Knapp, D.	BIOL	198
Kisliuk, A.	PMSE	511	Klein, M.L.	INOR	1063	Knapp, D.	BIOL	159
Kisliuk, A.	POLY	314	Klein, M.T.	I&EC	1	Knapp, J.G.	CHED	336
Kiss, G.	MEDI	277	Klein, R.A.	INOR	450	Knapp, M.	MEDI	243
Kiss, R.D.	BIOT	280	Kleindienst, S.	GEOC	80	Knapp, M.	INOR	72
Kissling, R.M.	CHED	322	Kleingardner, J.	CHED	699	Knapp, S.	INOR	441
Kitagawa, H.	INOR	13	Kleinlein, C.	INOR	1263	Knapp, S.	MEDI	63
Kitagawa, S.	INOR	98	Kleinoeder, T.	CINF	90	Knappe, D.	ANYL	430
Kitchen, D.B.	MEDI	270	Kleinschmidt, A.	PMSE	83	Knappe, D.	ENVR	231
Kitchin, J.R.	CATL	174	Kleinschmidt, A.	PMSE	578	Knappe, D.	ENVR	292
Kitoh-Nishioka, H.	COMP	337	Kleinschmidt, D.	POLY	387	Knappe, D.	ENVR	314
Kitt, D.B.	ENVR	561	Kleinschmidt, M.	MEDI	21	Knappe, D.	ENVR	426
Kitt, J.P.	ANYL	204	Kleinschmit, A.	CHED	364	Knappe, D.	ENVR	431
Kitt, J.P.	BIOT	425	Kleinstreuer, N.	CINF	100	Knappe, D.	ENVR	710
Kitt, J.P.	COLL	104	Kleinstreuer, N.	ENVR	418	Knasin, A.	BIOL	174
Kitt, J.P.	COLL	700	Kleinstreuer, N.	ENVR	422	Knasmueller, B.	MEDI	173
Kittelson, A.	ANYL	187	Klemes, M.	CHED	1760	Knasmueller, B.	MEDI	174
Kittilstved, K.R.	INOR	676	Klemet, D.	CHED	1827	Knauber, T.	ORGN	347
Kittinger, C.	BIOT	346	Klemm, D.O.	CELL	359	Knauer, K.M.	POLY	203
Kittle, J.	INOR	766	Klenner, M.	FLUO	49	Knauer, S.	COLL	1
Kittrell, C.	CHED	713	Klesko, J.	COLL	524	Kneas, K.	CHED	1057
Kiyosawa, H.	COLL	669	Klet, R.	CATL	408	Knechel, M.	CHED	611
Kiyoshiro, F.	PMSE	389	Klett, A.	CELL	409	Knecht, S.	PHYS	182
Kizewski, A.	COLL	620	Kliewer, C.	CATL	14	Kneebone, J.L.	INOR	220
Kizilkaya, O.	PHYS	403	Klijn, M.	BIOT	494	Kneebone, J.L.	ORGN	87
Kjellson, A.H.	CHED	94	Klikovits, N.	POLY	40	Kneidinger, G.	CELL	99

Kneitschel, N.	MEDI	368	Kobayashi, K.	BIOT	479	Koes, D.	COMP	320
Kniewald, G.	GEOC	194	Kobayashi, M.	PMSE	405	Koester, U.	NUCL	8
Knight, A.	PMSE	123	Kobayashi, M.	PMSE	458	Koetting, P.	COMP	392
Knight, A.	GEOC	168	Kobayashi, T.	CATL	365	Koffas, M.	BIOL	187
Knight, B.	INOR	1356	Kobayashi, T.	POLY	634	Koffas, M.	BIOT	93
Knight, B.J.	INOR	990	Kobayashi, Y.	INOR	768	Koffman, J.D.	CHED	93
Knight, B.J.	INOR	1258	Kobayashi, Y.	MEDI	90	Koffman, J.D.	CHED	1824
Knight, J.	COMP	194	Kobe, M.J.	MEDI	344	Kofu, M.	PHYS	288
Knight, L.	COLL	243	Kober, E.	INOR	28	Kofu, M.	PHYS	488
Knippenberg, T.	CHED	251	Kober, E.A.	INOR	894	Koga, H.	CELL	76
Knob, R.	ANYL	305	Kobrak, M.N.	PHYS	66	Koga, H.	CELL	161
Knobloch, T.J.	AGFD	235	Kobylianskii, I.J.	POLY	268	Koh, A.	ANYL	252
Knodel, E.	PHYS	539	Koc, M.	COLL	362	Koh, A.	COLL	163
Knoerzer, T.A.	CHED	1442	Kocen, A.	INOR	1109	Koh, K.	ENFL	548
Knoerzer, T.A.	CHED	1443	Koçer, G.	COLL	548	Koh, M.	CHED	357
Knoerzer, T.A.	CHED	1444	Koch, A.C.	CHED	1107	Kohanov, Z.A.	CHED	1465
Knoll, A.	GEOC	134	Kochambilli, R.	ANYL	129	Kohen, A.	BIOL	126
Knoll, P.	GEOC	47	Kochambilli, R.	ANYL	139	Kohen, A.	BIOL	278
Knope, K.E.	INOR	1012	Kochambilli, R.	ANYL	140	Kohen, D.L.	CHED	842
Knope, K.E.	INOR	1145	Kochemba, W.M.	PMSE	84	Kohl, P.	POLY	141
Knorr, D.	POLY	341	Kocher, J.	MEDI	150	Kohler, B.	PHYS	353
Knostman, N.	CHED	1921	Kocherzhenko, A.	COMP	350	Kohler, L.	INOR	492
Knothe, G.	ANYL	265	Koczur, K.M.	COLL	417	Kohler, L.	INOR	1381
Knott, B.	COMP	149	Koczur, K.M.	INOR	823	Kohler, M.	GEOC	84
Knowe, M.T.	ORGN	126	Kodadek, C.	CHED	1639	Kohler, M.	GEOC	95
Knowlden, S.	ORGN	94	Kodadek, T.J.	ORGN	713	Kohler, M.	GEOC	229
Knowlden, S.	ORGN	170	Kodaimati, M.S.	PHYS	367	Köhler, J.	POLY	375
Knowlden, S.	PROF	48	Kodali, G.	PHYS	177	Kohli, P.	COMP	16
Knowles, R.R.	ORGN	22	Kodali, R.	MEDI	113	Kohnhorst, C.	BIOT	215
Knowles, R.R.	ORGN	62	Kodamatani, H.	ENVR	772	Kohnhorst, C.	BIOT	253
Knowles, R.R.	ORGN	308	Kodera, Y.	ENVR	590	Kohnhorst, C.	BIOT	391
Knowlton, K.	ENVR	9	Koditek, D.	MEDI	37	Kohnhorst, C.	BIOT	394
Knowlton, K.	ENVR	16	Koech, P.	COLL	172	Köhnke, T.	CELL	327
Knox, H.J.	BIOL	316	Koech, P.	ENFL	235	Kohut, A.	COLL	512
Knudsen, T.	CINF	85	Koech, P.	ENFL	319	Kohut, A.	POLY	45
Knutson, C.	CHED	235	Koech, P.	ENFL	404	Koishi, A.	GEOC	187
Knutson, C.	BIOL	31	Koech, P.	PHYS	233	Koishybay, A.	CATL	336
Knutson, D.E.	MEDI	113	Koech, P.K.	ENVR	756	Koizumi, K.	ANYL	106
Knutson, P.	ORGN	551	Koehn, J.T.	BIOL	80	Koizumi, K.	ENVR	590
Ko, A.	CHED	1834	Koehn, J.T.	INOR	55	Koizumi, K.	GEOC	197
Ko, E.Y.	CHED	1626	Koellner, C.	INOR	1026	Kojda, D.	INOR	1397
Ko, E.	MEDI	72	Koenig, G.	COMP	35	Kojima, S.	COLL	716
Ko, G.	INOR	793	Koenig, H.N.	CHED	1667	Kojima, Y.	ENFL	438
Ko, H.	COMP	56	Koenig, N.	COLL	23	Kokkinis, D.	CELL	72
Ko, J.	CATL	35	Koenig, S.G.	BIOT	80	Kokoli, R.	CELL	365
Ko, S.S.	MEDI	367	Koepf, E.K.	BIOT	508	Koksche, B.	FLUO	16
Ko, W.	ENVR	633	Koepke, M.	BIOT	155	Kokubo, H.	MEDI	22
Ko, Y.	COLL	661	Koerner, H.	PMSE	41	Kol, M.	POLY	637
Ko, Y.	ENFL	7	Koerner, H.	PMSE	541	Kolahdouzan, K.	ORGN	510
Ko, Y.	NUCL	82	Koerner, H.	PMSE	596	Kolanthai, E.	PMSE	222
Ko, Y.	NUCL	83	Koerner, H.	PMSE	612	Kolasinski, R.D.	ENFL	147
Ko, Y.	ANYL	326	Koes, D.	CINF	13	Kolb, P.	COMP	364
Kobaslija, S.L.	CATL	489	Koes, D.	COMP	108	Kolek, A.	CHED	769
Kobayahshi, M.	BIOT	414	Koes, D.	COMP	191	Kolesar, K.	ENVR	157
Kobayashi, K.	CELL	143	Koes, D.	COMP	226	Kolesar, K.	CHED	437

Kolesnichenko, V.L.	CHED	1586	Komolafe, T.	ENVR	630	Konkolewicz, D.	POLY	285
Kolesnikov, A.I.	GEOC	50	Komoriya, T.	ENVR	590	Konkolewicz, D.	POLY	483
Kolesnikov, A.I.	GEOC	55	Komperda, R.	CHED	37	Konkolewicz, D.	POLY	803
Kolesnikov, A.I.	GEOC	258	Komperda, R.	CHED	138	Konnerth, J.	CELL	99
Koleva, B.	COMP	431	KomReddy, V.	INOR	870	Konnerth, J.	CELL	335
Kolewe, K.W.	COLL	100	Konc, J.	COMP	75	Konnerth, J.	CELL	341
Kolic, P.E.	ANYL	355	Konc, J.	COMP	188	Kono, K.	PMSE	547
Kolic, P.E.	ENFL	20	Konc, J.	COMP	342	Kono, K.	POLY	441
Koller, H.	CATL	493	Konc, J.	MEDI	222	Kono, K.	POLY	442
Kolli, S.	ENFL	420	Kondash, A.J.	GEOC	157	Kono, K.	POLY	444
Kolling, D.	CHED	714	Kondasinghe, T.	ORGN	710	Kono, K.	POLY	446
Kolling, D.	CHED	894	Kondaveeti, S.K.	INOR	1026	Kono, K.	POLY	447
Kolling, D.	ENVR	533	Kondo, J.N.	CATL	317	Kono, K.	POLY	448
Kollman, M.	CATL	334	Kondo, J.N.	CATL	329	Kono, K.	POLY	460
Kollmann, E.	CHED	2166	Kondo, M.	ORGN	189	Konopka, F.	ANYL	226
Kollmann, E.	CHED	2167	Kondo, T.	ANYL	455	Konstantinov, I.	I&EC	59
Kolmar, S.	INOR	279	Kondo, T.	CELL	342	Konstantinov, I.	I&EC	60
Kolodziej, C.	POLY	627	Kondo, Y.	ORGN	128	Konstantinov, I.	POLY	362
Kolodziej, E.P.	ENVR	229	Kondo, Y.	PMSE	451	Konstantinov, K.	BIOT	500
Kolodziej, E.P.	ENVR	412	Kondor, A.	CELL	54	Konteatris, Z.	MEDI	32
Kolomeisky, A.	BIOL	256	Kondrat, S.	CATL	130	Kontos, R.	MEDI	149
Kolpak, A.	CATL	125	Kondratov, I.	MEDI	140	Kontoyianni, M.	CHED	1241
Kolpashchikov, D.	CHED	753	Kondratyuk, P.	CATL	202	Kontro, J.	CELL	110
Kolpashchikov, D.M.	BIOT	203	Kondratyuk, P.	PHYS	9	Kontro, J.	CELL	119
Kolpashchikov, D.M.	BIOT	244	Kondrup, B.	CHED	598	Kontturi, E.	CELL	28
Kolpashchikov, D.M.	BIOT	407	Koneru, P.	MEDI	344	Kontturi, E.	CELL	31
Koltermann, D.P.	INOR	206	Konetski, D.	COLL	329	Kontturi, E.	CELL	234
Koltun, E.S.	MEDI	277	Kong, C.	ORGN	148	Kontturi, E.	CELL	416
Komaki, Y.	ENVR	234	Kong, D.	BIOT	506	Kontzedaki, R.	POLY	288
Komaki, Y.	ENVR	435	Kong, D.	BIOL	290	Konze, K.	COMP	194
Koman, V.	ANYL	16	Kong, E.	ENFL	534	Koodali, R.T.	I&EC	151
Koman, V.	ANYL	194	Kong, H.	COLL	771	Kool, E.T.	MEDI	114
Koman, V.	ANYL	195	Kong, J.	ORGN	12	Kool, E.T.	MEDI	303
Koman, V.	COLL	590	Kong, K.	GEOC	240	Koolivand, A.	BIOT	438
Koman, V.	ENFL	369	Kong, L.	POLY	464	Koonsaeng, N.	PMSE	283
Komanduri, V.	PMSE	244	Kong, L.	CARB	77	Koonsaeng, N.	PMSE	489
Komanduri, V.	PMSE	303	Kong, L.	CARB	78	Koos, J.D.	BIOT	530
Komanduri, V.	POLY	20	Kong, L.	ENFL	75	Kopec, B.	CHED	1180
Komarneni, M.	CATL	377	Kong, M.	COLL	385	Kopecki Fjetland, M.	CHED	1907
Komarneni, M.	CATL	504	Kong, X.	COLL	355	Kopitsyn, D.S.	COLL	743
Komarneni, S.	ENFL	6	Kong, X.	COLL	633	Koppaka, A.	INOR	1311
Komarov, I.	MEDI	138	Kongara, T.	MEDI	390	Koppenaal, D.W.	ANYL	231
Komati, R.	MEDI	386	Kongsfelt, M.	COLL	75	Koppenaal, D.W.	ANYL	234
Komati, R.	MEDI	387	Konher, L.	BIOT	137	Koppisch, A.T.	CHED	756
Komati, R.	MEDI	388	Konicek, A.	COLL	129	Koppisch, A.T.	CHED	757
Komatsu, C.H.	INOR	1301	Konishi, K.	INOR	784	Koptyug, I.	ORGN	65
Komatsu, R.	COLL	469	Konishi, T.	COLL	751	Korak, J.A.	ENVR	113
Komeili, A.	GEOC	45	Konkle, M.	BIOL	264	Korak, J.A.	ENVR	118
Kominoski, J.	CHED	902	Konkolewicz, D.	BIOT	146	Koranne, R.	MEDI	409
Kominoski, J.	CHED	921	Konkolewicz, D.	BIOT	335	Korchak, J.	CHED	535
Komives, C.F.	BIOT	64	Konkolewicz, D.	BIOT	433	Korenak, J.	CHED	1539
Komives, C.F.	BIOT	529	Konkolewicz, D.	CHED	1479	Korendovych, I.V.	BIOL	152
Kommalapati, R.R.	ENVR	124	Konkolewicz, D.	POLY	154	Korenowski, G.M.	CHED	2094
Komolafe, T.	BIOL	226	Konkolewicz, D.	POLY	161	Korey, M.	PMSE	580
Komolafe, T.	COMP	318	Konkolewicz, D.	POLY	229	Korey, M.	PROF	27

Korf, W.	PMSE	507	Kotbagi, T.V.	CATL	302	Kowalkowski, N.S.	CHED	605
Korgel, B.A.	COLL	488	Kotbagi, T.V.	PMSE	74	Kowal-Safron, T.	CHED	1912
Korgel, B.A.	MPPG	20	Kotelev, M.S.	COLL	743	Kowalska, T.	POLY	474
Korich, A.L.	CHED	151	Kothandaraman, J.	INOR	1367	Kowalski, J.	AGFD	217
Koritala, R.E.	PHYS	243	Kothapalli, N.R.	ANYL	446	Kowalski, J.	CHAS	11
Koriyama, Y.	MEDI	310	Kothapalli, N.R.	BIOL	120	Kowalski, K.	PHYS	82
Korley, L.	PMSE	15	Kothapalli, N.	CHED	554	Koyanagi, T.	COLL	19
Korley, L.	PMSE	58	Kothapalli, N.	CHED	2037	Kozak, P.	I&EC	124
Korley, L.	PMSE	443	Kotlarz, N.	ENVR	292	Kozawa, D.	COLL	590
Korley, L.	PMSE	598	Kotochigova, S.	PHYS	109	Kozawa, S.K.	POLY	782
Korley, L.	POLY	287	Kotochigova, S.	PHYS	111	Kozik, I.	CHED	1236
Korman, M.	CHED	862	Kotov, N.	COLL	122	Kozikowski, A.P.	MEDI	17
Kornfilt, D.J.	ORGN	183	Kotov, N.	COLL	348	Kozimor, S.A.	FLUO	59
Koronkiewicz, B.	INOR	66	Kotov, N.	COLL	499	Kozimor, S.A.	FLUO	67
Koronkiewicz, B.	INOR	628	Kotov, N.	PHYS	13	Kozimor, S.A.	INOR	1210
Koronkiewicz, B.	INOR	670	Kotov, N.	PMSE	1	Kozliak, E.	CELL	216
Korotcov, A.	CINF	10	Kotov, N.	PMSE	11	Kozliak, E.	PHYS	447
Korotcov, A.	CINF	99	Kotov, N.	PMSE	100	Kozliak, E.	POLY	80
Korotcov, A.	CINF	102	Kotra, L.P.	CHAS	42	Kozlovskaya, L.I.	CINF	105
Korotcov, A.	CINF	112	Kotsikorou, E.	COMP	177	Kozlovskaya, L.I.	CINF	113
Korotcov, A.	COMP	27	Kottmeier, R.	BIOT	80	Kozlovskaya, V.A.	COLL	776
Korotcov, A.	COMP	110	Kottmeier, R.	BIOT	557	Kozlovskaya, V.A.	PMSE	274
Korovich, A.	POLY	67	Kotula, A.	PMSE	508	Kozlovskaya, V.A.	PMSE	456
Korovich, A.	POLY	71	Kotyk, J.	INOR	666	Kozlovskaya, V.A.	POLY	507
Korshin, G.	ENVR	50	Kotzebue, L.R.	PMSE	287	Kozlovskaya, V.A.	POLY	796
Kortewille, B.	I&EC	65	Kou, Y.	AGFD	105	Kozlowski, M.T.	BIOT	406
Korzynski, M.D.	INOR	1425	Kouchi, A.	PHYS	314	Kozlowski, P.M.	COMP	279
Kosakowska, K.	POLY	283	Koufos, E.	BIOT	563	Kozlowski, P.M.	PHYS	438
Kosakowska, K.	POLY	411	Kourentzi, K.	BIOT	327	Kozlowski, P.M.	PHYS	439
Kosan, N.	PMSE	614	Kourentzi, K.	BIOT	363	Kraatz, H.	ANYL	8
Kosanovich, A.J.	INOR	878	Kourkoumelis, N.	INOR	83	Krabacher, R.	ANYL	322
Kosanovich, A.J.	INOR	1298	Koutsomitopoulou, A.	CELL	6	Kraemer, B.	CHED	1229
Kosanovich, A.J.	INOR	1301	Kovačič, S.	POLY	615	Kraemer, K.J.	CHED	358
Koschek, K.	PMSE	188	Kovacs, J.J.	MEDI	64	Krafcik, M.J.	POLY	510
Koschek, K.	PMSE	235	Kovacs, J.J.	MEDI	359	Krafcik, M.J.	POLY	613
Koscher, B.A.	COLL	420	Kovács, H.	ENFL	201	Kraft, S.	ORGN	104
Kosciuszek, N.	CHED	433	Koval, K.	CHED	935	Krahl, T.	FLUO	6
Kosenkov, D.	CHED	2030	Kovalenko, M.	INOR	1051	Krahl, T.	FLUO	17
Kosenkov, D.	COMP	267	Kovalenko, M.	INOR	1053	Krajcovic, M.	BIOT	44
Koskela, K.M.	COLL	654	Kovaliov, M.	COLL	688	Krajcovic, M.	BIOT	262
Koski, K.J.	COLL	507	Kovaliov, M.	POLY	285	Krajewski, L.	ENFL	464
Koski, K.J.	INOR	1376	Kovarik, L.	CATL	67	Krajnc, M.	PMSE	486
Koski, L.	CHED	911	Kovarik, L.	CATL	199	Krajnc, M.	PMSE	539
Kosko, J.	CHED	1426	Kovarik, L.	CATL	380	Krakoff, E.	CHED	1180
Kosobokov, M.	INOR	1183	Kovarik, L.	GEOC	186	Kral, A.E.	ENVR	479
Kosolwattana, S.	ENFL	105	Kovarik, L.	INOR	45	Kral, P.	BIOL	269
Kossak, A.E.	COLL	63	Kovel, C.B.	INOR	212	Kral, P.	COLL	574
Kostarelos, K.	COLL	89	Koviach-Cote, J.L.	ORGN	422	Kral, P.	COLL	602
Kostenbader, K.	COMP	228	Koviach-Cote, J.L.	ORGN	433	Kral, P.	ENFL	175
Koster, K.	INOR	803	Koviekis, M.	CHED	1317	Kralisch, D.	CELL	362
Kostikov, A.	FLUO	52	Kovnir, K.	INOR	1224	Kraly, J.R.	ANYL	59
Kostka, K.L.	CHED	2209	Kovtunov, K.	ORGN	65	Kramer, C.	BIOL	282
Kota, A.	I&EC	116	Kowal, M.D.	INOR	808	Kramer, F.	CELL	359
Kota, A.	POLY	330	Kowalczyk, T.	CHED	1003	Kramer, J.	CARB	94
Kotbagi, T.	CATL	273	Kowalik, B.	COLL	453	Kramer, M.	CHED	1467

Kramer, R.	CHED	2017	Krishnamoorti, R.	PMSE	595	Krounbi, L.	ENVR	749
Kramer, S.	ENVR	518	Krishnamurthy, A.	CELL	67	Kroupa, D.	PHYS	125
Kramer, Z.	CHED	883	Krishnamurthy, S.	COLL	489	Kroutil, O.	GEOC	143
Krammer, G.E.	AGFD	190	Krishnamurthy, V.	COLL	218	Kroutil, O.	GEOC	231
Kranick, J.C.	INOR	308	Krishnan, H.	FLUO	46	Krska, S.W.	FLUO	50
Kranz, C.	PMSE	233	Krishnan, R.	BIOT	442	Krueger, A.J.	CHED	1424
Kranz, J.	COMP	390	Krishnan, R.	BIOT	540	Krueger, E.	BIOT	563
Krasnikov, D.V.	CATL	418	Krishnan, S.	CHED	236	Kruel, Q.	ANYL	180
Kratz, E.G.	COMP	270	Krishnan, S.	BIOT	507	Kruelle, H.	CHED	104
Kraus, F.	FLUO	23	Krishnan, V.	INOR	895	Kruelle, H.	CHED	353
Krause, D.	COLL	749	Krist, E.C.	INOR	297	Krug, C.	PMSE	503
Krause, J.A.	INOR	966	Kristek, D.	INOR	309	Krug, C.K.	COLL	193
Krause, J.A.	INOR	967	Kristiansen, K.	COLL	171	Krug, C.K.	COLL	377
Krause, J.A.	INOR	1215	Kristiansen, K.	COLL	530	Kruk, M.	COLL	183
Krause, J.A.	ORGN	519	Kristiansen, K.	COLL	531	Krull, C.	CHED	1936
Krause, L.M.	COMP	185	Kristof, A.	BIOT	246	Krull, U.J.	ANYL	155
Krause, M.E.	BIOT	427	Kristoff, C.	CHED	421	Krumhansl, J.	INOR	167
Krause, M.	CHED	2062	Kristoff, C.	CHED	1882	Krupp, E.	ENFL	43
Krause, T.	CATL	285	Kristovich, R.L.	ANYL	93	Kruppe, C.	CATL	246
Krause, T.	CATL	393	Krivoshein, A.V.	MEDI	339	Kruppe, C.	COLL	154
Krauss, M.	ENVR	738	Krizan, J.W.	INOR	1229	Kruse, N.	ANYL	27
Krauss, T.D.	PHYS	350	Krkosek, W.	ENVR	28	Kruse, N.	COLL	440
Krauter, C.M.	PMSE	184	Kroc, M.	WCC	12	Krusor, B.	ANYL	51
Kravchenko, P.	CATL	458	Kroeger, A.	BIOT	412	Krutty, J.	BIOT	124
Kravchuk, D.V.	CHED	1141	Kroeker Sachs, R.	CHED	1014	Krylov, A.	PHYS	85
Kreatsoulas, C.	COMP	145	Kroeker Sachs, R.	CHED	1177	Krylov, A.	PHYS	250
Krebs, J.F.	INOR	207	Kroening, G.	CHED	450	Krylov, A.	PHYS	307
Krebs, J.F.	INOR	1039	Kroening, G.	CHED	1839	Krysinski, P.	ENFL	82
Krecker, M.	PMSE	569	Kroeplien, B.	MEDI	25	Krystosek, R.D.	POLY	33
Krecker, M.	POLY	276	Kroeplien, B.	MEDI	26	Krzysztofowicz, A.	CHED	561
Kreiman, C.	MEDI	3	Kroeplien, B.	MEDI	378	Krzystek, J.	INOR	152
Kreisel, J.	CHED	1186	Krogh Steffensen, S.K.	ANYL	445	Ksiazkiewicz, A.	POLY	368
Kreisel, J.	CHED	1916	Krokhin, O.	ANYL	399	Ku, D.	AGFD	47
Kreitler, D.	MEDI	101	Krol, E.	INOR	899	Ku, H.	ENVR	100
Krejpcio, Z.	INOR	899	Krolick, K.	CHED	1263	Ku, J.C.	COLL	138
Kremer, L.	MEDI	17	Kroll, E.	CHED	281	Kuah, Y.	I&EC	43
Krempel, M.	AGFD	229	Kroll, E.	CHED	550	Kuang, B.	BIOT	215
Krerowicz, S.	COLL	279	Kroll, E.	CHED	552	Kuang, B.	BIOT	253
Kress, J.D.	NUCL	68	Kroll, J.A.	PHYS	256	Kuang, J.	POLY	757
Kresse, B.	POLY	603	Kroll, K.	ANYL	385	Kuang, S.	ANYL	363
Kressler, J.	POLY	3	Kron, K.	ORGN	502	Kubanek, J.	CHED	1576
Kressler, J.	POLY	134	Krone, A.	CHED	1748	Kubasik, M.A.	CHED	468
Kretsch, A.	CHED	611	Krone, A.	CHED	1750	Kubasik, M.A.	CHED	2080
Krettek, A.	ENVR	781	Kroneck, P.M.	INOR	47	Kubasik, M.A.	PHYS	576
Kretzschmar, R.	ENVR	218	Kroner, A.	COLL	665	Kubat, A.	ANYL	164
Kreutzer, A.	BIOL	62	Kroning, K.	CHED	560	Kubatova, A.	ANYL	164
Krewson, C.J.	CHED	722	Kroon, M.C.	PHYS	655	Kubatova, A.	CELL	216
Kricheldorf, H.R.	PMSE	248	Krooswyk, J.	CATL	246	Kubatova, A.	PHYS	447
Krick, B.	COLL	134	Kropf, A.J.	CATL	285	Kubatova, A.	POLY	80
Krieg, M.	CELL	299	Kropf, A.J.	ENFL	88	Kubbard, K.	NUCL	3
Krisciuniene, V.	ORGN	716	Kros, A.	COLL	92	Kubiak, C.P.	INOR	327
Krise, K.M.	CHED	2127	Kros, A.	COLL	473	Kubiak, C.P.	INOR	328
Krishna, R.	INOR	433	Krossing, I.	FLUO	40	Kubiak, C.P.	INOR	330
Krishnamoorthy, S.	BIOT	57	Kroth, H.	MEDI	150	Kubiak, C.P.	INOR	332
Krishnamoorti, R.	COLL	391	Krounbi, L.	ENVR	747	Kubiak, C.P.	INOR	333

Kubiak, C.P.	INOR	334	Kuemmel, S.	PHYS	147	Kumar, A.	BIOL	190
Kubiak, C.P.	INOR	335	Kuenzinger, W.L.	CHED	90	Kumar, A.	CARB	28
Kubiak, C.P.	INOR	336	Kuether, J.E.	CHED	1332	Kumar, A.	MEDI	177
Kubiak, C.P.	INOR	338	Kugelmass, L.	INOR	991	Kumar, A.	MEDI	365
Kubiak, C.P.	INOR	414	Kuginyte, J.	ORGN	716	Kumar, A.	PHYS	424
Kubiak, C.P.	INOR	494	Kuhl, G.M.	INOR	975	Kumar, A.	PHYS	609
Kubiak, C.P.	INOR	683	Kuhl, K.	CATL	447	Kumar, D.D.	CHED	323
Kubiak, C.P.	INOR	691	Kuhl, T.	COLL	542	Kumar, D.	INOR	1280
Kubiak, C.P.	INOR	705	Kuhl, T.	COLL	717	Kumar, D.R.	PMSE	244
Kubiak, C.P.	INOR	859	Kuhlmeier, J.	BIOL	219	Kumar, D.R.	PMSE	303
Kubiak, C.P.	INOR	1161	Kuhn, B.	MEDI	31	Kumar, D.R.	POLY	20
Kubiak, C.P.	INOR	1283	Kuhn, D.	COLL	311	Kumar, H.V.	COLL	366
Kubiak, K.	CELL	356	Kuhn, D.L.	CATL	401	Kumar, H.V.	PMSE	42
Kubiak, R.W.	ORGN	539	Kuhn, J.	CATL	192	Kumar, J.	CELL	16
Kubic, W.	CATL	446	Kuhn, J.	CATL	437	Kumar, J.	BIOT	440
Kubic, W.	INOR	146	Kuhn, J.	ENFL	135	Kumar, K.	MEDI	39
Kubicki, J.D.	CELL	357	Kuhn, L.R.	CHED	402	Kumar, M.	CATL	9
Kubicki, J.D.	GEOC	6	Kühnel, R.S.	ENFL	274	Kumar, M.	BIOL	288
Kubicki, J.D.	GEOC	25	Kuhnert, K.	ANYL	235	Kumar, M.	INOR	71
Kubicki, J.D.	GEOC	57	Kühnhammer, M.	POLY	689	Kumar, N.	INOR	670
Kubicki, J.D.	GEOC	140	Kuhns, T.J.	CHED	410	Kumar, N.	ENFL	34
Kubicki, J.D.	GEOC	279	Kuimova, M.K.	PHYS	119	Kumar, P.	CATL	426
Kubik, J.	ORGN	175	Kujawa, C.	NUCL	79	Kumar, R.	ENVR	168
Kubillus, M.	COMP	390	Kukkadapu, R.	GEOC	36	Kumar, R.	POLY	77
Kubis, C.	INOR	1409	Kukkadapu, R.	GEOC	252	Kumar, R.	ENVR	448
Kubis, T.	COMP	389	Kuksenok, O.	POLY	61	Kumar, R.	PHYS	472
Kubiszewski, K.	CHED	809	Kukulka, M.	INOR	833	Kumar, R.	PHYS	484
Kubo, M.	PMSE	497	Kularatne, R.	PMSE	340	Kumar, R.	PHYS	500
Kubo, T.	PMSE	243	Kularatne, R.	POLY	146	Kumar, S.	BIOT	39
Kubo, T.	POLY	200	Kularatne, R.	POLY	435	Kumar, S.	ENFL	380
Kubo, T.	POLY	212	Kulhanek, D.	CHAS	3	Kumar, S.	ENVR	41
Kubo, T.	POLY	351	Kulhanek, D.	COLL	645	Kumar, S.	I&EC	110
Kubota, N.	ANYL	386	Kulik, H.J.	CATL	19	Kumar, S.	CELL	418
Kubota, S.R.	CATL	267	Kulik, H.J.	CATL	118	Kumar, S.	PMSE	115
Kucharski, T.J.	COLL	53	Kulik, H.J.	COMP	31	Kumar, S.	MEDI	367
Kuchuk, M.	FLUO	73	Kulik, H.J.	COMP	101	Kumar, S.	CATL	506
Kuchuk, M.	NUCL	45	Kulik, H.J.	COMP	113	Kumar, S.	INOR	292
Kucia-Tran, R.	BIOT	329	Kulik, H.J.	COMP	238	Kumar, S.	COLL	479
Kuck, D.	ORGN	509	Kulik, H.J.	COMP	328	Kumar, S.	BIOL	38
Kuck, V.J.	PMSE	262	Kulis, M.D.	CARB	84	Kumar, S.	BIOL	266
Kudakina, V.A.	INOR	490	Kulkarni, A.	CATL	481	Kumar, S.	BIOL	82
Kudjordjie, E.N.	AGFD	90	Kulkarni, A.	MEDI	43	Kumar, S.	MEDI	10
Kudo, K.	COLL	260	Kulkarni, C.A.	MEDI	398	Kumar, V.	BIOT	516
Kuduva Radhakrishnan, V.	INOR	423	Kulkarni, P.	COLL	517	Kumarasinghe, I.R.	MEDI	15
Kuduva Radhakrishnan, V.	INOR	969	Kulla, E.	BIOT	327	Kumarasinghe, R.	ANYL	405
Kuduva Radhakrishnan, V.	INOR	1115	Kum, S.	ENVR	649	Kumarasinghe, R.	ANYL	407
Kuduva Radhakrishnan, V.	INOR	1122	Kumal, R.	PHYS	549	Kumarasinghe, R.	I&EC	136
Kuebler, S.M.	CHED	1916	Kumal, R.	PHYS	649	Kumarimaduvu Palanisamy, A.	PMSE	57
Kuebler, S.M.	PMSE	614	Kumaniaev, I.	CATL	46	Kumashiro, K.K.	POLY	723
Kuehne, A.J.	COLL	740	Kumano, N.	COLL	260	Kumbar, T.S.	CHED	285
Kuehne, A.J.	POLY	100	Kumar, A.	INOR	214	Kumkhaek, C.	MEDI	73
Kuehne, A.J.	POLY	308	Kumar, A.	CHED	1124	Kumpf, C.	COLL	193
Kuehne, A.J.	POLY	369	Kumar, A.	INOR	1127	Kumpf, C.	COLL	377
Kuehne, A.J.	POLY	622	Kumar, A.	CELL	376	Kumpf, R.	MEDI	19
Kuei, B.	POLY	772	Kumar, A.	BIOL	184	Kumpf, R.	ORGN	21

Kunai, Y.	ENFL	369	Kureha, T.	POLY	99	Kusner, I.	AGFD	120
Kunal, P.	ENVR	131	Kureha, T.	POLY	371	Kusnetsov, V.L.	CATL	418
Kunal, P.	INOR	715	Kureha, T.	POLY	378	Kustas, A.	COLL	360
Kunal, P.	INOR	718	Kureha, T.	POLY	389	Küster, T.	COLL	296
Kunal, P.	INOR	1243	Kureha, T.	POLY	799	Küster, T.	COLL	422
Kuncova-Kallio, J.	BIOT	398	Kurek, P.	POLY	483	Kusterbeck, A.	ORGN	462
Kundu, S.	PMSE	43	Kurgan, G.	BIOT	154	Kusuda, S.	MEDI	32
Kundu, S.	POLY	343	Kuriakose, N.	POLY	737	Kusuma, S.B.	CELL	81
Kundu, S.	ENFL	281	Kuriappan, J.	COMP	390	Kusuma, V.	PMSE	239
Kundu, S.	COMP	282	Kuribayashi, T.	CELL	3	Kusumi, R.	CELL	141
Kunert, C.	BIOT	5	Kurihara, K.	COLL	426	Kusumi, R.	CELL	334
Kunert, C.	BIOT	516	Kurihara, K.	COLL	457	Kuszynski, J.	CHED	1690
Kung, C.	INOR	943	Kurimoto, S.	PMSE	390	Kütahya, C.	POLY	145
Kung, C.	INOR	122	Kurita, R.	ANYL	186	Kutal, C.	CHED	305
Kung, H.	I&EC	29	Kurmis, A.	CARB	25	Kutchko, B.	ENFL	235
Kung, H.	I&EC	66	Kurnosov, A.	PHYS	78	Kutzner, R.	CHED	1673
Kung, H.	I&EC	111	Kuroda, D.G.	PHYS	113	Kutzner, R.	CHED	1900
Kung, M.	I&EC	29	Kuroda, D.G.	PHYS	481	Küüna, S.	INOR	1390
Kung, M.	I&EC	111	Kuroda, D.G.	PHYS	482	Kuuskeri, J.	CELL	110
Kunitake, J.A.	GEOC	43	Kuroda, D.G.	PHYS	483	Kuwajima, I.	PMSE	451
Kunitsky, K.	CINF	2	Kuroda, D.G.	PHYS	484	Kuwata, K.	MEDI	157
Kunjapur, A.M.	BIOL	299	Kuroda, K.	CELL	14	Kuwata, K.T.	CHED	849
Kunkel, U.	ENVR	782	Kurogi, T.	INOR	709	Kuwata, K.T.	CHED	1491
Kunnath, B.	CHED	193	Kuroki, N.	COMP	271	Kuwata, K.T.	CHED	1671
Kunnath, B.	CHED	1968	Kuroki, N.	COMP	312	Kuwata, K.T.	PHYS	475
Kunnath, B.	CHED	2101	Kurono, M.	MEDI	32	Kuykendall, O.	CHED	1105
Kuno, M.K.	INOR	796	Kurosu, H.	POLY	536	Kuykendall, T.	COLL	379
Kuno, M.K.	INOR	1151	Kurosu, S.	ORGN	128	Kuykendall, T.	INOR	767
Kuno, M.K.	PHYS	473	Kurra, Y.	BIOL	241	Kuznacic, K.	BIOL	96
Kuno, M.K.	PHYS	494	Kurtz, D.	INOR	90	Kuznacic, K.	BIOL	175
Kunstmann-Olsen, C.	PHYS	179	Kurtz, D.	INOR	1170	K Vadukoot, A.	MEDI	151
Kuntz, J.	COLL	490	Kurtz, D.M.	INOR	632	Kvaratskhelia, M.	MEDI	344
Kuntz, M.M.	CHED	1141	Kurtz, I.S.	POLY	455	Kveselyte, A.	ORGN	716
Kuntz, T.R.	CHED	1770	Kurtz, M.	MEDI	92	Kwak, H.	PMSE	184
Kuntzleman, T.S.	CHED	69	Kurtz, M.	MEDI	93	Kwak, J.	INOR	1426
Kuntzleman, T.S.	CHED	181	Kurtz, S.L.	POLY	411	Kwak, S.	ORGN	138
Kuntzmann, A.	INOR	675	Kurtz, T.	ENVR	109	Kwak, S.	ANYL	16
Kunze, J.	ANYL	235	Kurtz, T.	ENVR	521	Kwak, S.	ANYL	194
Kuo, A.	BIOT	241	Kuru, E.	BIOL	299	Kwan, S.	CHED	1664
Kuo, C.	CATL	53	Kuruppu Arachchige, N.	COLL	262	Kwan, S.C.	ORGN	220
Kuo, I.W.	PHYS	655	Kuruppu Arachchige, N.	INOR	794	Kwang, S.	PHYS	180
Kuo, J.	INOR	613	Kurz, R.	POLY	133	Kwasny, J.R.	ENVR	116
Kuo, M.	ENFL	483	Kurz, R.	POLY	529	Kwasny, M.	POLY	38
Kuo, S.	PMSE	131	Kurzhals, R.	BIOL	96	Kweon, J.	ENVR	662
Kuo, T.	POLY	33	Kurzhals, R.	BIOL	175	Kwiatkowski, C.	BIOT	41
Kuo, T.	POLY	210	Kurzhals, R.	CHED	671	Kwiatowski, C.	BIOT	16
Kuo, T.	BIOL	206	Kurzhals, S.	COLL	93	Kwochka, W.R.	CHED	2092
Kuo, Y.	MEDI	69	Kusaka, E.	CHED	1233	Kwock, K.W.	COLL	432
Kupka, T.	CHED	860	Kusaka, R.	YCC	19	Kwok, L.	MEDI	201
Kuppuswamy, S.	INOR	989	Kusaka, Y.	POLY	781	Kwok, R.	AGFD	160
Kurade, M.	ENFL	393	Kusakabe, K.	MEDI	189	Kwon, B.	ENVR	590
Kurade, M.	ENVR	711	Kushida, I.	MEDI	90	Kwon, B.	GEOC	197
Kuramochi, H.	CHED	849	Kushnerick, D.	ENFL	158	Kwon, D.	CELL	226
Kuramochi, K.	COLL	669	Kushnerick, D.	ENFL	159	Kwon, D.	INOR	480
Kurečić, M.	CELL	373	Kushnerick, D.	ENFL	462	Kwon, H.	ENVR	610

Kwon, Y.J.	BIOT	502	Lafond-Hudson, S.	ENVR	283	Lamanilao, G.G.	ORGN	419
Kwon, Y.	MEDI	50	Lagalante, A.F.	ANYL	444	Lamar, A.A.	CHED	865
Kwon, Y.	MEDI	209	Laganowsky, A.	CHED	736	Lamar, A.A.	CHED	1411
Kwong, E.	BIOL	195	Lagerquist, L.	CELL	220	Lamar, A.A.	CHED	1601
Kwong, I.	ORGN	474	Lagos, L.	ANYL	335	Lamar, A.A.	CHED	1622
Kym, P.R.	MEDI	117	Lagos, L.	COLL	57	Lamar, A.A.	CHED	1626
Kyriazi, M.	COLL	501	Lahaye, M.	CELL	164	Lamar, A.A.	CHED	1632
Kyrychenko, A.	POLY	363	Lahiri, S.K.	CHED	275	LaMark, K.	MEDI	386
L, J.	ENFL	299	Lahm, G.P.	I&EC	115	Lamatsch, D.	ANYL	235
La, D.	MEDI	3	Lahne, J.	AGFD	116	Lamb, J.	COLL	29
Laaker, E.M.	INOR	93	Lahti, J.	CELL	406	Lamb, J.	POLY	93
Laaksonen, A.	COMP	403	Lahtinen, M.	ORGN	287	Lamb, J.G.	CHED	562
Laaksonen, O.	AGFD	71	Lahtinen, P.	CELL	91	Lamb, R.W.	INOR	1197
Laaser, J.	POLY	682	Lahtinen, P.	CELL	270	Lamb, R.W.	INOR	1198
Laasner, R.	PHYS	381	Lai, B.	ANYL	34	Lamb, R.W.	INOR	1297
Labbé, N.	CELL	128	Lai, C.	ORGN	460	Lamb, R.W.	INOR	690
Labbé, N.	CELL	129	Lai, C.	CHED	772	Lambard, G.	PMSE	28
Labbé, N.	CELL	268	Lai, C.	CHED	2153	Lambard, G.	PMSE	451
Labbé, N.	CELL	306	Lai, J.	ANYL	263	Lambert, C.J.	COLL	30
Labbé, N.	CELL	350	Lai, J.	ENFL	314	Lambert, C.J.	COLL	112
Labbé, N.	CELL	422	Lai, J.	CATL	5	Lambert, C.J.	COLL	340
Labhasetwar, P.	ENVR	70	Lai, L.	COMP	48	Lambert, C.J.	COLL	413
LaBone, E.	AGFD	153	Lai, P.	INOR	972	Lambert, F.	INOR	702
Laborie, M.G.	CELL	113	Lai, R.Y.	ANYL	105	Lambert, J.	ENVR	417
Laborie, M.G.	CELL	263	Lai, R.	BIOL	312	Lambert, J.	ENVR	421
Laboy, S.	ANYL	86	Lai, T.	ENVR	87	Lambert, J.	ENFL	480
Labriola, L.	ANYL	325	Lai, Y.	PHYS	578	Lambert, J.B.	CHED	1629
Labuza, T.P.	AGFD	20	Lai, Y.	ENFL	414	Lambert, K.S.	CHED	395
LaChance, D.	CHED	1054	Lai, Y.	ENVR	140	Lambert, K.S.	CHED	448
LaChapelle, E.A.	MEDI	321	Lai, Z.	PMSE	593	Lambert, K.	ANYL	212
Lachkov, P.T.	CATL	457	LaiHing, K.	CHED	1277	Lambert, L.	CHED	2035
Lachkov, P.T.	I&EC	32	LaiHing, K.	CHED	1282	Lambert, S.N.	COMP	285
Lachmayr, K.K.	PMSE	584	LaiHing, K.	CHED	1283	Lambert, T.H.	ORGN	205
Lackey, V.F.	CHED	1160	LaiHing, K.	CHED	1294	Lamberti, C.	CATL	15
Lacks, D.	PMSE	185	Lail, M.A.	CATL	239	Lamberti, C.	INOR	1425
Lacks, D.	PMSE	186	Laila-Parvin, P.	CHED	2117	Lamberto, I.	MEDI	232
Lacock, B.	CHED	709	Laine, C.	COLL	539	Lamberts, T.	PHYS	359
Lacrampe, M.	PMSE	490	Laine, D.	CARB	35	Lambert-van der Brempt, C.	MEDI	244
Lacy, S.M.	BIOL	286	Laine, D.	CHAS	11	Lambeth, R.H.	PMSE	604
Lacy, D.C.	INOR	208	Lainé, D.	CARB	82	Lambic, N.S.	INOR	1413
Lacy, D.C.	INOR	210	Laino, T.	COMP	23	Lamblin, J.	CHED	82
Lacy, D.C.	INOR	1037	Lajmi, A.	CHED	346	Lamborg, C.	INOR	43
Ladak, A.	ENVR	734	Lajmi, A.	CHED	1069	Lambrecht, D.	COMP	327
Ladewig, C.	CHED	1117	Lakamala, P.	CHED	1988	Lambrecht, N.	GEOC	107
Ladika, M.	POLY	33	Lake, L.	GEOC	244	Lamm, A.N.	CHED	2197
Ladiwala, A.	BIOT	343	Lakhe, P.	CHAS	3	Lammers, L.N.	COMP	405
Ladiwala, A.	BIOT	541	Lakner, E.	COMP	301	Lammers, L.N.	GEOC	259
Ladshaw, A.	GEOC	69	Lalevee, J.	POLY	805	Lammi, R.K.	CHED	1222
Laemmler, R.T.	CHED	1751	Lam, C.	ORGN	111	Lamorlette, M.	MEDI	244
Lafaye, G.	I&EC	94	Lam, J.	ORGN	162	Lamos, L.	INOR	299
Lafer, E.M.	COLL	636	Lam, L.	CHED	1789	Lamos, S.M.	CHED	984
Lafferty, J.M.	INOR	280	Lam, N.	ORGN	394	Lampa-Pastirk, S.	BIOL	57
Lafon, O.	CATL	417	Lam, W.	POLY	690	Lampa-Pastirk, S.	CHED	624
LaFon, J.W.	CINF	46	Lam, Y.	BIOT	508	Lampa-Pastirk, S.	CHED	666
La-Fond, S.	CHED	977	Lam, Y.	ORGN	618	Lampa-Pastirk, S.	CHED	670

Lampa-Pastirk, S.	CHED	1113	Landy, K.M.	ENVR	655	Lapak, M.	ANYL	116
Lampel, A.	ANYL	256	Lane, A.	BIOL	284	Lapak, M.	ANYL	148
Lampi, A.	CELL	318	Lane, A.	CHED	535	LaPara, T.	ENVR	15
Lampley, M.W.	PMSE	474	Lane, A.	CHED	536	Laperriere, L.	CHED	614
Lamport, Z.A.	ORGN	243	Lane, K.T.	CHED	726	Laperyi, C.	BIOT	529
Lampropoulos, C.	INOR	1320	Laney, J.	MEDI	199	Lapeyrouse, N.	CHED	1953
Lan, F.	COLL	285	Lanfranchi, E.	CATL	115	Lapeyrouse, N.	ENVR	548
Lan, J.	ENFL	536	Lang, C.	POLY	284	Lapham, L.	ENVR	282
Lan, J.	INOR	1124	Lang, F.K.	CHED	128	Lapi, S.E.	FLUO	58
Lan, M.	BIOT	223	Lang, G.W.	CARB	49	Lapi, S.E.	FLUO	60
Lan, S.	GEOC	243	Lang, G.M.	INOR	1200	Lapi, S.E.	FLUO	63
Lan, T.	PMSE	551	Lang, G.M.	INOR	1276	Lapi, S.E.	FLUO	66
Lan, W.	BIOT	345	Lang, G.A.	CHED	1773	Lapi, S.E.	FLUO	68
Lan, Y.	ENFL	336	Lang, J.	ENFL	543	Lapi, S.E.	NUCL	5
Lan, Y.	ENVR	287	Lang, R.	AGFD	18	Lapi, S.E.	NUCL	6
Lan, Y.	GEOC	98	Lang, X.	PMSE	116	Lapi, S.E.	NUCL	7
Lanaro, C.	MEDI	73	Lang, X.	PMSE	498	Lapides, A.	PHYS	175
Lanaro, C.	MEDI	107	Lange, B.	PHYS	382	Lapidus, R.	MEDI	129
Lancaster, C.A.	COLL	253	Lange, C.	CELL	433	Lapidus, S.	ENFL	430
Lancaster, C.A.	COLL	302	Lange, H.	CELL	89	La Pierre, H.S.	INOR	1142
Lancaster, K.M.	INOR	138	Lange, H.	CELL	185	Lapina, O.B.	CATL	418
Lancaster, K.M.	INOR	143	Lange, H.	CELL	290	Lapitsky, Y.	COLL	675
Lancaster, K.M.	INOR	199	Lange, H.	CELL	324	Lapitsky, Y.	PMSE	348
Lancaster, K.M.	INOR	202	Lange, H.	CELL	406	LaPlant, P.	ORGN	456
Lancaster, K.M.	INOR	203	Langenfeld, K.	ENVR	81	LaPlante, S.	MEDI	1
Lancaster, K.M.	INOR	405	Langenhan, J.M.	ORGN	707	LaPointe, A.M.	CHED	1768
Lancaster, K.M.	INOR	406	Langer, J.L.	CHED	1455	LaPorte, A.	ORGN	504
Lancaster, K.M.	INOR	709	Langerman, N.R.	CHAS	6	La Porte, N.T.	ENFL	80
Lancaster, L.	BIOT	232	Langeslay, R.R.	INOR	614	Lappas, A.	CELL	145
Lancefield, C.	CATL	95	Langevine, C.M.	MEDI	6	Lara, A.	COMP	4
Lancefield, C.	CELL	215	Langford, J.	NUCL	17	Lara, D.	COLL	201
Landers, E.	CHED	1869	Langford, J.	NUCL	65	Lara, J.	MEDI	393
Landers, J.	CATL	402	Langlois, K.	ENVR	457	Laradji, A.M.	COLL	756
Landers, R.	CATL	182	Langos, D.	AGFD	205	Lara-Martin, P.	ENVR	787
Landes, C.F.	BIOT	327	Langrehr, M.	COMP	427	Lareau, S.	CHED	94
Landes, C.F.	COLL	396	Langton-Webster, B.	FLUO	69	Lareau, S.	CHED	1884
Landes, C.F.	COLL	607	Lanka, A.	PHYS	523	Larese-Casanova, P.	ENVR	241
Landes, C.F.	PHYS	299	Lankhaar, B.	PHYS	135	Large, M.	COLL	434
Landes, C.F.	PHYS	384	Lankone, R.	ENVR	88	Large, M.	COLL	619
Landes, C.F.	PHYS	392	Lanman, B.	CINF	56	Large, M.	COLL	710
Landes, C.F.	PHYS	394	Lansalot, M.	CELL	295	Largo, A.	PHYS	259
Landes, C.F.	PHYS	650	Lansdale, V.	CHED	1582	Larionov, O.	ORGN	562
Landfester, K.	POLY	332	Lansing, J.C.	AGFD	49	Lark, M.	MEDI	226
Landis, C.R.	INOR	441	Lanson, B.	GEOC	160	Larkin, M.	BIOT	134
Landon, J.	ENVR	413	Lanter, J.	MEDI	75	Larrabee, J.C.	CHED	1906
Landon, J.	SCHB	9	Lantz, J.	CHED	2069	Larrimore, J.F.	CHED	682
Landon, M.	BIOL	299	Lantz, T.	BIOL	159	Larsen, A.	CHED	1900
Landon, M.R.	COMP	104	Lany, S.	INOR	1156	Larsen, A.	INOR	147
Landrum, D.S.	CHED	358	Lanyi, D.	COMP	23	Larsen, C.H.	INOR	1083
Landrum, G.	CINF	44	Lanza, G.	COLL	606	Larsen, E.	ORGN	431
Landry, C.C.	INOR	1396	Lanzendorf, A.	CHED	1307	Larsen, J.	CHED	1832
Landry, M.	ANYL	194	Lao, D.	INOR	1367	Larsen, L.B.	AGFD	149
Landry, M.L.	ORGN	75	Laobuthee, A.	PMSE	283	Larsen, R.K.	CHED	432
Landwehr, G.	BIOT	246	Laobuthee, A.	PMSE	489	Larsen, R.K.	CHED	1687
Landy, K.M.	COLL	9	Lapadula, J.	I&EC	63	Larsen, R.K.	CHED	1726

Larsen, S.C.	COLL	249	Latta, D.	GEOC	65	Lawal, R.	ANYL	146
Larsen, S.C.	COLL	280	Latta, D.	GEOC	98	Lawler, D.F.	ENVR	69
Larsen, S.C.	COLL	699	Latta, D.	GEOC	203	Lawler, D.F.	ENVR	134
Larson, B.A.	INOR	1203	Latta, D.	GEOC	255	Lawler, D.F.	ENVR	202
Larson, G.	CHED	38	Lattanzio, M.	MEDI	407	Lawler, D.F.	ENVR	649
Larson, J.M.	BIOL	49	Latturmer, S.E.	INOR	579	Lawler, D.F.	ENVR	665
Larson, K.	CHED	1478	Lau, B.	ENVR	7	Lawler, D.F.	ENVR	666
Larson, K.	BIOT	283	Lau, C.D.	CHED	141	Lawler, S.	ANYL	74
Larson, P.	INOR	36	Lau, C.D.	INOR	962	Lawler, S.	ANYL	75
Larson, S.	ANYL	322	Lau, C.D.	INOR	1002	Lawlor, H.A.	CINF	48
Larson, V.A.	CHED	1533	Lau, C.D.	INOR	1003	Lawoko, M.	CELL	277
Larsson, A.	CELL	104	Lau, C.D.	INOR	1004	Lawoko, M.	CELL	280
Larsson, J.	ENVR	11	Lau, E.Y.	BIOT	517	Lawoko, M.	CELL	369
Larsson, K.	NUCL	29	Lau, S.	ANYL	218	Lawrence, C.M.	CHED	1698
Larsson, K.	NUCL	64	Lau, U.	POLY	173	Lawrence, C.M.	CHED	1871
Larsson, P.A.	CELL	412	Lau, W.	POLY	219	Lawrence, G.	MEDI	377
Larsson, P.A.	CELL	431	Laubach, L.	BIOL	318	Lawrence, J.	ENVR	560
Larsson, T.	CELL	209	Laubach, L.	CARB	68	Lawrence, K.L.	CHED	999
Larsson, T.	CELL	313	Laube, B.L.	PHYS	462	Lawrence, P.B.	CHED	1364
LaSala, G.L.	CHED	1495	Laubenthal, C.	CHED	732	Lawrence, S.M.	BIOT	252
LaSalle, C.J.	POLY	418	Laudal, D.	PROF	46	Lawrimore, J.	ENFL	191
La Scala, J.	PMSE	388	Lauer, N.	ENVR	572	Laws, D.	ORGN	737
La Scala, J.	PMSE	523	Laughlin, A.L.	INOR	1148	Laws, S.W.	ORGN	50
La Scala, J.J.	PMSE	312	Laughlin, K.	COLL	609	Laws, T.	PMSE	19
La Scala, J.J.	PMSE	444	Laughlin, S.	BIOL	190	Lawson, A.	MEDI	25
La Scala, J.J.	POLY	201	Laughter, K.	PHYS	564	Lawson, A.	MEDI	26
Lash, B.	GEOC	40	Lauhlé, S.	CHED	1936	Lawson, B.S.	CHED	707
Lash, T.D.	CHED	1374	Laukkanen, A.	CELL	381	Lawson, D.	MEDI	201
Lash, T.D.	CHED	1560	Laurent, R.	ORGN	468	Lawson, K.	CHED	1095
Lash, T.D.	CHED	1613	Laurent, R.	ORGN	637	Lawson, K.	CHED	1905
Lash, T.D.	CHED	1618	Lauria, M.	CHED	699	Lawson, K.R.	INOR	280
Lash, T.D.	ORGN	629	Laurita-Plankis, G.	INOR	289	Lawson, K.	BIOT	440
Lash, T.D.	ORGN	630	Laurita-Plankis, G.	INOR	649	Lawson, L.B.	POLY	283
Lash, T.D.	ORGN	633	Laurita-Plankis, G.	INOR	772	Lawson, L.B.	POLY	411
Lashley, S.	CHED	176	Lauro, P.C.	SCHB	6	Lawson, T.	BIOT	174
Laskin, A.	ENVR	368	Lauro, P.C.	SCHB	19	Lawton, T.	COLL	695
Laslo, G.	BIOT	267	Laurson, S.	CATL	40	Lawton, Z.E.	ANYL	412
Lassenberger, A.	COLL	93	Laurson, S.	CATL	105	Lay, J.O.	ANYL	88
Lassenberger, A.	COLL	741	Laurson, S.	CELL	204	Lay, P.	INOR	55
Lassefer Clare, T.	ANYL	159	Laurson, S.	ENFL	248	Layfield, G.A.	CHED	541
Lastovickova, D.N.	POLY	91	Laury, M.L.	COMP	324	Layfield, J.P.	PHYS	89
Laszakovits, J.R.	ENVR	259	Lauterbach, J.	CATL	7	Layne, C.	ENVR	502
Lata, N.	COLL	266	Lauterbach, J.	CATL	21	Layne, C.	ENVR	505
Latch, D.E.	ENVR	48	Lauterbach, J.	CATL	212	Layshock, J.	CHED	988
Lateef, A.	MEDI	409	Laux, C.M.	INOR	254	Layton, J.	CHED	1882
Latendresse, T.	INOR	1079	Lavador, E.	CHED	515	Lazare, J.	COLL	603
Latendresse, T.	INOR	1293	Lavagnino, M.	ORGN	201	Lazaric, A.	POLY	727
Latham, A.	ORGN	629	LaVallie, A.	PROF	46	Lazaridis, P.	CELL	365
Latifi, R.	ORGN	349	Lavan, K.	CHED	1326	Lazzara, G.	PMSE	153
Latoche, J.D.	FLUO	69	Laventure, A.	PMSE	290	Lazzara, G.	PMSE	205
La Torre, M.	AGFD	195	Lavey, N.	MEDI	89	Lazzarato, L.	MEDI	73
Latta, D.	ENVR	222	Lavine, B.K.	ANYL	458	Lazzareschi, K.	BIOT	76
Latta, D.	ENVR	536	Lavoie, J.L.	CHED	1350	Lazzari, S.	I&EC	21
Latta, D.	ENVR	539	Lavoine, N.	CELL	13	Lazzarini, A.	CATL	15
Latta, D.	GEOC	12	Lavorie, R.	INOR	87	Lazzarini, C.	CHED	1231

Lazzarini, C.	MEDI	371	Leavitt, W.D.	GEOC	135	Lederhose, P.	POLY	697
Le, A.K.	PHYS	121	Leback, B.	COMP	384	Ledesma, E.B.	CHED	1000
Le, A.N.	PMSE	21	Leban, L.	CHED	1342	Ledesma, E.B.	CHED	1001
Le, A.N.	PMSE	391	Lebar, M.	AGFD	85	Ledet, H.J.	AGFD	181
Le, A.T.	MEDI	126	Lebarbier Dagle, V.	CATL	290	Ledet, H.J.	CHED	360
Le, C.	CHED	1027	Lebed, E.	BIOT	465	Ledezma-Pérez, A.S.	AGFD	87
Le, C.	ORGN	188	Lebedel, L.	FLUO	32	Lednev, I.K.	ANYL	314
Le, C.	ORGN	352	Lebedev, A.Y.	INOR	487	Lee, S.	INOR	38
Le, D.	COLL	375	Lebel, H.	ORGN	459	Lee, A.	CATL	374
Le, D.	COMP	146	Lebel, H.	ORGN	460	Lee, A.F.	CATL	370
Le, D.	INOR	1077	Lebel, H.	ORGN	581	Lee, A.	ORGN	298
Le, H.	INOR	151	Lebel, O.	PMSE	290	Lee, A.	PMSE	308
Le, H.T.	ENVR	16	Leber, P.A.	CHED	1498	Lee, B.	ANYL	326
Le, J.	PHYS	561	Leber, P.A.	CHED	1537	Lee, B.	COLL	758
Le, K.	MEDI	64	Le Bihan, Y.	BIOL	122	Lee, B.	GEOC	23
Le, K.	MEDI	359	Le Bihan, Y.	MEDI	16	Lee, B.	GEOC	187
Le, K.	BIOT	529	LeBlanc, G.	ANYL	464	Lee, B.	MEDI	230
Le, L.N.	INOR	864	LeBlanc, G.	CHED	424	Lee, C.	COLL	293
Le, M.	ENVR	633	LeBlanc, G.	CHED	429	Lee, C.	CHED	1849
Le, M.	COLL	259	LeBlanc, G.	CHED	576	Lee, C.	BIOT	568
Le, N.Q.	CATL	403	LeBlanc, G.	CHED	910	Lee, C.	CHED	1467
Le, P.	ENFL	62	Lebrilla, C.B.	AGFD	43	Lee, C.	CHED	1470
Le, Q.	CHED	637	Lebrilla, C.B.	AGFD	147	Lee, C.	CHED	1471
Le, T.T.	ORGN	26	Lebrilla, C.B.	AGFD	204	Lee, C.	ENVR	211
Le, T.	ENFL	126	Le Cam, E.	PMSE	209	Lee, C.	ENVR	534
Le, T.	INOR	288	Lecaptain, D.J.	AGFD	70	Lee, C.	POLY	178
Le, T.	PHYS	191	Lecaptain, D.J.	AGFD	78	Lee, C.	POLY	463
Le, T.S.	BIOT	15	Lecaptain, D.J.	CHED	1855	Lee, C.	POLY	642
Lea, M.A.	AGFD	25	Lecaptain, D.J.	CHED	2150	Lee, C.	POLY	164
Lea, M.A.	ENVR	700	Lechak, C.W.	CHED	886	Lee, C.	ENVR	609
Leach, A.D.	COLL	504	Lechak, C.W.	CHED	1801	Lee, C.L.	COLL	619
Leach, J.B.	BIOT	527	Lechner, A.	ENVR	291	Lee, C.Y.	ORGN	427
Lead, J.	INOR	1394	Lechner, A.	ENVR	294	Lee, C.	CHED	676
Leahy, J.W.	MEDI	377	Lechner, A.	ENVR	730	Lee, C.	ORGN	350
Leake, J.	CHED	1503	Lechner, M.	PHYS	424	Lee, C.	INOR	688
Leake, M.	CHED	63	Lechner, T.	FLUO	25	Lee, C.	COMP	197
Leal, C.	COLL	321	Leckband, D.E.	COLL	355	Lee, D.	PMSE	417
Leamy, K.	BIOL	18	Leckband, D.E.	COLL	630	Lee, D.	COLL	12
Leamy, K.A.	CHED	182	Leckband, D.E.	COLL	633	Lee, D.	ENVR	300
Leang, S.S.	PHYS	40	Lecki, T.	CATL	453	Lee, D.C.	ORGN	398
Lear, B.J.	INOR	435	LeClerc, H.	CHED	1719	Lee, D.	BIOL	6
Lear, B.J.	PHYS	508	Lecommandoux, S.	CELL	153	Lee, D.	I&EC	87
Lear, B.J.	INOR	337	Lecommandoux, S.	COLL	108	Lee, D.A.	CHED	1176
Lear, B.J.	INOR	788	Lecommandoux, S.	POLY	748	Lee, D.	BIOT	380
Lear, B.J.	INOR	795	Lecommandoux, S.	POLY	751	Lee, D.	ENFL	371
Lear, B.J.	PHYS	520	Lecomptère, M.	POLY	181	Lee, D.	ENFL	493
Lear, J.	ORGN	609	Lecomte, F.	MEDI	25	Lee, E.	ENVR	608
Lear, J.	ORGN	701	Lecomte, F.	MEDI	26	Lee, E.	COLL	490
Lear, S.	BIOT	196	Lecomte, F.	MEDI	378	Lee, E.	CELL	74
Lease, R.	MEDI	127	Lecornué, F.	FLUO	32	Lee, E.	CHED	898
Lease, R.	MEDI	128	Lecot, N.	CELL	125	Lee, E.	MEDI	50
Leatherwood, C.J.	CHED	1198	Lecourt, M.	CELL	271	Lee, E.	MEDI	209
Leatherwood, C.J.	CHED	1917	Lecrivain, L.	NUCL	37	Lee, E.	MEDI	72
Leavitt, K.J.	MEDI	92	LeCroy, G.	POLY	556	Lee, G.H.	COLL	681
Leavitt, K.J.	MEDI	93	Leddon, A.	CHED	617	Lee, G.	ORGN	181

Lee, G.	ORGN	182	Lee, J.	POLY	147	Lee, M.	MEDI	131
Lee, G.	PHYS	243	Lee, J.	CELL	282	Lee, M.E.	CHED	664
Lee, G.	GEOC	267	Lee, J.	COLL	537	Lee, P.K.	ENVR	454
Lee, G.	INOR	330	Lee, J.	PMSE	136	Lee, P.E.	CHED	534
Lee, G.	INOR	1161	Lee, J.	INOR	358	Lee, P.E.	CHED	1303
Lee, H.	BIOL	192	Lee, J.H.	BIOT	541	Lee, P.	INOR	87
Lee, H.	BIOL	192	Lee, J.	COMP	179	Lee, R.E.	CHED	1658
Lee, H.	COLL	527	Lee, J.J.	PHYS	407	Lee, R.	I&EC	41
Lee, H.	INOR	377	Lee, J.H.	AGFD	54	Lee, R.H.	BIOL	177
Lee, H.	COLL	247	Lee, J.	ENVR	534	Lee, S.	COMP	286
Lee, H.	CELL	74	Lee, J.	AGFD	47	Lee, S.	ORGN	722
Lee, H.	PMSE	376	Lee, J.	CATL	177	Lee, S.	POLY	786
Lee, H.	PMSE	377	Lee, J.	INOR	1023	Lee, S.	GEOC	204
Lee, H.	ENVR	608	Lee, J.L.	INOR	220	Lee, S.	MEDI	72
Lee, H.	PHYS	568	Lee, J.	CARB	31	Lee, S.	ENVR	106
Lee, H.	ENVR	211	Lee, J.	MEDI	305	Lee, S.	GEOC	6
Lee, H.S.	CHED	1608	Lee, K.	COMP	425	Lee, S.	GEOC	52
Lee, H.	COMP	14	Lee, K.	INOR	1224	Lee, S.	GEOC	86
Lee, H.	ORGN	126	Lee, K.	PMSE	589	Lee, S.	GEOC	141
Lee, H.	COLL	720	Lee, K.	BIOT	261	Lee, S.	GEOC	170
Lee, I.	GEOC	244	Lee, K.	BIOT	561	Lee, S.	GEOC	279
Lee, I.	POLY	214	Lee, K.	BIOT	276	Lee, S.	CELL	173
Lee, J.	PHYS	375	Lee, K.	ENVR	608	Lee, S.	CHED	1885
Lee, J.	INOR	1057	Lee, K.	INOR	1371	Lee, S.	MEDI	75
Lee, J.	COLL	720	Lee, K.	PHYS	383	Lee, S.	I&EC	107
Lee, J.W.	BIOL	244	Lee, K.	ENVR	211	Lee, S.	I&EC	108
Lee, J.W.	ENVR	41	Lee, K.	PHYS	260	Lee, S.	ENFL	493
Lee, J.W.	ENVR	107	Lee, K.Z.	BIOT	434	Lee, S.	COLL	85
Lee, J.W.	I&EC	110	Lee, K.	CELL	31	Lee, S.	GEOC	161
Lee, J.	COLL	566	Lee, K.	CELL	54	Lee, S.	PHYS	382
Lee, J.	CHED	776	Lee, K.	CELL	91	Lee, S.	I&EC	44
Lee, J.	CHED	697	Lee, K.	CELL	236	Lee, S.	FLUO	50
Lee, J.C.	BIOL	286	Lee, K.	CELL	401	Lee, S.	CHED	1316
Lee, J.C.	COLL	543	Lee, K.	CELL	402	Lee, S.	BIOL	128
Lee, J.	BIOT	47	Lee, K.	CELL	403	Lee, S.	ENVR	34
Lee, J.	BIOT	115	Lee, K.	PMSE	346	Lee, S.	CHED	1042
Lee, J.	BIOT	169	Lee, K.	COLL	546	Lee, S.	COLL	137
Lee, J.	BIOT	276	Lee, K.	COLL	605	Lee, S.	INOR	842
Lee, J.	I&EC	105	Lee, K.	ANYL	279	Lee, S.J.	ORGN	681
Lee, J.	I&EC	106	Lee, K.	INOR	495	Lee, S.	COLL	720
Lee, J.	I&EC	107	Lee, K.	INOR	1342	Lee, S.	CHED	333
Lee, J.	I&EC	108	Lee, K.	PMSE	392	Lee, S.	CHED	2141
Lee, J.	I&EC	109	Lee, K.	CELL	376	Lee, S.	PMSE	263
Lee, J.	CHED	1281	Lee, L.	ANYL	352	Lee, S.	CATL	155
Lee, J.	I&EC	105	Lee, L.J.	ANYL	371	Lee, S.	ENFL	551
Lee, J.	I&EC	109	Lee, L.J.	BIOT	413	Lee, S.	ENFL	551
Lee, J.	COLL	227	Lee, M.	MEDI	219	Lee, S.	MEDI	72
Lee, J.	COLL	534	Lee, M.	CATL	541	Lee, S.	AGFD	50
Lee, J.	COLL	730	Lee, M.	COMP	122	Lee, S.	CHED	1887
Lee, J.	INOR	1426	Lee, M.R.	CHED	460	Lee, S.	INOR	327
Lee, J.P.	INOR	250	Lee, M.W.	INOR	789	Lee, T.	PHYS	375
Lee, J.	ENFL	277	Lee, M.W.	INOR	1236	Lee, T.	COLL	267
Lee, J.	ENVR	188	Lee, M.R.	MEDI	65	Lee, T.	COLL	273
Lee, J.	COLL	771	Lee, M.	MEDI	131	Lee, T.	COMP	322
Lee, J.	AGFD	47	Lee, M.M.	BIOL	81	Lee, T.	COMP	378

Lee, T.J.	COMP	265	Leggans, E.K.	CHED	1253	Leland, J.V.	AGFD	41
Lee, T.J.	PHYS	89	Leggans, E.K.	CHED	1255	Le Mai Hoang, K.	CARB	50
Lee, T.J.	PHYS	193	Leggans, E.K.	CHED	1257	Le Mai Hoang, K.	CATL	308
Lee, T.	COLL	202	Leggett, D.J.	CHED	2170	Leman, L.J.	BIOL	14
Lee, T.	COLL	229	Leggett, G.J.	COLL	127	Lemaster, J.	INOR	811
Lee, T.	COLL	247	Leggett, G.J.	PHYS	177	Le Meins, J.	COLL	108
Lee, T.	COLL	267	Leggieri, P.	ENFL	65	Lemen, D.	CHED	1201
Lee, T.	COLL	268	Le Grand, S.	COMP	321	Le Merdy, S.	BIOT	341
Lee, T.	COLL	273	Le Griffon, A.	MEDI	244	Le Mest, Y.F.	INOR	29
Lee, T.	COLL	288	Leguizamon, S.	PMSE	393	Lemler, P.	PHYS	222
Lee, T.	COLL	295	Leheny, R.	COLL	12	Lemler, P.	PHYS	223
Lee, T.	COLL	297	Leherte, L.	COMP	5	Lemma, B.B.	AGFD	54
Lee, T.	COLL	732	Leherte, L.	COMP	403	Lemmen, C.	MEDI	350
Lee, V.	MEDI	12	Lehman, S.	CHED	496	Lemmon, T.	CATL	290
Lee, V.	CHED	934	Lehman-Andino, I.	CHED	1090	Le Moigne, N.	CELL	272
Lee, W.	NUCL	82	Lehman-McKeeman, L.	MEDI	20	Lemons, P.	CHED	164
Lee, W.	NUCL	83	Lehman-McKeeman, L.	MEDI	91	Len, A.	COLL	381
Lee, W.	INOR	86	Lehmann, J.	ENVR	747	Lenard, M.	CHED	163
Lee, W.	ORGN	301	Lehmann, J.W.	ORGN	37	Lenberg, K.	BIOT	379
Lee, W.	I&EC	79	Lehner, E.	CHED	26	Leng, J.	POLY	501
Lee, W.	I&EC	93	Lehnert, N.	INOR	49	Leng, W.	CATL	308
Lee, W.	AGFD	221	Lehnert, N.	INOR	140	Leng, W.	COLL	533
Lee, W.	MEDI	72	Lehnert, N.	INOR	142	Lengqvist, J.	MEDI	33
Lee, Y.	BIOL	263	Lehnert, N.	INOR	200	Lenhart, J.J.	GEOC	150
Lee, Y.I.	ANYL	158	Lehnert, N.	INOR	205	Lenhart, J.	POLY	303
Lee, Y.	MEDI	32	Lehotay, S.J.	ANYL	274	Lenhart, J.L.	POLY	341
Lee, Y.	POLY	594	Lehtonen, J.	CELL	265	Lenhoff, A.M.	BIOT	444
Lee, Y.	POLY	768	Lehtonen, J.	CELL	399	Lenhoff, A.M.	BIOT	516
Lee, Y.	PMSE	475	Lehtonen, M.	CELL	318	Lenka, S.	COMP	246
Lee, Y.	ORGN	665	Lei, A.	I&EC	174	Lennox, R.	COLL	782
Lee, Y.	ORGN	666	Lei, B.	INOR	831	Lentz, D.	FLUO	12
Lee, Y.	COLL	720	Lei, S.	INOR	390	Lenz, O.	INOR	561
Lee, Y.	INOR	932	Lei, S.	INOR	510	Leo, C.	POLY	418
Lee, Z.	CHED	339	Lei, X.	CATL	119	Leo, C.	POLY	570
Lee, Z.	INOR	713	Lei, Y.	CATL	236	Leon, A.	CHED	1714
Lee, Z.	NUCL	75	Lei, Z.	CATL	498	Leon, A.	CHED	1922
Lee, Z.	BIOT	26	Leibfarth, F.A.	POLY	305	Leonard, D.J.	ORGN	236
Leehy, C.	COMP	181	Leibfarth, F.A.	POLY	755	Leonard, G.	CATL	447
Leem, G.	INOR	1069	Leibfried, K.D.	CHED	1376	Leonard, K.C.	INOR	1269
Leem, G.	POLY	422	Leibowitz, J.	CHED	2063	Leone, A.	PMSE	85
Leenders, W.	POLY	230	Leibrand, C.	CHED	604	Leong, G.J.	CATL	282
Lees, W.J.	BIOT	429	Leick, N.	ENFL	257	Leong, J.	COLL	771
Leesment, S.I.	PMSE	582	Leick, N.	ENFL	390	Leonhard, M.	CHED	766
Lefer, D.	MEDI	239	Leick, N.	ENFL	395	Leonhardt, E.	ENVR	246
LeFevre, G.H.	ENVR	479	Leigh, B.	POLY	35	Leonhardt, E.	ORGN	493
LeFevre, G.H.	ENVR	483	Leigh, D.A.	ORGN	298	Leoni, F.	MEDI	407
LeFevre, G.H.	ENVR	485	Leighton, C.	INOR	805	Leon Quinonez, S.	CHED	720
Le Floch, B.	PHYS	257	Leighty, R.	BIOT	82	Leontyev, A.	CHED	211
Lefton, J.	ORGN	692	Leino, R.	MEDI	334	Leontyev, A.	CHED	767
Lefurgy, S.T.	CHED	545	Leino, R.	ORGN	287	Leontyev, A.	CHED	773
Lefurgy, S.T.	CHED	548	Leipzig, N.D.	PMSE	404	Leopold, H.	PHYS	568
Lefurgy, S.T.	CHED	602	Leira-Iglesias, J.	POLY	60	Leopold, K.R.	PHYS	450
Le Gars, M.	CELL	35	Leisch, F.	BIOT	519	Leopold, K.R.	PHYS	454
Legg, B.	COLL	742	Leising, R.	POLY	317	Leopold, M.C.	CHED	433
Legg, B.	GEOC	173	Lekich, T.	INOR	30	Leow, M.	CATL	308

Lepage, T.	CELL	330	Leung, E.R.	CHED	1820	Lewandowski-Baird, T.M.	BIOL	216
Leperi, K.T.	I&EC	72	Leung, J.	ORGN	521	Leweke, S.	BIOT	375
Lepird, H.	BIOL	270	Leung, K.	GEOC	252	Lewicki, J.P.	POLY	252
Lepist, E.	MEDI	37	Leung, S.	ENFL	92	Lewicki, J.P.	POLY	778
Leporatti, S.	PMSE	156	Leung, W.	INOR	1271	Lewis, A.	BIOT	97
Lepore, A.	CATL	286	Levard, C.	CELL	164	Lewis, A.	ENFL	11
Lepore, A.	CATL	422	Levato, G.	ENVR	245	Lewis, A.	BIOT	12
Lepore, A.	CATL	522	Leveau, G.	CHED	1268	Lewis, A.	BIOT	250
Lepore, S.D.	ORGN	601	Levens, A.	ORGN	400	Lewis, A.L.	CHED	229
Lepore, S.D.	ORGN	682	Levenson, R.	CHED	621	Lewis, B.	CHED	1588
Le Poul, N.	INOR	29	Levental, I.	COLL	557	Lewis, C.G.	ENVR	607
Leppart, L.	INOR	650	Levental, K.	COLL	557	Lewis, C.D.	COMP	273
Leppert, H.G.	CHED	1826	Leventis, N.	PMSE	137	Lewis, D.E.	CHED	70
Leppert, H.G.	CHED	2047	Leventis, N.	PMSE	168	Lewis, D.E.	HIST	43
Leppert, V.	CATL	452	Leveque, J.	I&EC	47	Lewis, D.E.	HIST	44
Leppert, V.	COLL	760	Leverich, E.	GEOC	176	Lewis, D.E.	HIST	45
Leppert, V.	ENVR	91	Leverick, G.	ENFL	51	Lewis, D.E.	HIST	48
Lequieu, J.	PMSE	26	Levesque, P.C.	MEDI	20	Lewis, D.E.	HIST	49
Lerch, S.	PHYS	300	Levesque, P.C.	MEDI	35	Lewis, D.E.	ORGN	120
Leresche, F.	ENVR	109	Levi, N.	INOR	604	Lewis, D.E.	ORGN	638
Leresche, F.	ENVR	521	Levin, B.J.	BIOL	179	Lewis, D.M.	CHED	28
Leriche, G.	COLL	19	Levina, A.	INOR	55	Lewis, D.M.	CHED	1766
Lerman, Z.M.	CHED	296	Levine, A.	POLY	627	Lewis, E.	COMP	183
Le Roux, E.	INOR	857	Levine, B.	CHED	1681	Lewis, E.	COMP	185
Leroy, G.	ENVR	783	Levine, B.G.	ENFL	363	Lewis, F.D.	ORGN	310
Lervik, A.	COMP	404	Levine, B.	CHED	493	Lewis, G.	BIOT	256
Lesage, G.	ENVR	238	Levine, H.	AGFD	19	Lewis, J.S.	NUCL	53
Lescouëzec, R.	INOR	236	Levine, K.	BIOT	174	Lewis, J.	CATL	414
Lesiak, L.	BIOL	277	Levine, K.E.	ENVR	425	Lewis, J.E.	CHED	79
Lesiak, L.	BIOL	312	Levine, P.	BIOL	127	Lewis, J.E.	CHED	164
Leskes, M.	ENFL	253	Levine, T.D.	CHED	947	Lewis, J.E.	CHED	257
Leskinen, T.	CELL	288	Levine, V.	POLY	540	Lewis, J.E.	CHED	1986
Leslie, G.	ENVR	59	Levis, R.J.	ANYL	45	Lewis, K.	POLY	737
Leslie, J.	CHED	162	Levis, R.J.	ANYL	380	Lewis, K.	ORGN	723
Lesmeister, S.	ENVR	556	Levitt, C.H.	CHED	1155	Lewis, K.	COMP	266
Lessard, J.J.	POLY	25	Levitz, P.	ENFL	523	Lewis, M.	CHED	1842
Lessard, J.J.	POLY	417	Levshakov, N.	CATL	487	Lewis, M.M.	CHAS	42
Lessard, J.J.	POLY	420	Levy, A.	ORGN	247	Lewis, N.S.	CHED	1927
Lessel, U.	COMP	415	Levy, I.J.	CHED	94	Lewis, N.S.	INOR	1061
Lessio, M.	CATL	149	Levy, I.J.	CHED	129	Lewis, N.S.	INOR	1064
Lester, G.E.	MPPG	7	Levy, I.J.	CHED	130	Lewis, N.S.	INOR	1130
Lester, L.	ANYL	140	Levy, I.J.	CHED	317	Lewis, N.S.	INOR	1237
Leszczynska, D.	PHYS	421	Levy, I.J.	CHED	775	Lewis, N.S.	INOR	1399
Leszczynski, J.R.	CINF	104	Levy, I.J.	CHED	1884	Lewis, R.L.	POLY	121
Leszczynski, J.R.	COMP	114	Levy, L.	CHED	1184	Lewis, R.	MEDI	108
Leszczynski, J.R.	COMP	208	Levy, M.P.	PHYS	93	Lewis, R.	MEDI	154
Leszczynski, J.R.	PHYS	421	Levy, M.P.	PHYS	596	Lewis, R.	PMSE	124
Letchworth-Weaver, K.	CATL	83	Levy, N.E.	BIOT	542	Lewis, S.	CHED	1383
Letchworth-Weaver, K.	GEOC	141	Lew, T.	ANYL	16	Lewis, S.E.	CHED	1943
Letson, K.	ANYL	130	Lew, T.	ANYL	194	Lewis, S.	GEOC	195
Letson, K.	ANYL	149	Lew, T.	BIOT	6	Lewis, S.	GEOC	212
Letson, K.	CHED	1892	Lewandowski, A.T.	BIOT	358	Lewis, S.	GEOC	214
Lettan, R.B.	CHED	2035	Lewandowski, T.	CHAS	39	Lewis, S.	INOR	931
Letteri, R.A.	POLY	542	Lewandowski, T.	ENVR	356	Lewis, S.M.	CHED	1867
Leung, E.R.	CHED	1205	Lewandowski, T.	ENVR	362	Lewis, S.	ANYL	218

Lewis, T.N.	CHED	393	Li, F.	ENFL	210	Li, J.	ORGN	538
Lewis, T.N.	CHED	394	Li, F.	I&EC	73	Li, J.	ENVR	139
Lewis, T.N.	CHED	1902	Li, F.	ORGN	439	Li, J.	ORGN	37
Lewis, V.	CHED	32	Li, F.	ANYL	249	Li, J.	INOR	817
Lewis, W.	BIOT	318	Li, F.	ANYL	408	Li, J.	COLL	538
Lewis, W.	BIOT	329	Li, G.	ENFL	19	Li, K.	CATL	309
Lexa, K.W.	CINF	39	Li, G.	CELL	62	Li, K.	CATL	310
Ley, S.	ORGN	261	Li, G.	COLL	538	Li, K.	I&EC	102
Lezama, J.	GEOC	244	Li, G.	CATL	371	Li, K.	PHYS	484
Li, X.	COLL	606	Li, G.	ENVR	144	Li, K.	ENFL	249
Li, A.	POLY	443	Li, G.	INOR	1169	Li, K.	ENVR	402
Li, A.	ENFL	347	Li, G.	CHED	1753	Li, K.	CATL	475
Li, A.	CATL	87	Li, G.	ENFL	422	Li, K.	ENFL	542
Li, A.	COLL	179	Li, G.	CATL	380	Li, L.	ENFL	165
Li, A.	COLL	331	Li, G.	ENFL	538	Li, L.	ENFL	359
Li, A.	BIOL	178	Li, H.	MEDI	39	Li, L.	PMSE	364
Li, A.	CHED	778	Li, H.	COLL	477	Li, L.	ENVR	36
Li, A.	ANYL	377	Li, H.	CHED	1016	Li, L.	COMP	148
Li, A.	ANYL	411	Li, H.	INOR	542	Li, L.	MEDI	20
Li, B.	INOR	431	Li, H.	INOR	1243	Li, L.	MEDI	36
Li, B.X.	ORGN	185	Li, H.H.	ANYL	156	Li, L.	PMSE	551
Li, B.	INOR	306	Li, H.	AGFD	135	Li, L.	POLY	733
Li, B.	ORGN	621	Li, H.	AGFD	138	Li, L.	MEDI	119
Li, B.	ENVR	453	Li, H.	POLY	329	Li, L.	PMSE	204
Li, B.	PMSE	64	Li, H.	BIOT	514	Li, L.	ENFL	189
Li, B.	PMSE	140	Li, H.	ENVR	555	Li, L.	ORGN	594
Li, B.	POLY	502	Li, H.	I&EC	91	Li, M.	INOR	174
Li, B.	ENVR	677	Li, H.	COLL	425	Li, M.	CATL	248
Li, B.	BIOL	166	Li, H.	ENFL	453	Li, M.	ENFL	71
Li, B.	CHED	611	Li, H.	BIOL	312	Li, M.	POLY	87
Li, B.	POLY	630	Li, H.	ENVR	430	Li, M.	PHYS	109
Li, B.	INOR	151	Li, H.	CATL	472	Li, M.	BIOT	147
Li, C.	AGFD	77	Li, H.	CATL	531	Li, M.	YCC	9
Li, C.H.	AGFD	76	Li, J.	MEDI	213	Li, N.	ENVR	745
Li, C.	CHED	315	Li, J.	CHED	342	Li, N.	BIOL	20
Li, C.	ORGN	143	Li, J.	INOR	712	Li, N.	BIOL	89
Li, C.	ORGN	594	Li, J.	INOR	743	Li, N.	CATL	371
Li, C.	ENVR	41	Li, J.	ORGN	143	Li, P.	POLY	164
Li, C.	PHYS	272	Li, J.	ENFL	512	Li, P.	MEDI	6
Li, C.	POLY	436	Li, J.	MEDI	297	Li, P.	BIOL	70
Li, C.W.	COLL	763	Li, J.	ORGN	411	Li, P.	BIOL	154
Li, D.	INOR	449	Li, J.	COLL	751	Li, P.	INOR	510
Li, D.	BIOT	119	Li, J.	PMSE	368	Li, Q.	AGFD	58
Li, D.	ENFL	349	Li, J.	PMSE	448	Li, Q.	PMSE	469
Li, D.	CELL	414	Li, J.	ANYL	315	Li, Q.	POLY	400
Li, D.	ENVR	120	Li, J.	INOR	431	Li, Q.	ENVR	139
Li, D.	ENVR	626	Li, J.	INOR	738	Li, Q.	ENFL	67
Li, E.	ENVR	589	Li, J.	BIOT	497	Li, Q.	AGFD	135
Li, E.	AGFD	58	Li, J.	COLL	374	Li, Q.	COLL	644
Li, F.	ENVR	345	Li, J.	MEDI	35	Li, R.	INOR	1226
Li, F.	GEOC	79	Li, J.	ANYL	348	Li, R.	ENVR	621
Li, F.	ENFL	91	Li, J.	CATL	180	Li, R.	ENVR	622
Li, F.	ENFL	134	Li, J.	ENFL	130	Li, R.	PMSE	587
Li, F.	ENFL	136	Li, J.	I&EC	170	Li, R.	ENVR	506
Li, F.	ENFL	207	Li, J.	INOR	772	Li, R.	PMSE	211

Li, R.	CATL	9	Li, X.	CATL	327	Li, Y.	ENFL	147
Li, R.	ENFL	282	Li, X.	CATL	328	Li, Y.	ENFL	499
Li, R.	PMSE	279	Li, X.	CATL	339	Li, Y.	POLY	210
Li, R.	AGFD	89	Li, X.	POLY	777	Li, Y.	COLL	482
Li, R.	ENVR	507	Li, X.	INOR	383	Li, Y.	INOR	737
Li, R.	ENVR	153	Li, X.	INOR	501	Li, Y.	ENVR	494
Li, S.F.	ANYL	425	Li, X.	AGFD	80	Li, Y.	CELL	79
Li, S.	POLY	786	Li, X.	ENVR	345	Li, Y.	ENFL	351
Li, S.	POLY	478	Li, X.	POLY	140	Li, Y.	CATL	214
Li, S.	CARB	78	Li, X.	ENVR	616	Li, Y.	COLL	118
Li, S.	ENVR	345	Li, X.	COMP	272	Li, Y.	ENFL	484
Li, S.	PMSE	574	Li, X.	INOR	593	Li, Y.	BIOT	352
Li, S.	AGFD	89	Li, X.	PHYS	322	Li, Y.	PMSE	534
Li, S.	ENVR	507	Li, X.	PHYS	610	Li, Y.	ENVR	487
Li, S.	POLY	85	Li, X.	MEDI	408	Li, Y.	CATL	553
Li, S.	COLL	687	Li, X.	ORGN	188	Li, Z.	INOR	122
Li, T.	ANYL	256	Li, X.	PHYS	521	Li, Z.	INOR	283
Li, T.	CATL	548	Li, X.	PMSE	254	Li, Z.	INOR	522
Li, T.	COLL	572	Li, X.	PMSE	397	Li, Z.	BIOT	446
Li, T.	ENFL	165	Li, X.	POLY	431	Li, Z.	ENVR	335
Li, T.	ENFL	359	Li, X.	INOR	1088	Li, Z.	ENVR	497
Li, T.	ENFL	557	Li, X.	POLY	724	Li, Z.	MEDI	239
Li, T.	PMSE	239	Li, X.	CATL	436	Li, Z.	ANYL	272
Li, T.	COLL	207	Li, X.	CHED	352	Li, Z.	CATL	23
Li, T.	INOR	652	Li, X.	ENVR	487	Li, Z.	ENFL	100
Li, T.	CATL	442	Li, X.	AGFD	95	Li, Z.	BIOT	69
Li, V.	ENFL	541	Li, X.	PMSE	279	Li, Z.	BIOT	181
Li, W.	AGFD	200	Li, X.	PMSE	350	Li, Z.	BIOT	254
Li, W.	CELL	312	Li, X.	POLY	179	Li, Z.	BIOT	258
Li, W.	CHED	749	Li, X.	POLY	413	Li, Z.	BIOT	358
Li, W.	POLY	77	Li, Y.	CELL	217	Li, Z.	BIOT	376
Li, W.	PMSE	483	Li, Y.	ENVR	384	Li, Z.	BIOT	447
Li, W.	POLY	774	Li, Y.	INOR	831	Li, Z.	BIOT	476
Li, W.	POLY	501	Li, Y.	BIOT	536	Li, Z.	BIOT	486
Li, W.	ENFL	171	Li, Y.	ENVR	18	Li, Z.	BIOT	487
Li, W.	COLL	575	Li, Y.	COMP	86	Li, Z.	CATL	286
Li, W.	ENFL	297	Li, Y.	CATL	30	Li, Z.	CATL	422
Li, W.	INOR	1349	Li, Y.	ORGN	487	Li, Z.	CATL	445
Li, W.	MEDI	175	Li, Y.	ENVR	621	Li, Z.	CATL	522
Li, W.	BIOL	101	Li, Y.	CINF	19	Li, Z.	I&EC	156
Li, W.	ENVR	50	Li, Y.	CINF	97	Li, Z.	ENFL	75
Li, W.	CATL	325	Li, Y.	BIOT	34	Li, Z.J.	CHED	1270
Li, W.	CATL	326	Li, Y.	COLL	175	Li, Z.	INOR	750
Li, W.	CATL	549	Li, Y.	ENFL	56	Li, Z.	POLY	412
Li, W.	ENFL	406	Li, Y.	ENFL	242	Li, Z.	INOR	724
Li, W.	ANYL	197	Li, Y.	ENFL	361	Li, Z.	PHYS	170
Li, W.	ANYL	406	Li, Y.	ENFL	539	Li, Z.	PHYS	399
Li, W.	CATL	334	Li, Y.	ENVR	691	Li, Z.	ENFL	453
Li, X.	INOR	850	Li, Y.	MEDI	327	Li, Z.	ANYL	407
Li, X.	ENFL	307	Li, Y.	COLL	606	Li, Z.	COLL	778
Li, X.	MEDI	219	Li, Y.	ANYL	320	Li, Z.	PMSE	249
Li, X.	ENVR	13	Li, Y.	PHYS	31	Li, Z.	COLL	119
Li, X.	ENVR	555	Li, Y.	CHED	1035	Liakh, D.	COMP	117
Li, X.	ENVR	753	Li, Y.	I&EC	96	Lian, B.	ENVR	59
Li, X.	GEOC	74	Li, Y.	POLY	761	Lian, S.	INOR	569

Lian, S.	PHYS	367	Liberatore, H.K.	ENVR	410	Liimatta, M.	COMP	16
Lian, T.	ANYL	311	Libman, A.	ORGN	146	Liitiä, T.	CELL	253
Lian, T.	PHYS	29	Libra, J.	ENVR	99	Lijja, L.	POLY	286
Lian, T.	PHYS	385	Libson, K.	INOR	1365	Liles, K.	POLY	508
Lian, X.	INOR	1234	Libuda, J.	CATL	150	Liles, K.P.	POLY	273
Lian, Y.	ORGN	197	Libuda, J.	CATL	156	Lilga, M.	CATL	216
Liang, C.	ENFL	308	Licht, S.L.	CATL	411	Lilga, M.	CATL	445
Liang, D.	BIOL	69	Lichtenberger, D.L.	INOR	395	Lilga, M.	CATL	469
Liang, D.	MEDI	119	Lichtenberger, D.L.	INOR	1282	Lilio, A.M.	INOR	163
Liang, G.	INOR	159	Lichtenberger, D.L.	INOR	1386	Lilio, A.M.	INOR	884
Liang, G.	INOR	390	Lichtenberger, D.L.	POLY	397	Liljestrand, H.	GEOC	202
Liang, G.	INOR	485	Lichtenegger, H.	CELL	341	Lillerud, K.	CATL	15
Liang, G.	INOR	510	Lichtenegger, H.	CELL	352	Lillethorup, M.	COLL	75
Liang, H.	CELL	376	Lichtenhan, J.D.	POLY	429	Lillie, J.	MEDI	252
Liang, H.	ENFL	122	Lichtman, A.	BIOL	227	Lim, A.	INOR	295
Liang, J.	ORGN	538	Lichtor, A.N.	PMSE	141	Lim, C.	ORGN	566
Liang, J.	ORGN	342	Lichtveld, M.	AGFD	160	Lim, C.	ORGN	667
Liang, L.	ENFL	75	Licini, G.	CELL	331	Lim, H.	ENFL	371
Liang, L.	GEOC	217	Licini, G.	INOR	1383	Lim, J.	NUCL	82
Liang, M.	BIOT	47	Lide, D.R.	CINF	33	Lim, J.	NUCL	83
Liang, P.	ANYL	456	Liden, T.	ANYL	386	Lim, K.	COLL	211
Liang, S.	CHED	1825	Lidon, P.	COLL	532	Lim, M.	I&EC	169
Liang, S.	ORGN	624	Lidster, B.	PMSE	303	Lim, S.	PMSE	207
Liang, S.H.	FLUO	46	Lidster, B.	POLY	20	Lim, V.T.	COMP	248
Liang, S.H.	FLUO	54	Lidster, B.J.	PMSE	244	Lim, W.	ENVR	608
Liang, T.	ORGN	185	Liebens, J.	CHED	930	Lim, W.	ENVR	610
Liang, T.	ORGN	352	Lieberman, A.	CHED	962	Lim, Y.	MEDI	257
Liang, T.	CATL	537	Lieberman, M.	ANYL	64	Lima, I.M.	ENVR	170
Liang, W.	ENFL	14	Lieberman, M.	ANYL	65	Lima, N.R.	PMSE	434
Liang, X.	ANYL	219	Lieberman, M.	ANYL	66	Lima, T.	PHYS	170
Liang, X.	MEDI	70	Lieberman, M.	ANYL	72	Limbach, P.A.	CHED	656
Liang, Y.	GEOC	104	Lieberman, M.	ANYL	73	Limbrick, E.	CHED	713
Liang, Y.	ENFL	151	Lieberman, M.	ANYL	134	Limeira, D.P.	PMSE	271
Liang, Y.	ORGN	188	Lieberman, M.	ANYL	176	Limvorapitux, R.	INOR	505
Liang, Z.	ENFL	400	Lieberman, M.	ANYL	302	Lin, A.	AGFD	218
Liang, Z.	CATL	281	Lieberman, M.	ANYL	333	Lin, A.	AGFD	236
Liano, W.	ENVR	148	Liebhäuser, P.	INOR	65	Lin, A.	PMSE	30
Liao, G.	PROF	4	Liebner, F.	CELL	86	Lin, B.	BIOT	193
Liao, H.	CATL	308	Liebner, F.	CELL	341	Lin, C.	ENVR	744
Liao, I.	ENVR	509	Liebner, F.	CELL	352	Lin, C.	PMSE	577
Liao, J.	ORGN	102	Liedl, K.R.	COMP	415	Lin, C.	MEDI	95
Liao, P.	CATL	137	Liedl, K.R.	COMP	432	Lin, C.	MEDI	97
Liao, P.	CATL	407	Lien, N.R.	CHED	1039	Lin, C.	INOR	627
Liao, P.	ENVR	220	Lienemann, C.	ENFL	95	Lin, C.	INOR	736
Liao, P.	ENVR	677	Lienhart, G.W.	POLY	358	Lin, C.	INOR	737
Liao, S.	AGFD	58	Lieser, R.	BIOT	458	Lin, C.	PMSE	394
Liao, S.	MEDI	271	Lieske, L.	INOR	19	Lin, C.	COMP	332
Liao, S.	BIOT	366	Lievremont, D.	CHED	1579	Lin, C.	ENVR	744
Liao, X.	COLL	58	Lievremont, D.	CHED	1666	Lin, C.	PMSE	232
Liao, X.	COLL	538	Lifshits, L.M.	INOR	492	Lin, C.	PMSE	346
Liao, X.	MEDI	153	Liggio, J.	COLL	395	Lin, C.	PMSE	394
Liao, Y.	ENFL	337	Lightfoot, M.P.	CINF	3	Lin, D.	POLY	82
Liau, W.	COLL	293	Lignieres, A.	CHED	1626	Lin, E.	MEDI	66
Libanori, R.	CELL	72	Lignou, S.	AGFD	192	Lin, E.K.	PMSE	77
Liberatore, H.K.	ENVR	310	Ligon, L.A.	CHED	1044	Lin, F.	POLY	762

Lin, F.	ENFL	184	Lin, Y.	COMP	376	Linhardt, R.J.	BIOL	187
Lin, F.	ENFL	188	Lin, Z.	BIOL	47	Linic, S.	CHED	1979
Lin, F.	I&EC	171	Lin, Z.	CHED	1199	Linic, S.	I&EC	76
Lin, F.	I&EC	175	Linares, N.	CATL	222	Linic, S.	PHYS	35
Lin, F.	INOR	1240	Linares, N.	CATL	347	Linninger, B.E.	CHED	1173
Lin, H.	ENVR	121	Linares, N.	CATL	490	Link, A.	BIOT	20
Lin, H.	PMSE	34	Lincoln, S.	BIOT	440	Link, A.	BIOT	530
Lin, H.	PMSE	189	Lind, T.	COLL	232	Link, R.D.	CHED	1993
Lin, H.	BIOT	108	Lindberg, G.E.	COMP	230	Link, S.	COLL	759
Lin, H.	BIOT	113	Lindberg, G.E.	PHYS	413	Link, S.	PHYS	12
Lin, H.	BIOT	483	Lindberg, G.E.	PHYS	529	Link, S.	PHYS	74
Lin, H.	BIOT	557	Lindberg, G.E.	PHYS	544	Link, S.	PHYS	282
Lin, H.	ENVR	606	Lindblad, P.	ENFL	443	Link, S.	PHYS	299
Lin, H.	INOR	86	Lindemann, S.	BIOT	95	Link, S.	PHYS	384
Lin, H.	BIOL	22	Linden, K.	ANYL	389	Link, S.	PHYS	392
Lin, J.	CATL	544	Linden, L.	BIOT	492	Link, S.	PHYS	394
Lin, J.	CATL	114	Lindenberg, A.	INOR	4	Link, S.	PHYS	402
Lin, J.	PMSE	233	Linderholm, C.	ENFL	209	Linnartz, H.	PHYS	194
Lin, J.	ENVR	97	Lindfors, C.	CATL	227	Linton, B.	BIOL	240
Lin, L.	MEDI	315	Lindh, J.	CELL	395	Linton, B.	CHED	1496
Lin, L.	BIOT	90	Lindley, B.M.	INOR	120	Linville, E.	CELL	412
Lin, L.	INOR	1217	Lindow, J.	CHED	953	Lionetti, D.	INOR	421
Lin, L.	INOR	172	Lindquist, G.	CHED	908	Lionetti, D.	INOR	1128
Lin, L.	PHYS	414	Lindsay, C.	POLY	107	Lionetti, D.	INOR	1405
Lin, L.	ENVR	57	Lindsay, K.	CHED	1615	Lionetti, D.	INOR	1408
Lin, L.	ANYL	313	Lindsay, K.	CHED	1669	Lionetti, D.	INOR	1410
Lin, N.	CELL	58	Lindsay, N.	MEDI	293	Liotta, C.L.	CARB	69
Lin, Q.	ORGN	656	Lindsley, C.W.	MEDI	13	Liotta, C.L.	I&EC	128
Lin, Q.	BIOL	216	Lindstrom, A.	MEDI	361	Liotta, C.L.	PMSE	117
Lin, Q.	BIOL	233	Lindstrom, A.	ENVR	231	Liotta, D.	MEDI	55
Lin, Q.	PMSE	113	Lindstrom, A.	ENVR	314	Liotta, D.	MEDI	181
Lin, Q.	PMSE	216	Lindström, M.E.	CELL	277	Liotta, D.	MEDI	287
Lin, R.	I&EC	122	Lindström, M.E.	CELL	280	Liotta, D.	MEDI	346
Lin, S.	INOR	527	Lindvall, T.	CHED	1648	Liotta, L.J.	CHED	1591
Lin, S.	INOR	661	Linehan, J.C.	INOR	863	Liotta, L.J.	CHED	1655
Lin, S.	ENVR	187	Linenberger Cortes, K.J.	CHED	826	Liou, G.	PMSE	324
Lin, S.	CHED	37	Linenberger Cortes, K.J.	CHED	1941	Lipke, E.A.	BIOT	460
Lin, S.	MEDI	35	Linenberger Cortes, K.J.	CHED	2115	Lipomi, D.J.	COLL	748
Lin, S.	MEDI	178	Lines, A.C.	ANYL	152	Lipomi, D.J.	ORGN	245
Lin, S.	MEDI	202	Linfield, T.	CHED	691	Lipomi, D.J.	PMSE	83
Lin, T.	INOR	315	Ling, C.	CATL	165	Lipomi, D.J.	PMSE	578
Lin, T.	PMSE	196	Ling, F.	ENVR	455	Lipomi, D.J.	POLY	720
Lin, T.	POLY	76	Ling, F.T.	GEOC	103	Lipp, J.	GEOC	139
Lin, W.	CATL	338	Ling, F.T.	GEOC	162	Lippard, S.J.	INOR	125
Lin, W.	POLY	627	Ling, F.T.	GEOC	240	Lippard, S.J.	INOR	129
Lin, X.	COLL	568	Ling, J.	INOR	294	Lippert, A.R.	BIOL	135
Lin, X.	I&EC	174	Ling, L.	ENVR	262	Lippert, A.R.	BIOL	161
Lin, X.	BIOT	94	Ling, L.	ENVR	285	Lippert, A.R.	ORGN	421
Lin, X.	BIOT	132	Ling, X.	FLUO	69	Lippert, A.R.	ORGN	224
Lin, Y.	ENFL	491	Lingappa, U.	GEOC	134	Lippert, C.	SCHB	9
Lin, Y.	PHYS	58	Lingo, T.	CHED	1386	Lippy, J.S.	MEDI	35
Lin, Y.	PHYS	110	Lingwood, M.D.	CHED	2132	Lippy, J.S.	MEDI	202
Lin, Y.	ENVR	97	Lingwood, M.D.	COLL	84	Lipscomb, C.	POLY	47
Lin, Y.	ENFL	144	Lingwood, M.D.	COLL	251	Lipscomb, C.	POLY	702
Lin, Y.	COMP	211	Lingwood, M.D.	POLY	194	Lipshultz, J.	ORGN	554

Lipshutz, B.H.	CATL	163	Liu, B.	CARB	28	Liu, G.	COLL	126
Lirio, S.	INOR	627	Liu, B.	MEDI	177	Liu, G.	PMSE	63
Lirio, S.	INOR	736	Liu, B.	MEDI	309	Liu, G.	PMSE	122
Lischner, J.	CATL	80	Liu, B.	ORGN	566	Liu, G.	PMSE	363
Lisic, E.C.	CHED	280	Liu, B.	ORGN	667	Liu, G.	PMSE	491
Lisic, E.C.	CHED	347	Liu, B.	PMSE	395	Liu, G.	ENFL	538
Lisic, E.C.	CHED	580	Liu, B.	PMSE	583	Liu, H.C.	CELL	418
Lisic, E.C.	CHED	1095	Liu, B.	BIOT	503	Liu, H.	POLY	585
Lisic, E.C.	CHED	1097	Liu, B.	ENVR	760	Liu, H.	MEDI	76
Lisic, E.C.	CHED	1102	Liu, B.	MEDI	117	Liu, H.	ENVR	745
Lisic, E.C.	CHED	1107	Liu, C.	COLL	719	Liu, H.	ENVR	52
Lisic, E.C.	CHED	1480	Liu, C.	ENFL	173	Liu, H.	ENVR	253
Lisic, E.C.	CHED	1495	Liu, C.	CELL	134	Liu, H.	INOR	314
Lisic, E.C.	CHED	1501	Liu, C.	ENFL	121	Liu, H.	PMSE	120
Lisic, E.C.	CHED	1502	Liu, C.H.	PMSE	396	Liu, H.	POLY	202
Lisic, E.C.	ENVR	584	Liu, C.	CATL	536	Liu, H.	COMP	272
Liska, R.	POLY	40	Liu, C.	INOR	99	Liu, H.	INOR	593
Liso, V.	ENFL	322	Liu, C.	INOR	128	Liu, H.	BIOL	1
Lisovsky, A.	CHED	1500	Liu, C.	INOR	714	Liu, H.	BIOT	45
Lisse, C.H.	CHED	440	Liu, C.	INOR	720	Liu, J.	PMSE	597
Lisse, C.H.	CHED	441	Liu, C.	PMSE	408	Liu, J.J.	INOR	137
Lisse, C.H.	CHED	447	Liu, C.	ENVR	220	Liu, J.	PMSE	102
Lisse, C.H.	CHED	462	Liu, C.	ENVR	344	Liu, J.	ENFL	452
Lisse, C.H.	CHED	491	Liu, C.	ENVR	676	Liu, J.	INOR	864
Lisse, C.H.	CHED	501	Liu, C.	ENVR	677	Liu, J.	BIOL	103
Lisse, C.H.	CHED	1791	Liu, C.	GEOC	68	Liu, J.	ENVR	620
Lisse, C.H.	CHED	1841	Liu, C.	ORGN	247	Liu, J.	INOR	522
Lisse, C.H.	CHED	2059	Liu, C.	COMP	219	Liu, J.	INOR	1029
Lissoos, J.B.	BIOT	151	Liu, C.	COMP	307	Liu, J.	ENFL	403
List, B.	ORGN	50	Liu, C.	PHYS	350	Liu, J.	ENFL	405
Listenberger, L.	CHED	270	Liu, D.	INOR	213	Liu, J.	MEDI	75
Lister, K.	CHED	1717	Liu, D.	BIOL	172	Liu, J.	CHED	1171
Listhartke, H.	CINF	78	Liu, D.	ENFL	497	Liu, J.	CHED	1227
Lisuzzo, L.	PMSE	205	Liu, D.	PHYS	36	Liu, J.	COLL	225
Lithgow, H.	MEDI	312	Liu, D.	MEDI	134	Liu, J.	CELL	242
Litofsky, J.	POLY	768	Liu, D.	CATL	61	Liu, J.	CELL	371
Litster, S.	ENFL	323	Liu, D.	ENFL	89	Liu, J.	ENFL	388
Littardi, P.	AGFD	126	Liu, E.E.	INOR	218	Liu, J.	ENFL	351
Little, D.	CHED	751	Liu, F.	GEOC	243	Liu, J.	ANYL	456
Little, D.	CHED	1182	Liu, F.	GEOC	270	Liu, J.	CHED	574
Little, J.E.	CHED	580	Liu, F.	BIOT	222	Liu, J.	COLL	277
Little, J.E.	CHED	1502	Liu, F.	ENFL	410	Liu, J.	ENFL	212
Little, S.	CHED	985	Liu, F.	ENFL	455	Liu, J.L.	COLL	618
Little, S.	CHED	1911	Liu, F.	ENVR	632	Liu, J.L.	ENFL	400
Littlewood, P.	ENFL	30	Liu, F.	ORGN	284	Liu, J.L.	ENFL	541
Litts, C.A.	CHED	1368	Liu, F.	PHYS	356	Liu, J.	ENVR	140
Litvinov, V.M.	POLY	135	Liu, F.	PHYS	383	Liu, J.	ENVR	681
Liu, A.T.	COLL	177	Liu, F.	I&EC	102	Liu, J.	PMSE	294
Liu, A.T.	COLL	736	Liu, F.	PMSE	567	Liu, J.	COLL	653
Liu, A.	ANYL	195	Liu, F.	ENFL	235	Liu, J.	CATL	534
Liu, A.	COLL	590	Liu, F.	PMSE	456	Liu, J.	ENVR	745
Liu, A.	ENFL	369	Liu, F.	INOR	654	Liu, J.	ENVR	135
Liu, A.	BIOL	314	Liu, G.	MEDI	64	Liu, J.	ENVR	178
Liu, A.	PMSE	563	Liu, G.	PHYS	425	Liu, J.	ENVR	179
Liu, A.	BIOT	434	Liu, G.	CHED	657	Liu, J.	ENVR	295

Liu, J.	ENVR	391	Liu, P.	CATL	495	Liu, W.	ORGN	495
Liu, J.	ENVR	393	Liu, P.	COMP	124	Liu, W.	POLY	654
Liu, J.	ENVR	394	Liu, P.	ENFL	357	Liu, W.	ORGN	594
Liu, J.	POLY	443	Liu, P.	ENFL	358	Liu, W.	BIOL	241
Liu, J.	COMP	370	Liu, P.	COLL	177	Liu, W.	CHED	693
Liu, J.	ENFL	350	Liu, P.	COLL	590	Liu, X.	CATL	318
Liu, J.	ENFL	519	Liu, P.	COLL	736	Liu, X.	COLL	390
Liu, J.	PMSE	574	Liu, P.	ENFL	369	Liu, X.M.	POLY	89
Liu, J.	PMSE	609	Liu, Q.	ORGN	357	Liu, X.	FLUO	30
Liu, J.	ENVR	384	Liu, Q.S.	ENVR	685	Liu, X.	MEDI	232
Liu, J.	CATL	549	Liu, Q.	POLY	695	Liu, X.	ENFL	350
Liu, J.	INOR	1231	Liu, Q.	COLL	750	Liu, X.	ENFL	519
Liu, J.	BIOT	180	Liu, Q.	ENVR	745	Liu, X.	MEDI	153
Liu, J.	PMSE	49	Liu, Q.	MEDI	6	Liu, X.A.	ORGN	13
Liu, J.G.	PHYS	394	Liu, Q.	MEDI	36	Liu, X.	CATL	311
Liu, K.	CATL	44	Liu, Q.	MEDI	297	Liu, X.	CATL	312
Liu, K.	CATL	269	Liu, Q.	AGFD	33	Liu, X.	CATL	314
Liu, K.	CATL	525	Liu, R.	I&EC	161	Liu, X.	MEDI	136
Liu, K.	ORGN	247	Liu, R.	BIOT	497	Liu, X.	CATL	198
Liu, K.	INOR	22	Liu, R.	ENVR	140	Liu, X.	ENVR	265
Liu, K.	PMSE	39	Liu, R.	ENVR	692	Liu, X.	ORGN	656
Liu, K.	ENVR	413	Liu, R.	MEDI	76	Liu, X.	CARB	50
Liu, L.R.	PHYS	58	Liu, S.	COLL	277	Liu, X.	CATL	308
Liu, L.	BIOT	545	Liu, S.	COLL	618	Liu, Y.A.	MEDI	153
Liu, L.	POLY	774	Liu, S.	ENFL	212	Liu, Y.	ENVR	42
Liu, L.	INOR	627	Liu, S.	ENFL	506	Liu, Y.	ENFL	208
Liu, L.	INOR	736	Liu, S.	ANYL	370	Liu, Y.	BIOT	69
Liu, L.	ANYL	122	Liu, S.Y.	MEDI	289	Liu, Y.	BIOT	184
Liu, L.	ENFL	441	Liu, S.Y.	ORGN	711	Liu, Y.	CATL	484
Liu, L.	CELL	43	Liu, S.	CATL	154	Liu, Y.	ORGN	607
Liu, L.	CELL	118	Liu, S.	CATL	249	Liu, Y.	CHED	1302
Liu, L.	CELL	408	Liu, S.	ANYL	363	Liu, Y.	COLL	745
Liu, L.	ENVR	204	Liu, S.	PHYS	418	Liu, Y.	ORGN	538
Liu, L.	INOR	124	Liu, S.	PHYS	49	Liu, Y.	ENVR	85
Liu, M.	ENFL	307	Liu, S.	COLL	584	Liu, Y.	CATL	483
Liu, M.	ENFL	553	Liu, S.	ENVR	325	Liu, Y.	PMSE	397
Liu, M.	BIOL	206	Liu, T.	COMP	245	Liu, Y.	CATL	277
Liu, M.	CATL	483	Liu, T.	MEDI	176	Liu, Y.	COLL	94
Liu, M.	PMSE	254	Liu, T.	PMSE	545	Liu, Y.	CELL	346
Liu, M.	ENFL	299	Liu, T.	PMSE	564	Liu, Y.	POLY	632
Liu, M.	COMP	373	Liu, T.	CATL	405	Liu, Y.	INOR	1273
Liu, M.	CATL	180	Liu, T.	INOR	1173	Liu, Y.	CELL	65
Liu, M.	CATL	280	Liu, T.	COLL	229	Liu, Y.	ENVR	423
Liu, P.	COLL	63	Liu, T.	COLL	297	Liu, Y.	BIOT	208
Liu, P.	ENFL	307	Liu, T.	ENVR	345	Liu, Y.	COMP	252
Liu, P.	GEOC	190	Liu, T.	GEOC	79	Liu, Y.	PMSE	524
Liu, P.	BIOL	307	Liu, W.	INOR	627	Liu, Y.	PMSE	525
Liu, P.	BIOL	317	Liu, W.	INOR	736	Liu, Y.	CELL	84
Liu, P.	CARB	44	Liu, W.	CELL	103	Liu, Y.	BIOL	305
Liu, P.	COMP	300	Liu, W.	MEDI	19	Liu, Y.	CHED	1557
Liu, P.	ORGN	594	Liu, W.	INOR	1249	Liu, Y.	PHYS	110
Liu, P.	BIOT	393	Liu, W.	BIOL	206	Liu, Y.	ENFL	112
Liu, P.	CATL	154	Liu, W.	INOR	1419	Liu, Y.	ENFL	536
Liu, P.	CATL	230	Liu, W.	COLL	390	Liu, Y.	INOR	1124
Liu, P.	CATL	249	Liu, W.	ORGN	540	Liu, Y.	INOR	1266

Liu, Y.	BIOT	51	Lloret-Torres, M.E.	CHED	1168	Logan, B.E.	GEOC	269
Liu, Y.	PMSE	460	Lloyd, E.M.	POLY	182	Logan, M.W.	INOR	742
Liu, Y.	PMSE	485	Lloyd, J.	CELL	422	Logan, P.	COLL	610
Liu, Y.	COLL	333	Lloyd, J.	COMP	16	Logan, P.	POLY	486
Liu, Y.	I&EC	174	Lloyd, L.	BIOL	202	Logan, P.	POLY	559
Liu, Z.	POLY	588	Lloyd, S.	AGFD	72	Logan, P.	POLY	566
Liu, Z.	AGFD	154	Lluberas, G.	CELL	125	Loganathan, N.	GEOC	237
Liu, Z.	ENFL	309	Lluberas, G.	CELL	126	Loganathan, N.	GEOC	238
Liu, Z.	CHED	1269	Lnu, M.A.	CHED	1623	Loganathan, N.	GEOC	264
Liu, Z.	MEDI	64	Lo, A.	ORGN	122	Logue, B.A.	ANYL	187
Liu, Z.	MEDI	359	Lo, G.	CHED	1996	Logue, B.A.	ANYL	442
Liu, Z.	COLL	28	Lo, G.	CHED	2078	Logue, B.A.	COMP	59
Liu, Z.	COLL	477	Lo, G.	CHED	2137	Logvinenko, D.	PMSE	157
Liu, Z.	CATL	27	Lo, J.	CHED	2048	Loh, W.	PMSE	468
Liu, Z.	ENVR	146	Lo, J.Y.	CHED	1709	Loh, Y.	ORGN	184
Liu, Z.	CELL	218	Lo, J.Y.	CHED	1922	Loh, Y.	ORGN	194
Liu, Z.	COMP	411	Lo, M.M.	MEDI	257	Lohani, S.	MEDI	75
Liu, Z.	COMP	430	Lo, M.M.	MEDI	327	Lohasz, C.	COLL	774
Liu, Z.	COLL	314	Lobato, D.	CHED	692	Loheide, S.	GEOC	11
Liu, Z.	COLL	315	Lobel, L.	ENVR	156	Lohman, M.	CARB	70
Liu, Z.	COMP	296	Loberg, M.A.	BIOL	58	Lohman, S.	AGFD	4
Liu, Z.	CATL	234	Loberg, M.A.	BIOL	239	Lohmann, J.	MEDI	244
Livesay, B.	INOR	1377	Lobo, G.	ENVR	219	Lohrman, J.	COMP	424
Livi, K.J.	CELL	262	Loch, E.	CHED	553	Lohse, A.	POLY	775
Livi, S.	CELL	275	Lochab, B.	PMSE	181	Loiseau, T.	NUCL	20
Livingston, A.	ENVR	245	Lockamy, D.	GEOC	138	Lok, D.	BIOT	166
Livingston, B.	CHED	795	Lockart, M.	INOR	915	Loka, R.	CARB	48
Livney, Y.	AGFD	120	Locklin, J.J.	COLL	688	Loka, R.	POLY	299
Livshultz, T.	ANYL	444	Locklin, J.J.	COLL	749	Lokare, O.R.	ENFL	54
LiWang, A.	BIOL	111	Locklin, J.J.	COLL	750	Lokare, O.R.	ENFL	57
Liyanage, A.S.	ENVR	149	Locklin, J.J.	POLY	696	Lokare, O.R.	ENVR	186
Liyanage, A.	ENVR	643	Lockwood, M.	CHED	1692	Lokare, O.R.	ENVR	727
Liyanage, C.D.	COLL	366	Lodeon, M.	BIOL	313	Lokare, O.R.	I&EC	145
Liyanage, C.D.	COLL	563	Lodeon, M.	PMSE	562	Loke, P.	MEDI	378
Liyanage, C.D.	PMSE	42	Lodge, T.P.	POLY	683	Lokey, S.	CHED	1266
Liyanage, N.	INOR	690	Lodge, T.P.	POLY	730	Lokitz, B.S.	POLY	77
Liyanage, N.	INOR	1070	Lo Dico, G.	PMSE	205	Lokka, A.	CELL	234
Liyanage, N.	INOR	1297	Lodis, A.	CELL	95	Lolinco, A.	CHED	2061
Liyanage, N.	INOR	1299	Lodowski, P.	COMP	279	Lolli, M.L.	MEDI	319
Liyanage, N.	ORGN	476	Lodziana, Z.	ENFL	274	Lomax, J.F.	CHED	1676
Liyanage, R.	ANYL	88	Loe, R.	CATL	374	Lomax, S.Q.	CHED	1676
Liyanage, R.	INOR	449	Loebs, A.	BIOT	549	Lombardo, F.	MEDI	295
Liyanage, S.P.	ANYL	459	Loefer, J.	CHED	804	Lombardo, L.	MEDI	20
Liyanage, T.	CHED	1298	Loeffler, J.R.	COMP	432	Lombi, E.	ENVR	441
Liyanage, W.P.	ENFL	330	Loeffler, T.	PHYS	563	Lomin, S.	BIOL	59
Lizarraga, L.	ENVR	421	Loertscher, J.A.	CHED	79	Lomino, J.	BIOT	101
Liz Marzan, L.	COLL	6	Loertscher, J.A.	CHED	164	Lomnicki, S.M.	ENVR	387
Liz Marzan, L.	COLL	495	Loescher, S.	POLY	740	Lomnicki, S.M.	ENVR	701
Liz Marzan, L.	COLL	500	Loewe, D.	BIOT	172	Lomonaco, D.	CELL	108
Lizotte, B.A.	CHED	746	Loewe, D.	BIOT	315	Lomonaco, D.	PMSE	282
Ljunglöf, A.	BIOT	309	Löfgren, A.	BIOT	344	Lomonaco, D.	PMSE	287
Llinas, J.	INOR	730	Löfgren, A.	BIOT	365	Lomoth, R.	INOR	1173
Llinas, J.	INOR	1181	Löfgren, A.	BIOT	560	Loncaric, M.	BIOL	96
Llinás, M.	BIOL	209	Loftin, B.	POLY	452	Loncaric, M.	BIOL	175
Llorca, M.	ENVR	354	Loftin, K.	ENVR	410	Loncaric, M.	CHED	671

Loncaric, M.	CHED	697	Longo, S.	ENFL	114	Lopez-Ruiz, J.	CATL	380
Londhe, S.S.	ORGN	100	Lonzarich, V.	AGFD	193	Lopez-Ruiz, J.	CATL	444
Londino, J.	MEDI	231	Loo, Y.	PMSE	215	Lopez-Ruiz, J.	ENFL	15
London, A.	POLY	598	Loos, M.	ENVR	787	López-Simeon, R.	CELL	385
London, A.E.	POLY	199	Lopano, C.L.	GEOC	240	Lopez-Vazquez, C.	ENVR	663
London, A.E.	POLY	518	Lopansri, L.	CHED	1573	Lopretti, M.	CELL	125
Londono Zuluaga, C.	CELL	230	Lopata, K.	COMP	163	Lopretti, M.	CELL	126
Londregan, A.T.	ORGN	44	Lopata, K.	COMP	164	Lopretti, M.	CELL	96
Lone, S.	CHED	528	Lopata, K.	COMP	297	Lorber, K.	AGFD	188
Lone, S.	CHED	577	Lopata, K.	COMP	309	Lo Re, G.	CELL	412
Lone, S.	CHED	620	Lopata, K.	PHYS	403	Loredo, A.	INOR	824
Lone, S.	CHED	649	Lopata, K.	PHYS	528	Loreggian, L.	GEOC	94
Lone, S.	CHED	681	Lopata, K.	PHYS	646	Lorenc, C.	INOR	613
Long, B.K.	COMP	305	Lopata, M.	CHED	1203	Lorent, J.	COLL	557
Long, B.K.	PMSE	108	Lopes, I.	ANYL	235	Lorenz, M.	GEOC	6
Long, B.K.	POLY	142	Lopes, S.	AGFD	12	Lorenz, M.	GEOC	7
Long, B.K.	POLY	350	Lopes-Pires, M.E.	MEDI	73	Lorenzi, J.	CATL	438
Long, B.A.	COLL	441	Lopez, A.	INOR	351	Lorenzo, E.	CHED	1747
Long, D.	CELL	337	Lopez, B.	PMSE	209	Lorenzo, E.	CHED	1837
Long, J.	INOR	1223	Lopez, C.	ANYL	430	Loret, A.D.	CHED	1885
Long, J.R.	ENFL	491	Lopez, C.	CELL	66	Loria, S.M.	CHED	851
Long, J.R.	INOR	32	Lopez, C.	AGFD	84	Lorigan, G.	BIOT	335
Long, J.R.	INOR	621	Lopez, J.	ENFL	288	Lorigan, G.	CHED	1735
Long, J.R.	INOR	1218	Lopez, J.M.	INOR	994	Lorigan, G.	CHED	1740
Long, J.R.	INOR	1221	Lopez, K.	COLL	381	Lorigan, G.	POLY	229
Long, J.R.	INOR	1222	Lopez, K.M.	CHED	54	Lorimor, S.P.	CHED	1515
Long, J.R.	PMSE	239	Lopez, K.M.	ANYL	111	Loring, J.	GEOC	238
Long, J.W.	ENFL	126	Lopez, K.M.	BIOL	99	Loring, J.	GEOC	261
Long, J.W.	INOR	288	Lopez, K.G.	CHED	878	Loring, J.	GEOC	263
Long, K.	POLY	36	Lopez, L.	ORGN	163	Lorsbach, B.A.	YCC	10
Long, K.	POLY	425	Lopez, M.	CHED	1366	Lorthioir, C.	POLY	192
Long, K.	POLY	492	Lopez, M.	CHED	1816	Lorthiois, E.	MEDI	271
Long, M.	INOR	390	Lopez, M.	ENVR	565	Loschiavo, T.M.	CHED	71
Long, M.	ENVR	333	Lopez, M.M.	CHED	1816	Losee, J.	CHED	965
Long, N.J.	COLL	340	Lopez, R.	BIOL	284	Losert, W.	PHYS	617
Long, N.J.	COLL	649	Lopez, R.	CHED	389	Los Huertos, M.	ENVR	343
Long, R.	POLY	167	Lopez, R.	CHED	536	Losquadro, A.R.	INOR	297
Long, T.E.	PHYS	516	Lopez, S.A.	CMA	6	Loff, S.	INOR	775
Long, T.E.	PHYS	538	Lopez, V.	MEDI	205	Lothert, K.	BIOT	40
Long, T.E.	PMSE	114	López, G.P.	COLL	486	Lothert, K.	BIOT	315
Long, T.E.	PMSE	120	Lopez-Barron, C.	COLL	318	Lott, S.	CHED	992
Long, T.E.	PMSE	380	Lopez-Barron, C.	PMSE	128	Lou, H.	BIOT	229
Long, T.E.	PMSE	575	Lopez-Barron, C.	POLY	196	Lou, J.	ORGN	384
Long, T.E.	POLY	77	Lopez-Barron, C.R.	PMSE	471	Lou, J.	INOR	678
Long, T.E.	POLY	202	Lopez-Barron, C.R.	PMSE	594	Lou, Y.	CATL	534
Long, T.E.	POLY	259	Lopez-Barron, C.R.	PMSE	595	Lou, Y.	CATL	528
Long, T.	POLY	341	Lopez de la Crus, R.	COLL	160	Lou, Y.	I&EC	83
Long, X.	PHYS	160	López Durán, V.	CELL	338	Loubat, C.	POLY	205
Long, Y.	ENVR	210	López-Hernández, C.M.	CHED	1875	Lougee, R.	CINF	86
Longe, L.	CELL	120	Lopez-Linares, F.A.	ENFL	41	Loughrin, J.H.	BIOL	276
Longe, L.	POLY	591	Lopez-Linares, F.A.	ENFL	286	Loughrin, J.H.	ENVR	705
Longia, G.	COLL	209	Lopez-Linares, F.A.	ENFL	287	Louie, K.	BIOT	532
Longia, G.	COLL	210	López-Mejías, V.	CHED	1080	Louie, S.	ORGN	488
Longin, T.L.	CHED	187	López-Mejías, V.	INOR	1384	Louis, L.M.	CHED	1903
Longo, M.L.	COLL	332	López-Muñoz, J.R.	ENFL	9	Louis-Jean, J.	INOR	88

Louloudi, M.	ENFL	200	Lozano, K.	POLY	79	Lu, T.	BIOT	451
Louloudi, M.	ENFL	442	Lozano, T.	CATL	349	Lu, X.	GEOC	111
Lountos, G.	MEDI	11	Lozano, T.	CATL	509	Lu, X.Q.	BIOL	173
Loupiac, C.	AGFD	100	Lozanoski, T.	BIOT	22	Lu, X.	ANYL	193
Laureiro, S.	ANYL	235	Loza-Rosas, S.A.	CHED	1036	Lu, X.	ENVR	525
Louyriac, E.	INOR	1106	Loza-Rosas, S.A.	INOR	583	Lu, X.	COLL	373
Lovat, G.	COLL	116	Lozenski, J.	PHYS	285	Lu, X.	AGFD	45
Love, C.R.	CHED	632	Lozovoi, A.	POLY	605	Lu, X.	AGFD	111
Love, J.C.	BIOT	28	Lozovoi, A.	POLY	606	Lu, X.	PMSE	492
Love, J.C.	BIOT	185	Lozowski, S.	CHED	1154	Lu, X.	PMSE	536
Love, J.C.	BIOT	241	Lu, A.	BIOT	185	Lu, X.	AGFD	38
Love, J.C.	BIOT	453	Lu, A.X.	CATL	315	Lu, X.	ORGN	114
Love, J.C.	BIOT	539	Lu, B.	MEDI	134	Lu, Y.	ENVR	225
Love, K.	BIOT	28	Lu, C.	BIOT	44	Lu, Y.	ENFL	69
Love, K.	BIOT	185	Lu, C.	BIOT	262	Lu, Y.	INOR	465
Love, K.	BIOT	241	Lu, C.	BIOL	199	Lu, Y.	ORGN	547
Love, K.	BIOT	539	Lu, C.	CATL	194	Lu, Y.	CATL	53
Love, L.	CHED	539	Lu, C.	INOR	283	Lu, Y.	CATL	132
Love, L.	CHED	540	Lu, C.	INOR	290	Lu, Y.	ORGN	513
Love, N.	ENVR	437	Lu, C.	INOR	405	Lu, Y.	ORGN	517
Love, N.	ENVR	546	Lu, C.	INOR	1166	Lu, Z.	CATL	236
Love, Q.	CHED	1212	Lu, C.	INOR	1419	Lu, Z.	MEDI	109
Lovelace, T.M.	CHED	1206	Lu, F.	BIOT	109	Lu, Z.	MEDI	178
Loveless, C.S.	FLUO	66	Lu, G.	COLL	395	Lu, Z.	PHYS	648
Loveless, C.S.	NUCL	5	Lu, G.	ENFL	273	Luan, C.	MEDI	381
Loveless, C.S.	NUCL	7	Lu, H.	COLL	532	Luan, H.	ENVR	618
Lovell, S.	BIOL	81	Lu, H.	COLL	213	Lubbers, L.	MEDI	69
Loverde, S.	COMP	357	Lu, H.	POLY	255	Lubell, W.D.	ORGN	530
Loveridge, K.	INOR	261	Lu, H.	BIOT	251	Lubell, W.D.	ORGN	587
Lovestead, T.	I&EC	164	Lu, H.	MEDI	92	Luber, E.J.	INOR	654
Lovett, G.	ORGN	187	Lu, H.	MEDI	93	Luber, E.J.	MPPG	17
Lovett, J.	POLY	107	Lu, J.	BIOT	199	Luber, E.J.	PMSE	514
Lovett, J.	POLY	347	Lu, J.	ENFL	341	Luca, A.J.	CHED	811
Lovitt, C.	CHED	2063	Lu, J.	PHYS	414	Luca, O.	INOR	163
Low, J.	COLL	408	Lu, J.	CELL	200	Luca, O.R.	INOR	341
Low, P.J.	COLL	340	Lu, J.	PMSE	398	Luca, O.R.	INOR	884
Low, P.J.	COLL	114	Lu, J.	ENFL	44	Lucas, D.	ENVR	354
Lowary, T.L.	CARB	5	Lu, J.	MEDI	191	Lucas, H.R.	INOR	1359
Lowe, J.	INOR	1158	Lu, K.	MEDI	92	Lucas, N.	CATL	136
Lowe, M.	MEDI	378	Lu, K.	MEDI	93	Lucas, T.	CARB	54
Lowe, S.A.	ORGN	116	Lu, L.	ENVR	226	Lucia, L.A.	CELL	230
Lowenhaupt, K.	BIOT	451	Lu, L.	CATL	130	Luciano, T.L.	ORGN	338
Lower, B.H.	COLL	626	Lu, L.	COLL	58	Lucio-Benito, M.	COLL	161
Lower, M.A.	CHED	2055	Lu, L.	CATL	510	Lucius, M.	BIOT	146
Lower, S.	COLL	626	Lu, L.	COLL	666	Lucius, M.	POLY	229
Lower, S.	ENVR	541	Lu, L.	ENFL	535	Luckham, P.	I&EC	41
Lowry, G.	ENVR	440	Lu, M.	CATL	379	Luckins, L.	CHED	82
Lowry, G.	ENVR	441	Lu, M.	I&EC	144	Ludescher, R.D.	AGFD	44
Lowry, G.V.	AGFD	12	Lu, M.	ORGN	505	Ludescher, R.D.	AGFD	121
Lowther, W.	BIOL	58	Lu, P.	ORGN	398	Ludewick, G.	CHED	576
Lowther, W.	BIOL	239	Lu, P.	POLY	155	Ludwig, R.	PHYS	293
Loy, D.A.	PMSE	45	Lu, P.	COLL	360	Ludwig, S.D.	BIOT	121
Loya, A.	CHED	1114	Lu, P.	MEDI	69	Ludwig, S.D.	BIOT	177
Loyo-Rosales, J.E.	ENVR	569	Lu, Q.	NUCL	88	Ludwig, S.D.	BIOT	492
Lozada, F.	ANYL	121	Lu, S.	CELL	216	Luebeck, J.	BIOT	30

Luechtefeld, T.H.	CINF	40	Lundell, F.	CELL	297	Luo, Z.	CATL	549
Luecking, U.	ORGN	43	Lundervold, J.B.	CHED	1064	Luo, Z.	ENFL	211
Luedtke, M.	ORGN	662	Lundgard, R.	COLL	565	Luo, Z.	FLUO	48
Luedtke, R.R.	MEDI	41	Lundgren, A.	COLL	10	Luoma, S.N.	GEOC	125
Luek, J.	ENVR	282	Lundgren, M.	BIOT	373	Luong, C.	CHED	1001
Luengnaruemitchai, A.	CATL	303	Lundin, J.	CATL	297	Luong, C.	CHED	1890
Luengnaruemitchai, A.	CELL	116	Lundin, J.	COLL	219	Luong, M.V.	ENVR	294
Luengo, G.S.	COLL	356	Lundin, J.	COLL	221	Lupart, S.	ENFL	469
Lues, I.	MEDI	21	Lundin, J.	PMSE	101	Lupino, E.	MEDI	319
Luesse, S.	CHED	1398	Lundin, J.	POLY	109	Lupis, C.	BIOT	6
Luesse, S.	CHED	1625	Lundin, M.	CATL	93	Lupitskyy, R.M.	ENVR	302
Luesse, S.	ORGN	684	Lundin, P.	CHED	1634	Lupton, H.K.	CHED	1851
Luesse, S.	ORGN	689	Lundin, P.	CHED	1697	Lupton, Q.E.	CHED	476
Luetgebaucks, C.	ANYL	402	Lundin, P.	CHED	1786	Lupton, S.J.	ORGN	691
Luetgebaucks, C.	COLL	82	Lundin, P.	CHED	1787	Lupyan, D.	COMP	417
Luetgebaucks, C.	COLL	728	Lundmark, S.	CELL	369	Luque, F.	COMP	74
Luetzenkirchen, J.	GEOC	33	Lundström, F.	BIOT	379	Luque, R.	CATL	48
Luetzenkirchen, J.	GEOC	61	Luneau, M.	CATL	276	Luque, R.	CATL	86
Luetzenkirchen, J.	GEOC	149	Luning Prak, D.J.	CHED	939	Luque, R.	CATL	263
Luetzenkirchen, J.	PHYS	505	Lunsford, A.M.	INOR	108	Luque, R.	CELL	146
Luft, J.A.	CHED	236	Lunsford, A.M.	INOR	357	Luque, R.	CELL	151
Luginbuhl, A.	CHED	2079	Lunt, R.R.	ENFL	363	Luque-Urrutia, J.	CATL	482
Lugo, A.	CHED	902	Lunzer, F.	POLY	49	Lusby, P.	INOR	543
Lugo, K.	CHED	977	Luo, B.	MEDI	69	Luscombe, C.K.	POLY	713
Lui, N.	BIOL	189	Luo, C.	ENVR	296	Lute, S.	BIOT	394
Lui, N.	COLL	671	Luo, H.	ANYL	89	Luterbacher, J.	CATL	47
Luiz, A.	INOR	911	Luo, H.	CARB	53	Luterbacher, J.	CELL	222
Luk, E.	ORGN	303	Luo, H.	CATL	109	Lutfallah, S.C.	INOR	755
Luk, L.	I&EC	112	Luo, H.	CELL	48	Luther, G.W.	GEOC	158
Luk, T.S.	INOR	1328	Luo, H.	INOR	1275	Luther, G.W.	INOR	46
Lukatskaya, M.	ENFL	103	Luo, H.	CATL	414	Luther, J.L.	ANYL	65
Luke, A.M.	CHED	908	Luo, H.	INOR	1001	Luther, J.L.	ANYL	73
Luke, D.A.	CHED	1455	Luo, H.	MEDI	199	Luther, J.L.	ENVR	407
Lukens, J.T.	INOR	709	Luo, J.	CELL	418	Luther, J.	INOR	172
Luman, T.	BIOT	113	Luo, J.	CHED	1290	Luther, J.	INOR	770
Luman, T.	BIOT	483	Luo, J.	ENVR	555	Luther, J.	INOR	1052
Lumangtad, L.	MEDI	347	Luo, K.	AGFD	55	Luther, J.	PHYS	473
Lumb, J.	CATL	260	Luo, L.	ENFL	249	Luthey-Schulten, Z.	COMP	420
Lumen, A.	ENVR	424	Luo, L.	I&EC	93	Luthman, K.	MEDI	33
Lumetta, G.J.	PROF	8	Luo, P.	POLY	497	Luthy, R.G.	ENVR	64
Lumpan, J.B.	CHED	887	Luo, R.	BIOT	342	Luthy, R.G.	ENVR	166
Lun, S.	MEDI	17	Luo, S.	ORGN	538	Luthy, R.G.	ENVR	460
Luna, J.A.	INOR	340	Luo, S.	CATL	128	Lutje, J.	BIOT	355
Luna, J.A.	INOR	940	Luo, S.	INOR	1168	Lutkenhaus, J.L.	PMSE	55
Luna, J.A.	INOR	1080	Luo, S.	AGFD	135	Lutkenhaus, J.L.	PMSE	105
Luna, J.R.	CATL	354	Luo, T.	INOR	99	Lutkenhaus, J.L.	PMSE	496
Luna, S.	CHED	1183	Luo, T.	INOR	719	Lutkenhaus, J.L.	POLY	326
Luna, S.	CHED	1185	Luo, T.	INOR	720	Lutkenhaus, J.L.	WCC	18
Lund, B.	PMSE	608	Luo, X.	GEOC	79	Lutovsky, G.	ORGN	693
Lund, B.	PMSE	610	Luo, X.	ENVR	13	Lutz, C.	ENVR	239
Lund, R.	COLL	23	Luo, X.	ENVR	555	Lutz, H.	CHED	524
Lund, R.	COLL	232	Luo, Y.	COLL	351	Luxford, C.J.	CHED	161
Lund, R.	COLL	659	Luo, Y.	ENVR	10	Luxford, C.J.	CHED	2190
Lund, R.	COLL	714	Luo, Y.	INOR	353	Luxton, T.	CHED	968
Lundahl, M.	CELL	270	Luo, Y.	POLY	162	Luxton, T.	CHED	978

Luyt, A.S.	POLY	360	Lyon, B.A.	COLL	537	Ma, L.	ENVR	481
Luyt, L.G.	FLUO	51	Lyon, L.A.	POLY	620	Ma, L.	ORGN	513
Luzinov, I.A.	PMSE	527	Lyon, L.A.	POLY	623	Ma, L.	CHED	1566
Luzinov, I.A.	PMSE	569	Lyon, L.A.	POLY	624	Ma, L.	CHED	1615
Luzinov, I.A.	POLY	61	Lyon, Y.	ORGN	385	Ma, L.	CHED	1669
Luzuriaga, M.A.	PMSE	310	Lyons, A.S.	PHYS	238	Ma, L.	ENVR	489
Luzuriaga, M.A.	PMSE	399	Lyons, K.	CHED	1905	Ma, M.	COLL	649
Lv, X.	ENVR	588	Lyons, K.R.	CHED	1102	Ma, M.	COMP	290
Lvov, Y.	ENVR	718	Lyons, L.J.	INOR	346	Ma, M.	MEDI	72
Lvov, Y.	PMSE	353	Lyons, L.J.	INOR	355	Ma, Q.	AGFD	82
Lvov, Y.M.	CATL	487	Lyons, L.J.	INOR	356	Ma, R.	ENVR	517
Lvov, Y.M.	COLL	11	Lyons, T.	CHED	463	Ma, S.	INOR	891
Lvov, Y.M.	COLL	515	Lyons, W.	ENVR	580	Ma, S.	ORGN	235
Lvov, Y.M.	COLL	564	Lysenko, S.	CATL	487	Ma, S.	INOR	33
Lvov, Y.M.	COLL	743	Lysne, D.	CHED	1281	Ma, S.	INOR	523
Lvov, Y.M.	PMSE	155	Lytle, J.C.	ENFL	126	Ma, S.	INOR	733
Lvov, Y.M.	PMSE	316	Lytle, J.C.	INOR	288	Ma, S.	CATL	447
Lvov, Y.M.	PMSE	317	Lyu, A.	CELL	180	Ma, T.	CATL	343
Lvov, Y.M.	PMSE	318	Lyu, A.	CELL	188	Ma, T.	ENFL	377
Lvov, Y.M.	PMSE	321	Lyu, A.	CELL	379	Ma, W.	PMSE	204
Lvov, Y.M.	PMSE	354	Lyu, H.	PMSE	423	Ma, W.	CHED	1647
Lvov, Y.M.	PMSE	362	Lyu, H.	ENVR	39	Ma, W.	I&EC	121
Lwoya, B.	PMSE	177	Lyu, R.	MEDI	95	Ma, W.	ENVR	56
Lwoya, B.	PMSE	333	Lyu, R.	MEDI	96	Ma, X.	ORGN	12
Lwoya, B.	PMSE	345	Lyu, T.	CATL	324	Ma, X.	ORGN	386
Lwoya, B.	PMSE	400	Lyu, X.	PMSE	401	Ma, X.	ENFL	69
Ly, A.	CHED	1266	Lyu, Y.	CATL	199	Ma, X.	ENVR	720
Ly, R.	INOR	741	Lyubas, G.	CATL	241	Ma, X.	ENFL	303
Ly, R.	INOR	1182	LyVere, A.	AGFD	78	Ma, X.	ENFL	307
Ly, R.	ORGN	376	Ma, A.	CHED	2093	Ma, Y.	AGFD	138
Ly, S.	CHED	1701	Ma, A.	CHED	2094	Ma, Y.	COLL	173
Lycans, D.	BIOL	78	Ma, B.	MEDI	69	Ma, Y.	CATL	154
Lye, G.	BIOT	188	Ma, B.	MEDI	11	Ma, Z.	PMSE	234
Lykens, I.D.	CHED	1873	Ma, C.	CELL	158	Maassen, S.	ORGN	333
Lykhin, A.O.	PHYS	138	Ma, C.	PMSE	234	Mabry, M.	CHED	1611
Lykins, H.R.	CHED	658	Ma, C.	ENVR	257	Mabury, S.A.	ENVR	352
Lyles, J.T.	ANYL	213	Ma, C.	CATL	378	Macalady, J.	GEOC	136
Lyman, E.	COLL	551	Ma, C.	ANYL	221	Macalister, M.	AGFD	206
Lyman, E.	COLL	556	Ma, C.	ANYL	222	Macaluso, R.T.	INOR	772
Lymar, S.	INOR	1165	Ma, C.	ANYL	363	Macaspac, S.	COMP	77
Lynam, J.	CHED	1006	Ma, C.	ENVR	692	Macauley, M.	CELL	159
Lynch, C.	INOR	1007	Ma, D.	CATL	275	Macauley, M.S.	CARB	84
Lynch, V.	INOR	184	Ma, D.	ORGN	607	MacBeth, C.E.	INOR	212
Lynch, V.	INOR	1018	Ma, E.	PHYS	72	MacBeth, C.E.	INOR	213
Lynch-Branzoi, J.	PMSE	319	Ma, E.	PHYS	506	MacBeth, C.E.	INOR	218
Lynd, N.A.	COLL	537	Ma, E.	PHYS	654	MacBeth, C.E.	INOR	1035
Lynd, N.A.	PMSE	111	Ma, H.	PMSE	485	Macchi, K.J.	MEDI	295
Lynd, N.A.	POLY	635	Ma, H.	BIOL	120	Macchi, S.	ENFL	458
Lyndaker, C.P.	MEDI	198	Ma, H.	ENVR	679	Macchi, S.P.	CHED	340
Lynden-Bell, R.M.	PHYS	289	Ma, J.	ENFL	124	Macdonald, F.	CINF	33
Lyngfelt, A.	ENFL	209	Ma, J.	ENFL	72	Macdonald, H.	BIOT	567
Lynn, D.M.	BIOT	503	Ma, J.	ENFL	116	Macdonald, J.	COLL	504
Lynn, D.M.	PMSE	526	Ma, J.	COMP	128	MacDougall, P.J.	PRES	8
Lynn, K.	AGFD	183	Ma, J.	MEDI	142	MacDougall, T.A.	PRES	8
Lynn, M.	INOR	148	Ma, J.	ENVR	46	Mace, C.	ANYL	19

MacFarland, C.A.	INOR	1130	Mackowiak, D.	I&EC	86	Maddox, S.M.	ORGN	238
Macfarlane, R.	COLL	570	Mackus, A.	COLL	521	Maddumaarachchi, M.	POLY	190
Macfarlane, R.	INOR	653	MacLachlan, J.L.	PRES	5	Maddumaarachchi, M.	POLY	532
MacFarlane, D.	PHYS	169	MacLachlan, J.L.	SCHB	6	Madenjian, L.	POLY	147
MacFarlane, D.	PHYS	171	MacLean, G.M.	ANYL	230	Madhav, P.J.	CINF	28
MacFarlane, D.R.	PHYS	68	Macleod, M.	POLY	267	Madhavan, L.	BIOT	542
Mach, R.H.	FLUO	65	MacManus-Spencer, L.	ENVR	526	Madhusudan, T.	PHYS	288
Mach, R.H.	MEDI	41	MacManus-Spencer, L.	ENVR	527	Madill, E.	CELL	232
Machacek, M.	WCC	22	MacManus-Spencer, L.	ENVR	613	Madison, A.	CHED	1668
Macháček, J.	COLL	686	MacManus-Spencer, L.	ENVR	614	Madison, A.	CHED	1871
Machado, C.	PMSE	331	MacMillan, D.W.	ORGN	171	Madison, A.	GEOC	158
Machan, C.W.	INOR	19	MacMillan, D.W.	ORGN	183	Madix, R.J.	CATL	252
Machan, C.W.	INOR	554	MacMillan, D.W.	ORGN	184	Madix, R.J.	COLL	153
Machas, M.	BIOT	154	MacMillan, D.W.	ORGN	186	Madix, R.J.	CATL	276
Machesky, M.L.	GEOC	2	MacMillan, D.W.	ORGN	187	Madrahimov, S.	INOR	525
Machesky, M.L.	GEOC	4	MacMillan, D.W.	ORGN	188	Madrahimov, S.T.	CATL	468
Machesky, M.L.	GEOC	58	MacMillan, D.W.	ORGN	189	Madrid, N.	POLY	573
Machesky, M.L.	GEOC	143	MacMillan, D.W.	ORGN	190	Madsen, D.	ANYL	124
Machesky, M.L.	GEOC	248	MacMillan, D.W.	ORGN	191	Madsen, L.A.	ENFL	48
Macias, J.	ENFL	144	MacMillan, D.W.	ORGN	192	Madsen, L.A.	PHYS	115
Macias-Romero, C.	GEOC	166	MacMillan, D.W.	ORGN	193	Madsen, L.A.	POLY	67
Macieja, A.	MEDI	58	MacMillan, D.W.	ORGN	194	Madsen, L.A.	POLY	70
Maciejczyk, P.V.	CHED	439	MacMillan, D.W.	ORGN	195	Madsen, L.A.	POLY	71
MacIntosh, A.R.	POLY	249	MacMillan, D.W.	ORGN	198	Madsen, L.A.	POLY	724
Mack, B.	AGFD	85	MacMillan, D.W.	ORGN	200	Madsen, L.A.	POLY	788
Mack, E.	COMP	104	MacMillan, D.W.	ORGN	202	Madsen, S.	BIOT	128
Mack, J.	CHED	1351	MacMillan, D.W.	ORGN	203	Madson, M.A.	CARB	74
Mack, J.	ORGN	89	MacMillan, D.W.	ORGN	212	Maeda, S.	POLY	675
Mack, K.	MEDI	57	MacMillan, D.W.	ORGN	350	Maeder, K.	POLY	3
Mack, M.	CHED	1963	MacMillan, D.W.	ORGN	351	Maegley, K.	MEDI	19
Mack, M.	CHED	2155	MacMillan, D.W.	ORGN	352	Maekawa, T.	MEDI	133
Mack, M.	CHED	2159	MacMillan, D.W.	ORGN	354	Maeng, J.	ENFL	108
Mackay, A.	ENVR	259	MacMillan, D.W.	ORGN	355	Maerz, J.	NUCL	20
MacKay, J.A.	CARB	14	MacMillan, D.W.	ORGN	356	Maes, J.	INOR	1051
MacKay, J.A.	CHED	599	MacMillan, D.W.	ORGN	405	Maazono, R.	COLL	536
MacKay, J.A.	CHED	1568	MacMillan, D.W.	ORGN	554	Maazono, R.	INOR	1213
MacKay, J.A.	CHED	2088	MacMillan, S.N.	INOR	208	Maazono, R.	POLY	641
MacKay, J.	CHAS	34	MacMillan, S.N.	INOR	210	Maffucci, D.	PHYS	627
MacKay, R.	CHED	952	Macnaughtan, M.	ANYL	173	Magalhães, J.G.	MEDI	121
MacKellar, J.	CHED	1948	MacNeil, J.	CHED	888	Magalhães de Aguiar, L.	ANYL	266
MacKellar, J.	CHED	2006	MacNeil, J.	CHED	2035	Magallanes, E.S.	BIOL	80
Mackenzie, C.	CHED	1180	Macor, J.E.	MEDI	20	Magallanes, G.	ORGN	565
Mackenzie, K.	CATL	333	Macor, J.E.	MEDI	36	Magana, J.	BIOT	30
Mackenzie, R.B.	PHYS	450	Macor, J.E.	MEDI	297	Magee, C.	COMP	180
Mackenzie, R.B.	PHYS	454	MacRenaris, K.	INOR	1007	Magee, C.L.	CHED	829
MacKenzie, I.	INOR	78	MacRhyann, L.	CHED	599	Magee, D.I.	ORGN	739
Mackerell, A.D.	MEDI	187	Macri, R.V.	CHED	570	Magee, R.	ORGN	628
Mackerell, A.D.	MEDI	395	Mac Sweeney, A.	MEDI	271	Magee, T.V.	MEDI	275
Mackey, M.D.	COMP	192	Macwan, I.	ENFL	105	Magennis, E.	CHED	1313
Mackie, D.	ENFL	451	Madabhusi, S.	BIOT	554	Magers, B.B.	CHED	22
Mackie, N.D.	INOR	1181	Madalengoitia, J.	ORGN	662	Magers, B.B.	CHED	870
Mackiewicz, M.R.	COLL	236	Madden, D.G.	INOR	430	Magers, B.B.	CHED	881
Mackiewicz, M.R.	COLL	754	Madden, J.	MEDI	25	Magers, B.B.	CHED	1970
Mackiewicz, M.R.	INOR	942	Maddirala, A.	MEDI	143	Magers, D.H.	CHED	22
Mackin, R.T.	ANYL	346	Maddox, S.M.	ORGN	118	Magers, D.H.	CHED	837

Magers, D.H.	CHED	1734	Mahmood, S.	COLL	624	Majhi, J.	ORGN	343
Magers, D.H.	COMP	258	Mahmoud, A.	ENVR	641	Maji, P.	INOR	764
Magers, D.H.	COMP	260	Mahmoud, K.A.	ENVR	62	Majireck, M.M.	MEDI	198
Magers, D.H.	COMP	263	Mahmoud, O.	CHED	967	Majireck, M.M.	ORGN	698
Magers, D.H.	COMP	273	Mahmoudi, F.	ANYL	433	Major, T.	MEDI	328
Magers, D.H.	COMP	274	Mahmoudi, N.	BIOT	206	Majors, T.W.	CHED	1476
Magers, D.H.	COMP	288	Mahmud, I.H.	CARB	63	Majumdar, L.	PHYS	628
Magers, D.H.	COMP	289	Mahroum, R.	PMSE	176	Majumdar, P.S.	POLY	700
Magers, D.H.	COMP	308	Mahurin, S.M.	I&EC	97	Majumdar, R.	AGFD	85
Maggiore, G.M.	COMP	140	Mahurin, S.M.	I&EC	104	Majumder, J.	ANYL	424
Maghsoodi, M.	ENVR	238	Mahurin, S.M.	PMSE	140	Majumder, J.	BIOL	159
Magiera, K.	MEDI	276	Mahurin, S.M.	POLY	350	Mak, A.	BIOT	216
Magill, G.	BIOT	107	Mai, A.	POLY	481	Mak, C.	INOR	893
Magley, V.	WCC	2	Mai, D.	PMSE	9	Mak, W.H.	INOR	808
Maglia, F.	ENFL	469	Mai, N.	CHED	93	Makabe, K.	BIOT	432
Magnera, T.F.	COLL	414	Mai, N.	CHED	1824	Makal, T.A.	ENVR	162
Magness, M.	CHED	136	Maia, M.	CELL	163	Makanda, J.	ANYL	67
Magness, M.	CHED	192	Maibaum, J.K.	MEDI	271	Makaravage, K.J.	FLUO	50
Magnuson, A.	ENFL	443	Maibaum, L.	COMP	232	Makaroff, K.	BIOT	146
Magnuson, Z.	INOR	732	Maier, F.	PHYS	623	Makarychev-Mikhailov, S.	POLY	210
Magnussen, O.	CATL	181	Maier, S.	COMP	240	Mäkelä, J.	CELL	294
Magrini, K.A.	CATL	390	Maile-Moskowitz, A.	ENVR	11	Mäkelä, J.	COLL	690
Mague, J.T.	INOR	508	Mailen, R.	POLY	632	Mäkelä, M.R.	CELL	110
Mague, J.T.	INOR	983	Maille, A.	CHED	2164	Mäkelä, M.R.	CELL	119
Mague, J.T.	INOR	1310	Mailloux, B.	GEOC	109	Mäkelä, V.	CELL	28
Mague, J.T.	INOR	1312	Maimone, T.J.	ORGN	529	Makeneni, S.	BIOL	102
Mague, J.T.	INOR	1313	Maina, M.	ANYL	302	Makeneni, S.	COMP	411
Maguire, C.J.	MEDI	66	Mainali, B.	ANYL	175	Makeneni, S.	COMP	430
Maguire, C.	CHED	20	Mainali, B.P.	ANYL	142	Makepeace, J.	ENFL	437
Maguire, J.M.	CHED	182	Mainland, J.	CINF	23	Makhlynets, O.	BIOL	223
Maguire, R.O.	ENVR	16	Mains, K.	BIOT	46	Makhoul, E.W.	ORGN	254
Magurudeniya, H.D.	COLL	432	Mairena, A.	COLL	374	Maki, S.	ORGN	601
Magusin, P.	ENFL	310	Mairena, A.	PHYS	327	Maki, S.	ORGN	682
Magusin, P.	POLY	318	Maiti, A.	POLY	252	Makino, E.	MEDI	252
Magzoub, M.	BIOL	266	Maiti, D.	CATL	192	Makino, K.	BIOT	414
Mah, H.	PMSE	19	Maiti, M.	CELL	29	Makita, Y.	POLY	536
Mah, R.	MEDI	243	Maiti, P.K.	COLL	334	Makitalo, C.L.	ORGN	663
Mahadik-Khanolkar, S.	PMSE	137	Maiti, S.	PMSE	349	Makowski, B.T.	CELL	88
Mahajan, E.	BIOT	166	Maiti, S.	PMSE	402	Makrides, C.	PHYS	109
Mahame, G.	CHED	525	Maiti, S.	PMSE	568	Makris, G.	FLUO	73
Mahamid, J.	GEOC	21	Maiti, S.K.	I&EC	12	Makris, G.	NUCL	45
Mahanta, N.	BIOL	118	Maitra, N.T.	PHYS	143	Makvandi, M.	FLUO	65
Mahanta, N.	BIOL	314	Maity, A.	INOR	968	Malachowski, M.R.	CHED	2149
Mahanta, N.	ORGN	583	Maity, D.	BIOL	38	Malachowski, M.R.	YCC	1
Mahanthappa, M.K.	ENFL	489	Maity, P.	ENFL	77	Malachowski, M.R.	YCC	7
Mahanthappa, M.K.	PMSE	72	Maity, P.	PHYS	428	Malachowsky, B.	BIOL	228
Mahanthappa, M.K.	POLY	678	Maity, P.	ORGN	601	Malaestean, I.	INOR	1028
Mahendra, S.	ENVR	763	Maity, P.	ORGN	682	Malakar, P.	ANYL	138
Maher, E.	ENVR	660	Maity, S.K.	CATL	426	Malalasekera, A.P.	BIOL	115
Mahesha, J.	CATL	503	Mai Van, C.M.	ENVR	60	Malalasekera, A.P.	I&EC	157
Mahesha, J.	INOR	1025	Maizel, A.	ENVR	179	Malalasekera, A.P.	MEDI	111
Maheshwari, G.	BIOT	82	Majedi Far, H.	PMSE	137	Malanson, H.	BIOT	296
Maheshwari, S.	CATL	30	Majer, S.H.	INOR	203	Malaspina, D.C.	PHYS	281
Mahmad Rasid, I.	PMSE	68	Majerle, R.S.	CHAS	21	Malaspina, D.C.	PHYS	334
Mahmood, R.	AGFD	7	Majerle, R.S.	PMSE	359	Malayala, K.	MEDI	68

Malbrecht, B.	INOR	610	Mallireddigari, M.R.	MEDI	34	Manandhar, A.	COMP	357
Malcolmson, S.	CATL	501	Mallireddigari, M.R.	MEDI	210	Manandhar, P.	POLY	462
Maldera, J.	BIOL	248	Mallon, J.	CHED	1840	Manayil, J.C.	CATL	375
Maldonado, D.A.	CHED	1114	Mallouk, T.E.	COLL	442	Manbeck, G.	INOR	568
Maldonado, D.A.	CHED	1139	Malloy, K.S.	CHED	1128	Manby, F.R.	COMP	330
Maldonado, J.J.	POLY	506	Malloy, K.S.	CHED	1134	Mancenelli, R.	BIOT	92
Maldonado, P.	CHED	767	Malmgren, M.	MEDI	293	Manchanayakage, R.N.	CHED	1013
Malek, A.	I&EC	93	Malmquist, G.	BIOT	11	Manchanayakage, R.N.	CHED	1015
Malek, M.	PROF	25	Malmstadt, N.	CATL	384	Manchanayakage, R.N.	CHED	1462
Maleki Shahraki, Z.	ENVR	563	Malmstadt, N.	COLL	400	Manchanda, A.S.	COLL	183
Malekpour, S.	ENFL	107	Malmstadt, N.	COLL	401	Mancheno, D.E.	ORGN	730
Malfatti, F.	CHED	676	Malmsten, M.	POLY	333	Mancin, F.	INOR	1239
Malhotra, A.	CHED	1212	Malmsten, M.	POLY	795	Mancinelli, J.P.	POLY	420
Malhotra, A.	PMSE	492	Malmsten, M.	POLY	797	Mancinelli, J.P.	POLY	553
Malhotra, D.	ENFL	319	Malmstrom, E.E.	CELL	295	Mancini, G.	ORGN	231
Malhotra, D.	ENFL	404	Malmstrom, S.E.	ORGN	303	Mancini, J.	PHYS	177
Malhotra, D.	ENVR	756	Malo, M.	MEDI	33	Mancini, L.	PHYS	257
Malhotra, D.	PHYS	233	Malollari, K.	COLL	631	Mancuso, A.	MEDI	400
Malhotra, S.V.	MEDI	336	Malone, C.	CHED	2164	Mancuso, A.	MEDI	401
Mali, P.	BIOT	30	Malone, J.	CHED	1871	Mandal, A.	MEDI	267
M Ali, H.	I&EC	44	Malone, J.	INOR	876	Mandal, A.	PHYS	122
Maligal Ganesh, R.	CATL	204	Malone, M.	PMSE	117	Mandal, A.	ANYL	82
Maligal Ganesh, R.	CATL	519	Maloney, K.N.	CHED	380	Mandal, A.K.	ENFL	375
Malik, A.	CHED	640	Maloney, T.C.	CELL	413	Mandal, C.	PMSE	137
Malik, A.	CHED	1759	Maloney, V.M.	CHED	211	Mandal, M.	ORGN	66
Malik, D.	CHED	1936	Malonzo, C.	INOR	283	Mandal, S.	INOR	903
Malik, D.	CHED	1967	Malotky, D.	CELL	193	Mandal, S.	INOR	909
Malik, H.	CHED	740	Malotky, D.	COLL	565	Mandal, S.	ANYL	133
Malik, M.	CHED	2186	Maloubier, M.	ENVR	585	Mandato, A.	CHED	643
Malinauskiene, V.	ORGN	716	Malta, G.	CATL	130	Mandelkern, C.	COLL	333
Malinky, C.	MEDI	126	Maltarollo, V.G.	MEDI	121	Manderbach, C.L.	FLUO	63
Malischewski, M.	FLUO	1	Malucelli, G.	POLY	185	Mandlekar, S.	MEDI	367
Malkin, D.	CHED	1184	Malveau, C.	POLY	12	Mane, J.	COMP	375
Malko, A.	ANYL	279	Malvestio, J.	CELL	269	Maneerung, T.	GEOC	96
Malko, A.	PHYS	352	Malwal, S.R.	BIOL	206	Manek, E.	AGFD	177
Malkoch, M.	POLY	797	Maly, D.J.	BIOL	143	Manelli, A.	MEDI	117
Malkowski, S.N.	ORGN	419	Mamantov, A.	ORGN	387	Mangan, N.	BIOT	225
Mall, V.	AGFD	210	Mamari, J.B.	CHED	582	Mangano, V.	AGFD	198
Mallah, J.	INOR	1406	Mamari, J.B.	CHED	584	Mangiante, D.M.	ENVR	53
Mallaiah, N.C.	INOR	1087	Mamede, N.	ENVR	194	Mangieri, R.A.	BIOL	315
Mallamaci, M.P.	POLY	395	Mamiya, B.	CHED	2158	Mangun, M.	CHED	1128
Mallampalli, R.K.	MEDI	231	Mamluk-Naaman, R.	CHED	232	Mangun, M.	CHED	1134
Mallares, C.	PHYS	579	Mammoottil, N.R.	PMSE	403	Mangun, M.	CHED	1848
Mallares, C.	PHYS	600	Mammoottil, N.R.	PMSE	590	Mangunuru, H.P.	CHED	1423
Mallela, K.	BIOT	523	Mammoser, C.C.	BIOL	91	Mangunuru, H.R.	ORGN	457
Mallet, A.	ENVR	400	Mammoser, C.C.	CHED	659	Manhart, M.W.	ANYL	406
Malley, M.	CHED	834	Mammoser, C.C.	CHED	695	Mani, S.	CELL	74
Mallia, A.V.	CHED	2051	Mamo, J.	ENVR	354	Maniar, M.	MEDI	210
Mallia, A.V.	COLL	199	Mamontov, A.	FLUO	32	Maniatis, N.	INOR	963
Mallia, A.V.	COLL	237	Mamontov, E.	GEOC	26	Manibog, K.	BIOT	39
Mallia, A.V.	COLL	662	Mamontov, E.	GEOC	50	Manickam, P.	BIOL	253
Malliakas, C.	INOR	1226	Mamontov, E.	GEOC	258	Manickam, V.	BIOT	137
Mallik, S.	COLL	517	Mamun, A.	PHYS	438	Manickas, E.	CHED	1226
Mallikaratchy, P.	BIOL	176	Manahan, M.	BIOT	393	Manicke, N.E.	ANYL	103
Mallikarjun Sharada, S.	CATL	195	Manam, V.	CHED	875	Manicke, N.E.	ANYL	126

Manikonda, A.	ENVR	298	Manto, M.J.	CATL	471	Marcelino, S.	CHED	1857
Manivannan, H.	ENVR	633	Manto, M.J.	ENVR	148	Marcella, N.	CATL	279
Manji, I.	ANYL	302	Mantz, Y.A.	COMP	368	Marchand, E.	ENVR	723
Manjikian, A.	CHED	1083	Manuel, B.	ANYL	111	Marchetti, A.	CHED	350
Mankad, N.P.	INOR	52	Manukyan, A.	COMP	209	Marchetti, A.	CHED	2165
Manke, D.R.	INOR	1081	Manukyan, L.	BIOT	336	Marchini, M.	MEDI	407
Manker, L.	BIOT	350	Manyam, P.K.	ENVR	639	Marchione, A.A.	ANYL	182
Manker, L.	CATL	217	Manyam, P.K.	POLY	430	Marchioretto, M.	CHED	1444
Mankoci, S.G.	CHED	1769	Manzano, I.	BIOT	34	Marcille, S.	PMSE	490
Manley, J.B.	ORGN	266	Manzano, J.	CATL	350	Marco, S.	POLY	40
Manmuanpom, N.	PMSE	183	Manzano, J.	CATL	485	Marcondes, S.	MEDI	73
Mann, J.K.	CELL	268	Manzano, J.	INOR	489	Marcos, R.	ENFL	119
Mann, J.C.	CHED	195	Mao, J.	CELL	113	Marcos, V.	ORGN	298
Mann, M.	PROF	46	Mao, J.	CATL	525	Marcott, C.A.	ANYL	317
Mann, S.I.	INOR	219	Mao, J.	ENVR	497	Marcott, C.A.	PMSE	293
Mann, S.I.	INOR	70	Mao, J.	PMSE	191	Marcott, C.A.	PMSE	295
Manna, S.	BIOL	136	Mao, L.	CELL	391	Marcoux, D.	MEDI	20
Manna, S.	BIOL	313	Mao, X.	ANYL	233	Marcoux, D.	MEDI	36
Manna, S.	PMSE	562	Mao, X.	ENVR	563	Marcq, E.	PHYS	631
Mannan, S.	CHAS	3	Mao, X.	ENVR	766	Marcu, J.	CHAS	43
Manner, V.	INOR	28	Mao, Y.	INOR	54	Marcu, J.	CHAS	44
Manners, I.	INOR	556	Mao, Y.	AGFD	28	Marculescu, C.	ENFL	16
Manning, I.M.	CHED	1579	Mao, Y.	COLL	220	Marcus, I.	ENVR	436
Manno, M.	INOR	805	Mao, Y.	COLL	352	Marcus, M.A.	GEOC	266
Manoel, E.A.	CARB	65	Mao, Y.	INOR	364	Marcus, R.K.	ANYL	231
Manono, J.	CHED	1589	Mao, Y.	INOR	396	Marcus, R.K.	ANYL	234
Manono, J.	CHED	1784	Mao, Y.	INOR	418	Marczenko, K.M.	FLUO	2
Manono, J.M.	CHED	1781	Mao, Y.	INOR	677	Marder, S.R.	COLL	115
Manor, B.C.	CHED	1119	Mao, Y.	INOR	805	Mardirossian, N.	PHYS	218
Manor, B.C.	INOR	1143	Mao, Y.	INOR	809	Mardis, K.	CHED	2033
Manore, S.	MEDI	335	Mao, Y.	INOR	837	Mardis, K.	PHYS	579
Mansfield, A.K.	AGFD	209	Mao, Y.	INOR	843	Mardis, K.	PHYS	600
Mansfield, S.	CELL	2	Mao, Y.	INOR	1402	Mardis, K.L.	PHYS	584
Mansfield, S.	CELL	321	Mao, Y.	NUCL	81	Maréchal, D.	POLY	181
Mansley, T.	CINF	27	Mao, Y.	NUCL	84	Marell, D.J.	MEDI	184
Mansley, T.	CINF	55	Mao, Y.	BIOL	125	Maret, G.	CELL	139
Mansley, T.	COMP	24	Mao, Z.	ENFL	123	Margaletta, S.	CHED	1149
Mansley, T.	MEDI	185	Mapas, J.K.	PMSE	160	Margis, S.	CHED	88
Mansor, M.	GEOC	136	Mapes, C.	CINF	31	Margis, S.	CHED	1135
Mansour, N.	INOR	910	Mapesa, E.	PMSE	275	Margis, S.	CHED	1856
Mansour, S.M.	CELL	415	Mapile, A.	CHED	1316	Margrey, K.	ORGN	400
Mansouri, A.	INOR	295	Mar, A.	MEDI	59	Margulis, C.J.	PHYS	339
Mansouri, K.	CINF	60	Mar, A.	MEDI	393	Margulis, C.J.	PHYS	440
Mansouri, K.	CINF	83	Marafatto, F.	GEOC	239	Margulis, C.J.	PHYS	441
Mansouri, K.	CINF	102	Marahatta, R.	BIOT	429	Margus, M.	GEOC	108
Mansouri, K.	CINF	110	Marais, A.	CELL	171	Maria, A.	PMSE	362
Mansouri, K.	COMP	20	Maralingannavar, V.	BIOT	260	Marianelli, A.	CHED	1716
Mansouri, K.	ENVR	360	Maranas, C.	BIOT	98	Mariani, A.	POLY	185
Mansouri, K.	ENVR	416	Maranas, C.	BIOT	466	Mariano, M.	PMSE	468
Mansouri, K.	ENVR	422	Marasini, R.	COLL	761	Marianou, A.	CELL	145
Mansur, A.	BIOT	327	Marathey, P.	ENFL	344	Mariappan Balasekaran, S.	INOR	88
Mantel, A.	ENVR	550	Maravelias, C.	CATL	264	Mariappan Balasekaran, S.	INOR	1120
Mantel, A.	PHYS	436	Marazita, S.	CHED	1060	Mariappan Balasekaran, S.	INOR	1121
Mantha, H.	GEOC	75	Marbella, L.E.	INOR	946	Maric, M.	ANYL	409
Mantha, S.	ENFL	489	Marcantonio, J.	CHED	1026	Marichal-Gallardo, P.	BIOT	40

Marick, C.	CHED	1783	Marques, C.M.	COLL	320	Marti, A.A.	INOR	824
Marie-Rose, S.C.	CATL	284	Marquet, J.	PMSE	188	Marti-Gastaldo, C.	INOR	1176
Marin, E.	CHED	1346	Marquez, A.	MEDI	277	Martignetti, J.A.	COLL	677
Marin, T.W.	PHYS	409	Marquez, M.D.	COLL	202	Martin, A.T.	PHYS	278
Marin Angel, J.	CHED	1766	Marquez, M.D.	COLL	247	Martin, A.	FLUO	6
Marinas, B.J.	ENVR	245	Marquez, M.D.	COLL	288	Martin, C.	INOR	325
Marinzel, D.M.	INOR	818	Marquez, M.D.	COLL	295	Martin, C.	INOR	326
Marinescu, S.C.	INOR	1272	Marquez, S.	PHYS	425	Martin, C.	INOR	1335
Marinez, E.R.	ORGN	627	Marrazzo, J.R.	CHED	1638	Martin, C.L.	ANYL	171
Marinković, N.	CATL	179	Marris, P.	COMP	185	Martin, C.	ORGN	432
Marinković, N.	CATL	493	Marroquin Winkelmann, F.	FLUO	6	Martin, C.G.	INOR	341
Marino, A.	ANYL	157	Marrow, E.	ANYL	21	Martin, D.	INOR	670
Marino, A.M.	MEDI	20	Marrucho, I.	CELL	235	Martin, D.B.	ORGN	600
Marino, A.M.	MEDI	91	Marruecos, D.	BIOT	522	Martin, D.C.	CELL	134
Marino, J.P.	BIOT	524	Marruecos, D.F.	BIOT	48	Martin, D.C.	PMSE	294
Marino, P.	CARB	18	Marschilok, A.C.	ENFL	251	Martin, D.	CHED	663
Marino, R.	FLUO	42	Marschilok, A.C.	INOR	534	Martin, D.	BIOT	401
Marji, K.M.	CHED	395	Marschilok, A.C.	PMSE	257	Martin, E.	BIOT	419
Marji, K.M.	CHED	448	Marsh, B.	YCC	26	Martin, H.J.	POLY	798
Markarov, N.	COLL	52	Marsh, E.	BIOL	311	Martin, I.C.	BIOL	239
Markarov, N.	ENFL	83	Marsh, E.	BIOT	94	Martin, J.	ENVR	468
Markey, K.	CINF	82	Marsh, T.C.	CHED	572	Martin, J.	BIOT	396
Markey, K.	COMP	21	Marsh, T.C.	CHED	639	Martin, J.	ENVR	476
Markiewicz, J.	ORGN	166	Marshak, M.P.	INOR	1261	Martin, J.W.	ANYL	388
Markle, T.	INOR	628	Marshall, A.G.	ENFL	464	Martin, K.	COLL	374
Marklein, A.	GEOC	13	Marshall, A.	INOR	172	Martin, M.A.	CHED	2084
Markmann, M.	POLY	241	Marshall, C.L.	ENFL	88	Martin, M.	INOR	209
Markola, J.	MEDI	334	Marshall, C.L.	I&EC	11	Martin, M.	INOR	223
Markovic, N.	CATL	26	Marshall, E.	CHED	194	Martin, M.	CHED	1563
Markovich, G.	PHYS	102	Marshall, F.H.	COMP	362	Martin, M.	CHED	1802
Markovits, A.	PHYS	362	Marshall, J.L.	CHED	791	Martin, N.	ORGN	232
Marks, B.	PROF	41	Marshall, J.L.	CHED	2118	Martin, N.	ORGN	270
Marks, R.	ENVR	397	Marshall, J.	CHED	1915	Martin, N.	ORGN	295
Marks, T.J.	CATL	49	Marshall, K.M.	CHED	395	Martin, N.P.	NUCL	20
Marks, T.J.	INOR	1226	Marshall, K.M.	CHED	448	Martin, P.	CATL	368
Marks, T.J.	PMSE	466	Marshall, K.	CATL	172	Martin, R.	ORGN	53
Marks, T.J.	PMSE	512	Marshall, M.	PHYS	425	Martin, S.E.	BIOL	12
Markstedt, K.	CELL	375	Marshall, M.R.	CELL	200	Martin, S.	CHED	541
Marlin, N.	CELL	219	Marshall, M.C.	CHED	423	Martin, T.	NUCL	25
Marlow, M.	BIOL	259	Marshall, P.	CHED	1827	Martin, T.	CHED	500
Marmolejos, J.M.	COLL	147	Marshall, S.	CHED	1263	Martin, T.	CHED	459
Marmolejos, J.M.	PHYS	503	Marshall, S.	ENVR	107	Martin, T.	CINF	84
Marois, B.	NUCL	5	Marshall, T.	INOR	921	Martin, T.B.	CHED	868
Maron, L.	CATL	367	Marshburn, R.L.	BIOL	238	Martin, T.	MEDI	75
Maron, L.	INOR	1106	Marsiglio, D.	BIOT	518	Martin, W.	POLY	41
Maron, L.	INOR	1149	Martarello, L.	MEDI	150	Martin, W.	POLY	231
Maroncelli, M.	PHYS	338	Marteeel Parrish, A.E.	CHED	231	Martin, W.	POLY	242
Maroney, A.	CHED	563	Martell, J.	INOR	621	Martin, W.	POLY	243
Maroney, A.	ORGN	652	Martell, J.	INOR	1218	Martin, W.	POLY	482
Maroon, C.	PMSE	108	Marten, M.	BIOT	440	Martin, W.	POLY	576
Maroon, C.	POLY	350	Marti, A.A.	BIOL	281	Martin, W.H.	MEDI	270
Maroun, F.	CATL	78	Marti, A.A.	INOR	403	Martinec, D.L.	ORGN	116
Maroun, F.	CATL	181	Marti, A.A.	INOR	404	Martinelli, J.R.	CATL	259
Marquardt, D.J.	ORGN	456	Marti, A.A.	INOR	1235	Martinelli, M.	ENFL	88
Marquardt, D.	COLL	110	Marti, A.A.	INOR	818	Martinelli, M.	ENFL	292

Martinet, K.	CHED	1915	Martinson, A.B.	CATL	39	Mason, J.A.	INOR	621
Martinez, A.J.	ENFL	454	Martinson, A.B.	INOR	522	Mason, J.D.	ORGN	549
Martinez, A.	BIOT	175	Martinson, A.B.	INOR	1157	Mason, J.S.	COMP	362
Martinez, A.	GEOC	104	Martir, L.	CHED	1817	Mason, P.	MEDI	252
Martinez, A.	I&EC	161	Martirez, J.	COMP	62	Mason, R.P.	MEDI	66
Martinez, A.	CHED	1413	Martos, A.	PMSE	188	Mason, R.P.	BIOL	31
Martinez, B.	POLY	152	Martyn, B.	COLL	95	Mason, S.E.	CHED	1161
Martinez, C.E.	GEOC	250	Martyna, G.J.	COMP	9	Mason, S.E.	COLL	196
Martinez, E.	CHED	1540	Marumoto, S.	MEDI	379	Mason, S.E.	COLL	353
Martinez, G.	INOR	982	Maruszczyk, J.	CINF	90	Mason, S.E.	COMP	369
Martinez, J.	PMSE	447	Maruska, K.	CHED	1187	Mason, S.E.	ENFL	510
Martinez, J.S.	COLL	651	Maruskin, H.	CHED	407	Mason, S.E.	GEOC	144
Martinez, J.S.	INOR	462	Maruyama, H.	BIOL	163	Mason, S.E.	GEOC	145
Martinez, J.	CHED	1817	Maruyama, R.	BIOT	414	Mason, S.E.	PHYS	415
Martinez, J.M.	POLY	362	Maruyama, R.	BIOT	432	Mason, S.E.	PHYS	645
Martinez, J.M.	POLY	365	Marvin, B.	ENVR	129	Mason, S.E.	PROF	11
Martinez, K.	INOR	759	Marvin-DiPasquale, M.	GEOC	84	Massardier, V.	CHED	1758
Martinez, K.	INOR	1167	Marway, H.S.	CELL	196	Massaro, E.	PHYS	71
Martinez, K.	INOR	1310	Marx, I.E.	MEDI	3	Massaro, E.S.	PHYS	458
Martinez, L.E.	ORGN	638	Marx, M.A.	MEDI	65	Masse, C.	GEOC	205
Martinez, M.	ENFL	395	Marx, M.A.	MEDI	146	Masse, C.	GEOC	206
Martinez, M.	CHED	1853	Marx, O.	MEDI	390	Masser, K.	POLY	341
Martinez, M.	PHYS	125	Maryam, A.	PMSE	585	Masserini, R.	ANYL	154
Martinez, M.	CHED	281	Marzabadi, C.E.	CARB	46	Masserini, R.	CHED	979
Martinez, M.	CHED	552	Marzluff, E.M.	CHED	689	Masserini, R.	CHED	983
Martinez, N.	PMSE	614	Marzluff, E.M.	CHED	701	Massey, M.D.	INOR	667
Martinez, T.J.	PHYS	356	Marzluff, E.M.	CHED	1706	Massey, S.C.	ANYL	246
Martinez, X.	COMP	250	Marzotto, K.	CHED	1496	Massi, M.	FLUO	49
Martinez, Z.	INOR	382	Masa, J.	ENFL	394	Massicano, A.V.	FLUO	58
Martinez, J.A.	I&EC	166	Masaoka, S.	INOR	327	Massicano, A.V.	FLUO	60
Martinez-Abad, A.	CELL	280	Masavang, S.	AGFD	100	Massie, A.A.	INOR	932
Martinez-Abad, A.	CELL	317	Mascharak, P.K.	MEDI	241	Massing, J.O.	INOR	1007
Martinez Bracero, G.E.	CHED	1830	Masching, H.P.	POLY	541	Massman, B.A.	INOR	1342
Martinez-Ferrer, M.	CHED	1262	Mascuch, S.	CHED	1576	Masson, G.	PMSE	372
Martinez-Ferrer, M.	CHED	1264	Masella, M.	NUCL	9	Mast, T.	COMP	390
Martinez-Guerra, E.	CHED	2004	Mashuta, M.	INOR	960	Masten, S.J.	ENVR	32
Martinez-Guerra, E.	ENFL	459	Masiello, C.A.	ENVR	750	Masterson, J.	CHED	1522
Martinez-Huerta, M.V.	CATL	193	Masiello, D.J.	PHYS	77	Mastrandea, J.	INOR	379
Martinez Mayorga, K.	AGFD	98	Masiello, D.J.	PHYS	298	Masud, J.	ENFL	330
Martinez Mayorga, K.	CHED	158	Masiello, D.J.	PHYS	379	Masuda, K.	PMSE	29
Martinez Pascual, A.	CATL	95	Maslowski, E.	CHED	1119	Masue-Slowey, Y.	ENVR	340
Martinez-Rivera, F.J.	CHED	1168	Masnadi, M.	CATL	87	Masunaga, S.	CATL	182
Martin Gandul, M.	INOR	1362	Masnadi, M.	ENFL	429	Mata, M.P.	CHED	1877
Martini, A.	COLL	428	Mason, A.	INOR	875	Matar, O.K.	I&EC	42
Martini, F.	POLY	670	Mason, D.S.	AGFD	119	Matar, O.K.	I&EC	46
Martinovic-Weigelt, D.	CHED	907	Mason, D.S.	CHED	2091	Matar, O.K.	POLY	62
Martins, A.F.	INOR	419	Mason, D.S.	CHED	2098	Matar, O.K.	I&EC	41
Martins, J.C.	COLL	445	Mason, D.S.	CHED	2158	Matecka, D.	MEDI	224
Martins, J.C.	INOR	1051	Mason, G.J.	INOR	252	Mateeva, N.N.	ANYL	58
Martins, J.C.	PROF	7	Mason, G.J.	INOR	256	Mateeva, N.N.	MEDI	163
Martins, P.C.	PMSE	220	Mason, H.	NUCL	49	Mateeva, N.N.	MEDI	164
Martins, V.	PMSE	220	Mason, H.	POLY	252	Mateeva, N.N.	ORGN	426
Martins, V.	PMSE	221	Mason, H.	POLY	528	Matei, B.	COLL	662
Martins, V.	PMSE	223	Mason, H.	POLY	778	Matera, G.	BIOL	186
Martins dos Santos, D.	PMSE	337	Mason, J.A.	INOR	32	Matera, S.	CATL	438

Materer, N.F.	COLL	264	Matsumoto, M.	ORGN	483	Matz, R.	CHED	172
Materese, C.K.	PHYS	586	Matsumoto, N.	POLY	173	Matz, R.L.	CHED	817
Mates, J.	ENFL	518	Matsumoto, R.	GEOC	26	Matzger, A.J.	INOR	103
Mateich, D.	INOR	780	Matsune, K.M.	AGFD	22	Mauck, J.	POLY	709
Mathaga, J.	ENFL	515	Matsuo, T.	MEDI	379	Maudet, M.	MEDI	244
Mathe, Z.	CHED	1084	Matsuoka, E.	MEDI	189	Mauer, L.J.	AGFD	102
Mathe, Z.	CHED	1085	Matsushita, Y.	CELL	45	Mauger, F.	COMP	164
Mathers, R.T.	POLY	708	Matsuura, A.	COMP	187	Mauger, F.	PHYS	528
Matheson, D.J.	CHED	1364	Matsuura, A.	COMP	253	Mauger, F.	PHYS	646
Matheson, G.	INOR	812	Matsuura, M.F.	BIOT	207	Mauldin, R.	CHED	945
Mathew, S.	COLL	199	Matsuura, R.	ORGN	22	Maung, J.	CHED	1920
Mathews, N.	MEDI	308	Matt, M.	COLL	345	Maung, J.	ENVR	526
Mathialagan, R.	INOR	989	Matta, M.	PMSE	178	Maung, J.	ENVR	527
Mathiasson, L.	BIOT	303	Mattaparathi, S.	PMSE	311	Maupin, C.M.	PROF	12
Mathiasson, L.	BIOT	309	Mattea, C.	POLY	605	Maurer, T.	MEDI	234
Mathiowetz, A.	COMP	87	Mattea, C.	POLY	606	Maurer-Jones, M.A.	CHED	935
Mathivathanan, L.	INOR	740	Matten, S.R.	COMP	21	Maurer-Jones, M.A.	CHED	1754
Mathivathanan, L.	INOR	1382	Mattern, D.L.	ENVR	42	Maurer-Jones, M.A.	CHED	1755
Mathur, A.	MEDI	20	Mattern, D.L.	PHYS	533	Maurer-Jones, M.A.	ENVR	531
Mathur, A.	MEDI	91	Mattern, M.	MEDI	10	Maurey, K.E.	COLL	251
Mathur, A.	MEDI	297	Mattern-Schain, S.I.	ORGN	384	Mauri, M.	POLY	673
Mathur, A.	MEDI	367	Mattes, T.	GEOC	104	Maurice, A.M.	POLY	48
Mathur, K.	BIOT	269	Mattes, T.	GEOC	203	Maurice, A.M.	POLY	496
Mathwig, K.	ANYL	449	Matthews, C.	BIOT	359	Maurice, A.M.	POLY	497
Mat Isa, M.	I&EC	40	Matthews, C.B.	BIOT	241	Mauriello, F.	CELL	146
Matito, E.	COMP	158	Matthews, D.	COMP	385	Mauriello, F.	CELL	384
Matito, E.	PHYS	323	Matthews, J.	PHYS	333	Mauroy, C.	CELL	164
Matkovska, A.	CHED	955	Matthews, W.G.	PMSE	573	Maurya, S.	INOR	160
Matlock, M.	CINF	12	Mattia, K.	BIOT	354	Mauser, J.F.	CHED	810
Mato, Y.	PMSE	98	Mattice, T.	CHED	816	Mauser, K.	CHED	1935
Matolyak, L.E.	PMSE	58	Mattinen, M.	CELL	285	Mausner, L.F.	NUCL	55
Matos, J.R.	CATL	182	Mattis, S.	INOR	1379	Maust, M.C.	CHED	1435
Matos, R.	ANYL	288	Mattison, C.P.	AGFD	94	Mautner, A.	CELL	31
Matougui, N.	COLL	747	Mattison, K.W.	BIOT	491	Mautner, A.	CELL	54
Matson, J.B.	PMSE	40	Mattisson, T.	ENFL	209	Mautner, A.	CELL	75
Matson, J.B.	PMSE	272	Mattos, B.D.	CELL	162	Mautner, A.	CELL	236
Matson, J.B.	POLY	172	Mattoussi, H.M.	COLL	578	Mautner, A.	CELL	333
Matson, J.B.	POLY	259	Mattoussi, H.M.	COLL	586	Mauzy, I.	CHED	1915
Matson, J.B.	POLY	752	Mattoussi, H.M.	COLL	587	Mave, M.	GEOC	233
Matsuda, A.	BIOL	163	Mattoussi, H.M.	PHYS	653	Maver, T.	CELL	373
Matsuda, H.	POLY	533	Mattson, A.	ORGN	234	Maverick, A.W.	INOR	363
Matsuda, S.	PMSE	244	Mattson, A.	ORGN	237	Maverick, A.W.	INOR	979
Matsuda, S.	PMSE	303	Mattson, R.R.	ENVR	739	Mavila, S.	POLY	409
Matsugami, A.	INOR	912	Mattsson, A.E.	PHYS	634	Mavila, S.	POLY	546
Matsui, S.	COLL	660	Mattsson, I.	ORGN	287	Mavrodi, D.	POLY	242
Matsui, S.	POLY	382	Matuana, L.	CELL	367	Mavrodi, D.	POLY	243
Matsukata, M.	PMSE	139	Matuleviciute, G.	ORGN	716	Mavrodi, D.	POLY	576
Matsukawa, K.	COLL	751	Maturi, F.E.	PMSE	266	Mavrodi, O.	POLY	242
Matsukawa, T.	POLY	324	Matveev, P.	CINF	112	Mavrodi, O.	POLY	243
Matsuki, M.	PHYS	288	Matveev, S.M.	PHYS	468	Mavrodi, O.	POLY	576
Matsumi, N.	ENFL	125	Matyjaszewski, K.	COMP	300	Maw, J.	BIOL	122
Matsumi, N.	ENFL	545	Matyjaszewski, K.	POLY	157	Mawby, L.M.	INOR	337
Matsumi, N.	PHYS	565	Matyjaszewski, K.	POLY	169	Max, S.E.	CHED	90
Matsumi, N.	POLY	655	Matyjaszewski, K.	POLY	266	Max, S.E.	CHED	1886
Matsumoto, K.	FLUO	38	Matyushov, D.V.	PHYS	166	Maxi, N.A.	CHED	1874

Maxian, O.	CHED	120	Mayo, A.V.	CHED	794	McBriarty, M.E.	GEOC	272
Maximenko, N.	GEOC	197	Mayo, S.A.	CHED	910	McBride, A.A.	INOR	178
Maxton, L.J.	CHED	1848	Mayorga, A.	ENVR	723	McBride, M.K.	POLY	409
Maxwell, A.	PMSE	218	Mayorga, L.A.	ANYL	105	McBride, M.K.	POLY	693
Maxwell, D.N.	CHED	395	Mayorga, L.A.	CHED	1907	McBride, M.	PMSE	261
Maxwell, D.N.	CHED	448	Mayr, M.	CELL	259	McBride, M.	PMSE	462
Maxwell, D.N.	CHED	1809	Mays, R.	POLY	632	McCabe, C.A.	CHED	1678
Maxwell, D.N.	CHED	1810	Maysonet, C.	CHED	1817	McCabe, M.	AGFD	32
Maxwell, D.N.	CHED	1811	Maystrovsky, S.	CHED	853	McCabe, M.	PHYS	134
Maxwell, J.	MEDI	191	Mayton, H.	ENVR	436	McCabe Dunn, J.	WCC	14
Maxwell, R.S.	POLY	252	Mayville, F.C.	CHED	451	McCadden, C.	MEDI	127
Maxwell, S.	POLY	557	Mayville, F.C.	CHED	465	McCaffrey, V.P.	CHED	1736
May, B.	PHYS	553	Mayville, F.C.	CHED	467	McCaffrey, V.P.	INOR	252
May, E.R.	COMP	326	Mayville, F.C.	CHED	1008	McCaffrey, V.P.	INOR	256
May, I.	NUCL	36	Mayville, F.C.	CHED	1765	McCall, A.	ENVR	414
May, J.	ORGN	91	Maza, W.A.	INOR	527	McCall, R.	INOR	585
May, J.	ORGN	252	Mazeau, K.	CELL	44	McCalla, E.	INOR	805
May, J.	ORGN	743	Mazeau, K.	CELL	247	McCall-Butler, D.M.	INOR	286
May, N.	CHED	61	Maziarz, E.	POLY	89	McCall-Butler, D.M.	INOR	787
May, N.	CHED	445	Mazumder, S.	ENVR	38	McCallum, S.A.	BIOT	322
May, N.	ENVR	157	Mazumder, S.	ANYL	107	McCammant, M.	FLUO	50
May, P.S.	COLL	762	Mazur, C.	CHED	992	McCammon, C.	ENVR	223
May, S.A.	ORGN	4	Mazzanti, M.	INOR	1291	McCammon, J.	BIOL	6
May, S.	COLL	190	Mazzanti, M.	NUCL	31	McCammon, J.	BIOL	272
May, S.	COLL	767	Mazzetto, S.E.	CELL	108	McCammon, J.	COMP	106
May, S.	INOR	424	Mazzetto, S.E.	PMSE	287	McCammon, J.	COMP	139
Maya, N.	INOR	607	Mazzio, E.	MEDI	163	McCammon, J.	COMP	247
Maya, N.	INOR	973	Mazzio, E.	MEDI	164	McCammon, J.	MEDI	317
Maybell, D.L.	ORGN	632	Mazzio, K.A.	INOR	1397	McCann, D.	BIOT	508
Maydanov, A.	ENVR	179	Mazzocanti, G.	ANYL	109	McCann, J.	COLL	244
Mayer, B.	ENVR	427	Mazzola, R.	ORGN	66	McCann, M.G.	BIOT	15
Mayer, B.	ENVR	664	Mazzoleni, L.R.	ENVR	478	McCann, R.L.	CHED	634
Mayer, D.	POLY	376	Mazzuca, J.W.	PHYS	442	McCann, R.L.	CHED	641
Mayer, J.M.	COLL	697	Mbarushimana, P.C.	POLY	639	McCants, J.	PHYS	25
Mayer, J.M.	INOR	66	Mbunwe, D.	CHED	1456	McCants, J.	PHYS	574
Mayer, J.M.	INOR	276	McAdams, B.	GEOC	154	McCardle, K.	INOR	501
Mayer, J.M.	INOR	279	McAfee, T.	POLY	218	McCardle, K.	INOR	509
Mayer, J.M.	INOR	413	McAfoos, T.	MEDI	64	McCarley, R.L.	ANYL	191
Mayer, J.M.	INOR	628	McAlexander, H.	CHED	22	McCarley, R.L.	ANYL	422
Mayer, J.M.	INOR	670	McAlexander, H.	ENVR	558	McCarley, R.L.	BIOT	61
Mayer, J.M.	INOR	1338	McAlexander, H.	MEDI	403	McCarley, R.L.	PHYS	549
Mayer, M.	COLL	19	McAlpine, I.J.	MEDI	19	McCarley, R.L.	PHYS	649
Mayerberger, E.	ENVR	635	McAlpine, I.J.	ORGN	21	McCarrick, R.	CHED	1735
Mayes, A.M.	ENFL	365	McAlpine, M.C.	PMSE	305	McCarrick, R.	CHED	1740
Mayes, H.	CARB	92	McAlpine, N.	ORGN	96	McCarron, D.	PHYS	159
Mayes, H.	I&EC	5	McAnally, M.O.	PHYS	301	McCartan, S.	COMP	38
Mayes, R.T.	I&EC	95	McAnany, J.D.	CARB	15	McCarter, K.S.	ANYL	284
Mayfield, S.	BIOT	323	McAninch, P.	COLL	336	McCarter, K.S.	ANYL	355
Mayhall, N.	COMP	346	McArdell, C.	ENVR	293	McCarter, K.S.	ENFL	20
Mayhall, N.	PHYS	123	McAteer, D.	ORGN	130	McCarthy, B.	ORGN	402
Maynard, H.D.	POLY	173	McAuliffe, K.J.	INOR	57	McCarthy, B.	POLY	485
Maynard, J.	BIOT	55	McBrayer, D.	CHED	708	McCarthy, B.D.	INOR	24
Maynard, L.A.	POLY	240	McBriarty, M.	PHYS	410	McCarthy, D.	ANYL	391
Maynard, R.	CHED	107	McBriarty, M.E.	GEOC	121	McCarthy, D.	ANYL	394
Mayne, C.G.	ORGN	589	McBriarty, M.E.	CATL	84	McCarthy, L.H.	ENVR	569

McCarthy, M.C.	PHYS	260	McCoy, J.W.	AGFD	156	McElroy, T.	CHED	757
McCarty, B.J.	CHED	1464	McCoy, L.	CELL	74	McElwee-White, L.	INOR	853
McCarty, B.J.	ORGN	694	McCoy, M.C.	INOR	1424	McElwee-White, L.	INOR	1113
McCarty, G.S.	GEOC	165	McCracken, J.M.	POLY	544	McElwee-White, L.	INOR	1159
McCarver, S.	ORGN	350	McCreery, R.L.	COLL	409	McElwee-White, L.	INOR	1321
McCaul, M.	ENVR	399	McCreery, R.L.	COLL	338	McElwee-White, L.	PROF	26
Mccawley, T.	ENVR	744	McCrory, C.C.	INOR	1273	McElwee-Witmer, S.	MEDI	69
McClain, A.T.	PMSE	404	McCullagh, M.	COMP	10	McEnaney, J.M.	ENFL	178
McCleary, C.	CHED	779	McCullagh, M.	COMP	126	McEntee, M.L.	CATL	297
McClelland, K.	INOR	569	McCulley, C.H.	CHED	855	McEntee, M.L.	CATL	450
McClelland, T.	CHED	768	McCulloch, B.	POLY	292	McEwen, J.	CATL	133
McClenaghan, N.D.	COLL	108	McCulloch, B.	POLY	365	McEwen, J.	I&EC	90
McClenaghan, N.D.	POLY	748	McCullough, B.J.	INOR	1067	McEwen, L.	CHED	2169
McClenaghan, N.D.	POLY	751	McCullough, B.	CHED	331	McEwen, L.	CINF	19
McClendon, N.	INOR	856	McCullough, L.R.	I&EC	66	McEwen, L.	CINF	96
Mccloskey, M.	PHYS	583	McCullough, S.	INOR	562	McFadden, M.E.	ENVR	479
McCluckie, R.	BIOT	506	McCune, B.	ENVR	554	McFarland, R.	CHED	1913
McClure, E.	CHED	1527	McCunn, L.R.	PHYS	497	McFarland, B.J.	CHED	2201
McClure, M.	BIOT	120	McCunn, L.R.	PHYS	498	McFarland, B.J.	ENVR	321
McClure, M.	BIOT	331	McCusker, J.K.	INOR	456	McFarland, B.J.	ENVR	566
McCogan, M.W.	CHED	2034	McCutcheon, J.R.	ENVR	153	McFarland, K.	CHED	1195
McCollom, S.	INOR	1340	McDaniel, A.H.	ENFL	326	McFeaters, F.E.	CHED	1288
McCollum, J.	PMSE	334	McDaniel, H.	COLL	52	McFerrin, H.	MEDI	387
McCollum, J.	PMSE	431	McDaniel, H.	ENFL	83	McGahee, E.	ANYL	107
McCollum, J.	PMSE	438	McDermond, D.	CHED	1201	McGann, C.L.	PMSE	101
McCollum, J.	PMSE	607	McDermott, C.M.	MEDI	192	McGann, C.L.	POLY	109
McCollum, J.	POLY	543	McDermott, C.M.	MEDI	413	McGarry, D.	MEDI	309
McConnell, B.	BIOT	43	McDermott, M.T.	ANYL	349	McGarvey, D.J.	ENVR	611
McConnell, D.L.	ORGN	698	McDermott, S.	BIOT	249	McGaughey, G.	COMP	168
McConnell, E.	ANYL	42	McDevitt, B.	GEOC	152	McGee, D.	CHED	547
McConnell, J.S.	ENVR	575	McDevitt, B.	GEOC	153	McGee, I.	CINF	35
McConnell, J.S.	ENVR	576	McDonagh, D.	COMP	82	McGeehan, S.	AGFD	236
McConnell, J.S.	ENVR	591	McDonald, G.	GEOC	119	McGeehee, J.L.	PHYS	25
McConnell, J.S.	ENVR	592	McDonald, I.	ORGN	521	McGettigan, J.E.	ORGN	509
McConnell, J.S.	ENVR	598	McDonald, J.	PMSE	353	McGill, K.C.	CHED	1686
McConnell, J.S.	ENVR	599	McDonald, K.	BIOT	455	McGill, R.A.	ORGN	462
McConnell, R.	MEDI	67	McDonald, L.	ENVR	167	McGill, T.L.	CHED	2009
McConnell, R.	MEDI	68	McDonald, M.P.	PHYS	494	McGill, T.J.	COLL	754
McConville, P.R.	ANYL	415	McDonald, T.	INOR	621	McGinnis, D.M.	INOR	222
McCord, J.	ENVR	231	McDonnell, D.P.	MEDI	295	McGlinchey, R.P.	BIOL	286
McCord, J.	ENVR	733	McDonnell, E.	INOR	1373	McGlocklin, C.L.	CHED	451
McCord, T.J.	CHED	2052	McDonough, M.	ANYL	166	McGoorty, M.M.	INOR	1076
McCorkle, L.S.	COLL	642	McDougal, K.	BIOL	197	McGovern, C.	BIOT	257
McCorkle, L.S.	POLY	506	McDougal, K.	CHED	1820	McGovern, J.	CHED	468
Mccormick, A.	COLL	733	McDowell, M.A.	ANYL	68	McGovern, P.E.	HIST	13
McCormick, C.L.	POLY	279	McDowell, M.T.	ENFL	131	McGowan, C.	CHED	2133
McCormick, C.L.	POLY	410	McDowell, M.T.	ENFL	303	McGowan, C.	AGFD	160
McCormick, C.L.	POLY	468	McDowell, M.	INOR	403	McGowan, M.	INOR	931
McCormick, C.L.	POLY	555	McEachran, A.	ANYL	28	Mcgrady, J.	COLL	29
McCormick, C.L.	POLY	558	McEachran, A.	ANYL	387	McGrail, P.	COLL	172
McCormick, C.	CHED	1088	McEachran, A.	CINF	60	McGrail, P.	GEOC	261
McCormick, M.	POLY	251	McEachran, A.	CINF	87	McGrail, P.	INOR	1029
McCormick, T.	PHYS	408	McEachran, A.	ENVR	731	McGrath, A.T.	CHED	1454
McCoy, A.	ANYL	148	McElmurry, S.P.	ENVR	33	McGrath, M.	MEDI	37
McCoy, A.B.	PHYS	136	McElroy, A.	ENVR	710	Mcgraw, S.K.	POLY	703

McGraw, C.	BIOT	21	McKenna, B.	CHED	1098	McMurray, E.	CHED	1702
McGraw, C.	BIOT	116	McKenna, G.	ORGN	75	McNabb, D.	ORGN	175
McGraw, C.	COLL	556	McKenzie, B.	MEDI	7	McNabb, I.	NUCL	40
McGraw, J.	CHED	2079	McKenzie, D.	POLY	476	McNae, I.	COMP	380
McGregor, D.M.	CHED	155	McKenzie, S.G.	INOR	679	McNair, O.	POLY	42
McGregor, D.M.	CHED	1992	McKeown, B.A.	INOR	700	McNally, A.	I&EC	148
McGregor, D.M.	CHED	2177	McKernan, G.C.	CHED	2046	McNally, A.	ORGN	211
McGregor, I.	COLL	649	McKernan, J.	ENVR	579	McNamara, L.E.	ORGN	292
McGrier, P.	INOR	1032	McKim, S.	CHED	370	McNamara, L.E.	ORGN	469
McGuinness, S.	NUCL	6	McKinley, J.	ANYL	125	McNamara, L.E.	PHYS	534
McGuinness, S.	NUCL	7	McKinney, K.	CATL	391	McNamara, L.E.	YCC	23
McGuire, A.F.	COLL	207	McKinnie, R.J.	MEDI	380	McNamara, P.	ENVR	660
McGuire, A.	CHED	623	McKinnon, S.	ORGN	598	McNamara, P.J.	ENVR	75
McGuire, D.G.	CHED	1159	McKnolly, K.J.	BIOL	62	McNamara, P.J.	ENVR	427
McGuire, J.	ENFL	32	McKnight, B.	FLUO	64	McNamara, P.J.	ENVR	664
McGuire, J.M.	ANYL	93	McLain, D.	NUCL	24	McNamara, S.	ENVR	157
McGuire, M.M.	GEOC	117	McLaughlan, C.C.	INOR	961	McNamara, W.	INOR	663
McGuire, P.	CHED	1938	McLaughlin, C.W.	ORGN	446	McNamee, G.	ANYL	76
McGuire, P.M.	ENVR	562	McLaughlin, J.	COMP	306	McNeil, A.J.	PMSE	85
McGuirk, C.	INOR	82	McLaughlin, M.	GEOC	152	McNeil, L.	CHED	236
McHugh, K.	BIOT	258	McLaughlin, M.	GEOC	153	McNeil, M.L.	CHED	1029
McHugh, S.	COMP	376	McLaurin, E.J.	CHED	1042	McNeill, A.S.	COMP	256
McIlvin, M.R.	INOR	43	McLaurin, E.J.	COLL	137	McNeill, K.P.	ENVR	44
McInnis, P.	BIOT	247	McLaurin, E.J.	I&EC	152	McNeill, K.P.	ENVR	47
McInnis, P.	BIOT	248	McLaurin, E.J.	INOR	842	McNeill, K.P.	POLY	261
McIntee, E.J.	CHED	1242	McLaurin, E.	INOR	820	McNeill, V.F.	ENVR	366
McIntosh, A.J.	PHYS	119	McLay, R.B.	COLL	99	Mcpartlin, M.	ENVR	650
McIntosh, M.	ORGN	20	McLean, W.	CHED	633	McPhee, S.	ANYL	256
McIntosh, M.	ORGN	175	McLemore, J.B.	INOR	478	McPherson, C.R.	ENVR	32
McIntosh, M.	ORGN	176	McLendon, S.	INOR	243	McPherson, G.	COLL	674
McIntyre, J.	AGFD	30	McLeod, K.R.	POLY	731	McQuade, D.T.	ORGN	267
McIntyre, K.	MEDI	20	McLeod, R.	PMSE	509	McQueen, T.	INOR	575
McIntyre, K.	MEDI	91	McLeod, R.	PMSE	613	McQuilling, A.	ENVR	743
McIntyre, K.W.	MEDI	6	McLoughlin, E.	INOR	105	McReynolds, A.	COLL	187
McIntyre, K.W.	MEDI	36	McLoughlin, S.Y.	BIOT	522	McRose, D.L.	INOR	39
McIntyre, K.W.	MEDI	297	McMahan, A.	CHED	1525	McTigue, M.	MEDI	19
McKay, G.	ENVR	45	McMahon, J.	MEDI	11	McTigue, M.	ORGN	21
McKay, G.	ENVR	109	McMahon, K.	CHED	654	McVicker, R.U.	ENFL	35
McKay, G.	ENVR	113	McMahon, K.	CHED	947	McWade, K.	BIOT	14
McKay, G.	ENVR	118	McMahon, R.	BIOT	175	McWilliams, S.F.	INOR	636
McKay, G.	ENVR	521	McMahon, T.	ORGN	521	Md Jalil, A.	I&EC	40
McKay, J.	INOR	710	McMahon, W.G.	CHED	1562	Meacham, J.	ANYL	404
McKay, K.	ORGN	519	McMahon, W.G.	CHED	1605	Meacham, R.	POLY	235
McKay, P.	BIOT	395	McMahon, W.G.	CHED	1678	Meacham, R.	POLY	238
McKee, J.	CELL	381	McManus, G.J.	INOR	293	Meade, T.J.	INOR	1007
McKee, S.	CHED	1105	McManus, G.J.	INOR	299	Meador, M.	COLL	642
McKegg, P.	CHED	204	McManus, G.J.	INOR	307	Meador, M.	POLY	504
McKendrick, K.G.	PHYS	622	McManus, M.	ENFL	18	Meador, M.	POLY	506
McKendry, I.	CHED	343	McManus, M.	ENVR	627	Meadows, M.	CHED	919
McKendry, I.	INOR	375	McMillan, J.	PHYS	134	Means, A.	POLY	610
McKendry, I.	INOR	1026	McMillen, C.D.	INOR	1119	Means, N.	ENFL	529
McKendry, I.	INOR	1062	McMinn, M.H.	CHED	492	Meanwell, N.A.	MEDI	285
McKendry, I.	INOR	1063	McMullen, A.	CHED	1859	Mebane, N.	CHED	583
McKenna, A.M.	ENVR	475	McMullen, P.D.	COMP	20	Mebel, A.M.	PHYS	192
McKenna, A.M.	ENVR	581	McMullen, P.D.	ENVR	360	Mebi, C.A.	INOR	242

Mebi, C.A.	INOR	243	Meggiolaro, D.	PHYS	383	Melko, J.	CHED	1717
Mebi, C.A.	INOR	1343	Megiatto, J.D.	PMSE	267	Melko, J.	PHYS	191
Mecadon, K.	ANYL	291	Mehanna, S.	INOR	910	Melkonian, K.	CHED	1203
Mecca, J.	COLL	565	Meheut, G.	ENVR	783	Melkonian, K.	CHED	1204
Mecerreyes, D.	POLY	137	Mehio, N.	INOR	160	Melkonian, K.	CHED	1249
Mecerreyes, D.	POLY	540	Mehl, R.A.	MEDI	325	Mella, M.	COMP	426
Mechtenberg, A.	ANYL	67	Mehrtretter Drury, S.	CHED	2058	Melle, A.	POLY	374
Meckel, T.	CELL	90	Mehmood, R.	COMP	238	Mellem, K.	MEDI	277
Mecking, S.	PMSE	473	Mehrbod, M.	ENFL	88	Mellerup, S.	INOR	552
Meda, L.	CHED	1271	Mehta, A.	COLL	387	Mellet, L.	CHED	1175
Meda, L.	CHED	1272	Mehta, K.	BIOT	284	Mellinger, M.H.	CHED	1687
Meda, L.	CHED	1338	Mehta, M.	CHED	1370	Mellis, B.	CHED	271
Meda, L.	CHED	1340	Mehta, P.	CATL	107	Mellis, B.	CHED	278
Meda, L.	CHED	1342	Mehta, P.	COMP	147	Mellis, B.	CHED	1289
Meda, L.	CHED	1343	Mehta, R.	INOR	1022	Mellis, B.	CHED	1327
Meda, L.	CHED	1345	Mehta, R.	PMSE	341	Mello, T.	MEDI	368
Meda, L.	CHED	1346	Mehta, R.	POLY	208	Mellor, D.	CHED	55
Meda, L.	CHED	1349	Mei, D.	CATL	67	Melo, M.C.	COMP	420
Medard, M.E.	ORGN	686	Mei, D.	I&EC	13	Melo, T.R.	MEDI	73
Medford, A.J.	CATL	119	Mei, D.	I&EC	90	Meloni, G.	PHYS	463
Medhi, R.	COLL	273	Mei, H.	PMSE	19	Meloni, G.	PHYS	464
Medhurst, L.J.	CHED	15	Mei, J.	PHYS	246	Meloni, G.	PHYS	555
Medina, F.	AGFD	196	Mei, J.	POLY	718	Meloni, G.	PHYS	594
Medina, J.	CHED	748	Mei, P.	ANYL	51	Melot, B.C.	ENFL	185
Medina, J.	CHED	1045	Mei, W.	COLL	443	Melton, K.W.	CHED	866
Medina, J.R.	MEDI	251	Meier, A.	ENVR	293	Melvin, A.T.	BIOT	56
Medina, J.	INOR	1096	Meier, C.	PMSE	31	Melvin, A.T.	BIOT	87
Medina, J.C.	COLL	415	Meier, M.S.	CATL	100	Melvin, A.T.	BIOT	243
Medina, L.	PMSE	251	Meijer, E.W.	PHYS	492	Melvin, A.T.	BIOT	246
Medina Cruz, D.	BIOL	97	Meima, G.	I&EC	88	Melvin, A.T.	BIOT	272
Medina-Franco, J.L.	CHED	157	Meints, L.M.	CARB	64	Melvin, A.T.	BIOT	374
Medina-Franco, J.L.	CINF	20	Meirelles, M.A.	MEDI	113	Melvin, A.T.	BIOT	408
Medina-Franco, J.L.	COMP	143	Meirer, F.	CATL	277	Melvin, A.T.	BIOT	417
Medina-Gonzalez, A.	INOR	149	Meirow, M.	CHED	1729	Melvin, A.T.	BIOT	419
Medina Ramos, J.	GEOC	52	Meisel, J.W.	ORGN	335	Melvin, A.T.	BIOT	420
Medley, K.A.	CHED	499	Meißner, G.	FLUO	20	Melvin, P.	FLUO	50
Medley, K.A.	CHED	502	Meister, F.	CELL	299	Memon, M.	ENFL	133
Medrano, A.	PHYS	555	Mejia, E.B.	POLY	182	Men, L.	INOR	848
Medrano, M.S.	POLY	194	Mejia, J.	GEOC	11	Men, L.	INOR	1055
Medrano Castillo, L.	INOR	867	Mekkat, A.	COMP	211	Men, L.	INOR	1152
Medre, M.	PHYS	427	Melancon, B.	ANYL	68	Men, Y.	ENVR	353
Medvedev, D.G.	FLUO	63	Melancon, K.	INOR	701	Men, Y.	ENVR	712
Medvedev, D.G.	NUCL	3	Melander, C.	BIOL	12	Mena, A.	INOR	286
Medvedev, V.	BIOT	341	Melander, C.	MEDI	44	Mena, A.	INOR	787
Medvedeva, J.	INOR	1226	Melander, C.	MEDI	48	Menaldino, D.S.	MEDI	55
Meechoovet, B.	MEDI	147	Melby, E.	PHYS	283	Menaldino, D.S.	MEDI	181
Meeder, J.	INOR	1265	Melcher, M.	BIOT	519	Menard, G.	INOR	470
Meeder, J.	CHED	902	Melchior, A.C.	MEDI	107	Menard, G.	INOR	1267
Meegalla, S.K.	MEDI	75	Melendez, D.R.	COLL	719	Mencarini, G.	POLY	670
Meek, K.	CELL	364	Melendrez, C.	COLL	381	Mencer, D.E.	ORGN	623
Meek, K.	PMSE	566	Meletiche Sepúlveda, S.	CHED	1807	Mendelsohn, W.T.	CHED	1043
Meek, K.	POLY	275	Melikyan, G.G.	AGFD	53	Mendenhall, E.	ANYL	224
Meenagh, K.	BIOL	264	Melikyan, G.G.	ORGN	155	Mendez, A.	INOR	583
Mefford, O.T.	CHED	590	Melikyan, G.G.	ORGN	156	Mendez, J.D.	CHED	800
Megaridis, C.	ENFL	518	Melikyan, G.G.	ORGN	157	Mendez, J.D.	CHED	812

Mendez, J.D.	CHED	942	Merel, S.	ENVR	409	Mestach, D.	POLY	49
Mendez, J.D.	CHED	2060	Merel, S.	ENVR	736	Mester, Z.	ENFL	39
Mendez, J.E.	INOR	82	Mereshchenko, A.S.	PHYS	468	Mészáros, L.S.	ENFL	443
Mendez, S.K.	AGFD	84	Merg, A.	COLL	656	Metallo, C.	BIOT	30
Mendez, S.K.	CHED	1714	Merg, A.	INOR	655	Metallo, M.E.	ORGN	630
Mendicino, M.	COLL	635	Merg, A.	PMSE	408	Metcalfe, W.	BIOL	314
Mendis, G.	PROF	27	Mergel, O.	POLY	338	Metcalfe, K.	GEOC	134
Mendis, H.	POLY	491	Mergel, O.	POLY	380	Metch, J.	ENVR	11
Mendonca, M.	CATL	407	Merindol, R.	POLY	740	Methvin, C.E.	CHED	1480
Mendonca, M.	INOR	505	Merino, E.	BIOL	267	Metko, M.M.	COLL	223
Mendoza, A.	COLL	746	Merino, E.	CHED	574	Metlay, A.	POLY	734
Mendoza, L.	CELL	308	Merit, J.E.	ORGN	556	Metouri, S.	ENFL	234
Mendoza, L.	CHED	958	Merkt, F.	PHYS	228	Metoyer, L.	CHED	1456
Mendoza-Cortes, J.	COMP	66	Merle, N.	CATL	367	Mettakoonpitak, J.	ANYL	338
Mendoza-Garcia, A.	ENFL	366	Merle, N.	CATL	413	Metta-Magana, A.	INOR	881
Meng, D.	POLY	344	Merola, M.	COLL	98	Metters, O.	INOR	155
Meng, J.	ENFL	516	Merola, M.	COLL	560	Metwally, E.	COMP	30
Meng, J.	ENVR	127	Merrell, A.	CHED	1343	Metwally, E.	MEDI	82
Meng, W.	CELL	289	Merrer, D.C.	ORGN	498	Metz, I.	GEOC	144
Meng, W.	BIOL	141	Merrill, A.	CHED	989	Metz, I.	PHYS	645
Meng, X.	ANYL	189	Merrill, A.K.	CHED	961	Metz, K.R.	INOR	1229
Meng, X.	CELL	34	Merrill, A.K.	CHED	1546	Metz, K.M.	CHED	1273
Mengel, S.D.	CHED	1296	Merrill, W.	CHED	1707	Metz, T.	ORGN	693
Menger, F.	ENVR	785	Merriman, A.	POLY	314	Metzger, A.	INOR	403
Menges, F.	PHYS	293	Merriman, M.	MEDI	25	Metzger, E.	MEDI	257
Menke, E.J.	CHED	162	Merritt, C.	CHED	960	Metzger, E.	INOR	500
Mennito, A.S.	ENFL	162	Merritt, C.	CHED	780	Metzger, E.	INOR	1093
Mennucci, B.	COMP	99	Merritt, J.R.	MEDI	57	Meunier, V.	AGFD	104
Mennucci, B.	PHYS	153	Merritt, J.	CHED	627	Meuse, C.W.	BIOT	491
Menochet, K.	MEDI	25	Merry, A.	CHED	1553	Mewies, M.	BIOT	506
Menochet, K.	MEDI	378	Mert, S.	BIOL	13	Mey, A.	COMP	156
Menon, A.	CATL	464	Mertaniemi, H.	CELL	381	Meyer, A.	COMP	297
Menon, A.	COLL	593	Merten, C.	PHYS	54	Meyer, A.M.	PHYS	403
Menon, D.	CHED	691	Merton, C.	ORGN	433	Meyer, A.	POLY	220
Menon, D.	CHED	2129	Mertz, K.L.	CHED	406	Meyer, A.S.	CELL	111
Menouni, A.	ANYL	431	Mertz, K.L.	CHED	409	Meyer, A.S.	CELL	117
Mensch, A.	INOR	785	Mertzman, M.E.	MEDI	35	Meyer, A.S.	CELL	407
Menstell, P.	BIOT	70	Mertzman, M.E.	MEDI	202	Meyer, A.	MEDI	21
Mentel, L.	CATL	15	Meruga, J.M.	INOR	424	Meyer, B.	AGFD	157
Menz, D.	FLUO	25	Merz, D.	CHED	874	Meyer, D.	CHED	1944
Menz, H.	FLUO	25	Merz, K.M.	COMP	231	Meyer, E.	SCHB	13
Menze, M.	BIOL	264	Mesa, K.	CATL	547	Meyer, E.	POLY	116
Meola, A.	INOR	1322	Mesa, L.	CHED	1874	Meyer, F.	INOR	447
Mercado, B.Q.	INOR	636	Meschwitz, S.M.	MEDI	383	Meyer, G.J.	INOR	553
Mercado, J.J.	CHED	1451	Meserve, K.	CHED	490	Meyer, G.J.	INOR	1066
Mercaldi, M.	BIOT	500	Mesgar, M.	ORGN	250	Meyer, G.J.	INOR	1073
Mercer, A.M.	CHED	79	Mesgar, M.	ORGN	660	Meyer, G.J.	INOR	1169
Mercer, A.M.	CHED	164	Meshram, B.	MEDI	390	Meyer, G.	CHED	1924
Mercer, A.M.	CHED	257	Mesloh, N.	CHED	377	Meyer, G.	ENFL	462
Mercer, A.D.	INOR	83	Mesnier, A.C.	CHED	1308	Meyer, J.A.	MEDI	60
Mercer, E.R.	CARB	39	Messersmith, P.B.	COLL	631	Meyer, J.A.	MEDI	132
Mercier, H.	FLUO	2	Messersmith, P.B.	PMSE	488	Meyer, J.	CHED	143
Mercier, P.	ANYL	51	Messier, L.	BIOT	273	Meyer, J.	CHED	1826
Mercier-Patterson, A.	CHED	1694	Messman, J.M.	PMSE	69	Meyer, J.	CHED	2047
Meredig, B.	INOR	294	Messman, J.M.	PMSE	506	Meyer, K.	INOR	15

Meyer, K.	I&EC	33	Miao, Y.	ENVR	763	Mihaylova, V.	MEDI	164
Meyer, S.M.	ORGN	464	Miao, Y.	CHED	647	Mihaylova, V.	ORGN	426
Meyer, S.	CHED	194	Miao, Z.	PMSE	243	Mihealsick, E.	BIOT	546
Meyer, T.J.	INOR	78	Michael, E.	CHED	1293	Mihele, C.	COLL	395
Meyer, T.J.	INOR	532	Michael, L.	MEDI	112	Mihelich, B.	CHED	1397
Meyer, T.J.	INOR	1066	Michael, M.	INOR	67	Mihlbachler, K.	BIOT	509
Meyer, T.J.	INOR	1069	Michael, S.	COMP	340	Mihlbachler, L.	POLY	311
Meyer, T.J.	PHYS	175	Michaelis, D.	CHED	1540	Mihov, G.	POLY	111
Meyer, V.	CELL	92	Michaelis, D.	CHED	1702	Mihryan, A.	BIOT	336
Meyer, X.	CELL	221	Michaelis, D.	ORGN	715	Mihryan, A.	BIOT	338
Meyerhoff, M.E.	INOR	200	Michaelis, D.	PHYS	571	Mihryan, A.	BIOT	478
Meyerhoff, M.E.	MEDI	328	Michaelis, V.K.	CATL	414	Mihryan, A.	CELL	395
Meyers, C.	CHED	1354	Michaels, T.A.	INOR	231	Mikac, N.	GEOC	108
Meyers, J.J.	CHED	1059	Michailof, C.	CELL	145	Mikaliunaite, L.	ANYL	145
Meyers, J.J.	INOR	225	Michaud, M.E.	CHED	1525	Mikami, S.	MEDI	22
Meyers, J.	BIOL	47	Michaud, M.E.	ORGN	695	Mikelonis, A.	ENVR	65
Meyers, J.	CHED	661	Michaut, X.	PHYS	589	Mikesell, B.K.	CHED	764
Meyers, J.M.	CHED	1199	Michel, C.S.	ORGN	516	Mikesell, B.K.	CHED	1460
Meyers, M.	MEDI	128	Michel, C.	CATL	102	Mikhailov, S.N.	BIOL	59
Meyers, W.	CHED	588	Michel, J.	COMP	156	Miki, K.	CELL	152
Meyersohn, M.S.	POLY	241	Michel, J.	COMP	380	Mikkilä, J.	CELL	110
Meysenburg, M.	CHED	2148	Michel, M.	CHED	1878	Mikkilä, J.	CELL	119
Mézaïlles, N.	CHED	1007	Michel, S.L.	BIOL	11	Mikkonen, K.S.	CELL	316
Mezei, G.	ORGN	260	Michel, S.L.	INOR	194	Mikkonen, K.S.	CELL	318
Mezei, P.	PHYS	149	Michelet, B.	FLUO	32	Miksovsk, J.	CHED	650
Mezei, P.	PHYS	319	Micheletti, C.	PMSE	300	Miksovsk, J.	ENVR	385
Meziab, T.	CHED	1849	Michelotti, E.L.	MEDI	270	Miksovsk, J.	ORGN	14
Mezyk, S.P.	ENVR	289	Michelson, K.	GEOC	182	Mikulski, C.M.	INOR	981
Mezyk, S.P.	ENVR	290	Michener, M.	MEDI	191	Miladi, M.	ENVR	472
Mezyk, S.P.	ENVR	291	Michener, W.	CATL	217	Milan, D.	ANYL	394
Mezyk, S.P.	ENVR	294	Michiue, T.	BIOT	414	Milbrandt, K.	CATL	160
Mezyk, S.P.	ENVR	337	Michl, J.	COLL	414	Mileham, C.	CHED	1825
Mezyk, S.P.	ENVR	388	Michot, L.	GEOC	187	Miler, E.	I&EC	159
Mezyk, S.P.	ENVR	482	Michurin, O.	MEDI	172	Miles, B.C.	ENFL	303
Mezyk, S.P.	ENVR	728	Middendorf, T.R.	BIOL	8	Miles, C.E.	CATL	500
Mezyk, S.P.	ENVR	729	Miech, J.	ANYL	162	Miles, H.	CHED	1888
Mezyk, S.P.	ENVR	730	Miecznikowski, J.R.	INOR	148	Miles, M.	INOR	585
Mezyk, S.P.	NUCL	28	Mielke, H.W.	ANYL	241	Miles, R.	CHED	1871
Mezyk, S.P.	NUCL	29	Mielke, J.	CHED	2007	Miles, V.C.	CHED	768
Mezyk, S.P.	NUCL	64	Mielke, N.	ORGN	504	Miles, V.C.	MEDI	387
Mezyk, S.	ENVR	722	Mier, L.	ORGN	466	Milet, A.	INOR	1097
Mezza, T.	I&EC	81	Mieszawska, A.J.	COLL	677	Milet, A.	INOR	1355
Mfuh, A.M.	MEDI	338	Miffin, A.L.	CHED	1695	Milgram, B.C.	MEDI	3
Mi, B.	ENVR	57	Miffin, A.L.	COLL	151	Miliordos, E.	ENVR	450
Mi, B.	ENVR	61	Migler, K.	PMSE	427	Miliordos, E.	PHYS	444
Mi, B.	ENVR	63	Migler, K.	PMSE	508	Milioto, S.	PMSE	153
Mi, C.	INOR	347	Miglieri, C.	CHED	757	Miljanic, O.	INOR	451
Mi, W.	PHYS	99	Mignard, N.	CELL	276	Millard, J.	BIOT	80
Mi, X.	BIOT	526	Miguez, D.	ENVR	667	Miller, A.L.	CHED	543
Miao, B.	ENFL	527	Mihailescu, M.	BIOL	197	Miller, A.J.	INOR	120
Miao, G.	CARB	77	Mihailescu, M.	CHED	683	Miller, A.J.	INOR	437
Miao, L.	BIOT	497	Mihailescu, M.	CHED	705	Miller, A.J.	INOR	667
Miao, R.	INOR	1059	Mihalyi-Koch, W.	INOR	790	Miller, A.J.	INOR	1074
Miao, Y.	CHED	1475	Mihara, S.	PMSE	405	Miller, A.	MEDI	390
Miao, Y.	ORGN	658	Mihaylova, V.	MEDI	163	Miller, A.	INOR	931

Miller, A.	INOR	984	Miller, M.	ANYL	224	Mills, M.	CHED	1083
Miller, A.J.	ENVR	554	Miller, M.G.	CHED	33	Mills, P.	CHED	155
Miller, A.	BIOL	289	Miller, M.	MEDI	64	Mills, P.	CHED	1992
Miller, A.	NUCL	29	Miller, M.	PHYS	167	Mills, P.	CHED	2177
Miller, A.	PMSE	292	Miller, P.	PMSE	432	Mills, S.A.	INOR	916
Miller, A.	ENFL	27	Miller, Q.	GEOC	261	Millstone, J.	CHED	1926
Miller, A.	AGFD	160	Miller, R.	ANYL	72	Millstone, J.	INOR	658
Miller, A.	CHED	1908	Miller, R.	I&EC	81	Millstone, J.	INOR	719
Miller, B.L.	CARB	15	Miller, R.B.	GEOC	82	Millstone, J.	INOR	946
Miller, B.	CHED	1716	Miller, S.	CHED	994	Millward, E.	CHED	412
Miller, B.	CHED	1860	Miller, S.J.	CHAS	38	Millward, S.W.	MEDI	120
Miller, B.D.	CHED	985	Miller, S.J.	CARB	86	Milne, P.	INOR	387
Miller, C.G.	CHED	625	Miller, S.J.	ORGN	358	Milner, C.	ENVR	786
Miller, C.	INOR	714	Miller, S.	COMP	256	Milner, E.	INOR	759
Miller, C.	POLY	525	Miller, S.A.	ENFL	59	Milner, P.D.	ENVR	116
Miller, C.	COLL	300	Miller, S.A.	POLY	584	Milner, P.J.	INOR	621
Miller, C.	INOR	334	Miller, S.A.	POLY	659	Milner, P.J.	INOR	1218
Miller, C.	POLY	484	Miller, S.A.	POLY	711	Milner, S.	ENFL	8
Miller, C.J.	ENVR	221	Miller, S.L.	INOR	468	Milsmann, C.	CHED	1111
Miller, C.N.	CHED	1067	Miller, T.F.	COMP	174	Milstead, R.	ENVR	175
Miller, D.	ANYL	165	Miller, T.F.	COMP	330	Milstein, T.J.	INOR	1050
Miller, D.R.	CHED	428	Miller, T.F.	COMP	349	Milthorpe, J.	PHYS	131
Miller, E.L.	PROF	1	Miller, T.	PHYS	661	Milton, L.	CHED	1919
Miller, E.A.	BIOT	152	Miller, V.L.	CHED	152	Min, A.	BIOT	85
Miller, E.M.	ANYL	97	Miller, W.M.	BIOT	175	Min, D.	GEOC	17
Miller, E.M.	BIOL	96	Miller Conrad, L.C.	CHED	1207	Min, J.	MEDI	204
Miller, E.M.	BIOL	175	Miller Conrad, L.C.	CHED	1214	Min, X.	ENVR	395
Miller, E.M.	CHED	671	Miller-Hope, Z.	CHED	1202	Min, Y.	CATL	483
Miller, E.M.	COMP	19	Millerick, K.	ENVR	678	Min, Y.	PMSE	397
Miller, E.	BIOL	307	Millet, A.	INOR	1341	Min, Y.	ENFL	360
Miller, E.	BIOL	317	Millet, L.J.	ANYL	395	Minakata, D.	ENVR	4
Miller, G.J.	CARB	93	Millhouse, P.W.	ANYL	282	Minakata, D.	ENVR	251
Miller, H.B.	CHED	57	Millican, S.	COLL	155	Minakata, D.	ENVR	478
Miller, H.B.	CHED	251	Millican, S.	ENFL	397	Minami, S.	POLY	392
Miller, H.B.	CHED	717	Millican, S.	INOR	1227	Minamisono, K.	NUCL	79
Miller, I.	PHYS	443	Millick, N.	CHED	294	Minato, H.	POLY	384
Miller, J.R.	CHED	680	Millik, S.C.	PMSE	406	Minato, H.	POLY	686
Miller, J.	CATL	285	Milliron, D.J.	COLL	350	Minato, Y.	MEDI	102
Miller, J.T.	ENVR	449	Milliron, D.J.	ENVR	674	Minato, Y.	MEDI	104
Miller, J.T.	I&EC	54	Milliron, D.J.	MPPG	21	Minaye Hashemi, F.	COLL	69
Miller, J.T.	INOR	500	Millqvist Fureby, A.	AGFD	161	Minbiole, K.P.	ANYL	444
Miller, J.R.	CHED	182	Millqvist-Fureby, A.	COLL	162	Minbiole, K.P.	CHED	483
Miller, J.S.	ORGN	712	Mills, C.L.	COMP	179	Minbiole, K.P.	MEDI	149
Miller, K.J.	ORGN	303	Mills, C.E.	PMSE	8	Minbiole, K.P.	ORGN	225
Miller, K.R.	CHED	550	Mills, C.E.	PMSE	266	Mincher, B.	NUCL	28
Miller, K.R.	INOR	219	Mills, C.J.	CHED	532	Mincke, S.	CELL	231
Miller, K.R.	INOR	1019	Mills, C.J.	CHED	537	Mindiola, D.J.	INOR	709
Miller, K.	ORGN	323	Mills, C.J.	CHED	538	Mineart, K.	PMSE	407
Miller, K.M.	POLY	44	Mills, C.J.	CHED	541	Minehan, T.G.	ORGN	418
Miller, K.M.	POLY	537	Mills, C.J.	CHED	542	Miner, E.	INOR	1174
Miller, K.M.	POLY	547	Mills, D.	ENVR	733	Miner, E.	INOR	1180
Miller, L.	PHYS	572	Mills, D.W.	BIOL	35	Miner, J.C.	BIOL	7
Miller, L.C.	PMSE	343	Mills, F.	PHYS	631	Miner, K.	BIOL	183
Miller, L.A.	INOR	275	Mills, J.H.	BIOL	308	Miner, R.E.	BIOL	64
Miller, M.J.	MEDI	76	Mills, K.	CHED	46	Ming, L.	INOR	926

Ming, L.	INOR	930	Mirsaleh-Kohan, N.	PHYS	513	Mitchell, C.D.	CHED	679
Ming, X.	ENVR	408	Mirsaleh-Kohan, N.	PHYS	519	Mitchell, D.	BIOL	118
Mingarelli, S.	CHED	684	Mirsaleh-Kohan, N.	PHYS	523	Mitchell, D.	BIOL	314
Mingear, J.	COLL	696	Mirshahghassemi, S.	INOR	1394	Mitchell, D.	ORGN	583
Mingle, K.	CATL	21	Mir Tutusaus, J.	ENVR	354	Mitchell, J.	ENVR	96
Mingot, A.	FLUO	32	Mirzadegan, T.	COMP	15	Mitchell, J.W.	COLL	771
Minier, S.	CHAS	11	Mishaël, Y.	ENVR	154	Mitchell, M.B.	CATL	404
Minkara, M.S.	COLL	727	Mishina, Y.	MEDI	295	Mitchell, M.B.	CATL	450
Minko, S.	ANYL	53	Mishra, A.	ENFL	136	Mitchell, M.	ORGN	225
Minko, S.	CELL	74	Mishra, A.	BIOT	490	Mitchell, S.B.	CHED	4
Minko, S.	COLL	516	Mishra, B.	ENVR	222	Mitchell, T.A.	CHED	1417
Minko, S.	COLL	756	Mishra, B.	GEOC	65	Mitchell, T.A.	CHED	1554
Minko, S.	POLY	61	Mishra, H.	AGFD	32	Mitchell, T.A.	CHED	1679
Minko, S.	POLY	260	Mishra, J.	FLUO	42	Mitchell, Z.	PHYS	103
Minofar, B.	CHED	881	Mishra, K.	COLL	757	Mitchelmore, C.	ENVR	228
Minogue, A.	CHED	572	Mishra, N.K.	MEDI	38	Mitchelmore, C.	ENVR	310
Minozzi, C.	ORGN	572	Mishra, R.	POLY	794	Mitchler, M.M.	ORGN	481
Minrovic, B.	MEDI	44	Mishra, R.P.	BIOT	431	Mitevski, O.	INOR	1307
Minshall, B.	CHED	828	Mishra, S.	POLY	343	Mithu, T.	CHED	677
Minteer, S.D.	BIOT	232	Mishra, A.	ENVR	51	Mitiku, H.	ANYL	292
Minteer, S.D.	BIOT	425	Misichronis, K.	POLY	798	Mitkas, A.A.	BIOT	421
Minteer, S.D.	ENFL	101	Miskalis, A.	CHED	1206	Mitra, A.K.	MEDI	267
Minteer, S.D.	ORGN	514	Miskalis, A.	CHED	1820	Mitra, D.	CHED	389
Minter, D.E.	ORGN	642	Miskowicz, A.	COMP	257	Mitra, D.	COLL	102
Minto, R.E.	CHED	1936	Miskowicz, A.	NUCL	17	Mitra, K.	MEDI	327
Minton, T.K.	PHYS	622	Miskowicz, A.	NUCL	65	Mitra, S.	BIOL	315
Mintova, S.	ENFL	333	Miskowicz, A.	NUCL	73	Mitra, S.	ANYL	279
Minus, M.	POLY	329	Miskowicz, A.	NUCL	95	Mitra, S.	INOR	906
Mio, M.J.	CHED	1486	Misra, M.	PMSE	174	Mitrakas, M.	ENVR	95
Mio, M.J.	CHED	1809	Misra, S.K.	ANYL	325	Mitra-Kirtley, S.	ENFL	413
Mio, M.J.	CHED	1810	Misra, S.K.	BIOT	58	Mitre, G.	PHYS	131
Mio, M.J.	CHED	1811	Misra, S.K.	COLL	217	Mitrofanov, A.	CINF	10
Mione, T.	AGFD	201	Misra, S.K.	COLL	218	Mitrofanov, A.	CINF	99
Miranda, H.	ENFL	443	Misra, S.K.	COLL	463	Mitrofanov, A.	CINF	112
Miranda, M.	CHED	567	Misra, S.K.	COLL	596	Mitrofanov, A.	COMP	27
Miranda-Soto, V.	INOR	867	Misra, S.K.	COLL	673	Mitrofanov, A.	COMP	110
Miranda-Zayas, J.L.	PMSE	101	Misra, S.K.	ENVR	23	Mitrousis, N.	PMSE	597
Mirau, P.	ANYL	322	Misra, S.K.	ENVR	151	Mitsuya, H.	COMP	17
Mirau, P.A.	COLL	231	Misra, S.K.	ENVR	406	Mittal, D.	ENVR	464
Mirau, P.A.	POLY	721	Misra, S.K.	ORGN	532	Mittal, N.	CELL	297
Mirchandani, S.D.	ENVR	189	Misra, V.	ANYL	55	Mittal, N.	PMSE	277
Mirica, L.M.	INOR	549	Mistrik, R.	ANYL	31	Mittal, P.	COMP	191
Mirkin, C.A.	COLL	138	Misun, P.M.	COLL	774	Mittelmark, E.	PMSE	343
Mirkin, C.A.	COLL	498	Mitarai, S.	BIOL	87	Mittermeir, R.	COLL	395
Mirkin, C.A.	INOR	82	Mitarai, S.	MEDI	161	Mitton, R.R.	CHED	1061
Mirkin, C.A.	INOR	651	Mitch, W.	ENVR	234	Mitton-Fry, R.M.	BIOL	33
Mirkin, C.A.	INOR	1030	Mitch, W.	ENVR	313	Mitzel, J.	ENVR	656
Mirkin, C.A.	INOR	1314	Mitch, W.	ENVR	435	Mitzi, D.B.	INOR	647
Mirkin, C.A.	PHYS	496	Mitch, W.	ENVR	494	Miura, Y.	ANYL	403
Miro, P.	CATL	137	Mitchell, A.E.	AGFD	55	Miura-Akagi, P.	INOR	869
Miro, P.	INOR	511	Mitchell, A.E.	AGFD	134	Mix, K.	BIOL	15
Miro, P.	NUCL	13	Mitchell, A.E.	AGFD	175	Mixdorf, J.	ORGN	233
Miro-Quesada, G.	BIOT	6	Mitchell, B.S.	INOR	228	Mixdorf, J.	ORGN	661
MirsalehKohan, N.	CHED	20	Mitchell, B.S.	INOR	477	Miyabayashi, T.	BIOT	333
Mirsaleh-Kohan, N.	CHED	86	Mitchell, C.	GEOC	110	Miyachi, Y.	ENFL	367

Miyagi, K.	CELL	29	Mobley, J.	CHED	1381	Mohan, S.	INOR	805
Miyagi, K.	PMSE	457	Mobley, J.K.	CATL	98	Mohan, S.	INOR	1402
Miyake, G.	ORGN	566	Mobley, T.A.	CHED	1536	Mohan, T.	CELL	52
Miyake, G.	ORGN	667	Mobley, Z.	COLL	221	Mohan, T.	CELL	373
Miyake, G.	PMSE	428	Mochona, B.	MEDI	163	Mohanasundaram, P.	ANYL	396
Miyake, G.	POLY	144	Mochona, B.	MEDI	164	Mohanty, D.K.	CHED	1594
Miyake, G.	POLY	158	Mock, M.T.	INOR	121	Mohanty, S.K.	ENVR	693
Miyake, J.	POLY	424	Mock, R.	GEOC	244	Mohassab, A.M.	BIOL	224
Miyake, T.	CATL	164	Modarresi, S.	ENVR	195	Mohassab, A.M.	MEDI	167
Miyao, T.	CINF	111	Moden, B.	I&EC	91	Mohd Gazzali, A.	MEDI	342
Miyata, K.	PHYS	127	Modena, D.	MEDI	407	Mohd Rawi, M.	MEDI	342
Miyatake, K.	POLY	401	Moe, D.	INOR	302	Mohite, A.	ENFL	105
Miyatake, K.	POLY	424	Moe, J.	ANYL	164	Mohiuddin, S.	CHED	1853
Miyazaki, M.	POLY	447	Moechars, D.	MEDI	189	Mohnen, D.	CELL	64
Miyazawa, T.	CATL	219	Moeck, A.	POLY	97	Mohr, J.	ORGN	192
Miyoshi, T.	POLY	250	Moegling, J.	CATL	479	Mohs, A.	POLY	363
Miyoshi, T.	POLY	331	Moehwald, H.	COLL	456	Mohtar, R.	ENVR	720
Miyoshi, T.	POLY	534	Moehwald, H.	COLL	588	Moini, M.	ANYL	166
Miyoshi, T.	POLY	535	Moeller, O.	MEDI	368	Moini, M.	PMSE	510
Miyoshi, T.	POLY	536	Moeller, R.	CHED	1957	Moir, M.E.	ENFL	155
Mizgier, N.A.	CHED	1360	Moen, K.	CHED	2114	Moir, M.E.	ENFL	163
Mizojiri, R.	MEDI	133	Moenne Loccoz, P.	INOR	472	Moir, M.E.	ENFL	462
Mizrahi, S.	AGFD	23	Moffett, K.	MEDI	32	Moir, M.E.	ENFL	288
Mizukami, M.	COLL	426	Mogharbel, A.T.	ENVR	605	Moir, M.E.	ENFL	290
Mizvesky, J.D.	CHED	747	Mogharbel, R.T.	ENVR	596	Moise, G.	INOR	998
Mkam Tsengam, I.	COLL	564	Moghim, S.M.	COLL	5	Mojarad, S.	CHED	2066
Mkam Tsengam, I.	COLL	733	Moglia, R.	COLL	565	Mojica, E.E.	CHED	506
Mladenov, N.	CHED	958	Mohale, M.	BIOL	134	Mojica, E.E.	CHED	507
Mladenov, N.	ENVR	163	Mohale, M.	COLL	200	Mojica, E.E.	CHED	508
Mladenov, N.	ENVR	648	Mohamad, L.	CHED	343	Mojica, E.E.	CHED	509
Mladenov, N.	ENVR	652	Mohamad, L.	INOR	375	Mojica, E.E.	CHED	510
Mladjenovic, N.	ANYL	227	Mohamad, L.	INOR	1062	Mojica, E.E.	CHED	520
Mlakar, M.	GEOC	194	Mohamad, L.	INOR	1063	Mojica, E.E.	CHED	521
Mlsna, D.	CHED	63	Mohamad, S.	MEDI	342	Mojica, E.E.	CHED	2142
Mlsna, D.	CHED	254	Mohamed, A.	ENFL	236	Mojica, E.E.	CHED	2188
Mlsna, D.	CHED	332	Mohamed, A.	INOR	179	Mok, N.	BIOL	122
Mlsna, D.	CHED	1949	Mohamed, K.	ORGN	470	Mok, Y.	BIOT	339
Mlsna, D.	CHED	1997	Mohamed, M.M.	COMP	289	Mokashi Punekar, S.	PMSE	408
Mlsna, T.	AGFD	99	Mohamed, N.	MEDI	357	Mokili, M.	NUCL	63
Mlsna, T.	BIOL	113	Mohammadizadeh, M.	ENVR	252	Mokry, C.	INOR	510
Mlsna, T.	CHED	1949	Mohammadkhani, M.M.	POLY	353	Moktarzadeh, C.	INOR	1292
Mlsna, T.	ENVR	149	Mohammadkhani, M.M.	POLY	419	Molano Lopez, C.	POLY	376
Mlsna, T.	ENVR	502	Mohammed, D.	BIOT	12	Molden, T.	BIOT	203
Mlsna, T.	ENVR	503	Mohammed, F.S.	PMSE	117	Molden, T.	CHED	753
Mlsna, T.	ENVR	504	Mohammed, H.H.	BIOL	87	Moldovan, D.	CELL	183
Mlsna, T.	ENVR	505	Mohammed, H.H.	MEDI	161	Moldovan, D.	COLL	17
Mlsna, T.	ENVR	643	Mohammed, O.	ANYL	279	Moldovan, D.	COLL	460
Mlsna, T.	ENVR	777	Mohammed, O.	ANYL	309	Molek, J.R.	BIOT	385
Mncumbe, S.	ENVR	648	Mohammed, O.	ENFL	77	Molek, J.R.	BIOT	542
Mnich, M.	GEOC	84	Mohammed, O.	PHYS	491	Molek, K.	INOR	286
Mo, R.	MEDI	367	Mohammed, O.F.	PHYS	428	Molek, K.S.	ANYL	116
Mo, Y.	ORGN	474	Mohan, D.	ENVR	168	Molek, K.S.	ANYL	148
Moaven, S.	INOR	1207	Mohan, S.	COLL	220	Molek, K.S.	CHED	2031
Mobian, P.	CHED	1115	Mohan, S.	INOR	364	Molek, K.S.	INOR	787
Mobley, D.L.	COMP	248	Mohan, S.	INOR	396	Moli, S.	POLY	374

Molina, M.	POLY	104	Monroy, G.	ENVR	25	Moon, K.	ORGN	416
Molina Boisseau, S.	CELL	247	Monson, T.C.	INOR	1378	Moon, R.J.	COLL	738
Molina-Ontoria, A.	ORGN	295	Montagner, C.	ENVR	410	Moon, Y.C.	MEDI	253
Moliner, M.	CATL	14	Montague, B.	CHED	1818	Moor, K.	ENVR	47
Molitor, H.R.	ENVR	746	Montaner, S.	CHED	691	Moore, A.R.	CHED	2163
Moll, N.	CHED	1924	Montanez, J.L.	CHED	1450	Moore, A.L.	INOR	1163
Moller, J.	PMSE	315	Montasserasadi, D.	INOR	764	Moore, B.S.	ORGN	279
Moller, J.	POLY	312	Montavon, G.	NUCL	63	Moore, C.	CHED	1481
Moller, M.	POLY	375	Monteiro, J.H.	INOR	1006	Moore, C.	CATL	446
Moller, M.	POLY	388	Monteiro, M.	ANYL	235	Moore, C.	ENFL	404
Moller, M.	POLY	390	Monteiro, M.	PMSE	148	Moore, C.	INOR	146
Moller, M.	POLY	747	Monteiro, M.	PMSE	553	Moore, C.	BIOL	300
Molloy, M.	BIOT	218	Monteiro, M.	POLY	171	Moore, C.L.	BIOL	254
Molteni, V.	MEDI	254	Monteith, H.	COLL	336	Moore, C.L.	BIOL	301
Molter, K.E.	CHED	619	Monteith, H.	COLL	601	Moore, C.	INOR	318
Molter, K.E.	CHED	1900	Montemayor, E.J.	MEDI	299	Moore, C.	INOR	604
Momenitaheri, M.	COMP	310	Montero, L.	CHED	298	Moore, C.	INOR	870
Momin, M.	COMP	251	Montes, I.	CHED	1817	Moore, D.	CHED	592
Momoh, E.	CHED	938	Montes, M.O.	CHED	398	Moore, D.J.	CARB	56
Momoh, I.	ANYL	250	Montes, M.O.	CHED	1030	Moore, E.	BIOL	9
Mon, P.	CHED	675	Montes, M.O.	CHED	1114	Moore, E.	ENVR	181
Monanu, M.	AGFD	184	Montes-Hernandez, G.	GEOC	187	Moore, F.G.	COLL	787
Monari, B.	CHED	1965	Montgomery, C.L.	INOR	238	Moore, G.F.	INOR	1163
Monayao, M.	POLY	79	Montgomery, J.M.	CHED	844	Moore, J.	COLL	725
Moncada, J.A.	CHED	1409	Montgomery, J.	CARB	30	Moore, J.	CHED	1901
Monceaux, C.J.	CHED	924	Montgomery, J.	ORGN	137	Moore, J.	INOR	405
Monck, M.	BIOT	385	Montgomery, M.	INOR	874	Moore, J.	PHYS	399
Monclus, H.	ENVR	354	Montgomery, R.D.	BIOT	182	Moore, J.	POLY	477
Mondal, A.	ENFL	81	Montgomery, R.D.	POLY	218	Moore, J.S.	ORGN	291
Mondal, D.	BIOL	278	Montgomery, R.	CHED	133	Moore, J.S.	POLY	182
Mondal, M.H.	POLY	410	Montgomery, R.	CHED	408	Moore, J.S.	POLY	183
Mondal, S.	COMP	194	Montijo, J.M.	ENVR	703	Moore, J.	BIOT	206
Mondal, S.	MEDI	123	Montoro, S.	CHED	915	Moore, K.	CHED	1668
Mondal, U.	MEDI	311	Montoya, A.P.	ORGN	734	Moore, K.	INOR	5
Mondala, A.	MPPG	15	Montoya, M.	AGFD	119	Moore, L.J.	CHED	368
Monday, K.A.	CHED	929	Montoya, R.H.	CHED	458	Moore, L.J.	CHED	374
Mondloch, J.	CHED	151	Montoya-Beltran, A.	BIOL	52	Moore, L.J.	CHED	1232
Mondschein, R.J.	PMSE	114	Monty, C.	GEOC	82	Moore, L.	POLY	120
Mondschein, R.J.	PMSE	120	Monzo, E.	CHED	1755	Moore, L.	POLY	520
Mondschein, R.J.	POLY	202	Moody, K.J.	NUCL	67	Moore, L.C.	ORGN	122
Mondschein, R.J.	POLY	259	Moody, K.J.	NUCL	71	Moore, M.	INOR	1046
Monemian, S.	PMSE	15	Moody, L.R.	ENVR	421	Moore, P.B.	COLL	612
Monfort, M.	ENVR	585	Moog, R.S.	CHED	74	Moore, R.C.	CHED	107
Mong'are, D.	POLY	567	Moog, R.S.	CHED	1930	Moore, R.B.	PMSE	380
Monie, E.	BIOT	291	Mook, W.	COLL	53	Moore, R.B.	PMSE	575
Monie, E.	BIOT	300	Moon, A.P.	PHYS	121	Moore, R.B.	PMSE	586
Monim-Ul-Mehboob, M.	INOR	971	Moon, A.P.	PHYS	396	Moore, R.B.	POLY	407
Monisha, M.	PMSE	181	Moon, A.	CHED	34	Moore, R.B.	POLY	780
Monnier, J.R.	CATL	190	Moon, A.	CHED	1962	Moore, R.B.	POLY	790
Monot, C.	CELL	332	Moon, A.	CHED	2195	Moore, R.B.	POLY	811
Monroe, C.B.	CHED	2161	Moon, A.C.	CHED	1957	Moore, R.	MEDI	297
Monroe, E.	BIOT	222	Moon, J.	ENFL	27	Moore, S.	ANYL	140
Monroe, E.	ENFL	455	Moon, J.	GEOC	44	Moore, S.E.	ENVR	189
Monroe, L.W.	CHED	478	Moon, J.	COLL	755	Moore, S.	CHED	1677
Monroe, M.K.	CHED	797	Moon, J.	POLY	462	Moore, S.	CHED	1511

Moore, S.V.	PHYS	130	More, K.	GEOC	6	Mori, H.	COMP	271
Moore, T.W.	MEDI	197	More, K.	GEOC	7	Mori, H.	COMP	312
Moore, T.W.	MEDI	260	Moreadith, R.	POLY	53	Mori, T.	ORGN	731
Moore, T.W.	ORGN	589	Moreau, C.	CELL	271	Moriarty, D.F.	BIOL	54
Moore, T.A.	INOR	1163	Moreau, C.	CELL	417	Moriarty, D.F.	BIOL	55
Moore, W.	INOR	1128	Moreau, Y.	INOR	1355	Moriarty, D.F.	CHED	2144
Moore, W.N.	INOR	1274	Morehart, M.	CHED	746	Moriarty, K.	MEDI	32
Moore, A.H.	CATL	87	Morejon-Garcia, C.	POLY	475	Moric-Johnson, A.	PMSE	343
Moore, A.H.	CATL	184	Morejon-Garcia, C.	POLY	542	Morigaki, K.	COLL	469
Moore, A.H.	CATL	340	Morel, F.	INOR	39	Morigaki, K.	COLL	715
Mooring, S.R.	CHED	36	Moreno, A.	CHED	742	Morigaki, K.	COLL	716
Mooring, S.R.	CHED	129	Moreno, D.	CHED	1367	Morii, H.	CELL	141
Moorman, K.	CHED	56	Moreno, G.	CELL	96	Morikawa, J.	PMSE	451
Mootha, L.	INOR	1336	Moreno, J.	PROF	35	Morikawa, Y.	CATL	511
Mootoo, D.R.	ORGN	70	Moreno, M.	CHED	1744	Morillo, A.	INOR	248
Mootoo, D.R.	ORGN	424	Moreno, N.	AGFD	46	Morimoto, M.	INOR	748
Mopper, B.	ANYL	101	Moreno Flores, E.A.	GEOC	199	Morimoto, M.	INOR	1042
Mora, S.	INOR	1163	Moreno Gonzalez, M.	BIOT	316	Morimoto, S.	MEDI	133
Morais, E.	CELL	149	Moreno-Hernandez, I.A.	INOR	1130	Morin, F.	POLY	682
Moral, R.F.	INOR	83	Morey, A.M.	INOR	765	Morin, J.	POLY	767
Morales, A.	CELL	101	Morey, A.M.	INOR	766	Morin, S.A.	COLL	226
Morales, A.V.	BIOL	180	Morey, A.M.	INOR	1230	Morinaga, Y.	ORGN	141
Morales, C.L.	ORGN	303	Morey, J.R.	CELL	262	Moringo, N.	COLL	607
Morales, D.	POLY	317	Morgan, B.J.	CATL	500	Moriones, J.D.	CHED	1374
Morales, D.	CHED	1185	Morgan, B.	ORGN	364	Mori Quiroz, L.M.	MEDI	356
Morales, D.	CHED	1200	Morgan, D.J.	ENFL	35	Mori Quiroz, L.M.	ORGN	100
Morales, H.M.	CATL	354	Morgan, K.M.	CHED	1456	Mori Quiroz, L.M.	ORGN	552
Morales, H.M.	CHED	941	Morgan, K.M.	ORGN	219	Mori-Sanchez, P.	PHYS	268
Morales, H.M.	MEDI	59	Morgan, L.R.	ENVR	575	Mori-Sanchez, P.	PHYS	271
Morales, H.M.	MEDI	393	Morgan, M.	ANYL	92	Morita, K.	ORGN	708
Morales, M.	CHED	387	Morgan, O.V.	ORGN	640	Morley, E.A.	CHED	1128
Morales Guzman, C.	ORGN	729	Morgan, R.	ORGN	640	Morley, E.A.	CHED	1134
Morales Martinez, Z.C.	CMA	8	Morgan, S.E.	CHED	73	Morley, E.A.	CHED	1848
Morales Medina, W.	ENVR	12	Morgan, S.E.	POLY	46	Morocho, P.	CHED	1704
Morales Medina, W.	ENVR	516	Morgan, S.E.	POLY	118	Moroz, Y.	CINF	11
Morales-Penningston, N.F.	CHED	1803	Morgan, S.E.	POLY	120	Moroz, Y.	MEDI	124
Moran, D.M.	INOR	43	Morgan, S.E.	POLY	128	Moroz, Y.	MEDI	169
Moran, J.	ENVR	465	Morgan, S.E.	POLY	129	Moroz, Y.	MEDI	170
Moran, K.	COLL	261	Morgan, S.E.	POLY	270	Moroz, Y.	MEDI	171
Moran, P.	GEOC	230	Morgan, S.E.	POLY	306	Moroz, Y.	MEDI	172
Moran, R.	CHED	918	Morgan, S.E.	POLY	429	Moroz, Y.	MEDI	350
Moran, R.	CHED	1185	Morgan, S.E.	POLY	507	Morozova, S.	POLY	683
Moran, R.	CHED	1200	Morgan, S.E.	POLY	550	Morozova, S.	POLY	730
Moran, S.D.	BIOL	251	Morgan, S.E.	POLY	551	Morrill, L.	ORGN	550
Moran, S.D.	BIOL	270	Morgan, S.E.	POLY	552	Morris, A.	BIOT	343
Moran-Mirabal, J.	CELL	196	Morgan, S.	CHED	1885	Morris, A.J.	CATL	296
Morano, K.A.	BIOL	58	Morgan, T.	ENFL	14	Morris, A.J.	INOR	3
Morano, K.A.	BIOL	239	Morgan, T.	ENFL	63	Morris, A.J.	INOR	527
Moravek, S.J.	POLY	810	Morgan, T.F.	CHED	1378	Morris, A.J.	INOR	661
Morazan, H.	ENFL	290	Morgan Theall, R.	CHED	1971	Morris, D.E.	INOR	1005
Morbideilli, M.	BIOT	509	Morgan Theall, R.	CHED	2133	Morris, D.E.	INOR	1295
Morbideilli, M.	BIOT	558	Morgenstern, J.	BIOT	135	Morris, D.T.	ORGN	380
Morbideilli, M.	I&EC	23	Morgenstern, J.	BIOT	205	Morris, J.	GEOC	34
Mordec, K.	MEDI	277	Morgentfin, R.	MEDI	244	Morris, J.	PROF	30
Morder, C.	CHED	376	Morgese, G.	PMSE	549	Morris, J.R.	CATL	296

Morris, J.R.	CATL	298	Moseler, M.	COLL	423	Mouser, P.	GEOC	139
Morris, J.R.	CATL	299	Moseley, I.P.	INOR	667	Mouser, P.	GEOC	150
Morris, J.R.	CATL	404	Mosely, J.	CHED	886	Moustafa, G.A.	MEDI	161
Morris, J.R.	CATL	450	Moser, A.	ANYL	25	Moustaid-Moussa, N.	ANYL	459
Morris, J.H.	ORGN	177	Moser, B.R.	AGFD	49	Mouzourakis, E.	ENFL	442
Morris, K.	GEOC	273	Moser, B.R.	ANYL	269	Movafaghi, S.	I&EC	116
Morris, K.	GEOC	274	Moses, E.	PHYS	349	Movassaghi, C.	ANYL	391
Morris, K.	GEOC	275	Moses, J.	COLL	687	Movassaghi, C.	ANYL	394
Morris, K.F.	CHED	403	Mosesso, P.	CELL	89	Movassaghi, M.	ORGN	548
Morris, K.F.	CHED	404	Mosher, M.D.	MEDI	221	Movsisyan, L.	MEDI	118
Morris, K.F.	CHED	405	Mosier-Boss, P.	COLL	274	Movsisyan, M.	ORGN	579
Morris, K.F.	CHED	873	Mosier-Boss, P.	COLL	682	Mowdawalla, C.	ORGN	677
Morris, K.F.	COLL	184	Moskowitz, H.	AGFD	127	Mowry, C.D.	PMSE	240
Morris, K.F.	COLL	263	Mosquera-Giraldo, L.I.	CELL	189	Mowson, A.M.	INOR	1320
Morris, K.F.	COLL	283	Mosquera-Giraldo, L.I.	POLY	493	Moyer, B.A.	NUCL	78
Morris, L.V.	CHED	1072	Moss, C.	MEDI	130	Moyer, B.	MEDI	3
Morris, M.	COMP	269	Moss, H.	AGFD	229	Moyer, D.	CHED	1281
Morris, M.	CELL	242	Mosselmans, J.W.	GEOC	273	Moyer, M.	CATL	398
Morris, M.	PROF	13	Mosser, S.	MEDI	69	Moyer, S.	POLY	573
Morris, M.	PROF	25	Mossine, A.	FLUO	50	Moyles, R.M.	CHED	1546
Morris, R.	CHED	91	Mostafa, S.S.	BIOT	279	Moynihan, M.	BIOT	355
Morris, R.	GEOC	90	Mostafa, S.S.	BIOT	281	Mozaffari, S.	COLL	575
Morris, R.	CHED	816	Mostofian, B.	COLL	335	Mozaffari, S.	INOR	1349
Morris, T.	INOR	1077	Mostrag, A.	CINF	90	Mozhayeva, D.	ANYL	235
Morris, T.W.	COLL	375	Mosurkal, R.	CELL	16	Mozziconacci, O.	ORGN	706
Morris, W.	INOR	625	Mota, C.J.	CATL	220	Mpourmpakis, G.	CATL	250
Morris, W.A.	POLY	71	Mota, C.J.	ENFL	295	Mrksich, M.	BIOT	90
Morris, W.R.	CHED	1447	Mota-Morales, J.D.	POLY	186	Mrksich, M.	COLL	464
Morrisett, R.A.	BIOL	315	Moth-Poulsen, K.	COLL	407	M Roozbahani, G.	ANYL	360
Morrison, A.	BIOT	379	Moth-Poulsen, K.	ENFL	26	M Roozbahani, G.	ANYL	362
Morrison, C.	INOR	136	Moth-Poulsen, K.	ENFL	342	M Roozbahani, G.	ANYL	426
Morrison, K.	MEDI	149	Moth-Poulsen, K.	POLY	662	Mroueh, M.	BIOL	287
Morrison, O.	CHED	1781	Motley, K.	INOR	749	Mrozek, R.	COLL	163
Morrison, R.W.	CHED	107	Motoki, H.	COMP	222	Mrozek, R.	POLY	341
Morrison, R.W.	CHED	109	Motoyama, D.	INOR	1131	Mruzik, M.N.	ANYL	97
Morrison, R.W.	CHED	125	Mottamal, M.	MEDI	160	Mruzik, M.N.	COMP	19
Morrison, R.C.	PHYS	42	Motten, A.	BIOL	31	Msaki, M.	CHED	1455
Morrison-Wallace, X.	CHED	1712	Motto-Ros, V.	ENFL	95	M Shariff, S.	I&EC	37
Morrisette, J.	ENFL	518	Motz, A.	ENFL	483	M Shariff, S.	I&EC	38
Morrissey, D.J.	NUCL	5	Mouchlis, V.	BIOL	272	Mtangi, W.	PHYS	492
Morrow, T.	INOR	1082	Mouchlis, V.	COMP	106	Mu, B.	AGFD	200
Morrow, T.	INOR	1100	Mouchlis, V.	COMP	139	Mu, B.	CARB	75
Morrow, T.	INOR	1190	Mouchlis, V.	COMP	247	Mu, B.	CELL	312
Morrow, W.P.	INOR	1354	Mouchlis, V.	MEDI	317	Mu, B.	CELL	347
Morse, B.	INOR	147	Mougel, J.	CELL	380	Mu, G.	INOR	1344
Morse, D.E.	CHED	621	Moule, A.J.	COMP	339	Mu, L.	ENFL	184
Morse, J.	CHED	693	Moulin, C.	ENVR	585	Mu, L.	ENFL	188
Morseth, Z.	INOR	1069	Moulton, R.	CATL	494	Mu, R.	ENVR	252
Morshead, M.L.	MEDI	198	Moura, E.	CELL	95	Mu, T.	ENFL	452
Mort, D.	CATL	160	Moura, E.	MEDI	193	Mucci, A.	PHYS	492
Mortén, M.	CATL	15	Mourad, E.	CELL	75	Mucci, A.	GEOC	158
Mortha, G.	CELL	131	Mouriño, S.	BIOL	69	Muckelbauer, J.	MEDI	6
Mortha, G.	CELL	219	Mouriño, S.	INOR	134	Muckelbauer, J.	MEDI	36
Morton, M.	AGFD	32	Mousa, M.	AGFD	32	Muckerman, J.T.	ENFL	202
Mosca, F.	PMSE	342	Mousa, M.	ANYL	117	Muckerman, J.T.	INOR	667

Mudit, M.	MEDI	137	Mulat, D.	CELL	405	Mulvaney, P.	COLL	494
Muela, G.	COMP	111	Mulay, P.	POLY	522	Mulvey, D.	COMP	266
Muelleman, A.	CHED	1969	Mulay, P.	POLY	523	Mulvihill, E.	CHED	163
Muellen, K.	COLL	561	Mulcahy, S.P.	ORGN	619	Mulvihill, E.	PHYS	578
Mueller, A.	CHED	82	Mulchandani, A.K.	ENFL	454	Mulvihill, M.J.	ENVR	363
Mueller, A.	CHED	2150	Muldoon, C.I.	MEDI	221	Mulville, A.K.	INOR	259
Mueller, A.	ENVR	542	Muldoon, P.	INOR	99	Mulville, A.K.	INOR	260
Mueller, A.	PMSE	546	Muldoon, P.	INOR	714	Mun, M.	BIOT	46
Mueller, C.	NUCL	8	Muleja, A.	CATL	526	Mundorff, E.C.	CHED	629
Mueller, D.	ANYL	125	Mulford, D.R.	CHED	1912	Mundy, C.J.	GEOC	173
Mueller, D.	ANYL	384	Mulford, D.R.	CHED	2009	Mundy, C.J.	YCC	25
Mueller, E.	POLY	739	Mulfort, K.L.	INOR	1181	Mundy, M.	INOR	598
Mueller, E.	POLY	793	Mulfort, K.L.	INOR	1381	Munet Colón, C.	CHED	1036
Mueller, J.A.	CHED	1530	Mulfort, K.L.	WCC	21	Munge, B.S.	ANYL	169
Mueller, L.	MEDI	2	Mülhaupt, R.	PMSE	369	Munier, M.	CHED	1579
Mueller, M.	CELL	212	Mulhearn, W.	PMSE	6	Munir, A.	BIOT	139
Mueller, P.	INOR	83	Mull, R.W.	CHED	609	Muniz, M.N.	CHED	256
Mueller, S.	I&EC	87	Mullen, K.	CHED	321	Muniz, M.N.	CHED	771
Mueller, T.	ENFL	115	Mullen, T.J.	COLL	180	Muniz, M.N.	CHED	827
Mueller-Buschbaum, P.	ENFL	486	Mullen, T.J.	COLL	685	Muniz, M.N.	CHED	2077
Mueller-Harvey, I.	AGFD	219	Muller, B.	COLL	723	Muniz, M.N.	CHED	2082
Mueller-Spaeth, T.	BIOT	509	Muller, C.A.	MEDI	381	Muniz, M.N.	CHED	2139
Muench, L.	NUCL	3	Muller, E.	I&EC	42	Munk, L.	CELL	117
Muesse, D.S.	ANYL	168	Muller, E.	I&EC	46	Munk, L.	CELL	407
Muhammad, M.	ORGN	445	Muller, F.	MEDI	120	Munna, D.	CHED	1834
Muhler, M.	CATL	319	Muller, G.	CHED	1123	Munoz, O.M.	ORGN	489
Muhler, M.	I&EC	65	Müller, A.M.	INOR	563	Munoz, S.	POLY	317
Muhs, A.	MEDI	150	Müller, H.S.	PHYS	87	Munoz Castro, A.R.	I&EC	154
Mujahid, A.	PMSE	572	Müller, K.	ENFL	203	Muñoz-Senmache, J.C.	ENVR	351
Mujahid, A.	PMSE	585	Müller, K.	CATL	69	Munro, A.M.	CHED	1821
Mukamel, S.	ANYL	14	Müller, K.	CATL	117	Munro, J.	POLY	147
Mukarakate, C.	CATL	390	Mullerpatan, A.	BIOT	210	Munro, T.P.	BIOT	109
Mukarakate, C.	CATL	391	Mullerpatan, A.	BIOT	409	Munsell, E.	BIOT	126
Mukarakate, C.	CATL	393	Mullerpatan, A.	BIOT	475	Munson, C.	CHED	667
Mukeba, K.	POLY	426	Mulligan, B.	CHED	827	Munson, E.	POLY	565
Mukherjee, A.	INOR	611	Mulligan, C.C.	ANYL	412	Munson, K.T.	ENFL	24
Mukherjee, D.	ENVR	389	Mulligan, R.B.	CHED	1745	Murad, S.	COLL	554
Mukherjee, D.	ENVR	445	Mullin, L.	ENVR	734	Murakami-Tonami, Y.	MEDI	157
Mukherjee, M.	ENVR	767	Mullin, L.G.	ANYL	44	Muraki, Y.	MEDI	133
Mukherjee, N.	PHYS	227	Mullin, L.	BIOT	273	Murariu, O.	PMSE	533
Mukherjee, P.	CHED	1664	Mullin, R.	HIST	14	Murase, N.	AGFD	122
Mukherjee, P.	MEDI	40	Mullins, B.M.	ENVR	575	Murase, N.	PHYS	488
Mukherjee, P.	ORGN	220	Mullins, C.S.	INOR	960	Murase, R.	CELL	25
Mukherjee, P.	BIOT	58	Mullins, D.R.	CATL	254	Murata, K.	POLY	99
Mukherjee, P.	BIOL	14	Mullins, D.	MEDI	257	Murata, K.	POLY	378
Mukherjee, R.	INOR	629	Mullins, G.A.	CHED	347	Muratov, E.	BIOT	465
Mukherjee, S.	COLL	769	Mullins, G.A.	CHED	1009	Muratov, E.	ENVR	420
Mukhopadhyay, A.	CELL	80	Mullins, J.	CHED	209	Muratov, N.	ENVR	420
Mukhopadhyay, A.	ENFL	356	Mullins, O.C.	ENFL	157	Murcko, M.	COMP	169
Mukhopadhyay, I.	ENFL	344	Mullins, O.C.	ENFL	460	Murfee, A.W.	BIOT	153
Mukhopadhyay, R.	COMP	239	Mullins, O.C.	ENFL	462	Murillo Masis, R.	CHED	371
Mukhopadhyay, S.	CHED	1936	Mullins, R.J.	CHED	1445	Murkin, A.S.	MEDI	101
Mukhopadhyay, T.	BIOT	35	Mulukutla, B.	BIOT	112	Murkowski, A.	CHED	244
Mukta, S.	ANYL	412	Mulumba, M.	ORGN	587	Murowchick, J.	ENFL	536
Mukuna, R.	CHED	588	Mulvaney, P.	COLL	492	Murowchick, J.	INOR	1124

Murphy, A.	CHED	651	Murray, K.K.	ANYL	146	Muthima, K.	MEDI	219
Murphy, A.	POLY	246	Murray, K.K.	ANYL	383	Muthukumar, K.	PHYS	407
Murphy, A.	POLY	557	Murray, K.K.	ANYL	392	Mutinda, S.	INOR	449
Murphy, A.	PROF	43	Murray, K.K.	ANYL	441	Mutiti, M.	CHED	538
Murphy, B.J.	ORGN	303	Murray, L.J.	INOR	603	Mutiti, S.	CHED	538
Murphy, C.	CHED	712	Murray, L.J.	INOR	685	Mutiti, S.	CHED	538
Murphy, C.J.	COLL	9	Murray, L.J.	INOR	696	Mutsuga, T.	ORGN	564
Murphy, C.J.	ENVR	20	Murray, L.J.	INOR	990	Muttaqien, F.	CATL	511
Murphy, C.J.	ENVR	655	Murray, L.J.	INOR	1258	Muy, S.	ENFL	469
Murphy, C.J.	PHYS	280	Murray, L.J.	INOR	1356	Muzyka, J.L.	CHED	211
Murphy, C.J.	PHYS	283	Murray, M.W.	COLL	86	Muzzio, M.	ENFL	370
Murphy, C.J.	PROF	2	Murray, M.W.	POLY	296	Mwangi, J.	MEDI	37
Murphy, C.	COMP	25	Murray, M.W.	POLY	367	Myers, A.G.	ORGN	359
Murphy, C.	CHED	1892	Murray, M.N.	PRES	9	Myers, A.G.	ORGN	732
Murphy, F.E.	ENVR	531	Murray, M.G.	CHED	1222	Myers, B.	POLY	283
Murphy, G.	ORGN	521	Murray, R.	GEOC	192	Myers, E.	ORGN	564
Murphy, H.R.	INOR	245	Murray, R.E.	AGFD	49	Myers, J.T.	INOR	854
Murphy, J.	CHED	961	Murray, S.	CHED	176	Myers, J.T.	INOR	1098
Murphy, J.	CHED	965	Murray, T.A.	CHED	832	Myers, R.	MEDI	92
Murphy, J.	CHED	989	Murrell, J.	BIOT	174	Myers, R.	MEDI	93
Murphy, J.M.	INOR	1119	Murru, S.	INOR	397	Myers, R.	CHED	495
Murphy, J.A.	CHED	1673	Murru, S.	ORGN	646	Myers, T.	INOR	28
Murphy, J.D.	CHED	1188	Murry, J.A.	ORGN	2	Myerson, A.S.	I&EC	20
Murphy, J.D.	CHED	1192	Murugesu, M.	INOR	1015	Mykhailiuk, P.	MEDI	138
Murphy, J.D.	CHED	1866	Musa, M.M.	CATL	476	Mykhailiuk, P.	MEDI	139
Murphy, K.	ENVR	237	Musa, M.M.	ORGN	110	Mykhailiuk, P.	MEDI	140
Murphy, K.	CHED	1733	Musa, S.	ENVR	72	Mykhailiuk, P.	MEDI	169
Murphy, K.L.	CHED	140	Musa, S.	ENVR	250	Mykhailiuk, P.	MEDI	170
Murphy, K.L.	CHED	161	Musa, Y.	CHED	118	Mykhailiuk, P.	MEDI	171
Murphy, K.L.	CHED	169	Musaazi, M.	ANYL	67	Mykhailiuk, P.	MEDI	172
Murphy, K.L.	CHED	2111	Musaev, J.	CATL	299	Mykhailiuk, P.	ORGN	341
Murphy, K.L.	CHED	2190	Musaev, J.	CATL	300	Mykhaylyk, O.	COLL	354
Murphy, K.L.	CHED	2191	Musaev, J.	CATL	404	Mykhaylyk, O.	COLL	648
Murphy, K.L.	CHED	2194	Musah, R.	MEDI	56	Mykhaylyk, O.	PMSE	494
Murphy, K.L.	CHED	2196	Musgrave, C.	CATL	170	Mykhaylyk, O.	PMSE	521
Murphy, K.L.	WCC	20	Musgrave, C.	COLL	155	Mykhaylyk, O.	POLY	296
Murphy, M.	CHED	512	Musgrave, C.	ENFL	397	Myles, D.A.	COLL	335
Murphy, M.P.	MEDI	45	Musgrave, C.	INOR	1227	Myneni, S.C.	GEOC	172
Murphy, R.B.	I&EC	161	Musgrave, C.	POLY	421	Myneni, S.C.	GEOC	236
Murphy, R.J.	CHED	1854	Musgrave, R.A.	INOR	1339	Myren, T.	INOR	884
Murphy, R.P.	COLL	60	Mushala, B.	CHED	702	Myronuk, J.	CHED	2161
Murphy, R.P.	INOR	810	Mushrif, S.	CATL	473	Myshakin, E.M.	GEOC	281
Murphy, T.	PHYS	656	Musino, D.	COLL	65	Myung, J.	ENVR	768
Murphy, W.L.	BIOT	124	Muskens, O.	COLL	161	Myung, N.	GEOC	101
Murray, A.W.	ENVR	678	Muskens, O.	COLL	501	Na, C.	ENVR	67
Murray, A.V.	CHED	1285	Musselman, B.	ANYL	408	Na, H.	INOR	968
Murray, C.B.	COLL	119	Musselman, I.H.	PMSE	385	Naaman, R.	ENFL	328
Murray, J.K.	CHED	1745	Mussleman, B.W.	INOR	249	Naaman, R.	PHYS	487
Murray, J.K.	CHED	1965	Mussone, P.	GEOC	102	Naaman, R.	PHYS	492
Murray, J.K.	CHED	2202	Mustafa, K.	CELL	388	Naaman, R.	PHYS	606
Murray, J.	CHED	249	Mustakis, J.	ORGN	641	Naas, T.	COMP	381
Murray, K.K.	ANYL	102	Mustard, T.J.	PMSE	184	Nabae, Y.	PMSE	75
Murray, K.K.	ANYL	112	Musunuri, S.	BIOT	291	Nabae, Y.	PMSE	325
Murray, K.K.	ANYL	141	Musunuri, S.	BIOT	544	Nabae, Y.	PMSE	390
Murray, K.K.	ANYL	144	Mutchler, A.	BIOT	473	Nabae, Y.	PMSE	453

Nacham, O.	ANYL	331	Naguib, M.	ENFL	103	Nakatani, R.	PMSE	390
Nacsa, E.D.	ORGN	405	Naguib, M.	ENFL	488	Nakatsuji, H.	PHYS	3
Nada, M.H.	COLL	249	Naguib, M.	GEOC	50	Nakayama, N.	COMP	313
Nadagouda, M.	ENVR	207	Naguib, M.	GEOC	210	Nakayama, N.	POLY	461
Naddeo, V.	ENVR	193	Nagy, A.	PHYS	7	Nakazawa, C.T.	POLY	195
Nadeem, A.	ORGN	498	Nagy, S.	CHED	1132	Nakazawa, C.T.	POLY	324
Nadgorny, B.	COLL	67	Nahalka, I.	GEOC	166	Nakazawa, Y.	POLY	195
Nadgouda, S.	ENFL	137	Nahas, R.C.	PMSE	105	Nalamasu, O.	PMSE	513
Nadji, S.	ORGN	437	Nahm Garrett, M.R.	ORGN	371	Nalbandian, C.J.	CHED	1390
Nadler, S.G.	MEDI	202	Nahon, L.	PHYS	611	Nalbandian, C.J.	CHED	1425
Naduvalath, B.	PHYS	109	Naidugari, J.	CHED	1091	Nalbandian, C.J.	ORGN	451
Naduvalath, B.	PHYS	140	Naik, H.	BIOT	43	Nalca, A.	BIOL	136
Naduvalath, B.	PHYS	470	Naik, R.R.	POLY	276	Naleway, S.E.	CHED	1773
Naeem, O.	POLY	364	Naing, S.	BIOL	317	Nallar, M.	I&EC	58
Naegerl, H.	PHYS	19	Nair, S.	CATL	34	Nalley, E.A.	CHED	136
Nafie, L.A.	PHYS	220	Nair, S.	BIOL	314	Nalley, E.A.	CHED	192
Nag, A.	POLY	432	Naisbit, G.	CHED	485	Nalley, E.A.	CHED	1004
Nag, A.	POLY	655	Najacht, E.	ANYL	79	Nalley, E.A.	CHED	1606
Nagamine, M.	ENFL	82	Najafi Khosroshahi, F.	FLUO	74	Nalley, E.A.	CMA	7
Nagan, M.C.	COMP	214	Najarjan, A.M.	COLL	409	Nalley, E.A.	SCHB	14
Nagao, K.	ORGN	184	Najera, M.	BIOT	510	Nalli, T.W.	CHED	825
Nagao, K.	ORGN	194	Najmr, S.	COLL	119	Nalli, T.W.	CHED	1446
Nagao, M.	COLL	555	Naka, H.	INOR	42	Nalli, T.W.	CHED	1641
Nagaoka, Y.	COLL	416	Nakafuku, K.	ORGN	558	Nalli, T.W.	CHED	1657
Nagarajan, M.	BIOT	6	Nakafuku, K.	ORGN	611	Nallon, E.C.	POLY	703
Nagarajan, R.	COLL	454	Nakafuku, K.	ORGN	697	Nally, M.E.	CHED	1111
Nagarajan, R.	COLL	559	Nakafuku, K.	ORGN	700	Nam, D.	CATL	211
Nagarajan, R.	CELL	16	Nakagawara, T.A.	INOR	1241	Nam, D.	INOR	1426
Nagaraju, M.	COMP	212	Nakahata, T.	MEDI	133	Nam, E.	CHED	10
Nagarnaik, P.	ENVR	70	Nakajima, R.	BIOL	136	Nam, H.	CELL	122
Nagasaki, Y.	POLY	5	Nakama, S.	ENVR	544	Nam, S.	AGFD	223
Nagaya, M.	BIOT	326	Nakama, Y.	POLY	536	Namayandeh, A.	GEOC	140
Nagelski, A.L.	INOR	636	Nakama-Fukuhara, T.M.	CHED	1003	Nambi, I.	ENVR	11
Naggar, M.	INOR	179	Nakamatsu, J.	COLL	625	Nambiar, D.	MEDI	336
Nagib, D.A.	ORGN	59	Nakamoto, B.	INOR	777	Namgung, S.	GEOC	267
Nagib, D.A.	ORGN	208	Nakamura, A.	ORGN	18	Nan, Y.	ENFL	554
Nagib, D.A.	ORGN	558	Nakamura, H.	MEDI	379	Nanayakkara, N.P.	PMSE	45
Nagib, D.A.	ORGN	559	Nakamura, H.	COLL	215	Nance, K.	ENVR	175
Nagib, D.A.	ORGN	560	Nakamura, H.	COLL	260	Nance, K.D.	MEDI	13
Nagib, D.A.	ORGN	609	Nakamura, S.	BIOT	313	Nanda, J.	ENFL	252
Nagib, D.A.	ORGN	611	Nakamura, S.	MEDI	22	Nanda, J.	POLY	317
Nagib, D.A.	ORGN	697	Nakamura, T.	ORGN	731	Nanda, K.	MEDI	69
Nagib, D.A.	ORGN	699	Nakamura, Y.	ENVR	217	Nanda, K.K.	MEDI	191
Nagib, D.A.	ORGN	700	Nakamura, Y.	PMSE	415	Nandi, S.	BIOT	455
Nagib, D.A.	ORGN	701	Nakano, D.	PMSE	29	Nandimandalam, H.	ENFL	94
Nagib, D.A.	ORGN	703	Nakano, H.	COMP	242	Nandra, G.	INOR	718
Nagle, A.S.	MEDI	254	Nakano, H.	CINF	111	Nangle, S.	INOR	128
Nagle, B.	CHED	1443	Nakano, K.	INOR	1213	Nannapaneni, D.	ORGN	176
Nagle, C.	CHED	196	Nakano, Y.	PMSE	409	Nanni, S.	ENVR	56
Nagle, J.K.	INOR	237	Nakano, Y.	MEDI	133	Nantaphol, S.	ANYL	455
Nagle, T.S.	CHED	1692	Nakarmi, A.	ENVR	623	Nantz, M.H.	ANYL	181
Nagorny, P.	CARB	88	Nakashige, M.L.	INOR	869	Naoi, Y.	COLL	309
Nagorski, R.W.	CHED	1581	Nakashige, M.L.	INOR	1296	Napoli, J.	CHED	1433
Nagpure, A.	CATL	273	Nakashima, K.	MEDI	22	Napoline, J.	INOR	1407
Naguib, H.	POLY	316	Nakata, M.	ORGN	736	Naraharisetti, S.	ANYL	118

Naran, K.	ORGN	647	Nath, M.	ENFL	330	Nazarenko, S.I.	POLY	408
Naran, P.	CHED	922	Nathan, T.	BIOL	130	Nazarenko, S.I.	POLY	505
Narasimhan, J.	MEDI	253	Nathan, T.	CARB	56	Nazarenko, S.I.	POLY	574
Narasimhan, S.	CHED	1862	Naticchia, M.	BIOL	318	Nazarenko, S.I.	POLY	735
Narayan, B.	COMP	38	Naticchia, M.	CARB	68	Nazari, M.	ANYL	340
Narayan, S.	CHED	389	Natraj, A.	POLY	509	Nazario, M.	ORGN	415
Narayanan, A.	POLY	695	Natterodt, J.	CELL	419	Nazarova, A.L.	ORGN	687
Narayanan, B.	COLL	508	Naugle, G.	BIOT	79	Nazeeruddin, M.	ORGN	295
Narayanan, B.	COMP	150	Naumann, C.	COLL	106	Nazem-Bokae, H.	PMSE	194
Narayanan, B.	ENFL	50	Naumann, H.D.	AGFD	203	Nde, D.	ANYL	167
Narayanan, B.	PHYS	563	Naumann, S.	ANYL	370	Ndip, E.N.	CHED	2186
Nardi, K.	COLL	522	Naumenko, E.	PMSE	154	Ndombera, F.	MEDI	46
Narehood, A.	CHED	513	Naumiec, G.R.	CHED	88	Ndu, U.	ENVR	281
Naresh, A.	BIOT	283	Naumiec, G.R.	CHED	1394	Ndukwe, M.	MEDI	386
Narula, A.P.	AGFD	128	Naumiec, G.R.	CHED	1547	Neal, J.F.	ENVR	377
Narula, C.K.	CATL	286	Naumiec, G.R.	CHED	1607	Neal, J.F.	ENVR	646
Narula, C.K.	CATL	445	Naumiec, G.R.	CHED	1856	Neal, J.F.	MPPG	16
Narula, J.	CHED	1912	Naumov, P.	BIOL	189	Neal, J.	ENVR	721
Narvi, E.	MEDI	334	Nauta, K.M.	CHED	1219	Neal, L.	ENFL	91
Naryshkin, N.A.	MEDI	253	Nava, M.	INOR	107	Neal, L.	ENFL	134
Naryshkin, N.A.	ORGN	369	Nava, R.	AGFD	81	NEal, T.	POLY	296
Nascimento, A.	BIOT	210	Nava, R.	CHED	356	Nealy, S.	CHED	1956
Nascimento, A.	BIOT	409	Navaratna, T.A.	BIOT	85	Nealy, S.	CHED	2032
Nascimento, A.	BIOT	475	Navard, P.R.	CELL	304	Neary, W.J.	PMSE	276
Nascimento, D.R.	PHYS	424	Navarini, L.	AGFD	193	Neary, W.J.	POLY	21
Nash, B.	COMP	258	Navarra, W.	POLY	637	Neaton, J.	COLL	28
Nash, B.	COMP	260	Navarro, C.	ORGN	84	Neaton, J.	COLL	379
Nash, C.	CATL	283	Navarro, D.	CELL	411	Neaton, J.	COLL	477
Nash, C.	CATL	391	Navarro, M.	BIOL	36	Neaton, J.	INOR	650
Nash, C.	CATL	434	Navarro, M.	BIOL	109	Nedder, S.	ANYL	169
Nash, C.	CATL	459	Navarro, M.	CHED	1180	Nedelec, G.	INOR	1051
Nash, J.J.	ORGN	386	Navarro-Arzate, F.	CELL	70	Nedelec, J.	CELL	341
Nash, K.L.	COMP	189	Navarro-Guajardo, N.B.	AGFD	87	Nedwed, K.	CINF	2
Nash, K.L.	NUCL	25	Naven, R.	MEDI	61	Nee, M.J.	AGFD	7
Nash, S.L.	COMP	289	Naves, A.F.	PMSE	222	Nee, M.J.	CHED	986
Naskar, A.K.	CELL	364	Navon, Y.	CELL	165	Nee, M.J.	ENVR	276
Naskar, A.K.	PMSE	566	Navotnaya, P.	ANYL	280	Needham, T.	ENVR	383
Naskar, A.K.	POLY	275	Navotnaya, P.	PHYS	430	Needham, T.	ENVR	751
Nason, J.A.	ENVR	201	Navrotsky, A.	GEOC	5	Needle, D.	MEDI	11
Nason, J.A.	ENVR	263	Navrotsky, A.	GEOC	48	Neels, J.	MEDI	36
Nason, J.A.	ENVR	433	Navrotsky, A.	GEOC	55	Neely, S.	CHED	1896
Nason, J.A.	ENVR	657	Navrotsky, A.	NUCL	14	Neff, D.P.	COLL	255
Nason, S.L.	PROF	1	Nawara, J.	CHED	1402	Negash, L.	MEDI	297
Nasr, K.	FLUO	47	Nawara, J.	CHED	1403	Negishi, E.	CATL	256
Nasreen, S.	CHED	121	Nawawi, M.A.	PHYS	119	Negreira, N.	ENVR	414
Nasr-Esfahani, P.	ANYL	347	Nawi, M.	COMP	18	Negrilo, M.	COLL	132
Nassar, R.	COMP	219	Nayak, A.	INOR	1066	Negrilo, M.	COLL	248
Nasser, J.A.	AGFD	129	Nayak, D.	BIOL	314	Negron, C.	COMP	417
Natarajan, B.	CELL	67	Nayani, K.	PMSE	259	Negrón, L.J.	CHED	1036
Natarajan, B.	CELL	160	Naylor, M.	CHED	1266	Negron García, M.	CHED	1312
Natarajan, S.	PHYS	353	Nayyar, I.	ENFL	439	Negron García, M.	CHED	1812
Nataro, C.	INOR	182	Nazare, M.	MEDI	318	Negron Rodriguez, J.	CHED	1910
Nataro, C.	INOR	231	Nazarenko, S.I.	POLY	37	Negru, B.	CHED	674
Nataro, C.	INOR	479	Nazarenko, S.I.	POLY	121	Negru, B.	CHED	725
Nath, D.	MEDI	142	Nazarenko, S.I.	POLY	202	Negru, B.	CHED	1287

Negru, B.	CHED	1348	Nemeth, G.	INOR	343	Newby, J.	CHED	1197
Neibert, A.	BIOL	96	Nemykin, V.	ORGN	663	Newcomb, E.T.	ORGN	551
Neibert, A.	BIOL	175	Nemzer, B.V.	AGFD	79	Newell, K.	BIOT	346
Neidig, M.L.	INOR	1350	Nennig, H.	CHED	183	Newhouse, T.R.	ORGN	527
Neidig, M.L.	ORGN	87	Nenninger, A.	ANYL	97	Newman, A.H.	MEDI	264
Neidig, M.L.	PROF	9	Nenninger, A.	COMP	19	Newman, J.M.	CHED	2071
Neil, C.	ENVR	92	Nenoff, T.M.	ENVR	189	Newman, J.M.	CHED	2172
Neil, C.	ENVR	243	Nenoff, T.M.	INOR	167	Newsome, W.	INOR	1182
Neil, C.	ENVR	462	Nenoff, T.M.	INOR	624	Newton, A.	CHED	745
Neil, C.	ENVR	771	Neochoritis, C.	MEDI	276	Newton, G.	INOR	1362
Neil, C.W.	ENVR	721	Neochoritis, C.	MEDI	348	Newton, K.A.	CHED	1064
Neill, L.	NUCL	26	Neochoritis, C.	PROF	4	Newton, M.	MEDI	112
Neill, T.	GEOC	275	Neoh, K.	COLL	102	Newton, S.	ANYL	28
Neimark, A.V.	CATL	402	Neoh, K.	POLY	87	Newton, S.	ENVR	731
Neiser, M.	CHED	1615	Neoh, K.	POLY	445	Neybert, A.E.	CINF	91
Neiser, M.	CHED	1669	Nepal, D.	PMSE	41	Neybert, A.E.	PROF	18
Nejadhashemi, A.	ENVR	96	Nepal, D.	PMSE	315	Neyerlin, K.	ENFL	257
Nekovei, R.	ENFL	525	Nepal, D.	PMSE	493	Neyhouse, B.J.	INOR	1067
Nellis, W.	CHED	27	Nepal, D.	POLY	312	Neymeyr, K.	INOR	1409
Nellutla, S.	CHED	1098	Neri, L.	AGFD	163	Ng, A.	CHED	341
Nellutla, S.	CHED	2081	Nesbitt, N.M.	INOR	1353	Ng, A.	BIOT	10
Nellutla, S.	CHED	2120	Nespor, B.	ANYL	164	Ng, C.	ENVR	226
Nellutla, S.	CHED	2168	Nespor, B.	PROF	46	Ng, D.	ENVR	97
Nelms, M.	CINF	89	Ness, A.	ENVR	197	Ng, H.	PROF	30
Nelp, M.T.	INOR	460	Ness, E.M.	ENFL	126	Ng, H.	COMP	77
Nelson, A.	PMSE	406	Ness, E.M.	INOR	288	Ng, J.	PHYS	647
Nelson, A.	PMSE	560	Nesta, D.P.	BIOT	385	Ng, S.	ENFL	232
Nelson, A.	CHED	72	Nesterov, V.	INOR	974	Ng, T.	POLY	518
Nelson, A.	INOR	271	Nesterov, V.	INOR	982	Ng, T.	POLY	598
Nelson, C.	POLY	152	Netchaev, A.D.	ENVR	703	Ng, W.	GEOC	96
Nelson, C.W.	POLY	210	Neto, J.M.	PMSE	195	Ngai, C.K.	INOR	1038
Nelson, D.J.	CHED	1636	Netz, R.	COLL	453	Ngai, C.	CHED	260
Nelson, H.	ORGN	522	Neu, H.M.	BIOL	11	Ngai, C.	CHED	831
Nelson, H.	ORGN	593	Neu, H.M.	INOR	194	Ngai, C.	ORGN	385
Nelson, I.	CHED	1773	Neufeind, J.	ENFL	487	Nganga, J.	INOR	17
Nelson, J.	MPPG	10	Neufeind, J.	GEOC	54	Ngassa, F.N.	CHED	856
Nelson, J.	ANYL	4	Neufeind, J.	GEOC	188	Ngassa, F.N.	CHED	1387
Nelson, J.	ENFL	36	Neufeldt, S.R.	ORGN	153	Ngelale, R.	NUCL	41
Nelson, J.	ENFL	41	Neuhauser, D.	PHYS	315	Nghiem, A.	GEOC	109
Nelson, J.	ENFL	42	Neumann, A.	GEOC	98	Nghiem, T.	BIOL	54
Nelson, J.	ENFL	98	Neumann, A.	GEOC	203	Ngo, A.H.	INOR	693
Nelson, J.	ENFL	286	Neumann, A.	GEOC	255	Ngo, A.H.	INOR	897
Nelson, J.	ENFL	287	Neumann, C.N.	INOR	1090	Ngo, D.	ORGN	492
Nelson, J.	INOR	958	Neumann, M.A.	COMP	55	Ngo, D.T.	ENFL	501
Nelson, K.	PHYS	460	Neumann, M.A.	COMP	56	Ngo, T.	CHED	498
Nelson, M.	ENFL	52	Neumann, S.	ENVR	738	Ngo, V.	COMP	132
Nelson, M.	ENVR	467	Neumark, D.M.	PHYS	106	Ngouana-Wakou, B.F.	GEOC	51
Nelson, N.	CATL	3	Neupane, S.	COLL	290	Ngu, K.	MEDI	297
Nelson, R.	INOR	380	Neuzil, M.	CHED	1362	Ngu, L.	COMP	69
Nelson, R.	PHYS	476	Neuzil, S.	CHED	1908	Ngunjiri, J.	COLL	609
Nelson, T.E.	ENVR	589	Nevado, C.	ORGN	60	Nguyen, A.	CHED	1281
Nelson, T.L.	POLY	595	Nevarez, E.	CHED	1413	Nguyen, A.	FLUO	42
Nelson, W.	ENVR	702	Neverstitch, Z.	CHED	1917	Nguyen, A.	CHED	1000
Nemeria, N.S.	BIOL	48	Neville, M.L.	INOR	1347	Nguyen, A.	CHED	1890
Nemeth, A.M.	ANYL	68	Nevskyi, O.	POLY	746	Nguyen, A.	COLL	188

Nguyen, A.	COLL	200	Nguyen, P.	ENFL	93	Nhan, B.T.	CHED	1305
Nguyen, B.N.	POLY	506	Nguyen, P.	ORGN	108	Nhon, L.	INOR	1069
Nguyen, B.N.	ORGN	627	Nguyen, P.Q.	ENFL	204	Ni, B.	CATL	333
Nguyen, D.	AGFD	157	Nguyen, P.Q.	ENFL	340	Ni, B.	CHED	46
Nguyen, D.	BIOL	289	Nguyen, P.Q.	ENFL	378	Ni, K.	PHYS	58
Nguyen, D.	ENFL	231	Nguyen, Q.	CHED	1566	Ni, K.	PHYS	110
Nguyen, E.P.	INOR	808	Nguyen, Q.	CHED	1615	Niang, M.	COLL	689
Nguyen, H.	COLL	211	Nguyen, Q.	CHED	1669	Nice, J.B.	COLL	97
Nguyen, H.	COLL	291	Nguyen, R.	POLY	620	Nicewicz, D.A.	INOR	78
Nguyen, H.	POLY	659	Nguyen, S.	BIOL	298	Nicewicz, D.A.	ORGN	306
Nguyen, H.	POLY	711	Nguyen, S.	POLY	560	Nicewicz, D.A.	ORGN	400
Nguyen, H.	BIOT	356	Nguyen, S.	POLY	581	Nicewicz, D.A.	ORGN	401
Nguyen, H.	PMSE	340	Nguyen, S.T.	INOR	505	Nicewonger, R.	MEDI	90
Nguyen, H.	POLY	435	Nguyen, S.T.	POLY	263	Nicholas, B.	PMSE	410
Nguyen, H.M.	CARB	6	Nguyen, S.	ORGN	469	Nicholas, C.P.	CATL	415
Nguyen, H.M.	CARB	34	Nguyen, S.	ORGN	492	Nicholls, A.	COMP	85
Nguyen, H.M.	CARB	41	Nguyen, S.	PHYS	535	Nicholls, I.A.	ANYL	133
Nguyen, H.M.	CARB	48	Nguyen, T.	POLY	542	Nicholls, B.	BIOL	76
Nguyen, H.M.	ORGN	233	Nguyen, T.	CHED	1214	Nichols, A.	INOR	554
Nguyen, H.M.	ORGN	661	Nguyen, T.	AGFD	134	Nichols, B.L.	CELL	140
Nguyen, H.M.	POLY	299	Nguyen, T.	CHED	1413	Nichols, B.L.	CELL	189
Nguyen, H.C.	BIOT	443	Nguyen, T.H.	ENVR	25	Nichols, B.L.	CELL	191
Nguyen, H.V.	POLY	278	Nguyen, T.H.	ENVR	578	Nichols, B.L.	POLY	233
Nguyen, H.V.	POLY	315	Nguyen, T.T.	INOR	59	Nichols, C.	INOR	899
Nguyen, H.V.	POLY	633	Nguyen, T.	AGFD	180	Nichols, D.	CARB	46
Nguyen, H.	INOR	896	Nguyen, T.	AGFD	199	Nichols, J.W.	ANYL	18
Nguyen, H.T.	PHYS	504	Nguyen, T.	ORGN	396	Nichols, K.	CHED	544
Nguyen, H.	ANYL	191	Nguyen, T.	BIOL	255	Nichols, R.	COLL	112
Nguyen, H.	INOR	870	Nguyen, T.	ORGN	434	Nichols, R.	COLL	117
Nguyen, H.	PHYS	549	Nguyen, T.	POLY	717	Nichols, R.	COLL	340
Nguyen, H.	PHYS	649	Nguyen, T.	BIOL	244	Nichols, R.	COLL	413
Nguyen, J.	BIOT	418	Nguyen, T.Q.	MEDI	390	Nichols, R.	PHYS	247
Nguyen, J.K.	INOR	1412	Nguyen, T.	ENVR	87	Nichols, R.J.	MEDI	277
Nguyen, K.	COMP	250	Nguyen, T.	CHED	971	Nichols, S.	INOR	191
Nguyen, K.	ENVR	498	Nguyen, T.	PHYS	457	Nichols, S.M.	PHYS	278
Nguyen, M.	COMP	122	Nguyen, T.B.	CHED	111	Nicholson, J.	CHED	1602
Nguyen, M.	ENFL	235	Nguyen, T.B.	ENVR	498	Nicoli, S.	ENVR	591
Nguyen, M.	ENVR	756	Nguyen, T.	PHYS	519	Nickel, C.	CHED	979
Nguyen, M.	PHYS	233	Nguyen, T.S.	PHYS	582	Nickels, J.	COLL	335
Nguyen, M.	COLL	143	Nguyen, T.N.	ORGN	252	Nickels, J.	COLL	403
Nguyen, M.	CHED	1967	Nguyen, T.	ORGN	542	Nicklaus, M.C.	CINF	7
Nguyen, M.	COLL	110	Nguyen, T.	COLL	547	Nicklaus, M.C.	CINF	18
Nguyen, M.T.	CHED	355	Nguyen, T.	COLL	591	Nicklaus, M.C.	MEDI	11
Nguyen, N.	INOR	934	Nguyen, T.	COLL	761	Nickson, K.	CHED	1840
Nguyen, N.	CHED	415	Nguyen, T.	CHED	1174	Nickson, K.A.	PHYS	526
Nguyen, N.	MEDI	298	Nguyen, V.	CHED	1593	Nico, P.S.	ENVR	219
Nguyen, N.	PMSE	566	Nguyen, Y.	INOR	233	Nico, P.S.	GEOC	63
Nguyen, N.A.	CELL	364	Nguyen-Beck, T.S.	INOR	1151	Nico, P.S.	GEOC	67
Nguyen, N.A.	POLY	275	Nguyen Dang, A.	BIOT	46	Nico, P.S.	GEOC	91
Nguyen, N.	CHED	458	Nguyen Dang, A.	BIOT	343	Nicodemus, C.	CHED	350
Nguyen, N.	COLL	263	Nguyen-Graff, D.	CHED	160	Nicolaisen, M.	AGFD	90
Nguyen, N.	NUCL	39	Nguyen-Le, J.	ORGN	250	Nicolas, C.I.	CINF	110
Nguyen, P.	MEDI	390	Nguyen-Le, J.	ORGN	660	Nicolas, C.I.	ENVR	360
Nguyen, P.Q.	BIOT	226	Ngwa, C.	FLUO	44	Nicolau, E.	ANYL	84
Nguyen, P.T.	INOR	964	Ngwudike, S.I.	MEDI	405	Nicolau, E.	ANYL	85

Nicolau, E.	ANYL	86	Niessan, S.	MEDI	321	Nippe, M.	INOR	1079
Nicolau, E.	BIOL	71	Nieter Burgmayer, S.J.	INOR	929	Nippe, M.	INOR	1148
Nicolau, E.	BIOT	351	Nieter Burgmayer, S.J.	INOR	934	Nippe, M.	INOR	1265
Nicolau, E.	CHED	890	Nieto, M.	BIOT	436	Nippe, M.	INOR	1280
Nicolau, E.	CHED	1264	Nieto, M.	BIOT	495	Nippe, M.	INOR	1293
Nicolau, V.V.	CELL	109	Nieto, S.	ENVR	474	Nirei, M.	PHYS	288
Nicolay, A.	INOR	87	Nietzsche, S.	CELL	359	Nishida, A.	ORGN	30
Nicolay, M.	CHED	91	Nieuwendaal, R.	POLY	189	Nishida, A.	ORGN	142
Nicolay, M.	CHED	1814	Nieuwendaal, R.	POLY	322	Nishikata, M.	GEOC	31
Nicolini, A.	ANYL	353	Nieves-Marrero, C.A.	CHED	89	Nishimoto, Y.	COMP	337
Nicolotti, L.	AGFD	114	Nieves-Marrero, C.A.	CHED	1875	Nishimura, A.	POLY	533
Niconchuk, J.	INOR	963	Nigmatullin, R.	CELL	310	Nishimura, A.	POLY	725
Nicosia, J.	POLY	690	Nihonyanagi, S.	PHYS	371	Nishimura, Y.F.	CATL	345
Nicoud, R.M.	I&EC	16	Niinivaara, E.	CELL	195	Nishioka, G.	CHED	1710
Nicoud, R.M.	I&EC	18	Niinivaara, E.	CELL	199	Nishioka, G.M.	CHED	1703
Nie, G.	ENFL	143	Niinivara, E.	CELL	167	Nishioka, T.	MEDI	90
Nie, H.	BIOL	211	Nijamudheen, A.	COMP	336	Nishitoba, T.	CATL	10
Nie, X.	ENFL	113	Nijamudheen, A.	PHYS	377	Nishiyama, T.	MEDI	32
Nie, X.	ENFL	294	Nijhuis, C.A.	COLL	482	Nishiyama, Y.	CELL	3
Nie, Z.	COLL	94	Nijhuis, C.A.	COLL	483	Nishiyama, Y.	CELL	44
Niebler, J.	AGFD	191	Nijhuis, X.	CATL	433	Nishiyama, Y.	CELL	247
Niebuhr, B.	CHED	1846	Nikhar, S.	MEDI	374	Nishiyama, Y.	POLY	14
Niece, M.	CHED	1156	Nikitina, A.	CINF	113	Nishizawa, S.	BIOT	414
Nieder, C.	BIOT	340	Nikkilä, I.	CELL	138	Niss, K.	BIOT	125
Niederholtmeyer, H.	BIOL	30	Niklas, J.	PHYS	600	Nissan, H.	ANYL	21
Niederholtmeyer, H.	BIOL	213	Niklas, J.	INOR	1014	Nitin, N.	AGFD	173
Niederholtmeyer, H.	COLL	214	Niklasson, A.	PHYS	388	Nitin, N.	COLL	186
Niegelhell, K.	CELL	52	Nikles, J.A.	CHED	1854	Nitsche, C.I.	CINF	30
Niegelhell, K.	CELL	296	Nikles, J.A.	CHED	2184	Nitschke, J.	INOR	640
Niegelhell, K.	CELL	336	Nikolai, A.	CHED	1108	Nitschke, J.	INOR	1049
Nieh, M.	COLL	333	Nikolaidou, K.	BIOT	199	Nitschke, J.	POLY	612
Niehaus, T.	COMP	390	Nikolaus, E.	CHED	479	Nitti, L.M.	CHED	900
Nielaba, P.	COLL	345	Nikolla, E.	I&EC	62	Nitzer, A.	FLUO	13
Nielander, A.	ENFL	178	Nikolov, Z.L.	BIOT	294	Niu, C.	CATL	301
Nielsen, A.V.	ANYL	7	Nikolov, Z.L.	BIOT	323	Niu, L.	CHED	1052
Nielsen, D.	BIOT	154	Nilles, A.	AGFD	70	Niu, P.	ENFL	349
Nielsen, J.E.	COLL	232	Nilsson, A.R.	ENFL	173	Niu, S.	INOR	271
Nielsen, J.E.	COLL	714	Nilsson, B.	BIOT	344	Niu, S.	INOR	520
Nielsen, R.J.	CATL	465	Nilsson, B.	BIOT	365	Niu, S.	INOR	925
Nielsen, R.J.	INOR	1268	Nilsson, B.	BIOT	560	Niu, S.	ANYL	221
Nielsen, S.	CHED	820	Nilsson, M.	NUCL	36	Niu, W.	PMSE	243
Nielsen, S.O.	PMSE	411	Nilsson, M.	NUCL	41	Niu, X.	ENVR	181
Nielsen, S.O.	PMSE	477	Nimir, H.	INOR	904	Niu, X.	ENVR	523
Nielson, J.B.	CHED	284	Nimlos, C.T.	CATL	356	Niu, Z.	INOR	523
Nielson, J.B.	CHED	2044	Nimlos, M.R.	CATL	391	Nivière, V.	INOR	1355
Nielson, J.B.	CHED	2045	Nimlos, M.R.	COMP	149	Niwayama, S.	ORGN	659
Niemann, T.	PHYS	293	Ning, D.	ENVR	455	Niyazi, A.	MEDI	110
Niemeier, D.	ENVR	200	Ning, J.	CATL	507	Niyongabo, A.	CHED	329
Niemeyer, E.D.	AGFD	68	Ning, P.	CATL	309	Niyonsaba, E.	ORGN	12
Niemeyer, Z.	ORGN	614	Ning, P.	CATL	310	Njardarson, J.T.	INOR	1386
Niemyska, W.	PMSE	200	Ninneman, S.	CHED	1686	Njardarson, J.T.	ORGN	521
Niepa, T.H.	COLL	12	Ninomiya, K.	CELL	81	Njoku, D.I.	COLL	175
Nierenberg, D.	SCHB	10	Ninomiya, K.	AGFD	5	Njoku, G.	MEDI	187
Nierenberg, D.	SCHB	11	Nippe, M.	INOR	383	Njuguna, B.	ANYL	302
Niesen, M.	COMP	174	Nippe, M.	INOR	501	Noaimi, K.R.	ENFL	233

Noble, A.R.	CHED	1110	Noor, M.M.	COLL	438	Northen, T.	BIOT	532
Noboa, M.A.	ORGN	633	Noor, N.	GEOC	12	Northrup, A.	ORGN	207
Noce, A.M.	SCHB	21	Noorbehesht, R.	CHED	1418	Northrup, J.K.	COLL	403
Nocera, D.G.	INOR	21	Noorbehesht, R.	ORGN	123	Norton, A.E.	CHAS	2
Nocera, D.G.	INOR	128	Noorbehesht, R.	ORGN	451	Norton, A.E.	INOR	1215
Nocera, D.G.	INOR	660	Nora, C.	BIOL	103	Norton, A.E.	PROF	16
Nocera, G.	CHED	1673	Nor-Anuar, A.	ENVR	604	Norton, J.R.	INOR	613
Noda, I.	CELL	134	Nord, E.	PHYS	567	Norton, M.L.	COLL	255
Noda, I.	COLL	327	Nordeman, P.	FLUO	53	Norton, S.	GEOC	119
Noda, I.	PMSE	291	Nordengren, K.	CHED	932	Norwood, M.	PMSE	354
Noda, I.	PMSE	293	Nordenstrom, M.	CELL	340	Noseworthy, J.	AGFD	62
Noel, C.R.	COMP	263	Nordgren, N.	COLL	162	Nosik, P.	ORGN	344
Noel, V.	GEOC	124	Nordin, G.P.	ANYL	7	Noskov, S.	BIOL	173
Noel Torres, J.G.	CHED	1337	Nording, M.L.	AGFD	171	Noskov, S.	COMP	132
Noel Torres, J.G.	CHED	1812	Nordlander, P.J.	COLL	759	Notarmaso, M.	MEDI	57
Nofen, E.	POLY	616	Nordlander, P.J.	PHYS	12	Notestein, J.M.	CATL	6
Nogaj, L.	CHED	354	Nordlander, P.J.	PHYS	299	Notestein, J.M.	CATL	424
Nogaj, L.	CHED	552	Nordlander, P.J.	PHYS	394	Notestein, J.M.	ENVR	761
Nogaj, L.	CHED	585	Nordlund, D.	COLL	381	Notestein, J.M.	I&EC	50
Nogaj, L.	CHED	704	Nordlund, D.	ENFL	184	Notestein, J.M.	I&EC	66
Nogaj, L.	CHED	1183	Nordstrom, K.	GEOC	127	Notestein, J.M.	I&EC	80
Nogaj, L.	CHED	1185	Nordstrom, R.	POLY	333	Notestein, J.M.	I&EC	93
Nogaj, L.	CHED	1200	Nordstrom, R.	POLY	795	Nothdurft, K.	POLY	391
Nogi, M.	CELL	161	Nordstrom, R.	POLY	797	Notredame, C.	ENVR	518
Nogle, J.	CHED	807	Nordvarg, H.	BIOT	303	Noureddine, A.	COLL	468
Nogle, J.	CHED	808	Nordvarg, H.	BIOT	309	Noureddine, A.	CHED	1322
Noguchi, M.	CELL	62	Norena-Caro, D.	BIOT	32	Nouri, H.	CHED	972
Noguchi, M.	ENVR	217	Nori, R.	CHED	856	Nousiainen, P.	CELL	110
Noguchi, M.	ENVR	571	Noriega, R.	PHYS	120	Nousiainen, P.	CELL	119
Noh, Y.	POLY	86	Noriyoshi, M.	ENFL	546	Nousiainen, P.	CELL	135
Nokes, S.	CELL	115	Norman, E.B.	NUCL	7	Novak, B.	CELL	183
Nolan, C.	MEDI	321	Norman, N.	MEDI	368	Novak, B.	COLL	17
Nolan, D.	BIOL	174	Norman, T.	MEDI	25	Novak, B.	COLL	460
Nolan, E.M.	INOR	127	Norman, T.	MEDI	26	Novak, B.M.	PMSE	403
Nolan, E.M.	INOR	131	Norman, T.	MEDI	378	Novak, B.M.	PMSE	590
Nolan, J.	GEOC	93	Normani, S.	ENVR	6	Novak, B.M.	POLY	81
Nolan, M.	CATL	248	Noronha, F.	I&EC	35	Novak, B.M.	POLY	643
Nolan, M.	CATL	319	Norquay, L.	MEDI	75	Novak, C.M.	CHED	872
Nolan, M.	COLL	380	Norquist, A.J.	INOR	761	Novak, C.M.	PHYS	89
Nolan, M.	COMP	367	Norquist, A.J.	INOR	762	Novak, R.	CHED	1482
Nolan, M.	ENFL	71	Norris, A.L.	CHED	1677	Novakovic, K.	POLY	7
Nolan, M.	ENFL	240	Norris, B.N.	CHED	1857	Novelli, E.T.	BIOT	25
Nolan, M.	ENFL	246	Norris, C.E.	CHED	469	Novelli, E.T.	CHED	2156
Nolan, M.M.	PROF	26	Norris, J.D.	MEDI	295	Noveron, J.	COLL	181
Nolan, T.	CHED	509	Norris, M.R.	INOR	664	Novikov, A.	PMSE	154
Nolkemper, T.	CHED	1674	Norskov, J.K.	CATL	103	Novikov, A.A.	COLL	743
Noll, D.M.	POLY	352	Norskov, J.K.	CATL	478	Novikov, I.S.	COMP	79
Nolte, H.	ANYL	160	Norskov, J.K.	CATL	481	Novo, D.	COLL	224
Nolte, H.	ANYL	170	Norskov, J.K.	CATL	533	Novo, D.	POLY	493
Nomura, I.	MEDI	22	Norskov, J.K.	ENFL	112	Novoa, D.	PHYS	486
Nomura, S.	CELL	81	Norskov, J.K.	ENFL	178	Novoa, D.T.	PHYS	469
Nomura, Y.	MEDI	299	North, H.K.	HIST	43	Novoa, T.	PHYS	44
Nonato Costa, M.	CHED	688	North, S.	COLL	354	Novoa-Aponte, L.	PROF	47
Nong, J.P.	CELL	258	North, S.W.	CHED	1690	Novotny, A.	GEOC	94
Noor, M.	CELL	194	North, S.W.	PHYS	559	Novy, M.	POLY	407

Nowak, C.	CHED	1680	Nykypanchuk, D.	POLY	394	O'Day, P.A.	COLL	760
Nowak, E.B.	COLL	205	Nylén, O.	CELL	430	O'Day, P.A.	ENVR	91
Nowak, E.B.	COLL	680	Nyman, G.	PHYS	309	O'Day, P.A.	GEOC	40
Nowak, S.R.	PMSE	584	Nypelo, T.	CELL	99	O'Dell, L.	CATL	368
Nowakowski, H.	CHED	1604	Nypelo, T.	CELL	335	O'Dell, L.	CATL	513
Nowick, J.S.	BIOL	62	Nysschen, J.J.	CHED	841	O'Dell, L.	POLY	137
Nowick, J.S.	PROF	25	Nystrom, G.	CELL	171	O'Doherty, G.A.	CARB	29
Noyes, A.	BIOT	500	Nystrom, S.	CATL	356	O'Donnell, D.	ANYL	209
Noyes, A.M.	CHED	1542	Nystrom, V.	ENVR	98	O'Donnell, J.L.	CHED	1819
Noyes, A.M.	CHED	1823	Nyström, L.	POLY	333	O'Donnell, J.L.	CHED	2034
Nozawa-Kumada, K.	ORGN	128	Nyström, L.	POLY	795	O'Donnell, J.L.	CHED	2067
Nozzi, N.	BIOT	550	Nyström, L.	POLY	797	O'Donnell, J.L.	INOR	308
Nsengiyumva, O.	POLY	584	Nytko, F.E.	I&EC	130	O'Donnell, R.M.	INOR	1169
Nsengiyumva, O.	POLY	659	Nziko, V.	CATL	470	O'Donnell, S.M.	PMSE	194
Nuckolls, C.P.	PHYS	127	Nørgaard, K.	COLL	411	O'Dowd, F.	POLY	579
Nuevo, M.	PHYS	586	N'Diaye, A.	GEOC	255	O'Dowd, F.	POLY	749
Nufer, S.	COLL	55	O'Boyle, S.K.	CHED	1110	O'Dwyer, W.	BIOT	541
Nugaduwa Vithanage, B.C.	ANYL	436	O'bratsova, A.	COLL	274	O'Dwyer, W.M.	BIOT	371
Nugen, S.R.	AGFD	107	O'bratsova, A.	COLL	682	O'Gwynn, B.D.	CHED	22
Nugen, S.R.	ANYL	319	O'Brien, A.Y.	INOR	230	O'Hagan, D.	BIOT	454
Nugroho, R.W.	COLL	709	O'Brien, A.Y.	INOR	319	O'Hagan, M.J.	INOR	665
Nuhant, P.	ORGN	348	O'Brien, A.Y.	INOR	1254	O'Harra, K.E.	PMSE	356
Numata, K.	POLY	195	O'Brien, C.	BIOT	296	O'Harra, K.E.	POLY	352
Numata, Y.	MEDI	379	O'Brien, C.	PMSE	494	O'Keefe, C.	CATL	513
Nune, S.K.	COLL	172	O'Brien, C.M.	BIOT	27	O'Keefe, T.	CHED	1754
Nune, S.K.	INOR	1367	O'Brien, C.M.	BIOT	110	O'Leary, D.J.	COMP	296
Nunes, A.	BIOL	140	O'Brien, D.	POLY	453	O'Leary, D.J.	INOR	257
Nunez, A.J.	INOR	1046	O'Brien, E.	COLL	145	O'Leary, D.J.	ORGN	510
Nunez, J.	MEDI	295	O'Brien, E.	INOR	829	O'Loughlin, E.J.	ENVR	222
Nunez, J.I.	BIOL	120	O'Brien, E.S.	INOR	599	O'Loughlin, E.J.	GEOC	65
Núñez, L.	CHED	772	O'Brien, J.	ORGN	69	O'Loughlin, E.J.	GEOC	207
Núñez, L.	CHED	2153	O'Brien, L.C.	CHED	1708	O'Loughlin, E.J.	GEOC	222
Nurmomade, L.	CHED	797	O'Brien, R.A.	PHYS	25	O'Malley, K.N.	ENVR	660
Nusinow, D.A.	ANYL	38	O'Brien, S.	CHED	924	O'Malley, M.A.	BIOT	160
Nuss, R.	ENVR	535	O'Brien, S.	BIOT	110	O'Malley, M.A.	BIOT	236
Nussinov, R.	COMP	127	O'Carroll, I.	CHED	575	O'Malley, M.A.	BIOT	469
Nussinov, R.	MEDI	11	O'Carroll, I.	CHED	598	O'Malley, M.A.	BIOT	532
Nuutinen, E.	CELL	420	O'Connell, B.	INOR	953	O'Malley, M.A.	WCC	19
Nuvoli, D.	POLY	185	O'Connell, J.	MEDI	25	O'Malley, S.M.	BIOT	195
Nwaichi, E.O.	AGFD	184	O'Connell, J.	MEDI	26	O'Malley, S.M.	BIOT	198
Nwaichi, E.O.	BIOL	95	O'Connell, R.	ORGN	427	O'Malley, S.M.	BIOT	464
Nwaiwu, T.S.	CHED	1004	O'Connor, A.R.	CHED	1825	O'Malley, S.M.	CELL	101
Nwaonumah, E.	CHED	943	O'Connor, A.R.	INOR	247	O'Neil, G.W.	ORGN	696
Nwoke, I.	ENVR	549	O'Connor, A.R.	INOR	476	O'Neill, B.T.	MEDI	321
Nwoko, K.	ENFL	43	O'Connor, B.	ANYL	339	O'Neill, E.M.	BIOL	257
Nwokogu, G.C.	CHED	2186	O'Connor, D.	POLY	569	O'Neill, H.M.	CELL	8
Nwosu, U.G.	GEOC	40	O'Connor, D.	ORGN	117	O'Neill, H.M.	CELL	322
Nyadong, L.	ENFL	314	O'Connor, E.	BIOT	346	O'Neill, H.M.	COMP	355
Nyakuchena, J.	POLY	565	O'Connor, L.	CHED	1920	O'Reilly, R.K.	PMSE	23
Nyarko, L.	INOR	928	O'Connor, L.	ENVR	526	O'Reilly, R.K.	POLY	175
Nycholat, C.	CARB	84	O'Connor, L.	ENVR	527	O'Reilly, S.	GEOC	134
Nycholat, C.	CELL	159	O'Connor, L.	CHED	883	O'Rourke, J.	ENVR	20
Nydegger, M.	CHED	181	O'Connor, M.P.	ENVR	770	O'Shea, K.E.	ENVR	115
Nye, K.	COMP	308	O'Connor, M.	ENVR	48	O'Shea, K.E.	ENVR	147
Nyholm, L.	CELL	38	O'Connor, T.	PMSE	606	O'Shea, K.E.	ENVR	231

O'Shea, K.E.	ENVR	261	OConnor, K.	BIOT	128	Ogitsu, T.	ENFL	147
O'Shea, K.E.	ENVR	274	Odago, M.O.	CHED	14	Ogitsu, T.	ENFL	272
O'Shea, K.E.	ENVR	385	Odago, M.O.	CHED	1099	Ogitsu, T.	ENFL	276
O'Shea, K.E.	ENVR	658	Odago, M.O.	CHED	1429	Ogitsu, T.	ENFL	277
O'Shea, K.E.	ENVR	675	Odago, M.O.	CHED	1497	Ogle, J.	INOR	96
O'Shea, S.K.	ANYL	130	Odani, T.	MEDI	133	Ogletree, F.	COLL	379
O'Shea, S.K.	ANYL	149	Odashima, R.	PMSE	453	Oglic, D.	COMP	50
O'Shea, S.K.	ANYL	178	Oddo, S.	MEDI	147	Ogorek, T.J.	CHED	1218
O'Shea, S.K.	CHED	1109	Odeh, N.	PHYS	405	Ogoshi, T.	INOR	544
O'Shea, S.K.	CHED	1892	Odell, L.R.	FLUO	53	Ogozaly, S.	ENVR	164
O'Shea, S.K.	GEOC	205	Odella, E.	INOR	1163	Ogunsolu, O.	INOR	1068
O'Shea, S.K.	GEOC	206	Oden, C.	GEOC	202	Ogurcak, D.	CHED	902
O'Steen, M.	BIOT	244	Odenwelder, D.	BIOT	173	Oh, A.	INOR	807
O'Sullivan, M.C.	CHED	1235	Oderinde, M.S.	ORGN	348	Oh, C.	I&EC	106
O'Sullivan, M.C.	CHED	1236	Oderinde, T.	CHED	1841	Oh, J.H.	CHED	1661
O'Sullivan, O.	INOR	1385	Odero, C.	INOR	510	Oh, J.	ANYL	351
O'Sullivan, S.J.	FLUO	43	Odoh, S.O.	CATL	142	Oh, J.	PMSE	413
Oakley, J.	CHED	1395	Odoh, S.O.	INOR	507	Oh, J.	BIOT	278
Oates, K.K.	CHED	23	Odoh, S.O.	NUCL	10	Oh, J.	AGFD	96
Oatley, S.	COMP	50	Odum, A.L.	INOR	1292	Oh, K.	CHED	269
Oba, Y.	PHYS	313	Odum, L.V.	ORGN	124	Oh, K.	PMSE	417
Oba, Y.	PHYS	314	Odum, L.V.	ORGN	473	Oh, S.	POLY	457
Obaleye, J.A.	INOR	89	Odum, M.G.	COLL	645	Oh, S.	INOR	453
Obaleye, J.A.	INOR	681	Odum, T.W.	CHED	1978	Oh, S.	BIOT	422
Obaleye, P.O.	INOR	681	Odonnell, M.J.	CHED	300	Oh, S.	CATL	61
Obanda, A.	INOR	1310	Oehrl, A.	POLY	373	Oh, S.	ENFL	89
Obando, L.	BIOT	82	Oehrl, L.L.	CELL	202	Oh, T.	COLL	138
Obare, S.O.	CELL	147	Oelmeier, S.	BIOT	131	Oh, T.	BIOL	193
Obata, S.	COMP	313	Oennby, L.	ENVR	137	Oh, Y.	INOR	830
Oberdisse, J.	COLL	65	Oertel, M.	CHED	734	Ohashi, S.	PMSE	185
Oberg, K.	BIOT	291	Oerthel, M.C.	COLL	340	Ohashi, S.	PMSE	186
Obermeier, M.T.	MEDI	6	Offiong, N.O.	ENVR	549	Ohenhenlen, S.O.	ANYL	201
Obermeier, M.T.	MEDI	36	Offiong, N.O.	GEOC	99	Ohgo, K.	MEDI	337
Obermeier, M.T.	MEDI	297	Ofoegbuna, T.	INOR	1374	Ohgo, K.	POLY	723
Oberortner, E.	BIOT	470	Ogale, A.A.	CELL	409	Ohigashi, A.	ORGN	141
Obianom, O.	MEDI	373	Ogasawara, H.	ANYL	421	Ohl, M.	COLL	335
Obolo, E.I.	CHED	892	Ogawa, A.	INOR	497	Ohlhausen, M.	CHED	1014
Obradovic, J.	CELL	433	Ogawa, D.	BIOT	113	Ohlson, D.	INOR	245
Obrien, J.	CATL	489	Ogawa, D.	BIOT	483	Ohm, W.	PMSE	277
Obrist, D.	GEOC	42	Ogawa, K.	ORGN	726	Ohmoto, H.	GEOC	30
Obrzut, J.	CELL	67	Ogawa, R.	PMSE	415	Ohno, T.	GEOC	16
Obrzut, J.	CELL	160	Ogawa, S.	MEDI	32	Ohshima, Y.	PHYS	371
Occhialini, G.	PMSE	411	Ogawa, Y.	CELL	3	Ohslugi, Y.	ANYL	99
Occhialini, G.	PMSE	477	Ogawa, Y.	CELL	44	Ohta, Y.	PMSE	245
Occhialini, G.	PMSE	579	Ogawa, Y.	CELL	247	Ohtake, S.	AGFD	123
Ocheje, M.U.	POLY	717	Ogawa, Y.	CELL	283	Ohtomo, Y.	GEOC	31
Ochiai, M.	ANYL	106	Ogba, M.	INOR	257	Ohuchi, F.	I&EC	169
Ochiai, M.	GEOC	197	Ogba, O.	COMP	296	Oikawa, R.	BIOL	163
Ochieng, F.	ANYL	442	Ogba, O.	ORGN	510	Oishi, T.	ORGN	258
Ochieng, F.	COMP	59	Ogilvie, S.	COLL	434	Ojala, W.H.	CHED	1356
Ochoa, C.I.	ORGN	642	Ogilvie, S.	COLL	619	Ojala, W.H.	CHED	1358
Ochoa, G.	GEOC	220	Ogilvie, S.	COLL	710	Ojala, W.H.	CHED	1362
Ochoa, I.	ENVR	668	Ogindo, C.	COMP	197	Ojeda-May, P.	COMP	212
Ochoa, M.A.	PHYS	386	Oginni, O.	ENVR	167	Ojima, I.	CHED	1231
Ochs, J.	PMSE	412	Ogino, M.	MEDI	133	Ojima, I.	COLL	169

Ojima, I.	MEDI	213	Oldendorf, D.	CHED	480	Olsen, B.D.	POLY	76
Ojima, I.	MEDI	366	Oldendorf, D.	CHED	482	Olsen, B.	INOR	654
Ojima, I.	MEDI	371	Oldendorf, D.	CHED	484	Olsen, B.	MPPG	17
Ok, K.	INOR	194	Oldendorf, D.	CHED	486	Olsen, B.	PMSE	514
Ok, S.	GEOC	209	Oldendorf, D.M.	CHED	170	Olsen, M.	ENFL	390
Okada, M.	ANYL	106	Oldenhuis, N.J.	BIOL	313	Olsen, R.J.	PHYS	510
Okado, T.	PMSE	414	Oldenhuis, N.J.	PMSE	562	Olshansky, J.H.	COLL	144
Okafor, U.	CHED	859	Oldfield, E.	BIOL	206	Olshansky, L.	INOR	219
Okajima, M.	POLY	470	Oldham, V.E.	GEOC	158	Olson, E.C.	CHED	1528
Okajima, M.	POLY	758	Oldham, V.E.	INOR	46	Olson, H.R.	CHED	1455
Okamoto, I.	ORGN	708	Oldiges, K.	PHYS	514	Olson, K.	MEDI	131
Okamoto, Y.	ANYL	122	Oldknow, S.	INOR	1044	Olson, L.	ENVR	227
Okanishi, R.	CELL	152	Olechno, J.	MEDI	348	Olson, M.	POLY	668
Okeke, U.	ANYL	137	Olek, J.	PMSE	510	Olson, M.L.	CELL	218
Okeowo, M.K.	COLL	148	Oleksiak, K.	POLY	700	Olson, N.	CHED	445
Okeowo, M.K.	COLL	410	Olesik, S.J.	CMA	1	Olson, P.	MEDI	146
Okeyoshi, K.	POLY	758	Oleskey, T.J.	CHED	1457	Olson, R.	ANYL	209
Okhawilai, M.	PMSE	230	Oleynichenko, S.	ORGN	743	Olson, T.M.	ENVR	31
Oki, H.	MEDI	22	Oliva, M.E.	CHED	426	Olson, W.A.	CHED	120
Oki, N.	ENVR	518	Oliva, S.	CHED	90	Olsson, A.	PHYS	174
Okolie, C.	CATL	199	Oliva, S.	CHED	1886	Olsson, U.	COLL	320
Okolie, C.	CATL	441	Olivares, C.I.	ENVR	762	Olstad, J.	CATL	390
Okolo, C.	MEDI	125	Oliveberg, M.	COLL	322	Olszta, M.J.	INOR	1367
Okolo, C.	MEDI	179	Oliveberg, M.	COLL	528	Oltermann, E.L.	CHAS	43
Okomoto, Y.	COLL	552	Oliveira, A.	ENVR	451	Oltermann, E.L.	SCHB	6
Okonkwo, C.	I&EC	140	Oliveira, C.L.	BIOL	282	Olukoya, A.	COLL	779
Okorochoa, F.A.	INOR	966	Oliveira, C.L.	BIOT	254	Oluwaniyi, O.	CHAS	20
Okoye, N.	FLUO	71	Oliveira, J.R.	PMSE	287	Olvera De La Cruz, M.	ORGN	244
Okoye, N.C.	FLUO	70	Oliveira, J.	PMSE	223	Olvera De La Cruz, M.	PHYS	336
Okrut, A.	CATL	383	Olivencia, J.	CHED	1847	Oman, C.	CHED	912
Okrut, A.	CATL	493	Oliver, A.G.	COLL	370	Omar, A.M.	MEDI	385
Okrut, A.	INOR	75	Oliver, A.G.	INOR	966	Omar, B.S.	INOR	865
Oktawiec, J.	INOR	1221	Oliver, A.G.	INOR	967	Omar, J.	CHED	1912
Okumura, T.	POLY	609	Oliver, F.	INOR	243	Omarova, M.	COLL	11
Okungbowa, E.	COLL	189	Oliver, J.D.	POLY	526	Omarova, M.	COLL	18
Okur, H.	COLL	82	Olivier, M.	PMSE	533	Omarova, M.	COLL	564
Okur, H.	COLL	152	Olivo, R.	CHED	922	Omarova, M.	COLL	733
Okur, H.	COLL	728	Olivos Suarez, A.I.	CATL	135	Omarova, M.	ENVR	718
Okur, H.	GEOC	166	Oliynyk, A.	INOR	294	Omarova, M.	PMSE	206
Okur, H.	PHYS	335	Oliynyk, A.	INOR	775	Omarova, M.	PMSE	317
Okuro, M.	PMSE	497	Ollie, E.W.	BIOL	203	Omarova, M.	PMSE	321
Okyere, B.	PMSE	40	Olmos, C.	CATL	244	Omary, M.	CHED	769
Oladepo, S.A.	ORGN	110	Oloumi, A.	BIOT	438	Omary, M.	CHED	971
Olaitan, A.	ANYL	116	Olowo, N.	CHED	869	Omary, M.	INOR	974
Olaitan, A.	ANYL	148	Olowookere, Y.	CHED	637	Omary, M.	INOR	982
Olanipekun, O.B.	CHED	1117	Oloyede, G.K.	CHED	372	Omary, M.A.	CHED	1276
Olarte, M.V.	CATL	228	Olsbye, U.	CATL	15	Omary, M.A.	INOR	71
Olarte, M.V.	ENFL	10	Olsen, B.D.	PMSE	8	Omary, M.A.	INOR	701
Olazaran Santibanez, F.E.	ORGN	636	Olsen, B.D.	PMSE	9	Omborg, K.M.	SCHB	31
Olbrich, C.L.	CHED	559	Olsen, B.D.	PMSE	68	Omer, M.	CATL	332
Olbrich, C.L.	CHED	759	Olsen, B.D.	PMSE	129	Omi, R.	MEDI	32
Olbrich, C.L.	CHED	1248	Olsen, B.D.	PMSE	145	Omidvar, M.	PMSE	34
Olcott Marshall, A.	GEOC	138	Olsen, B.D.	PMSE	196	Ommi, A.	ENVR	447
Oldendorf, D.	CHED	471	Olsen, B.D.	PMSE	223	Omolo, K.	INOR	239
Oldendorf, D.	CHED	477	Olsen, B.D.	PMSE	266	Omolo, K.	INOR	1300

Omri, S.	ORGN	587	Orgill, M.	CHED	294	Orzolek, B.J.	CHED	1775
Omura, K.	INOR	923	Orgill, M.	CHED	1956	Osada, M.	CELL	309
Onajole, O.	MEDI	17	Orgill, M.	CHED	2032	Osakada, K.	PMSE	500
Onate, S.	CHED	1483	Oriez, V.	CELL	279	Osatiashtiani, A.	CATL	375
Onawumi, O.O.	AGFD	59	Orjala, J.E.	MEDI	87	Osborne, M.	MEDI	293
Onawumi, O.O.	ANYL	201	Orlando, T.M.	COLL	164	Osburn, C.	GEOC	129
Onbulak, S.	BIOL	233	Orlicki, J.A.	POLY	303	Oscar, C.	INOR	303
Ondrechen, M.J.	BIOL	42	Orloff, A.	CHED	977	Oschmann, B.D.	ENFL	45
Ondrechen, M.J.	COMP	69	Orlov, A.	CATL	180	Oseid, D.	BIOT	196
Ondrechen, M.J.	COMP	179	Orlov, A.	CATL	280	Osharovich, S.	MEDI	196
Ondrechen, M.J.	SOCED	1	Orlov, A.	CINF	105	O Shaughnessy, M.	POLY	50
Ondrusek, B.A.	PMSE	20	Orlov, A.	CINF	113	Oshima, H.	CATL	511
Ondry, J.	COLL	36	Orlović-Leko, P.	GEOC	216	Oshimura, M.	POLY	776
Ondry, J.	COLL	41	Orme, C.	COLL	121	Oshinbolu, Z.	BIOT	218
ONeal-Johnson, S.I.	CHED	734	Orna, M.	HIST	20	Oshita, E.	ANYL	57
ONeil, K.	BIOL	139	Orna, M.	HIST	26	Ostial, M.	ENFL	82
Ong, H.	ORGN	587	Ornek, D.	BIOT	164	Oskin, S.	POLY	244
Ongmali, D.	CATL	303	Ornelas, C.	PMSE	264	Oskin, S.	POLY	245
Onishi, N.	ENFL	202	Ornstein, J.	INOR	14	Oslovsky, V.	BIOL	59
Onkst, B.	CHED	2046	Orona, J.	CHED	1188	Osolodkin, D.I.	BIOL	59
Ono, H.	POLY	424	Orona, J.	CHED	1192	Osolodkin, D.I.	CINF	105
Ono, M.	POLY	441	Oroskar, P.	COLL	554	Osolodkin, D.I.	CINF	113
Ono, Y.	CELL	206	Orozco, R.	BIOT	364	Osorio Cantillo, C.M.	CHED	1337
Onofrei, D.	COLL	19	Orozco, R.	BIOT	557	Osorio-Cantillo, C.	CHED	925
Onofrei, D.	POLY	728	Orozco-Valencia, U.	PHYS	636	Osorio Gonzalez, M.	ENVR	460
Onyeagba, J.	ANYL	139	Orr, J.	CHED	1682	Ospadov, E.	PHYS	597
Oohora, K.	INOR	497	Orr, R.	ORGN	78	Ospelkaus, S.	PHYS	17
Ooi, E.A.	CHED	748	Orr, R.	WCC	14	Ospino, S.	COLL	731
Oomen, P.	ANYL	449	Orr, T.J.	ORGN	106	Ossler, F.	ENFL	485
Oomens, J.	PHYS	433	Orr, Z.M.	POLY	351	Ossola, A.	COLL	731
Oostendorp, D.J.	CHED	1908	Orsino, C.M.	PMSE	586	Ostadossein, F.	COLL	217
Ooyabe, T.	INOR	758	Orski, S.V.	BIOT	51	Ostadossein, F.	COLL	463
Opedal, M.	CELL	405	Orski, S.V.	I&EC	127	Ostadossein, F.	COLL	596
Opel, K.	CHED	416	Orski, S.V.	PMSE	33	Ostadossein, F.	ENVR	151
Opel, K.	CHED	422	Orski, S.V.	PMSE	472	Osterberg, M.K.	CELL	41
Opel, K.	CHED	452	Ort, C.	ENVR	414	Osterberg, M.K.	CELL	285
Opel, K.	CHED	454	Ortega-Calvo, J.	ENVR	719	Osterberg, M.K.	CELL	288
Opel, K.	CHED	479	Orth, N.	CATL	479	Osterberg, M.K.	COLL	709
Oppenheimer, J.	CATL	258	Orth, P.	ORGN	66	Ostericher, A.L.	INOR	336
Oppenheimer, S.	CHED	332	Ortí, E.	ORGN	295	Ostericher, A.L.	INOR	683
Opperman, E.	CHED	904	Ortin-Martinez, A.	BIOT	463	Ostermann, N.	MEDI	271
Oppermann, A.	POLY	376	Ortiz, G.	BIOL	317	Ostermeier, M.	BIOT	62
Oppermann, A.	POLY	746	Ortiz, J.V.	CMA	5	Osti, N.A.	CHED	1816
Or, V.W.	CHED	461	Ortiz, S.	CELL	301	Osti, N.C.	GEOC	26
Oral, O.	ENVR	332	Ortiz-Ayala, R.	CHED	1291	Osti, N.C.	GEOC	50
Oral, O.	ENVR	636	Ortiz Gomez, V.	BIOL	71	Östlund, S.	CELL	412
Orandle, Z.	ENVR	648	Ortiz-Martinez, K.	ENVR	351	Ostman, R.	CHED	2166
Orbell, J.	ENVR	725	Ortiz Medina, J.	ENVR	459	Östmans, R.	CELL	354
Ordenana, J.	CHED	281	Ortiz Rodriguez, J.	INOR	769	Ostopowicz, L.	CHED	1680
Ordenana, J.	CHED	552	Ortiz Vitoriano, N.	ENFL	305	Ostopowicz, L.	CHED	1865
Ordway, D.	MEDI	17	Ortmann, P.	PMSE	473	Ostraat, M.	CATL	63
Orem, W.H.	GEOC	84	Orton, K.	CATL	390	Ostraat, M.	COLL	53
Orf, G.S.	PHYS	103	Orts, W.J.	ENVR	363	Ostraat, M.	INOR	76
Orgel, K.A.	CARB	84	Ortuno-Quintana, C.	ENFL	341	Ostrander, E.	POLY	356
Orgill, M.	CHED	129	Ortwine, D.F.	ORGN	538	Ostrom, N.	INOR	139

Ostrom, N.	INOR	142	Ovaska, T.V.	CHED	1494	Ozeki, Y.	ANYL	403
Ostrom, T.	CHED	1855	Ovaska, T.V.	CHED	1640	Ozel, T.	COLL	138
Ostrowski, A.	CHED	1045	Over, D.E.	INOR	29	Özen, M.B.	POLY	600
Osuoha, J.	AGFD	184	Overbey, A.	ENVR	284	Ozer, T.	ANYL	453
Oswald, B.P.	CHED	957	Overgard, A.	CHED	1446	Ozerov, O.	INOR	147
Oswald, B.P.	ENVR	615	Overly, K.R.	CHED	213	Ozerov, O.	INOR	688
Oswald, V.	INOR	220	Overton, B.	CHED	971	Ozerov, O.	INOR	689
Oswald, V.	INOR	1017	Overton, E.B.	AGFD	157	Ozerov, O.	INOR	878
Ota, E.	POLY	461	Overton, J.	BIOT	547	Ozerov, O.	INOR	879
Otake, K.	INOR	522	Oviedo, M.B.	POLY	770	Ozerov, O.	INOR	887
Otake, T.	GEOC	31	Owen, C.	PHYS	433	Ozerov, O.	INOR	1201
Otaki, M.	POLY	489	Owen, C.	PHYS	593	Ozerov, O.	INOR	1298
Otal, E.	ENVR	278	Owen, J.S.	COLL	299	Ozerov, O.	INOR	1301
Otero-Diaz, M.	ENVR	481	Owen, J.S.	COLL	445	Ozerov, O.V.	INOR	890
Othman, N.	I&EC	40	Owen, J.S.	INOR	591	Ozgur, U.	INOR	1241
Othman, R.	COMP	18	Owen, J.S.	INOR	675	Ozhegov, E.	BIOL	211
Othman, S.	COMP	18	Owen, J.S.	INOR	840	Ozkan, U.S.	I&EC	33
Otieno, M.	MEDI	75	Owen, J.S.	INOR	1380	Özoğul, A.	COLL	361
Otolowski, C.J.	INOR	1274	Owen, J.S.	INOR	1400	Ozório, L.	CATL	220
Otolowski, C.J.	PHYS	580	Owen, J.S.	PHYS	562	Ozpolat, B.	MEDI	141
Otoni, C.G.	PMSE	468	Owens, C.E.	ORGN	645	Ozsoy-Keskinbora, C.	INOR	1229
Otoyo, T.	ANYL	386	Owens, E.	ENVR	421	Ozturk, S.	BIOT	320
Ott, S.	INOR	1173	Owens, H.	CHED	1698	Ozturk, S.	BIOT	481
Ottavi, S.	MEDI	194	Owens, K.S.	CHED	244	O'Hayre, R.	ENFL	326
Otten, A.	PHYS	555	Owens, S.	CHED	1041	O'Keefe, M.	INOR	727
Otten, B.M.	INOR	701	Owens, S.	CHED	272	P., P.	ENVR	173
Otten, J.K.	BIOT	221	Owens, T.D.	MEDI	296	P. Burton-Pye, B.	NUCL	54
Ottens, M.	BIOT	316	Owings, C.	ANYL	103	Pääkkönen, T.	CELL	416
Otterbein, L.	MEDI	240	Owopetu, O.	AGFD	180	Pablito, D.	MEDI	54
Otterbein, S.	MEDI	240	Owoseni, O.G.	PMSE	206	Pabon, I.	MEDI	57
Otto, J.P.	ANYL	246	Owoseni, O.	ENVR	670	Pabon, N.	BIOL	210
Otto, J.	COLL	764	Owrutsky, J.	ENFL	78	Pabst, T.	BIOT	538
Otto, M.	CHED	610	Owuor, P.	ENFL	105	Pabst, T.M.	BIOT	103
Otto, T.	CATL	491	Oyama, H.T.	PMSE	415	Pac, C.	INOR	349
Ottosson, H.	ENFL	26	Oyama, S.T.	ENFL	317	Pac, C.	INOR	350
Ou, N.	INOR	1159	Oyazabal, J.	COMP	74	Pacella, R.	CHED	989
Ouchi, M.	PMSE	246	Oyewole, O.O.	ENVR	551	Pacheco, A.	INOR	466
Ouellette, E.	ORGN	105	Oyewole, W.	CHED	723	Pacheco, J.	CHED	1442
Oukoloff, K.	MEDI	12	Oyola, J.	CHED	96	Pacheco-Bubi, I.	CATL	181
Ould-Chikh, S.	CATL	41	Oyola, J.	CHED	1804	Pacheco-Ruiz, S.	ENVR	667
Outeiral, C.	COMP	52	Oyola-Reynoso, S.	POLY	176	Pacherille, A.	CHED	1353
Ouvry, G.	MEDI	244	Oz, N.A.	ENVR	332	Pacholski, M.L.	COLL	609
Ouyang, L.	PMSE	379	Oz, N.A.	ENVR	636	Pacholski, M.L.	POLY	645
Ouyang, M.	COLL	506	Oza, J.P.	CHED	2204	Packard, A.B.	NUCL	51
Ouyang, R.	CATL	170	Ozaki, S.	MEDI	90	Packard, M.H.	ORGN	672
Ouyang, W.	ANYL	359	Ozawa, H.	INOR	1131	Padala, C.	BIOT	368
Ouyang, W.	AGFD	15	Ozcalik, O.	POLY	359	Padgett, C.W.	POLY	126
Ouyang, X.	CELL	284	Ozcalik, O.	POLY	414	Padilla, S.	CATL	452
Ou-Yang, D.	POLY	219	Ozcam, E.	BIOT	442	Padilla Maldonado, B.	CHED	96
Ovalle, D.	MEDI	178	Ozcan, S.	CELL	34	Padmakshan, D.	CELL	217
Ovalles, C.F.	ENFL	163	Ozcelik, O.	COMP	371	Padmanabhan, V.	PMSE	143
Ovalles, C.F.	ENFL	288	Ozdemir, K.	ENFL	73	Padmaperuma, A.	CATL	216
Ovalles, C.F.	ENFL	290	Ozdemir, K.	ENFL	348	Padmaperuma, A.	CATL	228
Ovalles, C.F.	ENFL	462	Ozdemir, R.	INOR	14	Padmaperuma, A.	CATL	469
Ovaska, T.V.	CHED	1487	Ozden, S.	ENFL	105	Padmaperuma, A.	ENFL	10

Padmaperuma, A.B.	CATL	445	Painter, D.	CHED	956	Palui, G.	COLL	586
Padmaperuma, A.B.	ENFL	15	Painter, D.	CHED	965	Palui, G.	COLL	587
Padua, A.	PHYS	27	Painter, R.	INOR	345	Palui, G.	PHYS	653
Padua, A.	PHYS	237	Paiva, N.L.	CHED	370	Palui, G.	PMSE	276
Paeng, K.	GEOC	101	Paiva, N.L.	CHED	1869	Palumbiny, C.	ENFL	486
Paerl, H.	ENVR	401	Pajarillo, A.O.	MEDI	155	Palumbo, A.	CHED	1188
Paesani, F.	PHYS	31	Pajarillo, A.O.	ORGN	419	Palumbo, A.	CHED	1192
Paesani, F.	PHYS	161	Pajarillo, A.O.	ORGN	423	Palyulin, V.A.	CINF	105
Paeschke, S.	MEDI	108	Pak, J.J.	CHED	1128	Palyulin, V.A.	CINF	113
Paeschke, S.	MEDI	154	Pak, J.J.	CHED	1134	Palzkill, T.	MEDI	390
Paeth, M.	CHED	1484	Pak, J.J.	CHED	1848	Pampel, L.W.	BIOT	2
Paez, U.	COLL	312	Pakulska, M.	BIOT	463	Pan, A.	COLL	780
Paffenroth, R.	POLY	703	Pal, S.	CATL	257	Pan, A.	PHYS	378
Pagan, E.	CHED	1817	Pal, S.	ORGN	38	Pan, B.	ENVR	491
Pagani, P.	MEDI	407	Pala, N.	ANYL	287	Pan, C.	GEOC	241
Pagano, A.	CHED	1920	Palais, R.	CHED	1700	Pan, C.	AGFD	15
Pagano, A.	ENVR	614	Palais, R.	CHED	1727	Pan, C.	AGFD	37
Pagano, J.J.	ENVR	586	Palais, R.	CHED	1728	Pan, C.	AGFD	109
Pagano, J.J.	POLY	63	Palakkal, V.	PMSE	570	Pan, D.	ANYL	325
Pagano, J.	BIOT	509	Palat, A.	COLL	229	Pan, D.	BIOT	58
Pagano, J.K.	INOR	1005	Palazzolo, A.M.	ORGN	39	Pan, D.	COLL	217
Pagano, J.K.	INOR	1295	Palchak, Z.L.	INOR	1083	Pan, D.	COLL	218
Pagano, T.E.	CHED	101	Palem, J.R.	MEDI	137	Pan, D.	COLL	463
Pagano, T.E.	PROF	23	Palermo, A.	INOR	75	Pan, D.	COLL	596
Pagdanganan, J.D.	CHED	79	Palermo, A.F.	CELL	196	Pan, D.	ENVR	23
Page, C.	ANYL	152	Palesch, J.	CHED	2005	Pan, D.	ENVR	151
Page, J.	ENFL	404	Paley, M.	INOR	829	Pan, D.	ENVR	406
Page, J.	ENVR	756	Palgrave, R.	INOR	1271	Pan, D.	ORGN	532
Page, J.	PHYS	233	Palha, M.	BIOL	177	Pan, F.	ENFL	250
Page, K.	ENFL	487	Palit, C.	INOR	689	Pan, F.	ENFL	242
Page, K.	ENFL	488	Pallela, V.	MEDI	210	Pan, F.	ENFL	539
Page, K.	GEOC	54	Pallempti, K.	ENVR	576	Pan, H.	ENFL	76
Page, K.	INOR	711	Palluccio, T.	INOR	679	Pan, H.	PMSE	416
Page, K.	INOR	1231	Pallud, C.	ENVR	219	Pan, J.	MEDI	36
Page, K.	MEDI	244	Palma, M.	COLL	344	Pan, L.	INOR	101
Page, R.C.	BIOT	146	Palmans, A.	PHYS	492	Pan, L.	CATL	456
Page, R.C.	BIOT	433	Palmer, J.	GEOC	277	Pan, L.	CATL	512
Page, R.C.	CHED	201	Palmer, J.C.	ENFL	282	Pan, L.	ENFL	538
Page, R.C.	CHED	625	Palmer, L.	ORGN	298	Pan, M.	ENFL	530
Page, R.C.	POLY	229	Palmer, M.	BIOT	144	Pan, N.	ANYL	446
Page, Z.A.	PMSE	556	Palmer, R.	MEDI	129	Pan, S.	CHED	1297
Page, Z.A.	POLY	217	Palmer, T.	POLY	512	Pan, S.	COLL	173
Pagenkopf, M.	ORGN	393	Palmer, W.P.	HIST	42	Pan, S.	COLL	510
Pagilla, K.	ENVR	461	Palmer, W.S.	MEDI	64	Pan, S.	ENFL	176
Pagkaliwangan, M.	BIOT	312	Palmese, G.	PMSE	312	Pan, S.	BIOT	156
Pagkaliwangan, M.	BIOT	384	Palmese, G.	PMSE	444	Pan, X.	COMP	300
Pagliano, E.	ENFL	39	Palmese, G.	PMSE	476	Pan, X.	ENFL	364
Pahimanolis, N.	CELL	381	Palmese, G.	PMSE	523	Pan, X.	CATL	231
Pahlevi, N.	ENVR	544	Palmese, G.	POLY	201	Pan, X.	CELL	266
Pahls, D.	COMP	150	Palmese, G.R.	PMSE	388	Pan, Y.	COLL	290
Pahls, D.	INOR	441	Palomino, R.M.	CATL	238	Pan, Y.	ENVR	146
Pai, S.	COMP	125	Palomo, M.	ENVR	163	Pan, Z.	MEDI	329
Paige, A.	CHED	813	Palomo, M.	ENVR	648	Pan, Z.	MEDI	331
Paik, M.K.	BIOT	443	Paltiel, Y.	PHYS	487	Panagiotosopoulos, A.	PHYS	423
Paine, M.	ANYL	377	Paluch, M.	PHYS	343	Panahi, A.	COMP	136

Panamarova, M.	COLL	770	Paone, E.	CELL	146	Paranthaman, M.P.	ENFL	484
Panangala, S.	PMSE	385	Pap, L.	INOR	1082	Parasida, C.R.	GEOC	240
Panattoni, F.	AGFD	163	Pap, L.	INOR	1303	Paraskos, A.J.	POLY	96
Panchagnula, V.	BIOT	260	Papa, G.	ENFL	13	Parasnavis, S.	BIOT	324
Panchal, A.	COLL	11	Papa, L.J.	BIOL	300	Parasuram, R.	COMP	179
Panchal, A.	COLL	564	Papa, L.J.	BIOL	301	Pardee, K.	BIOT	226
Panchal, A.	ENVR	718	Papachristodoulou, M.	BIOT	50	Paredes, A.	INOR	917
Panchal, A.	PMSE	316	Papadantonakis, K.	INOR	1130	Parekh, A.A.	I&EC	54
Panchal, A.	PMSE	317	Papadantonakis, K.	INOR	1399	Parekh, R.	BIOL	276
Panchal, A.	PMSE	318	Papadopoulos, A.	BIOT	513	Parenky, A.	ENVR	334
Panchal, A.	PMSE	321	Papageorgiou, A.	CELL	270	Parenky, A.	ENVR	634
Panchal, C.	CELL	400	Papajorgji, P.	AGFD	127	Parent, K.	CHED	172
Pancoast, A.	INOR	858	Papa Lopes, P.	ENFL	419	Parent, L.	POLY	636
Panda, L.	AGFD	187	Papanikolas, J.M.	INOR	1066	Parenti, F.	PHYS	492
Pande, V.S.	COMP	80	Papanikolas, J.M.	INOR	1069	Parfenov, A.D.	CHED	122
Pande, V.S.	PHYS	250	Papanikolas, J.M.	PHYS	175	Parga Rivera, K.A.	CHED	1829
Pandele, A.	PMSE	519	Papantonakis, M.R.	ORGN	462	Parham, I.	CHED	613
Pandey, A.	ENVR	612	Papish, E.T.	CHED	1105	Pari, S.	ENVR	52
Pandey, A.	GEOC	115	Papish, E.T.	CHED	1191	Paricio, L.N.	CHED	1921
Pandey, B.	INOR	1186	Papish, E.T.	INOR	186	Parikh, A.N.	COLL	474
Pandey, G.P.	CHED	1271	Papish, E.T.	INOR	474	Parikh, A.N.	COLL	638
Pandey, G.P.	CHED	1349	Papish, E.T.	INOR	584	Parikh, A.N.	COLL	722
Pandey, G.	CHED	551	Papish, E.T.	INOR	902	Parikh, S.J.	GEOC	13
Pandey, P.	COMP	413	Papish, E.T.	INOR	1297	Parikka, K.	CELL	138
Pandey, P.	MEDI	183	Papish, E.T.	INOR	1299	Parilla, P.	ENFL	148
Pandey, P.	MEDI	412	Papke, R.	MEDI	182	Parilla, P.	ENFL	278
Pandey, R.	ENVR	62	Papke, R.	MEDI	349	Parilla, P.	ENFL	390
Pandey, R.	COMP	311	Papoian, G.	COMP	354	Parilla, P.	ENFL	391
Pandey, R.	COMP	374	Papoular, R.J.	INOR	83	Parimal, S.	BIOT	388
Pandey, R.	PHYS	121	Papoular, R.J.	INOR	946	Pariona, N.	AGFD	87
Pandey, S.	ANYL	42	Papp, G.	ENFL	201	Parise, J.B.	CHED	1047
Pandharkar, T.	MEDI	76	Pappa, X.	CELL	365	Parisi, F.	PMSE	153
Pandian, A.	ENFL	308	Pappaterra, E.	CHED	1538	Parisien-Collette, S.	ORGN	576
Pandiscia, L.	CHED	832	Pappenfus, T.M.	CHED	1778	Park, A.A.	ENFL	320
Pandit, S.	PMSE	190	Pappo, D.	INOR	1040	Park, B.	AGFD	39
Pandrala, M.	INOR	914	Pappo, D.	ORGN	125	Park, C.	COLL	124
Paner, J.	MEDI	110	Pappo, D.	ORGN	146	Park, C.	PMSE	564
Panetier, J.	ENFL	172	Papson, K.M.	AGFD	118	Park, E.	POLY	315
Panetier, J.	INOR	383	Paquette, K.	CHED	992	Park, G.	MEDI	72
Panetier, J.	INOR	501	Paquin, C.	CHED	1386	Park, H.	ANYL	256
Panetier, J.	INOR	509	Paquin, C.	CHED	1391	Park, H.	PHYS	463
Pang, J.	MEDI	367	Paquin, C.	ORGN	512	Park, H.D.	INOR	1091
Pang, L.	CARB	84	Parackal, J.J.	BIOL	61	Park, H.	CHED	691
Pang, L.	CELL	159	Parackal, J.J.	CHED	718	Park, H.	INOR	1094
Pang, T.	PMSE	537	Parada, C.	POLY	789	Park, H.	ENVR	194
Pangeni, D.	AGFD	157	Parada, F.	I&EC	166	Park, H.	ENVR	248
Pangilinan, L.	INOR	763	Parada, G.A.	INOR	279	Park, H.	ENVR	194
Pankajakshan, P.	CATL	169	Paradowski, M.	MEDI	308	Park, I.	PHYS	243
Pankin, I.	CATL	15	Parai, M.K.	CHED	720	Park, J.	BIOT	422
Pannell, K.H.	CMA	2	Parai, M.K.	MEDI	273	Park, J.	BIOL	315
Panos, K.	CHED	1578	Parak, W.	COLL	91	Park, J.	COMP	14
Pant, T.	BIOT	260	Parak, W.	COLL	581	Park, J.	ORGN	343
Paolella, D.N.	BIOT	140	Parak, W.	COLL	582	Park, J.	BIOT	129
Paolucci, C.	I&EC	54	Paranahewage, S.	COMP	241	Park, J.	CHED	1191
Paone, D.	MEDI	69	Paranawithana, N.N.	INOR	419	Park, J.	INOR	584

Park, J.	INOR	902	Parker, T.	BIOT	448	Parsons, J.	ANYL	83
Park, J.	POLY	494	Parker, W.	CHED	893	Parsons, J.	ANYL	205
Park, J.	ENVR	102	Parker, W.	CHED	1905	Parsons, J.	ANYL	206
Park, J.	ANYL	326	Parkhill, J.	INOR	1151	Parsons, J.	ANYL	211
Park, J.	COLL	775	Parkhill, J.	PHYS	582	Parsons, J.	CATL	354
Park, J.	PMSE	417	Parkin, A.	INOR	9	Parsons, J.	CHED	941
Park, J.	PMSE	259	Parkin, D.W.	MEDI	79	Parsons, J.	ANYL	30
Park, J.	COLL	138	Parkin, D.W.	MEDI	80	Parsons, J.	ENVR	89
Park, J.	COLL	369	Parkin, D.W.	MEDI	81	Parsons, J.	ENVR	349
Park, K.	COLL	650	Parkin, G.	INOR	439	Parsons, K.	POLY	242
Park, K.	PMSE	66	Parkin, G.	INOR	1205	Parsons, K.	POLY	576
Park, M.	ENVR	608	Parkins, S.	CHED	1282	Parsons, K.H.	POLY	410
Park, M.	PMSE	121	Parkins, S.	CHED	1035	Parsons, K.H.	POLY	468
Park, P.	CHED	392	Parkinson, C.	PHYS	631	Parsons, S.	ENVR	627
Park, S.	CHED	2051	Parkinson, Z.	ORGN	718	Parthasarathy, G.	MEDI	191
Park, S.	INOR	12	Parkinson, Z.	ORGN	719	Parthasarathy, R.	PMSE	379
Park, S.	INOR	1177	Parks, D.	PMSE	292	Partl, G.J.	CELL	28
Park, S.	ANYL	290	Parks, H.M.	CHED	456	Partl, G.J.	CELL	355
Park, S.	CHED	1022	Parks, J.R.	CHED	1141	Partridge, S.	ANYL	434
Park, S.	CHED	1275	Parks, J.	CATL	443	Parunyan, M.K.	AGFD	53
Park, S.	I&EC	108	Parks, J.	ENVR	98	Parunyan, M.K.	ORGN	157
Park, S.	I&EC	106	Parks, J.M.	CATL	470	Parveen, R.	COMP	423
Park, S.	I&EC	107	Parks, K.L.	CHED	499	Parvez, A.	AGFD	13
Park, S.	CHED	1620	Parks, K.L.	CHED	502	Parviz, D.	COLL	645
Park, S.	ENVR	34	Parks, S.	INOR	370	Parvulescu, V.I.	INOR	1240
Park, S.	ORGN	665	Parks, T.	CHED	503	Pasa-Tolic, L.	ANYL	231
Park, S.	ORGN	666	Parks, T.	CHED	739	Pasa-Tolic, L.	INOR	45
Park, S.	POLY	680	Parks, T.B.	CHED	1036	Pascal, R.	INOR	1312
Park, S.	CELL	10	Parlane, F.G.	INOR	553	Pascal, T.	ENFL	46
Park, S.	CELL	282	Parmar, D.	BIOT	260	Pascal, T.	ENFL	189
Park, Y.	POLY	328	Parnas, R.	PMSE	341	Pascali, G.	FLUO	49
Park, Y.	AGFD	34	Parnell, A.	POLY	104	Pascall, A.	COLL	490
Park, Y.	AGFD	110	Parnell, S.	INOR	909	Pascua, C.	ENVR	648
Park, Y.	PHYS	94	Parnham, S.	ORGN	724	Pascual, G.	PMSE	589
Park, Y.	INOR	620	Parobek, D.	COLL	667	Pascual, L.M.	ORGN	398
Parker, A.M.	CHED	1033	Parpaite, T.	PMSE	490	Pashazanusi, L.	COLL	357
Parker, C.	CHED	408	Parr, J.A.	CHED	2043	Pasley, K.	CHED	1049
Parker, E.K.	ANYL	7	Parr, J.A.	CHED	2179	Pasnon, A.R.	CHED	1650
Parker, E.	MEDI	257	Parra, V.	CHED	1040	Pasquali, M.	COLL	642
Parker, E.A.	AGFD	204	Parra-Hake, M.	INOR	867	Pasquali, M.	INOR	818
Parker, G.	NUCL	26	Parra-Saldivar, R.	CELL	301	Pasquali, M.	INOR	1235
Parker, H.	CHED	658	Parrinello, M.	MPPG	31	Pasquet, G.	MEDI	244
Parker, J.K.	AGFD	192	Parris, M.R.	CHED	52	Pasquet, M.	MEDI	244
Parker, J.F.	CATL	400	Parris, M.R.	CHED	1577	Pasquinelli, M.A.	CINF	29
Parker, J.F.	ENFL	126	Parris, M.R.	ORGN	169	Passantino, J.M.	CELL	302
Parker, J.F.	INOR	288	Parrish, K.	ENVR	350	Passard, G.	INOR	660
Parker, K.	ENVR	51	Parrish, R.M.	MEDI	27	Passerini, S.	ENFL	183
Parker, K.	ENVR	480	Parrott, K.	CHED	1406	Pastakia, S.	ANYL	302
Parker, K.M.	ENVR	313	Parrott, K.	CHED	1439	Pasteris, J.	ENVR	26
Parker, M.	ENFL	248	Parsaei, N.	BIOT	181	Pasteris, J.	ENVR	27
Parker, P.D.	ORGN	695	Parschau, M.	COLL	374	Pasteris, J.	ENVR	29
Parker, R.	CELL	71	Parschau, M.	PHYS	327	Pastor, J.	ENVR	283
Parker, S.	BIOT	364	Parsley, N.	ANYL	96	Pasupathy, A.N.	PHYS	383
Parker, T.	BIOT	164	Parson, K.	INOR	311	Patankar, S.C.	CELL	118
Parker, T.	BIOT	340	Parsons, G.	COLL	71	Patberg, S.	INOR	1114

Pate, B.H.	PHYS	530	Patlewicz, G.	ENVR	416	Patton, D.L.	POLY	576
Pate, J.	BIOT	352	Patlewicz, G.	ENVR	417	Patton, D.L.	POLY	807
Pate, K.	CHED	1596	Patlewicz, G.	ENVR	421	Patton, L.	INOR	954
Pate, R.C.	ENVR	742	Patman, R.	MEDI	19	Patton, S.	ENVR	253
Patel, A.	I&EC	51	Patman, R.	ORGN	21	Patwardhan, N.N.	ORGN	364
Patel, A.	PHYS	569	Patnaik, A.	ANYL	153	Pauchard, V.	ENFL	410
Patel, A.	ANYL	91	Patnaik, S.G.	ENFL	125	Paudel, K.	INOR	1186
Patel, A.K.	MEDI	156	Patnaik, S.	INOR	489	Paul, A.	BIOL	184
Patel, A.	BIOL	6	Patra, P.	ENFL	105	Paul, A.	BIOL	188
Patel, B.	BIOT	134	Patrick, A.	CHED	2011	Paul, A.	BIOL	190
Patel, D.	PMSE	343	Patrick, A.	CHED	2207	Paul, A.	CARB	28
Patel, D.	CHED	359	Patrick, D.L.	CHED	1003	Paul, A.	MEDI	365
Patel, H.	CHED	809	Patron, A.	COLL	180	Paul, E.	CHED	56
Patel, H.	CINF	7	Patrone, J.	CHED	204	Paul, J.J.	INOR	238
Patel, J.	POLY	498	Patrow, J.	CATL	145	Paul, J.J.	INOR	474
Patel, K.	COMP	229	Patrow, J.	PHYS	165	Paul, J.J.	INOR	759
Patel, L.	MEDI	245	Pattadar, D.	ANYL	175	Paul, J.J.	INOR	1167
Patel, M.	ENVR	168	Pattammattel, A.	CATL	452	Paul, J.A.	CHED	567
Patel, N.	MEDI	57	Pattammattel, A.	COLL	760	Paul, L.	INOR	664
Patel, N.	PHYS	557	Pattammattel, A.	ENVR	91	Paul, M.	CHED	692
Patel, P.	CHED	1459	Pattanayak, S.	POLY	409	Paul, M.	CHED	836
Patel, P.	INOR	911	Patterson, A.	PMSE	159	Paul, M.	CHED	2013
Patel, R.	COLL	616	Patterson, D.	ANYL	210	Paul, M.	MPPG	14
Patel, R.	ANYL	351	Patterson, D.	PHYS	162	Paul, O.	PMSE	379
Patel, S.G.	ENVR	703	Patterson, D.	CHED	614	Paul, O.	POLY	801
Patel, Z.	CHED	1387	Patterson, D.	CHED	635	Paul, T.J.	BIOL	281
Paterson, D.	MEDI	150	Patterson, D.	CHED	645	Paul, T.J.	CATL	503
Pathak, P.	ORGN	484	Patterson, D.	CHED	750	Paul, T.J.	COMP	396
Pathilparampil, A.	ENFL	286	Patterson, G.	CHED	27	Paul, T.J.	INOR	1025
Pathilparampil, A.	ENFL	287	Patterson, G.	CHED	407	Paul-Friedman, K.	CINF	82
Pati, R.K.	ENFL	344	Patterson, G.	CHED	489	Paulick, M.G.	CARB	58
Pati, S.	INOR	1160	Patterson, G.	CHED	803	Paulick, M.G.	CARB	59
Pati, S.G.	ENVR	177	Patterson, G.D.	HIST	1	Paulick, M.G.	CARB	61
Pati, S.G.	ENVR	408	Patterson, G.D.	HIST	8	Paulick, M.G.	CHED	1920
Patil, B.	AGFD	215	Patterson, J.P.	POLY	295	Paulick, M.G.	ENVR	526
Patil, P.	INOR	153	Patterson, K.S.	CHED	1835	Paulick, M.G.	ENVR	527
Patil, P.	MEDI	131	Patterson, M.	PMSE	418	Paull, M.	BIOT	220
Patil, P.	PROF	4	Patti, A.	AGFD	9	Paulraj, T.	CELL	390
Patil, R.	INOR	641	Patti, A.	CELL	329	Paulsen, J.	COMP	416
Patil, R.	MEDI	110	Patti, A.	POLY	590	Paulson, E.	CHED	807
Patil, S.	ANYL	264	Pattoli, M.	MEDI	6	Paulson, E.	CHED	808
Patil, S.	CARB	38	Pattoli, M.	MEDI	297	Paulson, J.C.	CARB	84
Patil, S.	COLL	229	Patton, D.L.	COLL	610	Paulson, J.C.	CELL	159
Patil, S.A.	COLL	343	Patton, D.L.	POLY	41	Paulus, B.	FLUO	34
Patil, S.	CATL	323	Patton, D.L.	POLY	128	Paulus, B.	INOR	456
Patil, S.	MEDI	110	Patton, D.L.	POLY	130	Paulus, E.	CHED	1874
Patil, S.V.	CELL	49	Patton, D.L.	POLY	231	Pauly, F.	COLL	345
Patil, S.	CATL	323	Patton, D.L.	POLY	242	Pauperowicz, K.	PMSE	312
Patil, U.	BIOT	327	Patton, D.L.	POLY	243	Pauplis, C.D.	CHED	858
Patil, U.	BIOT	363	Patton, D.L.	POLY	482	Pauzat, F.	PHYS	310
Patke, S.	BIOT	427	Patton, D.L.	POLY	486	Pauzauskie, P.J.	I&EC	169
Patkowski, K.	PHYS	424	Patton, D.L.	POLY	488	Pavan, A.R.	MEDI	107
Patlewicz, G.	CINF	87	Patton, D.L.	POLY	517	Pavanello, M.	PHYS	99
Patlewicz, G.	CINF	88	Patton, D.L.	POLY	559	Pavanello, M.	PHYS	152
Patlewicz, G.	ENVR	361	Patton, D.L.	POLY	566	Pavanello, M.	PHYS	303

Pavel Sizemore, I.E.	ENVR	22	Pearce, C.J.	INOR	1378	Pehrsson, P.	CATL	297
Pavel Sizemore, I.E.	PMSE	315	Pearish, S.	CHED	959	Pehrsson, P.	CATL	450
Pavich, G.	MEDI	407	Pearlstein, R.A.	COMP	60	Pehrsson, P.	COLL	219
Pavlath, A.E.	SCHB	18	Pearsall, E.	CHED	2205	Pei, J.	COMP	48
Pavliček, N.	CHED	1924	Pearson, A.	BIOT	342	Pei, Y.	PMSE	459
Pavlovic, V.	ENVR	3	Pearson, D.M.	YCC	11	Pei, Y.	ENFL	47
Pavlovici, F.	CHED	688	Pearson, G.H.	CHED	1752	Pei, Y.	PMSE	354
Pavuluri, V.	ANYL	118	Pearson, G.H.	CHED	1865	Pei, Y.	CATL	204
Pawlak, J.	CELL	273	Pearson, H.A.	INOR	1011	Pei, Y.	ENFL	540
Pawlak, J.	ENVR	704	Pearson, P.	MEDI	270	Peiffer, S.	ENVR	223
Pawliszyn, J.B.	ANYL	332	Pease, J.E.	MEDI	293	Peine, B.R.	ANYL	305
Paxton, W.	COLL	336	Pease, M.	BIOT	174	Peixia, Y.	ENFL	364
Paxton, W.	COLL	601	Peaslee, G.F.	NUCL	5	Pekarek, A.M.	INOR	83
Payagala, Y.	CHED	1720	Peaslee, G.F.	NUCL	6	Pekarek, R.	INOR	1172
Paydary, P.	ENVR	241	Peaslee, G.F.	NUCL	7	Pekarek, T.M.	INOR	1320
Payne, A.	MEDI	25	Pecha, M.	CATL	443	Pekkanen, A.M.	PMSE	114
Payne, A.	MEDI	378	Pecher, L.	COLL	446	Pelegri-O'Day, E.	POLY	173
Payne, A.H.	MEDI	90	Peck, A.	CHED	1733	Pelfrey, I.	CHED	846
Payne, B.E.	POLY	551	Peck, M.	BIOT	14	Pelham, H.	ANYL	282
Payne, C.K.	PHYS	616	Peck, M.	BIOT	307	Pelkey, M.	CHED	1175
Payne, H.M.	CHED	1814	Peck, M.	BIOT	376	Pellegrini, G.	CELL	396
Payne, J.	AGFD	155	Pecora, G.	ENVR	737	Pellegrino, J.	INOR	917
Payne, K.	AGFD	101	Pecora de Barros, E.	COMP	323	Peller, J.R.	BIOL	91
Payne, K.	MEDI	386	Pecore, L.	BIOT	216	Peller, J.R.	CHED	659
Payne, M.M.	CHED	1486	Pecorelli, T.	CHED	1849	Pellerin, C.	PMSE	290
Payne, M.M.	CHED	1809	Pectol, C.	CHED	1112	Pelletier, B.	CHED	373
Payne, M.M.	CHED	1810	Pectol, C.	INOR	908	Pellet-Rostaing, S.	PHYS	28
Payne, M.M.	CHED	1811	Peddapuram, A.	ORGN	178	Pellicier Rodriguez, C.B.	CHED	1337
Payne, M.	PHYS	9	Peden, C.H.	CATL	67	Pellicier Rodriguez, C.B.	CHED	1812
Payne, M.	CHED	1040	Peden, C.H.	CATL	293	Pellin, M.	INOR	1157
Payne, M.	INOR	745	Peden, C.H.	I&EC	13	Pellino, J.	BIOL	64
Payne, M.E.	PMSE	419	Pedersen, B.	ORGN	551	Pellizzeri, S.L.	CATL	24
Payne, M.E.	POLY	406	Pedersen, H.	AGFD	185	Pelly, S.C.	MEDI	346
Payne, P.R.	ORGN	168	Pedersen, J.A.	COLL	275	Peloquin, A.	INOR	953
Payne, R.	CHED	624	Pedersen, J.A.	ENVR	20	Peloquin, A.	POLY	549
Payne, T.	GEOC	122	Pedersen, J.A.	ENVR	24	Peltier, E.F.	ENVR	778
Payne, W.	POLY	363	Pedersen, J.A.	PHYS	283	Peltier, E.F.	GEOC	131
Payson, K.	BIOL	209	Pedersen, J.A.	PHYS	647	Peltier, E.F.	GEOC	155
Payton, F.L.	CHED	1668	Pedersen, J.A.	PROF	1	Pelton, R.H.	CELL	293
Payton, J.L.	CHED	1152	Pedersen, S.	COLL	75	Pelton, R.H.	COLL	204
Payton-Stewart, F.	MEDI	160	Pederson, M.R.	PHYS	320	Pelton, R.H.	POLY	684
Pazesh, S.	COLL	162	Pedowitz, N.	CARB	47	Pemberton, R.P.	MEDI	211
Pazol, J.	BIOT	351	Pedretti, R.	CHED	670	Pena, C.C.	INOR	799
Pazzi, J.	COLL	233	Peduzzi, O.	INOR	917	Pena, C.C.	INOR	800
Pazzi, J.	COLL	331	Pedziwiatr, J.	INOR	1321	Pena, C.C.	INOR	804
Peach, M.L.	MEDI	11	Peebles, R.A.	PHYS	530	Pena, C.	ORGN	635
Peacock, Z.S.	ORGN	461	Peebles, S.A.	PHYS	530	Pena, D.	ENFL	462
Peak, D.	GEOC	102	Peel, H.R.	ENVR	703	Pena, J.	GEOC	165
Peak, D.	GEOC	114	Peeples, M.	MEDI	308	Pena, J.	GEOC	239
Peak, D.	GEOC	116	Peeples, T.L.	BIOT	416	Pena, J.	COLL	220
Pearce, A.	INOR	483	Peery, M.	MPPG	14	Pena, P.	MEDI	378
Pearce, C.	GEOC	251	Pegado, L.	COLL	455	Peña-González, P.E.	CHED	1829
Pearce, C.	GEOC	255	Pegis, M.L.	INOR	670	Penaloza, N.	CHED	1000
Pearce, C.	GEOC	275	Pegoretti, N.	COMP	159	Penalva, C.	BIOL	248
Pearce, C.J.	CATL	406	Pegues, E.A.	CHED	1685	Peña-Romero, D.	MEDI	396

Penchoff, D.A.	NUCL	66	Pepin, P.	I&EC	34	Perez, R.A.	CHED	329
Penchoff, D.A.	NUCL	87	Peppas, N.	POLY	110	Perez, S.	CHED	603
Pender, A.	INOR	850	Peraino, R.	CHED	1127	Pérez, L.M.	INOR	329
Pendergraft, M.	CHED	676	Perales, D.	CHED	344	Pérez, L.M.	MEDI	95
Pendley, R.C.	CHED	425	Perales, D.	INOR	291	Perez Martinez, C.S.	PHYS	621
Penfold, N.J.	POLY	104	Perales, D.	INOR	1319	Perez-Mercader, J.	POLY	9
Peng, B.	PHYS	82	Peralta Yahya, P.	BIOL	167	Perez-Montaño, S.	ENVR	589
Peng, C.	COLL	304	Peram, T.	BIOT	343	Perez Morales, L.	CHED	1749
Peng, C.	PMSE	522	Pera-Titus, M.	CATL	102	Perez-Pinera, P.	BIOT	451
Peng, C.	INOR	573	Perchik, M.C.	COMP	277	Perez Rafael, S.	BIOT	564
Peng, F.	CELL	426	Perdew, J.P.	INOR	1063	Perez Rafael, S.	COLL	520
Peng, G.	CHED	1158	Perdew, J.P.	PHYS	213	Pérez Rafael, S.	BIOT	127
Peng, H.	INOR	1062	Perdew, J.P.	PHYS	214	Pérez Rafael, S.	CELL	349
Peng, H.	INOR	1063	Perdrial, N.	GEOC	118	Pérez Torres, C.A.	AGFD	87
Peng, H.	CATL	326	Perego, R.	MEDI	407	Pérez Verdejo, C.	CHED	524
Peng, H.	POLY	774	Pereira, C.	INOR	1039	Periasamy, T.	PMSE	481
Peng, J.	ORGN	39	Pereira-Almao, P.	ENFL	41	Periera, M.E.	CELL	235
Peng, J.	GEOC	270	Pereira da Silva, I.	ANYL	102	Perkin, S.	PHYS	621
Peng, J.	POLY	317	Pereles-De-León, T.A.	CHED	1262	Perkins, C.K.	COLL	56
Peng, L.	ENVR	676	Perera, A.	PHYS	94	Perkins, M.	CHED	1467
Peng, L.	INOR	1226	Perera, L.	CINF	29	Perkins, R.	PHYS	426
Peng, Q.	BIOT	437	Perera, N.T.	ANYL	458	Perkinson, C.	INOR	1332
Peng, S.	POLY	756	Perera, T.A.	INOR	1107	Perminova, I.V.	CINF	105
Peng, S.	MEDI	305	Perera, T.A.	ORGN	397	Perna, V.	CELL	111
Peng, X.	CATL	250	Perera, V.L.	CHED	1997	Perotto, G.	POLY	673
Peng, X.	PMSE	591	Perera, Y.R.	COLL	8	Perrard, A.	ENFL	168
Peng, X.	BIOT	236	Pereria, N.	ENFL	254	Perras, F.A.	CATL	365
Peng, Y.	INOR	1408	Peresin, M.S.	PHYS	551	Perreault, S.	MEDI	37
Peng, Z.	ORGN	618	Peresin, M.	CELL	83	Perreault, W.E.	PHYS	227
Peng, Z.	ENFL	536	Peresin, M.	CELL	93	Perrier, S.	PMSE	126
Peng, Z.	INOR	1124	Peresin, M.	CELL	94	Perrier, S.	POLY	102
Pengcheng, H.	COLL	373	Peresin, M.	CELL	344	Perron, J.	ANYL	268
Penn, A.	INOR	957	Peresin, M.	CELL	386	Perrone, F.	BIOT	127
Penn, R.	CATL	194	Perez, A.	INOR	843	Perrone, T.M.	ORGN	94
Penn, R.	ENVR	288	Perez, A.	COMP	219	Perrone, T.M.	ORGN	170
Penn, R.	INOR	283	Perez, C.	PMSE	421	Perrone, T.M.	PROF	48
Penn, R.	INOR	1419	Perez, C.	POLY	357	Perron Sierra, F.	COMP	382
Penn, R.	PROF	51	Perez, C.	ANYL	210	Perry, C.	BIOT	35
Pennell, K.D.	COLL	537	Perez, G.	BIOT	461	Perry, D.	AGFD	209
Penner, J.	ENVR	367	Perez, J.A.	ANYL	83	Perry, G.	CHED	1038
Penney, R.B.	CHED	605	Perez, J.A.	ANYL	206	Perry, G.	CHED	1052
Pennington, C.	BIOL	281	Perez, L.	ORGN	283	Perry, I.	ORGN	166
Pennington, R.	CHED	2051	Perez, M.	ENFL	43	Perry, I.	ORGN	191
Pentecost, T.C.	CHED	169	Perez, P.	CHED	1247	Perry, I.	ORGN	356
Pentecost, T.C.	CHED	2191	Perez, P.	CHED	281	Perry, J.W.	COLL	738
Penton, K.	CHED	1792	Perez, P.	CHED	552	Perry, K.	PHYS	337
Penton, K.	CHED	1828	Perez, P.	CHED	592	Perry, K.	PHYS	373
Penton, K.	PMSE	420	Perez, P.J.	INOR	700	Perry, L.	PMSE	588
Penton, K.	POLY	473	Perez, R.L.	ANYL	284	Perry, M.C.	CHED	1451
Penttilä, P.A.	CELL	41	Perez, R.L.	ENFL	20	Perry, N.	ENVR	533
Penttilä, P.A.	CELL	42	Perez, R.L.	ANYL	111	Perry, N.L.	CHED	894
Pentzer, E.	POLY	630	Perez, R.L.	ANYL	376	Perry, R.J.	COLL	566
Penwell, S.B.	PHYS	120	Perez, R.L.	ENFL	515	Perryman, J.	INOR	769
Peper, J.	COLL	697	Perez, R.L.	ENVR	629	Perryman, J.	INOR	774
Peper, J.	INOR	670	Perez, R.L.	PMSE	530	Persaud, J.	MEDI	79

Persaud, R.R.	COMP	285	Peterson, D.G.	AGFD	235	Petrou, G.	BIOT	117
Persaud, S.	ANYL	101	Peterson, E.	CHED	44	Petrov, A.	PHYS	109
Personick, M.L.	COLL	672	Peterson, E.	BIOT	349	Petrov, D.P.	MEDI	361
Personick, M.L.	COLL	744	Peterson, E.	MEDI	3	Petrov, V.	FLUO	18
Personick, M.L.	INOR	74	Peterson, E.M.	ANYL	197	Petrovic, A.G.	PHYS	154
Persson, J.	BIOT	76	Peterson, E.M.	ANYL	406	Petrukhin, K.	MEDI	270
Persson, K.	ENFL	189	Peterson, G.W.	CATL	297	Petrukhina, M.A.	INOR	165
Persson, L.	BIOT	303	Peterson, G.W.	CATL	450	Petry, C.	BIOT	180
Persson, L.	BIOT	309	Peterson, H.	CHED	562	Petry, F.	BIOT	123
Persson, N.	PMSE	261	Peterson, K.A.	NUCL	11	Petry, J.F.	POLY	449
Persson, N.	PMSE	462	Peterson, K.A.	NUCL	74	Petry, S.M.	INOR	55
Peru, A.	MEDI	244	Peterson, K.A.	NUCL	76	Pett, L.	MEDI	131
Peruzzi, M.	ORGN	681	Peterson, K.A.	NUCL	88	Pettersson, B.	INOR	279
Pesek, J.J.	ANYL	400	Peterson, K.A.	NUCL	92	Pettersson, L.G.	ENFL	173
Pesika, N.	CHED	1274	Peterson, K.A.	NUCL	98	Pettersson, M.	MEDI	389
Pesika, N.	COLL	357	Peterson, L.	INOR	924	Pettersson, M.	MEDI	40
Peter, J.O.	POLY	521	Peterson, L.W.	BIOL	215	Pettersson, T.	CELL	431
Peter, K.	ENVR	229	Peterson, L.W.	COMP	180	Pettibone, J.M.	COLL	653
Peter, K.	ENVR	412	Peterson, L.W.	COMP	193	Pettignano, A.	CELL	271
Peterman, K.E.	CHED	98	Peterson, L.W.	COMP	259	Pettigrew, J.	BIOT	87
Peterman, K.E.	CHED	99	Peterson, L.W.	COMP	268	Pettigrew, J.	BIOT	246
Peterman, K.E.	CHED	100	Peterson, L.W.	COMP	269	Pettinger, J.	MEDI	16
Peterman, K.E.	CHED	102	Peterson, L.W.	COMP	277	Pettinger, N.W.	PHYS	353
Peterman, K.E.	CHED	103	Peterson, L.W.	COMP	283	Pettit, D.	BIOT	171
Peterman, K.E.	CHED	104	Peterson, L.W.	COMP	284	Pettit, M.E.	ANYL	383
Peterman, K.E.	ENVR	318	Peterson, L.W.	COMP	287	Pettit, M.E.	ANYL	392
Peters, A.	INOR	522	Peterson, L.W.	MEDI	155	Pettitt, B.M.	COMP	97
Peters, B.J.	BIOL	80	Peterson, L.W.	ORGN	419	Petty, S.	CHED	665
Peters, B.	BIOT	211	Peterson, L.W.	ORGN	420	Petty, S.	CHED	675
Peters, C.J.	PHYS	655	Peterson, L.W.	ORGN	423	Petty, S.	CHED	678
Peters, E.	CHED	47	Peterson, L.J.	CHED	1987	Petz, K.	AGFD	73
Peters, E.	ANYL	348	Peterson, M.L.	ORGN	218	Petzold, M.	PHYS	17
Peters, F.	CHED	1564	Peterson, M.T.	CHED	1369	Petzold-Welcke, K.	CELL	359
Peters, J.	COLL	120	Peterson, P.O.	INOR	246	Peukert, S.	MEDI	295
Peters, J.C.	INOR	111	Peterson, R.	CHED	400	Peurifoy, S.	ORGN	246
Peters, J.S.	MEDI	60	Peterson, S.	AGFD	26	Peuronen, A.	ORGN	287
Peters, J.S.	MEDI	132	Peterson, W.A.	GEOC	117	Pevear, D.	MEDI	309
Peters, K.E.	ENFL	412	Pettersson, G.A.	PHYS	599	Pevzner, Y.	CINF	7
Peters, S.	COLL	4	Petit-Conil, M.	CELL	271	Peydecastaing, J.	CELL	279
Peters, S.J.	ORGN	632	Petranovskii, V.	POLY	801	Peyer, S.	CHED	1069
Petersburg, J.R.	BIOT	60	Petrek, Z.	COLL	312	Peyret, A.	COLL	108
Petersburg, J.R.	BIOT	498	Petri, D.	CELL	233	Peyroux, R.	CELL	332
Petersen, H.	INOR	1282	Petri, D.	CELL	429	Pezzini, J.	BIOT	553
Petersen, S.R.	POLY	226	Petri, D.	PMSE	271	Pezzotti, S.	GEOC	142
Peterson, A.A.	CHED	908	Petri, E.	GEOC	132	Pezzotti, S.	GEOC	148
Peterson, A.	CATL	123	Petric, I.	GEOC	108	Pezzotti, S.	PHYS	489
Peterson, B.R.	BIOL	81	Petrich, J.W.	INOR	1055	Pezzuto, M.	MEDI	407
Peterson, B.K.	COLL	644	Petrides, D.	BIOT	381	Pfaendtner, J.	I&EC	4
Peterson, B.	CHED	475	Petrides, D.	BIOT	382	Pfalzgraff, W.C.	CHED	304
Peterson, C.	CHED	1284	Petrides, D.	ENFL	353	Pfefferle, L.D.	COLL	141
Peterson, C.C.	NUCL	66	Petrides, D.	ENFL	354	Pfeifer, A.	MEDI	150
Peterson, C.C.	NUCL	91	Petridis, L.	CELL	8	Pfeifle, S.	CHED	2167
Peterson, C.	CATL	506	Petridis, L.	CELL	186	Pfeilstifter, J.	CHED	571
Peterson, C.	INOR	292	Petridis, L.	COMP	355	Pfennig, T.	CATL	518
Peterson, C.	I&EC	87	Petridis, L.	COMP	429	Pferdmenges, L.	CHED	1634

Pferdmenges, L.	CHED	1697	Philipp, M.	BIOL	86	Pich, A.	POLY	377
Pfingsten, O.	I&EC	65	Phillippas, E.	AGFD	53	Pich, A.	POLY	742
Pfister, D.E.	I&EC	18	Phillippe, L.	PHYS	589	Pichler, J.	INOR	313
Pfleger, B.	BIOT	138	Phillippeau, M.	AGFD	189	Pichler, M.	CELL	260
Pfleger, B.	BIOT	157	Philippot, K.	INOR	171	Pickett, C.J.	INOR	515
Pfleger, C.	COMP	138	Phillips, K.	ENVR	731	Pickett, M.	PMSE	318
Pflug, N.C.	CHED	982	Phillip, M.L.	INOR	188	Pickett, P.D.	POLY	279
Pham, A.	CHAS	43	Phillip, W.A.	ENVR	396	Pickett, P.D.	POLY	555
Pham, A.	CHAS	46	Phillips, A.	ORGN	647	Pickett, P.D.	POLY	558
Pham, A.	I&EC	165	Phillips, G.	MEDI	37	Pidko, E.	CATL	536
Pham, C.	CHED	1776	Phillips, J.	ENVR	418	Piechowicz, M.	NUCL	46
Pham, C.	INOR	88	Phillips, J.A.	CHED	1333	Pienta, N.J.	CHED	62
Pham, D.	COLL	317	Phillips, J.A.	CHED	1347	Pienta, N.J.	CHED	236
Pham, D.	COLL	775	Phillips, K.	ANYL	28	Pienta, N.J.	CHED	2110
Pham, D.	ENFL	454	Phillips, K.	CINF	110	Pienta, N.J.	CHED	2173
Pham, H.	PHYS	485	Phillips, K.	ENVR	360	Pieper, K.	CHAS	31
Pham, H.	PHYS	31	Phillips, K.	ENVR	416	Pieper, K.	ENVR	98
Pham, J.	CHED	743	Phillips, M.	CHED	1901	Pierce, A.	CHED	59
Pham, J.	CHED	1859	Phillips, M.M.	CHED	259	Pierce, B.S.	INOR	1354
Pham, M.	CHED	1885	Phillips, M.W.	BIOT	248	Pierce, B.	ORGN	615
Pham, N.	INOR	368	Phillips, M.W.	BIOT	273	Pierce, D.T.	PROF	46
Pham, N.	INOR	369	Phillips, O.	POLY	141	Pierce, D.	CHED	332
Pham, P.	CHED	430	Phillips, R.	COLL	76	Pierce, E.	GEOC	44
Pham, P.	CHED	446	Phipps, C.	CHED	1062	Pierce, J.G.	ORGN	695
Pham, P.	BIOT	24	Phipps, E.J.	ORGN	544	Pierce, K.M.	ANYL	267
Pham, T.	CHED	1180	Phipps, M.D.	FLUO	71	Pierce, L.	CHED	1339
Pham, T.	CATL	164	Phiri, J.	CELL	413	Pierce, M.	COMP	344
Pham, T.A.	ENFL	272	Pho, T.	CHED	555	Pierre, A.	ANYL	51
Pham, T.	CATL	377	Pho, T.	INOR	1069	Pierre, C.	AGFD	189
Pham, T.	CATL	504	Phu, P.	COMP	282	Pierre, K.	CHED	1842
Phambu, N.	ANYL	172	Phun, G.	ORGN	503	Pierre, V.	INOR	310
Phambu, N.	BIOL	196	Phyo, P.	CELL	1	Piétrement, O.	PMSE	209
Phambu, N.	BIOL	243	Pianetta, P.	CATL	277	Pietron, J.	CATL	400
Pham-Hua, D.	COLL	776	Piao, J.	POLY	465	Pietron, J.	CATL	450
Phan, C.	CHED	606	Piatkovsky, M.	PMSE	191	Pietron, J.	ENFL	78
Phan, H.	CHED	606	Piatt, J.	CHAS	29	Pietropaolo, R.	CELL	146
Phan, J.	ENFL	231	Piatt, J.	CHED	987	Pietropaolo, R.	CELL	384
Phan, L.	POLY	438	Piazza, G.	FLUO	48	Pietruschka, B.	ENVR	163
Phan, M.T.	CHED	1320	Piazza, G.J.	AGFD	48	Pietruschka, B.	ENVR	648
Phan, M.T.	COLL	7	Pica, N.	ENVR	763	Pietrusiak, M.	CHED	1257
Phan, M.	AGFD	201	Picard, C.	ANYL	103	Pignatello, J.J.	ENVR	174
Phan, M.T.	CHED	385	Picart, C.	CELL	394	Pignatello, J.J.	ENVR	491
Phan, N.	INOR	258	Picayo, G.	I&EC	146	Pigza, J.A.	CHED	108
Phan, T.	CHED	1485	Picayo, G.	NUCL	27	Pigza, J.A.	CHED	2200
Phan, T.	ENFL	231	Piccinini, M.	MEDI	319	Pigza, J.A.	ORGN	326
Phaniraj, S.	BIOL	81	Piccirilli, J.A.	BIOL	19	Pigza, J.A.	ORGN	643
Pharathikoune, H.	ANYL	165	Piccirilli, J.A.	BIOL	20	Pikal, M.J.	AGFD	123
Pharathikoune, H.	CHED	487	Piccirilli, J.A.	BIOL	22	Pike, J.	BIOT	296
Phasakda, A.	MEDI	220	Piccirilli, J.A.	BIOL	203	Pike, V.W.	FLUO	45
Phelps, A.J.	CHED	293	Pich, A.	COLL	678	Pike, V.W.	FLUO	55
Phelps, M.A.	MEDI	384	Pich, A.	PMSE	518	Pilchowski, A.	CHED	369
Phelps, T.E.	FLUO	71	Pich, A.	POLY	339	Pilgrim, C.D.	NUCL	49
Phelps, T.E.	I&EC	126	Pich, A.	POLY	368	Pilgrim, M.	CHED	260
Philipp, D.M.	COMP	103	Pich, A.	POLY	374	Piligian, B.	BIOL	130
Philipp, D.M.	COMP	278	Pich, A.	POLY	376	Pillai, X.	CHAL	1

Pillarella, N.	MEDI	400	Piquemal, J.A.	COMP	270	Planalp, R.P.	INOR	193
Pillarella, N.	MEDI	401	Pirinelli, A.	CHED	1627	Planas, A.	CELL	63
Pille, J.	POLY	230	Piris, M.	COMP	157	Plank, A.	ENVR	542
Pillong, M.	COMP	198	Piro, N.A.	CHED	1082	Plank, H.	CELL	52
Pillsbury, S.J.	CHED	1719	Piro, N.A.	INOR	81	Plante, A.F.	GEOC	16
Pilote, M.	ENVR	577	Piro, N.A.	INOR	251	Plappert, S.	CELL	341
Pilyugina, T.	CATL	489	Piro, N.A.	INOR	852	Plappert, S.	CELL	352
Pilz, Z.A.	CHED	612	Piryatinski, A.	COLL	489	Plascencia, J.C.	COMP	307
Pimentel, A.S.	PMSE	240	Pisano, S.	ORGN	298	Plascencia, J.C.	PHYS	493
Pimentel, S.	PMSE	195	Piscotta, F.	BIOT	20	Plass, K.	INOR	92
Pina, J.	CHED	885	Piskadlo, A.	CHED	551	Plass, K.	INOR	151
Pine, D.	COLL	668	Pismataro, M.	MEDI	182	Plata, D.L.	ENVR	443
Pineda, S.	NUCL	79	Pison, L.	PHYS	27	Plata, D.L.	ENVR	770
Pinero, D.	INOR	232	Pitagno, A.	SCHB	10	Platero-Prats, A.	CATL	194
Pingali, S.	CELL	8	Pitagno, A.	SCHB	11	Platero-Prats, A.	INOR	522
Pingali, S.	CELL	123	Pitasse-Santos, P.	MEDI	78	Plavchak, C.	POLY	778
Pingali, S.	CELL	322	Pitchaimani, A.	COLL	547	Player, M.R.	MEDI	75
Pingali, S.	COMP	355	Pitchaimani, A.	COLL	591	Ple, P.	MEDI	244
Pinilla, C.	PROF	3	Pitchaimani, A.	COLL	761	Pleines, M.	COLL	456
Pink, M.	ORGN	282	Pitera, J.W.	COMP	26	Pleitez Gomez, G.	CHED	390
Pinkard, A.	INOR	173	Pitera, J.W.	PMSE	24	Pleshinger, M.	BIOL	239
Pinkley, B.	CHED	497	Pitera, J.W.	PMSE	29	Plewa, M.J.	ENVR	310
Pinkner, J.S.	MEDI	143	Pithani, S.	MEDI	293	Plewa, M.J.	ENVR	410
Pinkowicz, D.	INOR	1257	Pitkanen, L.	CELL	316	Plotz, E.A.	COMP	6
Pinnavaia, T.J.	ENFL	500	Pitkanen, L.	POLY	290	Plonka, A.	CATL	296
Pinney, K.G.	MEDI	66	Pitkanen, M.	BIOT	379	Plonka, A.	CATL	298
Pino, N.	BIOL	310	Pitman, C.L.	INOR	437	Plonka, A.M.	CATL	404
Pinon, V.	PMSE	240	Pitman, C.L.	INOR	1074	Plotnikov, N.V.	COMP	119
Pintens, A.	CINF	25	Pitna, D.B.	ORGN	731	Plotzke, K.	CHED	474
Pinter, E.N.	ORGN	288	Pitot, M.	CHED	1180	Plotzke, K.	CHED	1738
Pinter, E.N.	ORGN	482	Pitre, D.	ENVR	777	Plowright, A.	MEDI	252
Pinter, P.	INOR	889	Pitt, S.	MEDI	35	Plucker, P.E.	CHED	1415
Pinto, A.J.	ENVR	456	Pitt, S.	MEDI	202	Plückthun, A.	BIOT	149
Pinto, J.A.	CELL	133	Pittia, P.	AGFD	163	Plückthun, A.	ORGN	430
Pinto, P.	ENVR	579	Pittia, P.	AGFD	193	Plumb, R.	ENVR	734
Pinto, R.J.	CELL	163	Pittkowsky, R.	INOR	889	Plumb, R.S.	ANYL	44
Pinto, R.J.	CELL	235	Pittman, C.U.	ENVR	149	Plumb, R.S.	ANYL	443
Pinto, R.J.	CELL	315	Pittman, K.	ENVR	558	Plumber, A.	INOR	367
Pinto, T.	CHED	797	Pitts, W.J.	MEDI	35	Plumlee, M.H.	ENVR	772
Pinto, T.	CHED	1009	Pitts, W.J.	MEDI	178	Plummer, W.	PHYS	455
Pinto, T.	CHED	1905	Pitts, W.J.	MEDI	202	Plunkett, K.N.	POLY	638
Pinto-Pacheco, B.	BIOL	275	Pitts, W.C.	INOR	380	Plunkett, S.	ORGN	103
Piotrowski, P.	GEOC	156	Piunova, V.A.	AGFD	27	Plunkett, S.	ORGN	293
Piotrowski, P.	GEOC	177	Piunova, V.A.	PMSE	29	Pluth, M.D.	MEDI	237
Piou, T.	ORGN	544	Piunova, V.A.	PMSE	82	Plys, N.	CHED	809
Pipal, R.	ORGN	203	Piyasena, M.E.	ANYL	393	Po, L.	CHED	1862
Piper, R.	BIOT	167	Pizarro, S.	BIOT	180	Poater, A.	CATL	482
Piper, R.	BIOT	331	Pizzagalli, M.	BIOL	200	Poater, A.	INOR	506
Pipertzis, A.	PMSE	553	PK, A.	MEDI	323	Poater, A.	INOR	1188
Pipkin, L.	CHED	1616	Placeres, M.	MEDI	392	Pocai, A.	MEDI	75
Pipkins, K.	BIOT	392	Plamont, R.	INOR	236	Pochan, D.J.	POLY	269
Pippin, D.	MEDI	51	Plamper, F.	COLL	78	Poddar, S.	INOR	907
Pippione, A.C.	MEDI	319	Plamper, F.	POLY	338	Podgorski, D.C.	AGFD	158
Piquemal, J.A.	COMP	33	Plamper, F.	POLY	380	Podgorski, M.	POLY	36
Piquemal, J.A.	COMP	100	Plamthottam, S.	INOR	907	Podgorski, M.	POLY	43

Podgorski, M.	POLY	732	Pokorski, J.K.	PMSE	443	Ponce, S.	PHYS	551
Podgurski, A.	CHED	1745	Pokross, M.	COMP	166	Poncin, S.	ENFL	453
Podio, L.	PHYS	257	Pol, R.	ANYL	25	Ponder, J.W.	COMP	324
Podlesny, E.E.	CHED	1575	Poladi, A.	ENVR	599	Ponnamma, D.	POLY	360
Podolsky, I.	BIOT	160	Poland, S.	INOR	478	Ponnapakkam, T.	CHED	1215
Podolsky, K.	BIOL	194	Polat, E.	POLY	125	Ponnapakkam, T.	CHED	1227
Podryabinkin, E.V.	COMP	79	Polavarapu, P.L.	PHYS	224	Ponnuru, K.	CATL	375
Poduval, A.	INOR	574	Poler, J.C.	COLL	621	Ponnusamy, E.	PMSE	422
Poduval, A.	INOR	835	Poler, J.C.	COLL	783	Pontalier, P.	CELL	279
Poe, T.	INOR	999	Poler, J.C.	COLL	784	Pontalier, P.	CELL	307
Poelma, J.	POLY	116	Polezhaev, A.V.	COLL	375	Pookpanratana, S.	COLL	476
Poepfelmeier, K.R.	I&EC	11	Polezhaev, A.V.	INOR	144	Poole, D.	ORGN	577
Poepfelmeier, K.R.	INOR	771	Polezhaev, A.V.	INOR	1077	Poole, G.M.	ANYL	293
Poetz, K.L.	POLY	235	Poli, R.	INOR	113	Poole, J.S.	CHED	1599
Poh, S.	CHED	531	Policar, C.	INOR	702	Poon, C.S.	GEOC	74
Poh, S.	CHED	1181	Polikarpov, E.	COLL	172	Poon, G.M.	BIOL	190
Poh, S.	COMP	181	Poling-Skutvik, R.	COLL	391	Poon, G.M.	CARB	28
Pohl, A.A.	CHED	607	Polinski, M.	INOR	999	Poon, G.M.	CARB	43
Pohl, C.A.	ANYL	429	Polk, A.	COLL	311	Poon, G.M.	MEDI	177
Pohl, E.	ENFL	166	Poll, S.R.	CHED	262	Poongavanam, M.	BIOT	327
Pohl, E.	ENFL	167	Pollard, J.	BIOT	4	Poorey, K.	BIOT	92
Pohl, E.	ENFL	237	Pollard, J.	BIOT	188	Poortman, M.	PMSE	533
Pohl, N.L.	CARB	3	Pollard, J.	BIOT	393	Pope, A.	ENFL	194
Pohl, N.L.	CARB	21	Pollet, P.	I&EC	128	Pope, A.	ENFL	227
Pöhler, T.	CELL	435	Pollet, P.	PMSE	117	Pope, B.	ANYL	440
Poindexter, P.N.	ORGN	649	Polli, J.E.	BIOL	11	Pope, D.	GEOC	105
Poineau, F.	INOR	84	Polli, J.E.	INOR	194	Pope, E.	CHED	913
Poineau, F.	INOR	88	Pollock, A.	CHED	1958	Pope, G.	INOR	322
Poineau, F.	INOR	1120	Pollock, C.	BIOL	54	Pope, G.	INOR	838
Poineau, F.	INOR	1121	Pollock, E.C.	PHYS	510	Popek, M.	BIOL	64
Poineau, F.	INOR	1256	Pollok, K.	CHED	356	Popescu, C.V.	INOR	2
Poineau, F.	NUCL	69	Pollok, K.	AGFD	81	Popescu, C.V.	INOR	1377
Poirier, L.	ENFL	286	Polly, R.	GEOC	184	Popescu, G.	ANYL	40
Poirier, L.	ENFL	287	Polo Garzon, F.	CATL	254	Popescu, S.C.	ANYL	40
Poissonnet, G.	COMP	382	Polo Garzon, F.	CATL	271	Pophristic, V.	COMP	411
Pojman, J.A.	BIOT	243	Poloni, R.	INOR	1217	Pophristic, V.	COMP	430
Pojman, J.A.	POLY	6	Polsky, R.	ANYL	22	Popik, V.	FLUO	52
Pojman, J.A.	POLY	180	Poltavets, V.	INOR	576	Poplawski, T.	MEDI	58
Pojman, J.A.	POLY	184	Poltavets, V.	INOR	779	Poplawsky, J.D.	GEOC	7
Pojman, J.A.	POLY	185	Poltronetti, A.	CHED	483	Popma, E.J.	CHED	1587
Pojman, J.A.	POLY	186	Poluektov, O.	PHYS	600	Popma, E.J.	CHED	1876
Pojman, J.A.	POLY	475	Polyak, A.	INOR	1026	Popov, A.V.	MEDI	196
Pojman, J.A.	POLY	476	Polyakov, V.V.	PMSE	582	Popov, I.A.	INOR	160
Pojman, J.A.	POLY	479	Polyansky, D.E.	INOR	1165	Popov, S.	CELL	79
Pojman, J.A.	POLY	480	Polymeropoulos, G.	PMSE	599	Popov, S.	ORGN	593
Pokharel, N.	INOR	188	Polzin, S.M.	INOR	420	Popova, M.	CHED	205
Pokharel, U.	INOR	851	Pomelli, C.S.	ANYL	258	Popova, M.	CHED	793
Pokharel, U.	INOR	885	Pomerantz, A.E.	ENFL	409	Popova, M.	CATL	266
Pokharel, U.R.	INOR	1305	Pomerantz, A.E.	ENFL	462	Popova, M.	ORGN	428
Pokhilko, P.	PHYS	307	Pomerantz, N.	INOR	1089	Popova, M.	COMP	341
Pokhrel, M.	INOR	837	Pomerantz, W.C.	MEDI	38	Popp, B.V.	CHED	2147
Pokhrel, M.	INOR	843	Pomerantz, W.C.	MEDI	313	Popp, B.V.	INOR	855
Pokhrel, M.	NUCL	84	Pomerenk, O.	COLL	476	Popp, B.V.	INOR	868
Pokhriyal, D.	INOR	440	Pomfret, M.	CHED	1655	Popp, B.V.	INOR	1103
Pokki, J.	COLL	98	Ponce, H.	PHYS	575	Popp, B.V.	ORGN	40

Popp, B.V.	ORGN	94	Poathanagandhi, N.	PMSE	501	Powell, W.S.	ORGN	228
Popp, B.V.	ORGN	170	Pothecary, M.R.	POLY	74	Powers, C.	PHYS	134
Popp, B.V.	PROF	48	Pothig, A.	ORGN	674	Powers, D.	INOR	79
Popp, N.	CHED	752	Pothoof, J.	CHED	103	Powers, D.	INOR	1094
Popp, N.	CHED	1900	Pothoof, J.	CHED	498	Powers, D.	INOR	1279
Porch, A.	ANYL	434	Pothoof, J.	CHED	1809	Powers, D.N.	BIOT	253
Porco, J.A.	ORGN	72	Pothoof, J.	CHED	1810	Powers, D.N.	BIOT	391
Porosoff, M.	CATL	250	Pothoof, J.	CHED	1811	Powers, K.	CHED	1489
Porras, A.	PMSE	264	Pothoof, J.	ENVR	637	Powers, L.	ENVR	282
Portela, R.	CATL	292	Potluri, S.	ENVR	124	Powers, M.	MEDI	16
Porter, C.	BIOT	401	Potratz, J.	CHED	571	Powis, I.	PHYS	607
Porter, J.	MEDI	25	Potter, B.	ENVR	593	Poyton, M.F.	COLL	712
Porter, J.	MEDI	26	Potter, K.D.	CELL	6	Pozdin, V.	ANYL	281
Porter, J.	MEDI	378	Potteti, H.	MEDI	260	Pozenel, M.	CINF	92
Porter, M.D.	ANYL	318	Potthast, A.	CELL	46	Pozzi, P.	MEDI	407
Porter, M.	ENFL	93	Potthast, A.	CELL	335	Prabhakar, R.	BIOL	281
Porter, S.E.	CINF	79	Potts, J.	CHED	696	Prabhakar, R.	CATL	503
Porter, T.M.	INOR	332	Potvin, J.	CHED	1048	Prabhakar, R.	COMP	396
Porter, T.M.	INOR	333	Potvin, J.	CHED	1053	Prabhakar, R.	INOR	1025
Porter, T.M.	INOR	494	Potyahaylo, A.	COMP	208	Prabhakar, S.	CATL	415
Porter, T.M.	INOR	705	Poudel, A.	PHYS	406	Prabhu, R.	POLY	210
Portillo, R.I.	INOR	512	Poudyal, S.	ENFL	248	Prabhu, V.	POLY	345
Portis, B.	INOR	949	Poulikakos, D.	CELL	396	Prabhukhot, G.	COLL	24
Portlock, D.	PHYS	128	Poulos, T.L.	INOR	1136	Prada Silvy, R.A.	CATL	225
Portner, C.	ENVR	72	Poulsen, N.A.	AGFD	149	Prade, E.	BIOT	131
Portner, C.	ENVR	250	Poulson, S.	ENVR	83	Pradeilles, J.	ORGN	564
Portnov, I.	POLY	339	Poulson, S.	GEOC	15	Praetorius, A.	ENVR	86
Portnov, I.	POLY	377	Poulson, S.	GEOC	42	Praikaew, P.	INOR	1375
Porubsky, W.	ENFL	514	Poulter, B.	CHED	1848	Prajapati, I.	ORGN	706
Posada-Baquero, R.	ENVR	719	Pour, G.S.	INOR	732	Prakapenka, V.	INOR	577
Posey, K.T.	POLY	429	Pour, G.S.	INOR	741	Prakash, J.	INOR	927
Posey, N.D.	POLY	459	Pour, G.S.	INOR	1182	Prakash, O.	BIOL	110
Posey, R.	CHED	1762	Pour, G.S.	ORGN	376	Prakash, P.	INOR	1123
Posey, V.	ORGN	9	Pouresmaeil, F.	PMSE	157	Prakash, S.	ANYL	396
Posner, D.A.	MEDI	352	Pourpoint, F.	CATL	413	Prakash, S.S.	ENFL	534
Pospisil, M.	CELL	194	Pourpoint, F.	CATL	417	Prakash, S.S.	FLUO	10
Pospisil, M.	COLL	438	Poursat, B.	ENVR	349	Pramanik, A.	COLL	176
Poss, M.A.	MEDI	36	Poutsma, J.	COMP	353	Pramanik, A.	COLL	235
Posseik, F.	COLL	193	Povis, K.T.	CHED	2167	Pramanik, A.	COLL	278
Posseik, F.	COLL	377	Powel, R.	NUCL	79	Pramanik, A.	COLL	305
Post, E.	ENVR	583	Powell, B.D.	CHED	823	Pramanik, M.	POLY	651
Post, J.	GEOC	103	Powell, B.A.	NUCL	15	Pramanik, S.	INOR	903
Post, J.	GEOC	161	Powell, C.	PMSE	40	Pramanik, S.	INOR	909
Post, J.	GEOC	162	Powell, D.R.	ANYL	114	Pramanik, S.	INOR	749
Post, J.	GEOC	240	Powell, D.R.	INOR	949	Pramudya, I.	POLY	458
Postek, M.	ANYL	291	Powell, D.R.	ORGN	331	Pranantyo, D.	POLY	445
Postel, C.	CHED	1393	Powell, D.R.	ORGN	501	Praner, J.	ENVR	559
Poster, D.	ANYL	291	Powell, E.M.	ANYL	207	Prasad, A.	AGFD	11
Poston, A.	CARB	64	Powell, G.L.	INOR	1259	Prasad, P.	BIOL	84
Posy, S.	COMP	166	Powell, K.	MEDI	308	Prasad, P.N.	PHYS	261
Poteau, R.	INOR	171	Powell, K.	POLY	200	Prasad, P.	PMSE	127
Potemkin, I.	POLY	339	Powell, R.	COMP	246	Prasad, S.	ENFL	454
Potemkin, I.	POLY	372	Powell, S.	INOR	913	Prasad, V.	ENFL	170
Potemkin, I.	POLY	377	Powell, T.	CHED	1691	Prasad Thapaliya, B.	PMSE	423
Potenzino, R.	CHED	1462	Powell, T.	YCC	17	Prasankumar, R.	PHYS	128

Prashad, A.	BIOT	543	Prestwich, G.D.	CELL	61	Priyadarshini, P.	CATL	55
Prasittichai, C.	COLL	382	Pretelt, J.	PMSE	575	Priyadersini, D.	ANYL	153
Prasse, C.	ENVR	133	Prevette, L.	CHED	1767	Proano Pena, G.	CELL	302
Prasse, C.	ENVR	184	Prevette, L.E.	BIOL	267	Probsdorfer, B.	INOR	245
Prater, C.	PMSE	295	Prevette, L.E.	CHED	1771	Prodinger, S.	CATL	67
Pratheepkumar, M.	INOR	1313	Prevette, L.E.	CHED	1779	Prokofjevs, A.	I&EC	111
Prather, D.	BIOT	65	Prevette, L.E.	CHED	1780	Prokopchuk, D.	INOR	121
Prather, K.	INOR	166	Prevette, L.E.	CHED	1782	Promisel, C.M.	ENVR	23
Prather, K.V.	INOR	1274	Prevost, N.T.	CELL	85	Prommer, H.	GEOC	90
Prather, K.V.	INOR	1405	Prevost, N.T.	CELL	86	Prommer, H.	GEOC	109
Prather, K.A.	CHED	676	Prevost, P.	CHED	486	Pronin, S.	ORGN	525
Prat-Resina, X.	CHED	2115	Prévost, M.	ENVR	30	Prophet, A.M.	PHYS	559
Pratt, A.	POLY	495	Prezhdo, O.V.	PHYS	346	Proskurjakov, L.	PMSE	326
Pratt, J.M.	CHED	148	Pribil, S.	CHED	937	Protasiewicz, J.D.	INOR	318
Pratt, J.M.	CHED	801	Pribram-Jones, A.	PHYS	318	Protesescu, L.	INOR	1315
Pratt, K.A.	CHED	61	Pribut, N.	MEDI	346	Protter, C.	ENFL	530
Pratt, K.A.	CHED	437	Pribyl, J.R.	CHED	223	Provencher, B.A.	CHED	207
Pratt, K.A.	CHED	445	Pribyl, J.	POLY	402	Provencher, B.A.	CHED	1213
Pratt, K.A.	ENVR	157	Price, C.	ANYL	159	Providokhina, K.	CHED	1176
Pratt, K.A.	ENVR	315	Price, C.J.	CHED	706	Pruden, A.	ENVR	9
Pratt, L.R.	PHYS	263	Price, D.A.	BIOL	251	Pruden, A.	ENVR	11
Pratt, M.	BIOL	36	Price, D.A.	BIOL	270	Pruden, A.	ENVR	513
Pratt, M.	BIOL	109	Price, H.	CHED	244	Pruitt, T.	CHED	179
Pratt, M.	BIOL	127	Price, I.	BIOL	199	Pruitt, B.	CINF	101
Pratt, M.	CARB	36	Price, J.	ENVR	452	Pruitt, S.	CHED	1919
Pratt, M.	CARB	76	Price, J.	BIOT	115	Prushan, M.J.	CHED	1154
Pratt, M.	PROF	35	Price, J.L.	CHED	1364	Pruski, M.	CATL	365
Prawatborisut, M.	CELL	286	Price, J.L.	CHED	1516	Pruski, M.	INOR	489
Preciado, A.R.	CHED	1410	Price, N.	CHED	1432	Pruyn, T.	PMSE	541
Predecki, D.P.	CHED	1621	Price, P.	COLL	512	Prybil, J.	CHED	1046
Predecki, D.P.	CHED	1633	Price, T.	PMSE	501	Prybil, J.	CHED	1141
Predota, M.	GEOC	4	Price-Walton, V.	POLY	120	Prybil, J.	INOR	856
Predota, M.	GEOC	143	Priestley, E.S.	MEDI	2	Pryor, E.M.	CHAS	43
Predota, M.	GEOC	231	Priestley, R.D.	I&EC	56	Pryor, E.M.	CHAS	46
Preefer, M.	ENFL	45	Prieto, A.L.	ENFL	124	Przelomski, H.	CHED	927
Preefer, M.	INOR	674	Prieto, H.	CHED	586	Przybycien, T.M.	BIOT	104
Prehn, E.	COLL	140	Prieto, H.	CHED	669	Ptasinska, S.	ENFL	272
Preisig, N.	COLL	539	Prieto, M.A.	CELL	133	Pu, A.	CHED	836
Prelusky, D.	MEDI	257	Prieto-Costas, L.A.	COLL	671	Pu, C.	ENVR	547
Prelvukaj, G.	COMP	220	Prieto Riquelme, M.V.	ENVR	11	Pu, J.	COMP	212
Prem, P.	NUCL	28	Priftis, D.	PMSE	191	Pu, S.	ENVR	679
Premalal, T.M.	INOR	401	Prilliman, S.G.	CHED	76	Pu, S.	CHED	657
Prendergast, D.	CATL	27	Prince, A.L.	CHED	312	Pu, T.	ENVR	148
Prendergast, D.	CATL	82	Prince, B.	INOR	996	Pu, Y.	CELL	218
Prendergast, D.	ENFL	189	Princiotta, F.	ENFL	193	Puchot, L.	CELL	106
Prendergast, D.	ENFL	499	Princiotta, F.	ENFL	194	Puchot, L.	CELL	107
Preenkocevic, A.	BIOL	261	Pringle, J.	PHYS	68	Puchot, L.	PMSE	132
Preenkocevic, A.	CHED	1827	Prinsell, M.R.	CHED	1377	Puchot, L.	PMSE	187
Preocanin, T.	PHYS	505	Prior, F.	CINF	41	Puchot, L.	PMSE	441
Prescher, J.A.	BIOL	145	Prior, J.J.	BIOT	286	Puchot, L.	PMSE	482
Prescher, J.A.	BIOL	298	Prisk, T.	GEOC	258	Puchot, L.	POLY	589
Prescher, J.A.	BIOL	308	Pritchard, B.	PHYS	132	Pudzianowski, A.T.	MEDI	109
Prescott-Roy, J.E.	COMP	107	Pritchard, C.	CELL	70	Pugh, C.R.	POLY	504
Prest, R.	CHED	1901	Pritchard, V.	INOR	1044	Pujar, H.	BIOT	36
Preston, J.	CHED	785	Priya, S.	ORGN	561	Pujar, H.	BIOT	361

Pujari, S.P.	COLL	687	Pyle, J.R.	PHYS	372	Qin, H.	INOR	1418
Pujol, A.	CHED	1007	Pyle, M.	MEDI	354	Qin, J.	COLL	123
Pujols, M.	COLL	189	Pylypenko, S.	I&EC	137	Qin, J.	PMSE	26
Pulicicchio, C.	MEDI	6	Pyrch, M.	INOR	1013	Qin, J.	INOR	722
Pulicicchio, C.	MEDI	297	Pyrch, M.	NUCL	35	Qin, K.	POLY	93
Pulikkal, V.	ENVR	298	Pyun, J.	CHED	1981	Qin, L.	ENFL	137
Pulkkinen, E.M.	ANYL	319	Pyun, J.	POLY	397	Qin, L.	ENFL	208
Pullanchery, S.	COLL	281	Qafoku, O.	GEOC	186	Qin, L.	ENFL	520
Pullanchery, S.	COLL	287	Qafoku, O.	GEOC	261	Qin, L.	MEDI	36
Pullanchery, S.	COLL	470	Qasim, L.	PHYS	78	Qin, L.	INOR	831
Pullanchery, S.	COLL	712	Qavi, S.	CHED	1788	Qin, L.	INOR	1331
Pullen, N.	BIOL	85	Qi, H.	PMSE	558	Qin, Q.	ORGN	467
Pulliam, C.R.	CHED	900	Qi, H.	POLY	143	Qin, Q.	MEDI	270
Pullin, A.	I&EC	110	Qi, H.	COMP	31	Qin, S.	PMSE	52
Pulst, M.	POLY	134	Qi, H.	COMP	238	Qin, S.	PMSE	424
Pun, A.	POLY	661	Qi, J.	MEDI	75	Qin, W.	CATL	9
Punchi Hewage, A.	BIOL	81	Qi, L.	CATL	51	Qin, X.	CELL	67
Punekar, S.	INOR	655	Qi, L.	CATL	515	Qin, Y.	PHYS	128
Punpongjareorn, N.	ANYL	50	Qi, W.	AGFD	34	Qiu, F.	PHYS	350
Punshon, T.	ANYL	2	Qi, Y.	ENFL	255	Qiu, H.	BIOL	103
Pupillo, G.	PHYS	61	Qi, Y.	COLL	211	Qiu, J.	PMSE	595
Purcell, S.	PHYS	622	Qi, Z.	CATL	204	Qiu, J.	INOR	1207
Purcell, T.A.	PMSE	516	Qi, Z.	ENFL	540	Qiu, J.	ENFL	351
Purdy, S.C.	CHED	1169	Qian, A.	GEOC	241	Qiu, K.	PMSE	305
Puri, M.	INOR	590	Qian, C.	CELL	256	Qiu, M.	INOR	660
Purisima, E.O.	BIOT	212	Qian, F.	INOR	1370	Qiu, S.	POLY	18
Purohit, A.	MEDI	150	Qian, H.	ENVR	449	Qiu, T.A.	CHED	555
Purohit, A.	POLY	746	Qian, K.	INOR	675	Qiu, T.A.	ENVR	242
Purow, B.W.	BIOL	90	Qian, K.	ENFL	161	Qiu, X.	COMP	360
Purse, B.W.	BIOL	252	Qian, M.C.	AGFD	113	Qiu, X.	CELL	284
Purse, B.W.	ORGN	336	Qian, M.C.	AGFD	136	Qiu, Y.	ORGN	81
Pursell, C.	CATL	506	Qian, M.C.	AGFD	139	Qiu, Y.	COMP	45
Pursell, C.	CATL	546	Qian, N.	BIOL	282	Qiu, Z.	CHED	315
Pursell, C.	INOR	292	Qian, W.	INOR	845	Qiu, Z.	ORGN	143
Purser, G.H.	CHED	607	Qian, X.	BIOT	441	Qu, B.	ORGN	28
Purser, G.H.	CHED	721	Qian, X.	BIOT	480	Qu, C.	PHYS	140
Purser, G.H.	CHED	864	Qian, X.	PMSE	87	Qu, F.	CHED	1191
Purser, G.H.	CHED	865	Qian, X.	PMSE	193	Qu, F.	INOR	186
Purser, G.H.	CHED	910	Qian, X.	MEDI	92	Qu, F.	INOR	584
Purushothaman, S.	COLL	638	Qian, Y.L.	AGFD	136	Qu, F.	INOR	902
Purvis-Roberts, K.	AGFD	7	Qian, Y.L.	AGFD	139	Qu, F.	INOR	1297
Puschner, B.	ENVR	556	Qian, Y.	CELL	284	Qu, F.	INOR	1299
Pusede, S.	CHED	928	Qian, Y.	BIOL	282	Qu, F.	BIOL	206
Puskas, J.E.	PMSE	404	Qian, Y.	ANYL	165	Qu, G.	ENVR	138
Puskas, J.E.	POLY	395	Qiang, W.	CATL	417	Qu, G.	ENVR	328
Puskas, J.E.	POLY	522	Qiao, B.	NUCL	50	Qu, H.	ENVR	517
Puskas, J.E.	POLY	523	Qiao, B.	ENFL	55	Qu, H.	INOR	750
Puskas, J.E.	POLY	524	Qiao, B.	ORGN	379	Qu, X.	ENFL	189
Putaud, T.	PHYS	589	Qiao, D.	ENFL	541	Qu, X.	ENVR	286
Putaux, J.	CELL	247	Qiao, R.	ENFL	48	Qu, X.	ENVR	430
Putman, J.	ENFL	464	Qiao, S.	ENVR	740	Qu, X.	ENVR	493
Puylaert, P.	INOR	1191	Qiao, T.	COLL	509	Qu, Z.	ANYL	336
Puzzarini, C.	PHYS	88	Qiao, X.	ENVR	529	Qu, Z.	COLL	348
Puzzarini, C.	PHYS	91	Qiao, Z.	ENVR	235	Quach, K.J.	BIOT	423
Puzzarini, C.	PHYS	190	Qin, B.	COLL	194	Quach, P.K.	CHED	1360

Quack, M.	PHYS	274	Quinto, L.	BIOT	151	Radford, M.N.	CHED	1474
Quackenbush, M.	CHED	1324	Quirk Dorr, D.R.	MEDI	184	Radford, S.A.	CHED	909
Quader, S.	POLY	2	Quiroz, G.	ENVR	602	Radford, S.	BIOL	137
Quadir, M.A.	COLL	600	Quiroz, M.	INOR	382	Radich, J.	ENFL	3
Quadri, M.	MEDI	349	Quiroz, M.	INOR	918	Radich, J.	ENFL	81
Quaino, P.	CATL	344	Quiroz, M.	INOR	1358	Radich, J.	ENFL	129
Qualls, W.G.	CHED	1501	Quist, D.A.	INOR	530	Radin, M.	ENFL	420
Quan, D.	PHYS	588	Quist, K.	CHED	1732	Radisky, D.	BIOT	118
Quan, G.	CHED	260	Quitadamo, A.	CHED	1758	Radisky, E.	BIOT	118
Quandt, R.W.	PHYS	459	Quitain, A.	ENFL	66	Radius, U.	FLUO	11
Quant, M.	ENFL	342	Quitevis, E.L.	ANYL	296	Radl, S.	CATL	439
Quarato, E.	CHED	1854	Quitevis, E.L.	PHYS	289	Radlauer, M.R.	PMSE	178
Quast, M.J.	PMSE	546	Qumhiyeh, M.	COLL	621	Radosevich, A.T.	INOR	547
Quave, C.L.	ANYL	213	Quon, D.	ENFL	286	Radovic, M.	COLL	140
Que, E.L.	INOR	63	Quon, D.	ENFL	287	Radovic, M.	INOR	815
Que, E.L.	INOR	493	Quraishi, S.	CELL	341	Radtke, B.	COLL	731
Que, E.L.	INOR	1022	Raab, M.	ANYL	308	Radtke, C.	BIOT	205
Que, E.L.	INOR	1352	Raave, R.	POLY	230	Radu, C.G.	INOR	907
Que, L.	INOR	529	Rabaey, N.	INOR	240	Radu, N.S.	INOR	1038
Queenan, J.	CHED	1771	Rabal, O.	COMP	74	Radulescu, A.	POLY	372
Queenan, K.	ORGN	619	Rabani, E.	PHYS	315	Radványi, D.	AGFD	127
Queern, S.L.	FLUO	63	Rabeh, W.	BIOL	189	Radwan, M.F.	BIOL	315
Quesada Espinoza, J.	CHED	371	Rabia, L.	BIOT	121	Rady, B.	MEDI	75
Quesenberry, R.	BIOT	282	Rabia, L.	BIOT	177	Radzanowski, A.N.	CHED	888
Quesnel, Y.	AGFD	189	Rabideau, B.	PHYS	25	Radzinski, S.	PMSE	272
Quicksall, A.	CATL	245	Rabidoux, S.	PHYS	252	Radzinski, S.	POLY	303
Quigley, K.	INOR	207	Rabinewitz, Z.	PMSE	343	Raeeszadeh Sarmazdeh, M.	BIOT	118
Quiles, E.	PMSE	343	Rabinovich, D.	CHED	139	Raeisi, M.	PMSE	425
Quillen, A.	CHED	1566	Rabinovich, D.	CMA	3	Raeofy, N.	ORGN	684
Quillen, A.	CHED	1615	Rabinovich, D.	HIST	11	Raess, L.N.	CHED	460
Quillen, A.	CHED	1669	Rabinovich, D.	INOR	473	Raffaele, K.	ENVR	417
Quillian, B.P.	POLY	126	Rabinovich, D.	INOR	945	Rafferty, R.	BIOL	255
Quillian, B.P.	POLY	438	Rabinovich, D.	INOR	1264	Rafferty, R.	MEDI	358
Quillian, B.P.	POLY	573	Rabinowitz, J.	CINF	110	Rafferty, R.	ORGN	74
Quincey, J.	MEDI	25	Rabolt, J.F.	ANYL	462	Rafferty, R.	ORGN	557
Quinlivan, P.	INOR	1205	Rabolt, J.F.	CELL	134	Rafferty, R.	ORGN	744
Quinn, D.	BIOL	278	Rabolt, J.F.	COLL	327	Rafferty, R.J.	BIOL	131
Quinn, J.	ENVR	742	Rabolt, J.F.	PMSE	291	Rafferty, R.J.	ORGN	434
Quinn, K.J.	CHED	1612	Rabolt, J.F.	PMSE	293	Rafferty, R.J.	ORGN	435
Quinn, K.J.	CHED	1643	Rabolt, J.F.	PMSE	296	Rafferty, R.J.	ORGN	436
Quinones, O.	ENVR	545	Rabon, A.M.	CHED	1152	Rafferty, R.J.	ORGN	553
Quinones, R.	ANYL	432	Rabon, A.M.	INOR	391	Rafferty, S.M.	ORGN	609
Quinones, R.	CHED	686	Racelis, A.	AGFD	28	Rafferty, S.M.	ORGN	701
Quinones, R.	CHED	1173	Rachad, S.	ORGN	698	Rafferty, S.	CHED	1735
Quinones, R.	COLL	203	Rackie, D.	CHED	1109	Raffy, G.	POLY	748
Quinones, R.	COLL	694	Racow, E.	PHYS	231	Rafiyu, I.	ANYL	271
Quiñones, G.	CHED	1080	Racz, B.	MEDI	270	Rafter, P.	INOR	43
Quinones Velez, G.	INOR	1384	Radadia, A.	CHED	449	Raftery, E.	POLY	173
Quinonez, C.	CHED	354	Radavidson, H.	CELL	68	Ragain, C.	ANYL	97
Quint, M.S.	NUCL	87	Rademacher, C.	BIOL	279	Ragain, C.	BIOL	96
Quint, S.	CHED	1446	Rademacher, C.	CARB	8	Ragain, C.	BIOL	175
Quintana, R.	PMSE	132	Rademacher, C.	MEDI	318	Ragain, C.	CHED	671
Quintana, R.	PMSE	441	Radford, L.L.	FLUO	66	Ragain, C.	CHED	1860
Quintero, I.A.	POLY	187	Radford, L.L.	FLUO	68	Ragain, C.	CHED	2133
Quintero, M.	INOR	575	Radford, L.L.	FLUO	73	Ragain, C.	COMP	19

Ragaite, G.	ORGN	716	Railing, M.E.	CHED	2084	Ramakrishnan, R.	POLY	574
Ragauskas, A.	CELL	8	Raimonda, P.	CELL	126	Ramakrishnan, R.	POLY	735
Ragauskas, A.	CELL	204	Raimondo, R.	CHED	1893	Ramamurthy, V.	ORGN	312
Ragauskas, A.	CELL	218	Raines, R.T.	BIOL	15	Ramanan, S.	ENVR	121
Raghavachari, K.	PHYS	157	Rainsberry, A.N.	INOR	262	Ramanathan, A.	I&EC	12
Raghavan, D.	PMSE	581	Rainwater, L.	CHED	1699	Ramanathan, A.	ORGN	453
Raghavan, S.R.	COLL	392	Raischel, M.	CHED	1833	Ramanathan, B.	BIOT	392
Raghavan, S.R.	COLL	706	Raj, S.	MEDI	17	Ramanathan, C.	CATL	366
Raghavan, S.R.	COLL	707	Raja, G.	BIOT	366	Ramanathan, P.	BIOT	84
Raghavan, S.R.	COLL	733	Raja, K.S.	MEDI	400	Ramanujam, J.	CHED	2114
Raghavan, S.R.	COLL	777	Raja, K.S.	MEDI	401	Ramanujam, K.	ANYL	133
Raghuraman, S.	COLL	131	Rajabimoghadam, K.	INOR	215	Ramasamy, K.	COLL	52
Raghuwanshi, V.	COLL	704	Rajagopalan, V.	ENFL	52	Ramasamy, K.	ENFL	83
Ragoza, M.	COMP	191	Rajagopalan, V.	ENVR	467	Ramasamy, K.K.	CATL	288
Ragoza, M.	COMP	226	Rajamanthrilage, A.	ANYL	282	Ramaswamy, V.	ENFL	192
Rahaman, M.	ENVR	56	Rajan, K.	CELL	268	Ramaswamy, V.	ENFL	194
Rahaman, W.	INOR	113	Rajan, K.	CELL	350	Ramaswamy, V.	COMP	356
Rahane, S.	BIOT	106	Rajanbabu, T.	CHED	1370	Rambow, A.	CHED	911
Rahbar, N.	CELL	278	Rajaram, P.S.	MEDI	220	Rambukwella, M.	COLL	765
Rahimi, P.	ENFL	284	Rajaraman, S.	CHED	1514	Ramchuran, E.J.	MEDI	105
Rahimoff, R.	ENVR	306	Rajaraman, S.	CHED	1788	Ramdani, N.	PMSE	135
Rahkila, J.	MEDI	334	Rajaseelan, E.	CHED	1081	Ramdular, A.	ORGN	70
Rahman, A.	CHED	2014	Rajasekharan, V.V.	SCHB	10	Rameez, S.	BIOT	279
Rahman, A.	INOR	87	Rajasekharan, V.V.	SCHB	11	Rameez, S.	BIOT	281
Rahman, A.	INOR	786	Raja Thulasimani, M.	INOR	1397	Ramer, K.	BIOT	397
Rahman, A.	PHYS	422	Rajca, A.	POLY	278	Ramil, C.P.	BIOL	216
Rahman, A.	SCHB	6	Rajee, A.O.	INOR	681	Ramirez, C.	INOR	1134
Rahman, F.	I&EC	40	Rajendran, A.	I&EC	22	Ramirez, C.P.	INOR	85
Rahman, M.	COLL	255	Rajesh, K.	CHED	269	Ramirez, F.	CHED	1459
Rahman, M.	ENFL	184	Rajewski, A.	ORGN	705	Ramirez, K.	ENFL	341
Rahman, N.A.	COMP	18	Rajput, S.	ANYL	349	Ramirez, L.	CHED	1280
Rahman, R.	COLL	524	Raju, R.	BIOT	16	Ramirez, M.	ENVR	301
Rahman, S.	BIOT	246	Raju, R.	BIOT	29	Ramirez, M.	ENVR	302
Rahman, S.	BIOT	417	Raker, J.R.	CHED	140	Ramirez, N.	CHED	1213
Rahman, S.	BIOT	419	Raker, J.R.	CHED	169	Ramirez, R.I.	PMSE	69
Rahman, S.	BIOT	420	Raker, J.R.	CHED	2111	Ramirez, S.	CHED	1615
Rahman, T.S.	COLL	375	Raker, J.R.	CHED	2191	Ramirez, S.	CHED	1669
Rahman, T.S.	COMP	146	Raker, J.R.	CHED	2192	Ramirez-Cuesta, A.	ENFL	152
Rahman, T.S.	INOR	1077	Raker, J.R.	CHED	2194	Ramirez Domenech, J.I.	CHED	738
Rahmani, P.	ORGN	517	Raker, J.R.	CHED	2196	Ramirez Torres, J.	CHED	371
Rahn, H.P.	BIOL	75	Raker, J.R.	INOR	182	Ramirez Torres, J.	CHED	819
Rahn, H.P.	BIOT	182	Rakotondraibe, H.L.	MEDI	87	Ramjee, B.	CHED	1306
Rahnamoun, A.	COLL	9	Raleiras, P.	ENFL	443	Rammo, O.	BIOT	319
Rahnamoun, A.	ENVR	655	Raley, A.L.	ENFL	372	Ramon, E.	BIOT	127
Rahn-Lee, L.	GEOC	45	Raley, J.	BIOT	482	Ramos, D.	ANYL	85
Rai, B.K.	COMP	87	Raliya, R.	AGFD	10	Ramos, F.	AGFD	46
Rai, N.	CATL	255	Raliya, R.	MPPG	3	Ramos, I.	BIOT	370
Rai, N.	CATL	540	Ralph, J.	CATL	98	Ramos, M.L.	CHED	931
Rai, N.	ENVR	706	Ralph, J.	CELL	217	Ramos, M.	GEOC	222
Rai, N.	PHYS	603	Ralte, L.	INOR	857	Ramos, M.	PMSE	264
Rai, N.	POLY	199	Ramabhadran, R.O.	ORGN	113	Ramos, P.	PHYS	152
Rai, N.	POLY	346	Ramadan, M.	MEDI	162	Ramos, S.	ANYL	268
Raikova, S.	ENFL	18	Ramakrishnan, R.	POLY	121	Ramos, W.	ENFL	389
Railing, M.E.	CHED	906	Ramakrishnan, R.	POLY	202	Ramos-Garces, M.	INOR	1065
Railing, M.E.	CHED	1493	Ramakrishnan, R.	POLY	505	Ramos-Santana, B.J.	CHED	89

Ramos-Santana, B.J.	CHED	731	Ransohoff, T.	BIOT	384	Rata, M.	BIOT	567
Ramos-Santana, B.J.	CHED	923	Ransom, R.	CATL	492	Ratchford, D.	COLL	221
Ramos-Santana, B.J.	CHED	975	Ransom, R.	CATL	494	Ratcliff, T.	PMSE	30
Ramos-Santana, B.J.	CHED	1875	Rantanen, J.	AGFD	140	Rath, D.	GEOC	13
Ramos-Torres, K.	ENVR	306	Räntzsch, V.	POLY	600	Rath, S.P.	PHYS	154
Rampal, N.	GEOC	188	Ranville, J.F.	ENVR	88	Rathi, B.	GEOC	90
Rampmeier, R.	CATL	479	Rao, A.S.	CHED	1988	Rathman, J.F.	CINF	90
Ramprasad, R.	CATL	72	Rao, C.N.	BIOT	69	Rathnayaka, S.	INOR	52
Ramprasad, R.	PMSE	27	Rao, D.	CHED	1212	Rathnayake, D.	INOR	400
Rampulla, R.	MEDI	297	Rao, G.	BIOT	184	Rathnayake, H.P.	ENFL	387
Ramsbeck, D.	MEDI	21	Rao, H.	MEDI	57	Rathnayake, M.	ORGN	563
Ramsbeck, D.	MEDI	351	Rao, K.V.	COMP	17	Rathore, A.S.	BIOT	490
Ramsey, A.	BIOT	440	Rao, N.Z.	AGFD	195	Rathore, N.	BIOT	191
Ramsey, C.N.	CARB	60	Rao, T.S.	CARB	84	Rathore, N.	BIOT	518
Ramsey, J.	BIOT	440	Rao, T.	BIOT	431	Rathour, R.	GEOC	100
Ramsey, M.R.	INOR	308	Rao, Y.	INOR	671	Ratliff, K.	ENVR	65
Ramsundar, B.	COMP	112	Rao, Y.	INOR	850	Ratliff, T.	BIOL	159
Ramuglia, A.	INOR	939	Raouche, S.	CELL	411	Ratner, B.D.	POLY	642
Ran, Q.	PMSE	281	Raoux, S.	INOR	1397	Ratner, M.A.	COLL	33
Rana, S.	PMSE	422	Rapecki, S.	MEDI	25	Ratner, M.A.	MPPG	27
Ranasinghe, D.S.	PHYS	94	Rapecki, S.	MEDI	26	Ratner, M.A.	PHYS	30
Ranasinghe, J.C.	PHYS	455	Rapf, R.	PHYS	426	Ratner, M.A.	PHYS	406
Ranasinghe, J.C.	PHYS	479	Raphael, E.	POLY	106	Ratzsch, K.	POLY	600
Ranasinghe, J.C.	PHYS	480	Rappe, A.M.	COLL	44	Rau, M.	CHED	263
Ranasinghe, J.C.	PHYS	649	Rappe, A.K.	INOR	512	Raubenolt, B.	COMP	78
Ranasinghe, K.D.	COMP	54	Rappoport, D.	COLL	480	Rauch, M.	INOR	439
Ranasinghe, K.D.	COMP	276	Raptis, R.G.	INOR	827	Rauchfuss, F.	CELL	363
Ranasinghe, K.D.	PHYS	253	Raptis, R.G.	INOR	994	Rauchfuss, T.B.	INOR	411
Rand, B.P.	PHYS	172	Raptis, R.G.	INOR	740	Rauf, H.	POLY	22
Randall, J.	COLL	781	Raptis, R.G.	INOR	1382	Raugei, S.	INOR	670
Randl, S.	MEDI	271	Raquez, J.	PMSE	252	Rauker, A.	CHED	1921
Randolph, A.	CHED	2115	Rarey, M.	COMP	167	Raulerson, E.K.	PHYS	121
Randolph, K.	ENFL	146	Rarey, M.	COMP	343	Raulerson, E.K.	PHYS	521
Randolph, T.	COLL	634	Ras, E.	CATL	18	Rausch, D.J.	ORGN	504
Randtke, S.	ENVR	778	Rasapalli, S.	MEDI	200	Rauscher, M.	BIOT	4
Randtke, S.	GEOC	131	Raschke, M.B.	PHYS	70	Rauscher, P.	PMSE	203
Randtke, S.	GEOC	155	Rase, M.J.	POLY	63	Rauscher, P.M.	PMSE	498
Raney, W.R.	POLY	439	Raseek, N.M.	BIOL	289	Raut, D.	MEDI	109
Rangachari, V.	POLY	306	Rashad, A.	CELL	388	Raut, P.	CHED	1738
Rangamani, P.	COLL	722	Rashid, M.	MEDI	409	Rautkari, L.	CELL	41
Range, K.	CHED	1918	Rashid, M.	ENVR	274	Rauwel, E.	INOR	1390
Range, K.	PHYS	553	Rask, A.	COMP	414	Rauwel, P.	INOR	1390
Rangel, D.	ENFL	454	Rasmussen, J.K.	BIOT	161	Ravaine, V.	POLY	685
Rangharajan, K.	ANYL	396	Rasmussen, S.B.	CATL	292	Raval, D.	CHED	642
Rangsunvigitt, P.	INOR	366	Rasner, D.K.	POLY	209	Raval, D.	CHED	646
Ranjan, P.	PMSE	35	Raso, J.	CATL	158	Ravanfar, R.	ORGN	321
Rank, D.	BIOT	247	Rasool, A.	CHED	375	Ravi, A.	BIOT	294
Rank, D.	BIOT	248	Rasool, K.	ENVR	62	Ravi, A.	BIOT	323
Ranka, M.	COLL	567	Rasoulpour, R.	AGFD	183	Ravula, S.	CATL	544
Rankic, D.A.	ORGN	304	Raspel, S.N.	HIST	45	Ravula, S.	ENFL	515
Rankin, M.	MEDI	75	Rasti, E.S.	COLL	97	Ravula, S.	PMSE	530
Rankin, R.	CATL	509	Rastogi, S.	POLY	604	Rawal, A.	POLY	773
Rankovic, Z.	MEDI	204	Raston, P.	CHED	119	Rawal, S.H.	ENFL	416
Ranner, J.	AGFD	42	Raston, P.	CHED	857	Rawal, T.B.	COMP	146
Ranney, E.R.	CHED	1518	Raston, P.	PHYS	443	Rawlins, J.	POLY	651

Rawlins, P.	MEDI	293	Read De Alaniz, J.	POLY	626	Reed, A.J.	BIOT	399
Rawson, J.	ORGN	166	Reagan, J.C.	PMSE	399	Reed, B.	BIOT	250
Ray, A.	ENFL	344	Reagan, M.A.	INOR	950	Reed, C.	BIOL	241
Ray, A.	CATL	454	Reagen, S.	CELL	216	Reed, C.	CHED	2048
Ray, J.	ENVR	154	Reagen, S.	POLY	80	Reed, C.L.	CHED	1714
Ray, K.G.	ENFL	276	Real, F.	NUCL	9	Reed, C.L.	CHED	1922
Ray, K.G.	ENFL	277	Reath, A.	INOR	1135	Reed, D.	INOR	32
Ray, M.	INOR	1034	Reavis, M.D.	CHED	721	Reed, D.	INOR	1222
Ray, N.	MEDI	7	Reavis, M.D.	CHED	864	Reed, E.J.	PMSE	78
Ray, P.C.	COLL	615	Rebek, J.	INOR	644	Reed, J.	BIOT	84
Ray, P.C.	ENVR	382	Reber, A.C.	ORGN	455	Reed, J.	BIOT	156
Ray, P.C.	COLL	176	Reber, K.	INOR	1322	Reed, J.J.	CHED	140
Ray, P.C.	COLL	235	Reber, K.P.	CHED	210	Reed, J.J.	CHED	2111
Ray, P.C.	COLL	278	Reber, K.P.	ORGN	733	Reed, J.J.	CHED	2196
Ray, P.C.	COLL	305	Rebia, R.A.	POLY	712	Reed, J.	CHED	1043
Ray, P.	POLY	653	Rebic, A.	CHED	1153	Reed, J.	INOR	465
Ray, P.	ENVR	9	Rebmann, A.	POLY	530	Reed, R.	ENVR	88
Ray, P.	ENVR	16	Rebrov, E.	CATL	183	Reed, R.	POLY	297
Ray, S.	BIOT	486	Recio, R.	INOR	511	Reed, S.	AGFD	202
Ray, S.	MEDI	101	Reck, B.	POLY	646	Reed, S.	ORGN	588
Ray, S.	COMP	417	Reckhow, D.A.	ENVR	66	Reed, T.	COLL	56
Ray, S.	COLL	343	Reczek, J.	CHED	390	Reed, T.	INOR	170
Rayat, A.	BIOT	188	Reczek, J.	CHED	1414	Reed, W.F.	PMSE	419
Rayat, S.	PHYS	567	Reczek, J.J.	CHED	401	Reed, W.F.	POLY	218
Rayes, M.	CHED	1827	Reczek, J.J.	ORGN	213	Reeder, A.	CHED	1377
Rayfield, W.	BIOT	554	Reczek, J.J.	ORGN	242	Rees, D.	COLL	265
Raymer, B.	MEDI	275	Reczek, J.J.	ORGN	463	Rees, J.	HIST	16
Raymond, A.S.	PMSE	177	Reczek, J.J.	ORGN	626	Rees, J.A.	FLUO	43
Raymond, A.S.	PMSE	363	Redalje, S.J.	CINF	95	Reese, C.	COLL	610
Raymond, A.S.	POLY	806	Redd, S.L.	INOR	388	Reese, C.	POLY	486
Raymond, E.	CHED	1896	Redda, K.	MEDI	163	Reese, C.M.	POLY	130
Raymond, K.N.	INOR	531	Redda, K.	MEDI	164	Reese, C.M.	POLY	559
Raymond, K.N.	INOR	748	Redden, A.	CHED	1400	Reese, C.M.	POLY	566
Raymond, K.N.	INOR	1042	Redden, P.A.	PROF	21	Reese, M.R.	ORGN	220
Raza, A.	FLUO	20	Redding, M.	PMSE	426	Reese, S.	BIOT	440
Raza, S.S.	BIOT	411	Reddy, A.	ENVR	90	Reeve, A.M.	CHED	1201
Razavi, A.	ENVR	715	Reddy, C.	ORGN	228	Reeves, B.	ENVR	585
Razgoniaeva, N.	COLL	269	Reddy, C.	ENFL	461	Reeves, B.J.	FLUO	36
R Bajgiran, K.	BIOT	56	Reddy, C.	ENVR	117	Reeves, J.A.	POLY	161
R Bajgiran, K.	BIOT	374	Reddy, C.	ENVR	520	Reeves, M.S.	CHED	80
R Bajgiran, K.	BIOT	408	Reddy, C.	ENVR	522	Refaely-Abramson, S.	COLL	28
Rdultowki, M.	BIOL	282	Reddy, D.	CHED	1598	Refaely-Abramson, S.	COLL	379
Rdultowki, M.	BIOT	254	Reddy, M.	MEDI	34	Refai, F.H.	CHED	1601
Rea, L.	GEOC	85	Reddy, M.	MEDI	210	Reffner, J.R.	POLY	496
Reach, S.	ORGN	645	Reddy, M.	POLY	248	Regalbuto, J.R.	CATL	190
Read, C.G.	INOR	1061	Reddy, P.	MEDI	34	Regalbuto, J.R.	CATL	431
Read, C.G.	INOR	1130	Reddy, P.	MEDI	210	Regan, M.L.	CHED	1424
Read, C.G.	INOR	1237	Reddy, R.	INOR	390	Regatte, V.	I&EC	60
Read, D.	CHED	921	Reddy, S.	MEDI	260	Rege, K.	PMSE	81
Read, D.	CHED	1878	Redekop, E.	CATL	252	Regier, T.	GEOC	236
Read De Alaniz, J.	ORGN	58	Redondo, P.	PHYS	259	Regier, T.Z.	GEOC	114
Read De Alaniz, J.	ORGN	316	Ree, B.J.	PMSE	603	Reginato, M.	BIOL	177
Read De Alaniz, J.	POLY	511	Ree, M.	PMSE	603	Register, R.A.	PMSE	6
Read De Alaniz, J.	POLY	560	Reece, C.	CATL	252	Regmi, Y.N.	CELL	268
Read De Alaniz, J.	POLY	581	Reece, S.	CHED	594	Regmi, Y.N.	CELL	422

Regner, F.	ORGN	655	Reimhult, E.	COLL	93	Ren, B.	PMSE	524
Reha, D.	CHED	881	Reimhult, E.	COLL	741	Ren, B.	PMSE	525
Rehak, P.	BIOL	269	Reinartz, G.	CHED	1039	Ren, B.	ENVR	207
Rehmann, M.	BIOT	254	Reinaud, O.	INOR	29	Ren, C.	ENVR	295
Rehmann, M.	BIOT	487	Reineke, T.M.	PMSE	3	Ren, C.	MEDI	210
Reibarkh, M.	WCC	14	Reineke, T.M.	POLY	471	Ren, C.	BIOT	191
Reible, D.D.	ENVR	67	Reiner, E.	ENVR	734	Ren, F.	ENFL	238
Reible, D.D.	PRES	3	Reinhard, B.M.	ANYL	340	Ren, G.	ANYL	126
Reicher, K.R.	CHED	1455	Reinhard, B.M.	COLL	679	Ren, H.	POLY	741
Reichert, D.	POLY	134	Reinhard, B.M.	PHYS	277	Ren, J.	PMSE	123
Reichert, W.M.	ANYL	293	Reinhard, B.M.	PHYS	300	Ren, J.	BIOT	78
Reichl, U.	BIOT	40	Reinhard, B.M.	PHYS	615	Ren, J.	BIOT	437
Reichl, U.	BIOT	477	Reinhardt, C.J.	BIOL	156	Ren, J.	BIOT	503
Reichmanis, E.	CHED	2002	Reinhardt, L.A.	AGFD	203	Ren, P.	COMP	254
Reichmanis, E.	PMSE	214	Reinheimer, E.	INOR	148	Ren, S.	ORGN	203
Reichmanis, E.	PMSE	261	Reinhold, V.N.	CELL	24	Ren, T.	INOR	955
Reichmanis, E.	PMSE	263	Reinholtz, D.	INOR	291	Ren, X.	CELL	346
Reichmanis, E.	PMSE	462	Reinholz, D.	CHED	260	Ren, Y.	ENVR	214
Reichmanis, E.	PMSE	517	Reinicker, A.	CATL	202	Ren, Y.	POLY	146
Reichmanis, E.	PMSE	561	Reinmuth, M.	INOR	749	Ren, Y.	MEDI	384
Reichmanis, E.	POLY	403	Reipa, V.	ENVR	87	Ren, Z.	CELL	77
Reichmanis, E.	POLY	663	Reis, P.	CELL	95	Renard, B.A.	PHYS	121
Reichwaldt, E.	ENVR	313	Reiser, O.	CATL	85	Renard, B.A.	PHYS	396
Reid, A.	ENFL	547	Reishofer, D.	CELL	336	Renard, D.	COLL	759
Reid, A.	CHED	1273	Reisman, L.	POLY	198	Rencoret, J.	CELL	217
Reid, B.G.	I&EC	160	Reisman, L.	POLY	548	Rendell, A.P.	PHYS	131
Reid, C.S.	CHED	208	Reisman, S.E.	ORGN	520	Render, K.	BIOT	419
Reid, J.	POLY	774	Reisner, B.A.	CHED	2018	Rendle, P.	MEDI	148
Reid, L.	ENVR	581	Reisner, B.A.	INOR	61	Rene, O.	ORGN	301
Reid, L.	ENVR	582	Reisner, B.A.	INOR	182	Renfrow, J.	MEDI	339
Reid, M.	ORGN	391	Reisner, B.A.	INOR	297	Renger, J.	MEDI	191
Reid, M.C.	ENVR	562	Reiter, A.E.	CHED	1018	Renggli, K.	COLL	774
Reid, S.A.	CHED	1994	Reiter, G.	GEOC	258	Renna, L.	INOR	1168
Reidl, T.	WCC	12	Reiter, H.	CELL	296	Rennekar, S.	CELL	43
Reier, J.	BIOT	47	Reiter, M.	ORGN	300	Rennekar, S.	CELL	105
Reif, R.D.	ANYL	161	Reitz, Z.L.	INOR	198	Rennekar, S.	CELL	118
Reig, A.J.	INOR	60	Reitz, Z.L.	INOR	195	Rennekar, S.	CELL	321
Reig, A.J.	INOR	190	Reljin, N.	POLY	86	Rennekar, S.	CELL	325
Reig, A.J.	INOR	917	Remhof, A.	ENFL	274	Rennekar, S.	CELL	408
Reihmer, J.	AGFD	32	Rempe, C.	COMP	133	Rennhofer, H.	CELL	341
Reikowski, F.	CATL	181	Rempe, S.L.	COMP	133	Rennhofer, H.	CELL	352
Reilly, C.	CHED	562	Rempelos, S.	CHED	595	Rennie, E.E.	ENVR	472
Reilly, C.	CHED	914	Remsing, R.	CATL	507	Rensel, D.J.	CATL	274
Reilly, C.J.	GEOC	200	Remsing, R.	GEOC	257	Renslow, R.	COLL	59
Reilly, C.J.	GEOC	201	Remsing, R.	INOR	1062	Rensmo, A.	COLL	182
Reilly, L.	CHED	520	Remsing, R.	INOR	1063	Rensmo, A.	COLL	378
Reilly, S.	MEDI	41	Remsing, R.	PHYS	79	Rentsch, D.	ENFL	274
Reilly, S.W.	FLUO	65	Remucal, C.K.	CHED	981	Rentzsch, M.	BIOL	279
Reily, M.D.	BIOT	12	Remucal, C.K.	ENVR	49	Renugopalakrishnan, V.	ENFL	454
Reimann, M.	POLY	616	Remucal, C.K.	ENVR	111	Renzetti, S.	AGFD	124
Reimer, J.A.	CATL	520	Remucal, C.K.	ENVR	112	Repasky, M.P.	COMP	104
Reimer, J.A.	INOR	621	Remucal, C.K.	GEOC	176	Repasky, M.P.	COMP	344
Reimer, J.A.	INOR	1218	Remucal, C.K.	GEOC	178	Resasco, D.E.	CATL	377
Reimer, J.A.	POLY	191	Ren, B.	BIOT	208	Resasco, D.E.	CATL	504
Reimhult, E.	COLL	10	Ren, B.	COMP	252	Resasco, D.E.	ENFL	501

Resasco, D.E.	I&EC	35	Rhaman, M.	ORGN	331	Rich, D.	ORGN	124
Rescourio, G.	MEDI	18	Rhatigan, S.	ENFL	246	Rich, D.	ORGN	473
Resende, F.L.	ENFL	402	Rhee, Y.	CARB	31	Richard, A.	ANYL	387
Resnikoff, A.	CHED	1644	Rheingold, A.L.	INOR	83	Richard, A.	CINF	15
Restrepo Osorio, A.	CELL	94	Rheingold, A.L.	INOR	227	Richard, A.	CINF	60
Restuccia, A.	CARB	95	Rheingold, A.L.	INOR	245	Richard, A.	CINF	86
Restuccia, P.	COLL	133	Rheingold, A.L.	INOR	318	Richard, A.	CINF	87
Retegi, A.	CELL	102	Rheingold, A.L.	INOR	604	Richard, A.	CINF	110
Retterer, S.	ANYL	395	Rheingold, A.L.	INOR	867	Richard, A.	ENVR	416
Rettner, E.	POLY	342	Rheingold, A.L.	INOR	869	Richard, A.	ENVR	422
Rettrup, S.	COLL	31	Rheingold, A.L.	INOR	872	Richard, F.J.	MEDI	388
Reuel, N.	BIOT	54	Rheingold, A.L.	INOR	1296	Richard, J.	ORGN	468
Reuther, J.F.	PMSE	403	Rheingold, A.L.	ORGN	492	Richard, J.	ORGN	637
Reuther, J.F.	PMSE	590	Rheingold, A.L.	PMSE	501	Richard, L.	CHED	805
Revelt, N.	CHED	1398	Rheinstadter, M.	POLY	739	Richard, M.	MEDI	17
Reven, L.G.	POLY	13	Rhile, I.J.	INOR	27	Richards, C.I.	BIOL	268
Reven, L.G.	POLY	531	Rhoad, J.S.	CARB	40	Richards, P.	GEOC	203
Reveria, G.	BIOT	428	Rhoad, J.S.	CHED	115	Richards, R.A.	INOR	27
Reville, E.	POLY	420	Rhoads, R.	POLY	241	Richards, R.M.	CATL	372
Revuelta, R.	CHED	454	Rhodes, J.	COLL	504	Richards, R.M.	I&EC	133
Rey Bedon, C.	BIOL	13	Rhodes, L.	POLY	149	Richards, R.M.	I&EC	137
Reyes, G.	CELL	181	Rhodes, L.	POLY	494	Richards, R.M.	INOR	1240
Reyes, K.A.	INOR	982	Rhodes, S.J.	CHED	1936	Richards, R.M.	INOR	1242
Reyes, M.	CHED	1584	Rhomberg, J.	ENVR	514	Richards, S.	COLL	95
Reyes, T.	CHED	1335	Rhoten, M.C.	CHED	32	Richards, S.	POLY	754
Reyes, T.	PROF	42	Rhoten, M.C.	CHED	84	Richards, W.J.	INOR	1083
Reynders, G.J.	CHED	2069	Rhoten, M.C.	CINF	79	Richards-Babb, M.	CHED	2146
Reynolds, A.	CHED	551	Rhyne, A.	ANYL	160	Richards-Babb, M.	CHED	2147
Reynolds, A.	CHED	990	Rhyne, A.	ANYL	170	Richardson, B.G.	MEDI	260
Reynolds, B.P.	CHED	1921	Rials, T.G.	CELL	350	Richardson, C.	CHED	1964
Reynolds, C.	PMSE	41	Riaz, F.	PMSE	572	Richardson, D.	BIOT	372
Reynolds, G.D.	CHED	1472	Ribbe, A.	POLY	394	Richardson, D.D.	BIOT	134
Reynolds, J.C.	CHED	431	Ribeiro, F.	I&EC	54	Richardson, J.	POLY	520
Reynolds, J.R.	INOR	1069	Ribeiro, M.F.	CARB	65	Richardson, M.	ORGN	416
Reynolds, J.	INOR	306	Ribeiro, M.C.	PHYS	170	Richardson, P.	I&EC	132
Reynolds, J.	INOR	309	Ribeiro, M.C.	PHYS	427	Richardson, P.	MEDI	5
Reynolds, J.	INOR	715	Ribeiro, S.J.	PMSE	266	Richardson, S.D.	ENVR	310
Reynolds, J.	INOR	718	Ribordy, K.E.	ENVR	591	Richardson, S.D.	ENVR	410
Reynolds, J.	INOR	1028	Riccardi, E.	COMP	404	Richel, A.	CELL	305
Reynolds, M.M.	INOR	1220	Rice, A.M.	INOR	37	Richel, A.	CELL	330
Reynolds, M.M.	MEDI	326	Rice, A.M.	INOR	94	Richel, A.	ORGN	337
Reynolds, M.	ORGN	71	Rice, A.M.	INOR	623	Richey, K.	CHED	1427
Reynolds, M.A.	ENFL	92	Rice, C.P.	ENVR	302	Richey, K.	CHED	1843
Reynolds, M.A.	ENFL	262	Rice, E.	ENVR	76	Richmond, G.L.	ANYL	401
Reynolds, M.A.	GEOC	277	Rice, J.	CHAS	39	Richmond, G.L.	CHED	1725
Reynolds, R.	CHED	1885	Rice, J.	ENVR	356	Richmond, G.L.	COLL	328
Reza, M.	ENVR	38	Rice, J.	ENVR	362	Richmond, G.L.	COLL	395
Rezaei, P.	BIOT	299	Rice, J.J.	COLL	96	Richmond, G.L.	COLL	723
Rezaei, P.	COLL	141	Rice, J.E.	PHYS	129	Richmond, G.L.	COLL	724
Rezaire, A.	AGFD	203	Rice, J.E.	PMSE	82	Richmond, G.L.	COLL	787
Rezler, E.M.	CHED	199	Rice, N.T.	INOR	1142	Richmond, G.L.	PHYS	417
Rezsnyak, C.	CHED	327	Rich, B.	ORGN	122	Richmond, G.L.	PHYS	446
Rha, C.	INOR	938	Rich, B.	ORGN	432	Richmond, T.G.	CHED	1885
Rhaman, M.	ANYL	114	Rich, B.	ORGN	717	Richter, A.	NUCL	96
Rhaman, M.	INOR	936	Rich, B.	ORGN	720	Richter, D.	PMSE	94

Richter, L.	MEDI	173	Ries, M.E.	POLY	669	Rinaldi, K.Z.	INOR	1064
Richter, L.	MEDI	174	Rieth, A.J.	INOR	1214	Rinaldi, K.Z.	PHYS	557
Richter, T.	CELL	359	Rieth, A.J.	INOR	1420	Rinaldi, P.L.	POLY	777
Richter-Addo, G.B.	INOR	467	Rieth, M.D.	CHED	267	Rincon, G.J.	ENVR	273
Richter-Addo, G.B.	INOR	913	Riffert, L.	CHED	1883	Rinderknecht, C.	MEDI	7
Richtering, W.	POLY	339	Rigal, L.	CELL	307	Rinehart, J.D.	INOR	1288
Richtering, W.	POLY	370	Rigdon, A.	AGFD	217	Rinehart, T.	CHED	90
Richtering, W.	POLY	372	Rigdon, A.	CHAS	8	Rinehart, T.	CHED	1886
Richtering, W.	POLY	374	Rigel, N.	MEDI	62	Ring, J.	BIOT	174
Richtering, W.	POLY	377	Rigel, N.	ORGN	223	Ringenberg, M.	INOR	274
Richtering, W.	POLY	383	Riggs, A.	CHED	583	Ringstad, L.	COLL	747
Richtering, W.	POLY	385	Riggs, T.	CHED	1419	Ringstrand, B.S.	ENFL	433
Richtering, W.	POLY	386	Righi, M.	COLL	133	Riniker, S.	CATL	77
Richtering, W.	POLY	391	Rigney, M.L.	NUCL	38	Riniker, S.	COMP	37
Richtering, W.	POLY	619	Rigolin, V.	PMSE	267	Riniker, S.	COMP	217
Richtering, W.	POLY	739	Riguero, V.	BIOT	346	Rinken, M.	POLY	210
Richtering, W.	POLY	792	Riguolet, M.	ORGN	565	Rinkevicius, Z.	PHYS	306
Rick, M.S.	PMSE	363	Riives, A.J.	CHED	1123	Rion, R.R.	BIOT	438
Rick, S.	COMP	78	Rijckaert, H.	PROF	7	Riordan, C.G.	I&EC	172
Rick, S.W.	COMP	133	Rikukawa, M.	ENFL	367	Riordan, C.G.	INOR	1139
Rick, S.W.	COMP	210	Rikukawa, M.	PMSE	328	Rios, D.	CHED	399
Rick, S.W.	PHYS	238	Rikukawa, M.	PMSE	374	Ripa, R.A.	CHED	1569
Rickel, T.	PHYS	285	Rikukawa, M.	PMSE	375	Riparetti, R.	INOR	1028
Rickerman, C.	CHED	1484	Rikukawa, M.	PMSE	389	Rippy, M.	ENVR	726
Ricket, J.P.	CHED	1541	Rikukawa, M.	PMSE	409	Riquelme, M.	COMP	4
Ricket, J.P.	CHED	1815	Rikukawa, M.	PMSE	430	Risbud, S.H.	COLL	332
Ricketts-Hagan, J.K.	BIOL	67	Riley, C.C.	INOR	347	Riscoe, A.	CATL	461
Rickey, D.	CHED	35	Riley, K.	PHYS	39	Riscoe, A.	CATL	464
Rickey, D.	CHED	328	Riley, K.	CATL	194	Riscoe, A.	COLL	593
Ricks, T.J.	BIOL	132	Riley, K.	INOR	290	Risica, G.	INOR	1079
Rico-Campos, A.	COMP	302	Riley, K.	INOR	388	Risley, A.	CHED	403
Rico del Cerro, D.	CELL	28	Riley, K.	CHED	1174	Rissanen, K.T.	INOR	29
Rico del Cerro, D.	CELL	355	Riley, K.E.	ANYL	450	Rister, A.L.	CHED	459
Riddell, D.	MEDI	321	Riley, K.E.	CHED	446	Ristic, R.	AGFD	207
Riddell, I.A.	INOR	753	Riley, K.E.	ENFL	175	Ristroph, K.	AGFD	11
Rider, D.A.	ANYL	461	Riley, K.E.	MEDI	386	Ritchey, L.E.	CHED	182
Rider, D.A.	COLL	282	Riley, M.	CHED	1488	Ritchhart, A.	COLL	365
Rider, D.A.	PMSE	339	Riley, R.A.	CARB	61	Ritchhart, A.	INOR	597
Rider, D.A.	PMSE	538	Riley, R.A.	CHED	1920	Ritchie, R.	PMSE	239
Ridgway, H.F.	ENVR	725	Riley, S.	CHED	1149	Rithner, C.	CHAS	41
Ridings, A.A.	NUCL	99	Riley, W.	GEOC	13	Rithner, C.D.	BIOL	80
Ridley, M.K.	GEOC	143	Riley, Z.	ORGN	416	Ritorto, S.	MEDI	232
Riechers, S.L.	GEOC	186	Rill, T.	ORGN	292	Rittenhouse, R.	CHED	795
Riedel, S.	FLUO	9	Rill, T.	PHYS	534	Ritter, A.R.	COMP	268
Riedel, S.	INOR	320	Rillema, D.	INOR	870	Ritter, S.	CARB	72
Riedel, S.	CHED	852	Rimdusit, S.	PMSE	230	Rittle, J.	INOR	463
Riedlova, D.	CHED	2112	Rimdusit, S.	PMSE	236	Rivera, A.	MEDI	220
Riedman, L.	GEOC	134	Rimer, J.D.	CATL	9	Rivera, D.G.	PMSE	147
Riegel, S.	CHED	106	Rimer, J.D.	ENFL	282	Rivera, E.	CHED	1422
Riegel, S.	I&EC	117	Rimer, J.D.	GEOC	277	Rivera, G.	BIOL	79
Rieger, B.	INOR	1105	Rimola, A.	PHYS	312	Rivera, J.	COLL	671
Rieger, E.	POLY	813	Rimoldi, J.M.	ORGN	742	Rivera, L.	ENVR	633
Riegner, D.E.	CHED	338	Rimoldi, M.	I&EC	69	Rivera, M.E.	BIOL	81
Riek, M.M.	INOR	872	Rimoldi, M.	INOR	522	Rivera, N.	ORGN	184
Riera, M.	PHYS	161	Rimsza, J.M.	GEOC	169	Rivera, N.	ORGN	194

Rivera, R.	INOR	282	Roberts, K.	MEDI	293	Robinson, J.	BIOT	306
Rivera, S.	BIOL	117	Roberts, L.	CHED	354	Robinson, J.	BIOT	324
Rivera, S.	CHED	274	Roberts, L.	CHED	1185	Robinson, K.K.	INOR	997
Rivera, T.	CHED	1681	Roberts, M.	ANYL	140	Robinson, L.	CHED	18
Rivera, V.	CHED	931	Roberts, R.W.	BIOL	121	Robinson, L.	CHED	180
Rivera Cruz, J.	CHED	902	Roberts, S.T.	PHYS	121	Robinson, L.	MEDI	340
Rivera Cubero, L.D.	CHED	998	Roberts, S.T.	PHYS	347	Robinson, M.E.	PHYS	647
Rivera Fuentes, N.A.	CHED	890	Roberts, S.T.	PHYS	396	Robinson, M.	CATL	452
Rivera López, C.F.	BIOT	227	Roberts, S.T.	PHYS	521	Robinson, P.R.	CHED	177
Rivera-Rodriguez, D.	CHED	96	Roberts-Kirchhoff, E.	CHED	395	Robinson, P.R.	MPPG	11
Rivera-Rodriguez, D.	CHED	1804	Roberts-Kirchhoff, E.	CHED	448	Robinson, P.R.	SCHB	10
Rivero, J.	ORGN	175	Robertson, D.	INOR	74	Robinson, P.R.	SCHB	11
Rivero, J.	ORGN	176	Robertson, E.	CHED	1818	Robinson, R.C.	AGFD	149
Rivero, K.I.	CHED	1036	Robertson, F.	CHED	1661	Robinson, R.	MEDI	69
Rivnay, J.	POLY	664	Robertson, F.	CHED	1662	Robinson, R.	COLL	381
Rizvi, R.	INOR	808	Robertson, F.	CHED	1665	Robinson, R.M.	CHED	370
Rizvi, W.	CHED	2198	Robertson, I.	POLY	183	Robinson, T.	GEOC	98
Rizvi, Z.	POLY	472	Robertson, J.C.	COMP	219	Robinson, T.C.	GEOC	203
Rizzo, A.	PHYS	104	Robertson, J.D.	CATL	544	Robinson, V.G.	ENVR	425
Rizzo, J.I.	CHED	1203	Robertson, J.D.	NUCL	1	Robison, D.	ANYL	129
Rizzo, J.I.	CHED	1204	Robertson, J.D.	NUCL	5	Robison, T.	ORGN	461
Rizzo, J.I.	CHED	1249	Robertson, J.D.	NUCL	7	Robl, J.A.	ORGN	303
Rizzo, M.	CHED	1235	Robertson, J.D.	NUCL	43	Robles, K.	CHED	1083
Rizzo, M.	CHED	1236	Robertson, J.	ANYL	291	Robota, H.J.	CATL	384
Ro, K.	ENVR	36	Robertson, L.	PHYS	399	Robotti, F.	CELL	396
Ro, K.	ENVR	101	Robertson, L.	CHED	1475	Robson, S.	MEDI	240
Ro, K.	ENVR	106	Robertson, L.	ORGN	658	Rocanova, R.	INOR	849
Ro, K.S.	ENVR	100	Robertson, M.L.	COLL	99	Rocha, I.	CELL	395
Roach, J.	I&EC	139	Robertson, M.L.	PMSE	595	Rocha, R.C.	COLL	651
Roark, M.	CHED	1834	Robertson, M.L.	POLY	472	Roche, K.	CHED	1054
Roback, S.	ENVR	772	Robertson, M.L.	POLY	724	Roche, S.	ORGN	685
Robak, M.	CHED	2054	Robichaud, D.	CATL	443	Roche, S.	ORGN	721
Robbins, D.	BIOT	6	Robichaud, D.	CATL	449	Roche Allred, Z.	CHED	802
Robbins, J.	CHED	1736	Robichaud, D.	COMP	149	Rocher, J.	BIOT	325
Robbins, M.O.	PMSE	606	Robin, A.	COLL	532	Rock, C.A.	COMP	262
Robe, J.T.	AGFD	203	Robinson, A.R.	BIOT	195	Rockne, K.	ENVR	758
Roberge, A.	COLL	367	Robinson, A.R.	BIOT	198	Rod, A.	CHED	175
Roberge, T.	CATL	437	Robinson, A.R.	BIOT	464	Rod, K.	ENFL	235
Roberge, T.	ENFL	135	Robinson, A.	BIOT	546	Rodas, L.	CELL	301
Roberson, T.B.	CHED	922	Robinson, A.S.	BIOT	21	Rodd, A.	ENVR	358
Robert, A.	CHED	551	Robinson, A.S.	BIOT	116	Rodda, K.	SCHB	30
Robert, J.	CHED	1943	Robinson, A.S.	BIOT	196	Roden, E.E.	ENVR	752
Roberts, A.L.	ENVR	484	Robinson, A.S.	BIOT	235	Roden, E.E.	GEOC	11
Roberts, B.	CHED	1186	Robinson, A.S.	BIOT	239	Roden, E.E.	GEOC	15
Roberts, B.	BIOL	120	Robinson, A.S.	BIOT	426	Roden, E.E.	GEOC	42
Roberts, C.	CHED	1355	Robinson, A.S.	COLL	556	Roder, P.	I&EC	169
Roberts, C.J.	AGFD	123	Robinson, B.	COMP	338	Rodger, S.	CHED	1932
Roberts, C.J.	BIOT	50	Robinson, B.	COMP	350	Rodgers, G.P.	MEDI	73
Roberts, C.J.	BIOT	176	Robinson, C.	COLL	200	Rodgers, M.D.	CHED	1595
Roberts, C.J.	BIOT	496	Robinson, D.J.	INOR	27	Rodgers, R.P.	ENFL	160
Roberts, C.A.	ORGN	462	Robinson, E.	BIOL	69	Rodgers, R.P.	ENFL	388
Roberts, E.T.	INOR	297	Robinson, E.	ENVR	159	Rodgers, R.P.	ENFL	464
Roberts, E.J.	INOR	1237	Robinson, J.	PMSE	105	Rodgers, R.P.	ENVR	475
Roberts, J.	BIOT	461	Robinson, J.K.	CHED	306	Rodil, S.E.	COLL	415
Roberts, J.E.	BIOL	31	Robinson, J.	BIOT	68	Rodrigues, A.E.	CELL	133

Rodrigues, C.	CELL	361	Roettaers, M.B.	ENFL	283	Rohrer, J.	I&EC	123
Rodrigues, J.	CHED	1181	Roelants, S.	CELL	351	Rohwedder, J.J.	ANYL	266
Rodrigues, R.R.	CHED	1105	Roelofs, K.	COLL	386	Rohwer, L.S.	INOR	1328
Rodrigues, R.R.	ENFL	22	Roemer, L.	BIOT	338	Roitberg, A.	COMP	321
Rodrigues, R.R.	INOR	358	Roerdink, A.R.	CHED	2016	Roitberg, A.E.	COMP	54
Rodrigues, R.R.	ORGN	297	Roering, A.J.	CHED	151	Roitberg, A.E.	COMP	116
Rodrigues, S.	AGFD	12	Roesenthaler, G.	FLUO	31	Roitberg, A.E.	COMP	216
Rodriguez, A.J.	INOR	827	Roesky, H.W.	FLUO	3	Roitberg, A.E.	COMP	235
Rodriguez, A.	CELL	125	Rogachev, A.Y.	COMP	422	Roitberg, A.E.	COMP	237
Rodriguez, A.	CHED	1817	Rogel, E.	ENFL	163	Roitberg, A.E.	COMP	246
Rodriguez, A.	COLL	482	Rogel, E.	ENFL	169	Roitberg, A.E.	COMP	249
Rodriguez, A.	BIOT	283	Rogel, E.	ENFL	288	Roitberg, A.E.	COMP	264
Rodriguez, C.	FLUO	62	Rogel, E.	ENFL	290	Roitberg, A.E.	COMP	276
Rodriguez, D.J.	COLL	441	Rogel, E.	ENFL	462	Roitberg, A.E.	COMP	394
Rodriguez, D.	COLL	202	Roger, K.	COLL	317	Roitberg, A.E.	PHYS	253
Rodriguez, E.	ENVR	546	Roger, P.	CELL	35	Rojas, C.M.	CARB	20
Rodriguez, G.	CHED	515	Rogers, C.T.	COLL	414	Rojas, C.M.	ORGN	162
Rodriguez, G.	CHED	1833	Rogers, C.	COMP	285	Rojas, M.	MEDI	231
Rodriguez, G.	COLL	566	Rogers, D.	CHED	992	Rojas, O.	CELL	162
Rodriguez, G.	ENVR	186	Rogers, D.	CHED	1601	Rojas, O.	CELL	270
Rodriguez, G.A.	POLY	571	Rogers, D.	CHED	1632	Rojas, O.	CELL	342
Rodriguez, J.G.	CHED	1962	Rogers, D.	COMP	407	Rojas, O.	CELL	383
Rodriguez, J.	CATL	234	Rogers, J.A.	INOR	855	Rojas, O.	CELL	387
Rodriguez, J.	CATL	238	Rogers, J.A.	INOR	868	Rojas, O.	CELL	399
Rodriguez, J.	CATL	247	Rogers, J.	COMP	376	Rojas, O.	CELL	423
Rodriguez, J.	CATL	249	Rogers, K.	CHED	112	Rojas, O.	COLL	539
Rodriguez, J.	CATL	409	Rogers, M.M.	CHED	139	Rojas, O.J.	CELL	181
Rodriguez, J.	COMP	124	Rogers, N.E.	MEDI	64	Rojas, O.J.	CELL	265
Rodriguez, J.	ENFL	29	Rogers, N.E.	MEDI	359	Rojas, O.J.	CELL	353
Rodriguez, J.	ENVR	90	Rogers, R.D.	ANYL	261	Rojas, O.J.	CELL	378
Rodriguez, J.	ENVR	90	Rogers, R.D.	PHYS	24	Rojas, O.J.	COLL	61
Rodriguez, K.	POLY	420	Rogers, S.	CATL	373	Rojas, S.	ENFL	389
Rodriguez, M.G.	COLL	250	Rogers, W.	CATL	442	Rojas-Garcia, E.	CATL	193
Rodriguez, O.A.	INOR	245	Roggen, M.	CHAS	36	Rojo, T.	ENFL	305
Rodriguez, R.	PHYS	550	Roggen, M.	I&EC	158	Rokach, J.	ORGN	228
Rodriguez, S.	AGFD	24	Rogler, P.J.	INOR	118	Roke, S.	ANYL	402
Rodriguez, V.	BIOL	71	Roguski, M.	CHED	1570	Roke, S.	COLL	82
Rodriguez, V.	CHED	920	Roh, I.	INOR	763	Roke, S.	COLL	152
Rodriguez, I.	CHED	1080	Rohal, K.	ORGN	737	Roke, S.	COLL	728
Rodriguez-DeVecchis, V.	ENFL	41	Rohde, G.	ORGN	664	Roke, S.	GEOC	166
Rodriguez-Fernández, O.S.	ENFL	9	Rohland, H.	CHED	1177	Roke, S.	GEOC	167
Rodriguez Freire, L.	ENVR	284	Rohly, K.E.	CHED	1120	Roke, S.	PHYS	73
Rodriguez Freire, L.	GEOC	22	Rohly, K.E.	CHED	1412	Roke, S.	PHYS	335
Rodriguez-Freire, L.	GEOC	128	Rohly, K.E.	CHED	1419	Rokhsana, D.	INOR	928
Rodriguez-Freire, L.	GEOC	130	Rohmann, C.	COMP	331	Rol, F.	CELL	92
Rodriguez-Hernández, J.	ENFL	9	Rohr, B.A.	ENFL	178	Rol, F.	CELL	267
Rodriguez Martinez, S.	CHED	2161	Rohrback, B.	ANYL	268	Rolandelli, G.	AGFD	24
Rodriguez Martinez, V.	AGFD	146	Rohrer, J.	AGFD	52	Rolandi, P.	BIOT	5
Rodriguez-Mozaz, S.	ENVR	354	Rohrer, J.	AGFD	179	Rolandi, P.	BIOT	139
Rodriguez Reyes, F.	CHED	1314	Rohrer, J.	AGFD	222	Rolczynski, B.	ANYL	280
Rodriguez Reyes, F.	CHED	1813	Rohrer, J.	ANYL	264	Rolczynski, B.	PHYS	430
Rodriguez-Roda, I.	ENVR	354	Rohrer, J.	CARB	38	Rolczynski, B.S.	ANYL	246
Rodriguez, D.	PMSE	578	Rohrer, J.	ENFL	524	Rold, T.	FLUO	70
Roe, M.	INOR	987	Rohrer, J.	ENVR	469	Roldan, R.	COLL	379
Roe, S.E.	INOR	1067	Rohrer, J.	ENVR	573	Roldan, R.	COMP	193

Roldan, R.	MEDI	155	Rong, H.	ENFL	309	Rosenau, T.	CELL	335
Roldan, R.	ORGN	423	Rong, H.	ORGN	648	Rosenband, T.	PHYS	58
Roldan, R.J.	ORGN	419	Rong, S.	CATL	535	Rosenberg, J.	ENFL	467
Roleder, C.	INOR	263	Ronney, P.	ENFL	534	Rosenberg, R.	PHYS	243
Roling, B.	PHYS	112	Ronning, D.R.	CHED	268	Rosenberg, R.E.	CHED	9
Rolinger, L.	BIOT	17	Rono, L.J.	ORGN	22	Rosenberg, R.E.	CHED	1404
Rolison, D.R.	CATL	400	Ronspees, A.T.	ANYL	451	Rosenberg, R.E.	CHED	1428
Rolison, D.R.	ENFL	78	Rood, J.A.	CHED	1057	Rosenberg, S.	MPPG	14
Rolison, D.R.	ENFL	126	Rooney, J.	COLL	169	Rösener, T.	INOR	680
Rolison, D.R.	INOR	288	Roos, Y.	AGFD	21	Rosenfeld, D.	CATL	41
Rolland, J.	POLY	116	Root, K.T.	CHED	1918	Rosenkoetter, K.	INOR	1134
Rollings, M.D.	ENFL	338	Root, S.	PMSE	83	Rosenmayer, T.	POLY	428
Rollins-Smith, L.	CHED	483	Root, S.	PMSE	578	Rosenow, P.	COLL	193
Rollison, J.D.	CHED	505	Roote, C.	CHED	961	Rosenow, P.	COLL	377
Rollison, J.D.	CHED	516	Roper, B.	CHED	699	Rosenstiel, T.	ENVR	554
Rolshausen, P.	CHED	380	Roper, C.	CHED	380	Rosentreter, J.	BIOL	219
Roman, B.I.	ORGN	579	Roqan, I.S.	ANYL	279	Rosenzweig, A.C.	INOR	51
Roman, B.	COLL	764	Roques, N.	ANYL	268	Rosenzweig, A.C.	INOR	132
Roman, B.	INOR	802	Rorrer, N.	CATL	372	Rosenzweig, A.C.	INOR	920
Roman, B.	CHED	1268	Rosa, C.	CHED	1744	Rosenzweig, Z.	ENVR	242
Roman, M.	CELL	70	Rosado, J.M.	CHED	1042	Rosi, M.	PHYS	257
Roman, M.	CELL	103	Rosado, J.M.	COLL	137	Rosi, N.L.	COLL	656
Roman, M.	CELL	256	Rosado, P.J.	CHED	813	Rosi, N.L.	INOR	99
Roman, P.I.	INOR	646	Rosado, P.J.	CHED	1144	Rosi, N.L.	INOR	655
Roman, S.	PHYS	570	Rosales, B.	INOR	848	Rosi, N.L.	INOR	714
Romani, V.P.	PMSE	223	Rosales, B.	INOR	1152	Rosi, N.L.	INOR	719
Roman-Leshkov, Y.	CATL	8	Rosales, J.A.	CHED	329	Rosi, N.L.	INOR	720
Roman-Leshkov, Y.	CATL	414	Rosales, M.D.	COMP	177	Rosi, N.L.	PMSE	408
Roman-Leshkov, Y.	CATL	523	Rosario, F.L.	ENVR	45	Roslin, S.	FLUO	53
Roman-Leshkov, Y.	INOR	76	Rosario, F.L.	ENVR	109	Rosokha, S.V.	CHED	335
Roman-Leshkov, Y.	INOR	454	Rosario, F.L.	ENVR	113	Rosokha, S.V.	CHED	1696
Roman-Leshkov, Y.	INOR	1091	Rosario, F.L.	ENVR	118	Rosqvist, M.	CHED	792
Romano, C.	GEOC	164	Rosario, F.L.	ENVR	256	Rosqvist, M.	CHED	2010
Romano, C.	INOR	45	Rosario, F.L.	ENVR	521	Ross, A.D.	CHED	101
Romanov, G.	BIOL	59	Rosas, R.	INOR	46	Ross, A.D.	PROF	23
Romanowski, C.	BIOT	289	Rose, A.V.	MEDI	367	Ross, B.M.	CHED	1486
Romero, A.	COMP	16	Rose, D.	AGFD	234	Ross, C.A.	PMSE	161
Romero, E.	PHYS	380	Rose, H.	BIOT	518	Ross, D.L.	INOR	220
Romero, K.	MEDI	3	Rose, J.A.	INOR	1074	Ross, D.L.	PROF	10
Romero, K.J.	ORGN	604	Rose, J.	CELL	164	Ross, J.	CHED	772
Romero, R.	MEDI	52	Rose, J.	ENVR	96	Ross, J.	CHED	2065
Romero-García, J.	AGFD	87	Rose, J.C.	POLY	337	Ross, J.	CHED	2153
Romero-Torres, S.	BIOT	78	Rose, K.	AGFD	153	Ross, M.	INOR	920
Romero-Vargas Castrillon, S.	COLL	103	Rose, M.J.	ANYL	226	Ross, M.	CHED	902
Romero-Vargas Castrillon, S.	ENVR	119	Rose, M.J.	INOR	241	Ross, N.L.	GEOC	55
Romesberg, F.E.	ANYL	358	Rose, M.J.	INOR	300	Rosseinsky, M.J.	INOR	1027
Romick, J.	COLL	565	Rose, M.J.	INOR	1172	Rossettia, A.	PROF	4
Romo, J.	ORGN	490	Rose, M.	AGFD	9	Rossi, A.	CHED	830
Romo, J.A.	CHED	1473	Roselli, C.	ORGN	168	Rossi, G.	INOR	1038
Rondeau-Gagne, S.	POLY	717	Rosen, A.	CHED	1615	Rossi, K.A.	ORGN	303
Ronen, A.	ENVR	373	Rosen, A.	CHED	1669	Rossi, L.L.	CHED	1371
Roner, M.R.	PMSE	342	Rosen, M.S.	CATL	160	Rossi, L.M.	CATL	182
Roner, M.R.	PMSE	343	Rosen, M.S.	COLL	251	Rossi, R.D.	CHED	211
Rong, F.	BIOT	441	Rosen, T.	POLY	637	Rossini, A.J.	CATL	513
Rong, F.	BIOT	480	Rosenau, T.	CELL	46	Rossini, A.J.	CATL	518

Rossini, A.J.	INOR	848	Roush, D.J.	BIOT	517	Roy, S.	PMSE	315
Rossini, A.J.	INOR	1152	Rousseau, R.	CATL	216	Roy, S.	PHYS	507
Rössler, E.	POLY	603	Rousseau, R.	CATL	541	Roy, T.	INOR	944
Rössler, E.	POLY	605	Rousseau, R.	COLL	143	Roy, V.	BIOT	454
Rossner, A.	ENVR	426	Rousseau, R.	COMP	122	Roy, X.	COLL	116
Rosso, K.	CATL	84	Rousseau, R.	ENFL	319	Roy, X.	INOR	829
Rosso, K.	GEOC	186	Rousseau, R.	ENVR	756	Roy, X.	INOR	1371
Rosso, K.	GEOC	251	Rousseau, R.	PHYS	233	Roy, X.	PHYS	383
Rosso, K.	GEOC	255	Roussel, T.J.	ANYL	447	Royappa, A.D.	INOR	83
Rosso, K.	GEOC	261	Routh, A.F.	COLL	390	Royappa, A.T.	INOR	83
Rosso, K.	PHYS	410	Rouviere, E.	COLL	556	Royappa, A.T.	INOR	946
Rosso, K.	PHYS	411	Roux, A.N.	CHED	1217	RoyChoudhury, S.	ANYL	289
Rosso, K.	PHYS	412	Rovani, S.	ENVR	698	Roy Choudhury, S.	ANYL	42
Rosta, E.	COMP	38	Rovetto, L.J.	I&EC	163	Roychowdhury, A.	CHED	720
Rostagno, M.	POLY	584	Rovis, T.	ORGN	544	Roy Chowdhury, B.	ENFL	329
Rostamikia, G.	CATL	30	Row, D.	BIOL	298	Roycroft, S.	GEOC	124
Rostampour Kakroudi, M.	ANYL	286	Rowan, S.J.	POLY	538	Roy, C.B.	POLY	63
Rostamzadeh, T.	INOR	797	Rowan, S.J.	CELL	88	Roytman, V.	CHED	867
Rostamzadeh, T.	INOR	798	Rowan, S.J.	CHED	1982	Rozev, N.	PROF	2
Roston, T.J.	BIOL	239	Rowan, S.J.	PMSE	62	Rozenberga, L.	CELL	87
Rostovtseva, T.	COMP	132	Rowan, S.J.	PMSE	203	Rozes, L.	POLY	192
Rosu, C.	COLL	608	Rowan, S.J.	PMSE	498	Rozhina, E.	PMSE	154
Rosu, C.	POLY	293	Rowan, S.J.	POLY	694	Rozners, E.	CARB	14
Rosu, C.	POLY	663	Rowan, S.J.	POLY	734	Rozners, E.	CHED	599
Rosu, C.	POLY	676	Rowand, M.	CHED	1125	Rozners, E.	CHED	1568
Rosul, A.	COLL	298	Rowberg, A.J.	ENFL	147	Roznovjak, D.	CHED	991
Rosztoczy, M.	BIOT	90	Rowberg, A.J.	ENFL	277	Rozovsky, S.	PHYS	416
Rota Martir, D.	INOR	1044	Rowe, A.	CHED	672	Rozovsky, S.	PROF	14
Rotenberg, B.	PHYS	452	Rowe, B.	POLY	700	Rreza, I.	INOR	675
Roth, B.L.	COMP	400	Rowe, E.A.	POLY	198	Rreza, I.	INOR	840
Roth, E.	I&EC	122	Rowe, E.A.	POLY	548	Rreza, I.	INOR	1400
Roth, J.	CHED	705	Rowe, L.A.	BIOL	91	Ru, X.	PHYS	437
Roth, S.	ENFL	486	Rowe, L.A.	CHED	659	Ruan, Q.	MEDI	36
Roth, S.	PMSE	277	Rowe, L.A.	CHED	695	Ruan, T.	ENVR	304
Rothbauer, D.R.	HIST	45	Rowe, R.K.	MEDI	325	Ruan, Z.	MEDI	36
Rother, G.	GEOC	265	Rowland, B.A.	CHED	325	Ruane, M.D.	CHED	1402
Rotondaro, M.C.	PHYS	576	Rowland, B.A.	CHED	886	Ruane, M.D.	CHED	1403
Rotondo, A.	AGFD	198	Rowland, B.A.	CHED	932	Ruanjaikaen, K.	BIOT	356
Roudaut, G.	AGFD	100	Rowland, B.A.	CHED	1469	Ruano-Salguero, J.	BIOT	561
Rouff, A.	GEOC	191	Rowland, B.A.	CHED	1801	Ruark, K.	CHED	1437
Rouffet, M.J.	CHED	1195	Rowland, B.A.	CHED	1823	Ruark, K.	ORGN	571
Rouffet, M.J.	CHED	1259	Rowland, C.E.	PHYS	241	Ruaud, M.	PHYS	541
Rouffet, M.J.	CHED	1261	Rowland, R.	CHED	551	Rubashkin, S.	CATL	208
Rouget Virbel, C.A.	ORGN	202	Rowland, S.	ENFL	160	Rubim, J.	COLL	66
Rouget-Virbel, C.	ORGN	200	Rowland, S.	ENVR	475	Rubin, H.	INOR	1220
Rouhi, M.	HIST	32	Rowles III, L.S.	ENVR	69	Rubino, A.	ANYL	87
Rouhier, M.	BIOL	76	Rowlett, C.	CHED	693	Rubio-Marcos, F.	CATL	138
Rouhier, M.	BIOL	262	Rowley, A.	CHED	503	Rubner, M.F.	PMSE	337
Rouilly, A.	POLY	671	Rowley, A.	CHED	739	Rubtsov, I.V.	ANYL	346
Round, L.M.	INOR	852	Roy, A.	MPPG	14	Rubtsov, I.V.	INOR	1310
Rounds, H.	INOR	482	Roy, A.	BIOL	97	Rubtsov, I.V.	PHYS	78
Rountree, E.	INOR	24	Roy, D.	PMSE	427	Ruccolo, S.	INOR	439
Roush, D.J.	BIOT	74	Roy, K.	MEDI	183	Ruch, A.A.	INOR	1412
Roush, D.J.	BIOT	99	Roy, K.	MEDI	412	Ruchti, J.	ENFL	101
Roush, D.J.	BIOT	514	Roy, P.	PHYS	164	Ruchti, J.	ORGN	514

Ručigaj, A.	PMSE	486	Ruhlandt-Senge, K.	CHED	193	Runho, M.	ENVR	33
Ručigaj, A.	PMSE	539	Ruhlandt-Senge, K.	CHED	1968	Runkel, R.L.	GEOC	132
Ruck, R.	ORGN	193	Ruhlandt-Senge, K.	CHED	2101	Runnels, B.	PMSE	431
Ruck, R.	WCC	14	Ruhlandt-Senge, K.	INOR	230	Rupar, P.	CINF	1
Ruck, R.	WCC	17	Ruhlandt-Senge, K.	INOR	264	Rupar, P.	POLY	198
Rudd, A.K.	BIOL	16	Ruhlandt-Senge, K.	INOR	313	Rupar, P.	POLY	548
Rudd, D.	MEDI	69	Ruhlandt-Senge, K.	INOR	319	Rupar, P.	POLY	764
Rudd, G.E.	CHED	1834	Ruhlandt-Senge, K.	INOR	1254	Rupar, P.	POLY	766
Rudd, M.T.	MEDI	191	Rühs, P.	CELL	72	Rupar, P.A.	ANYL	127
Rudd, N.D.	INOR	738	Rui, E.	MEDI	19	Rupar, P.A.	INOR	1246
Ruddy, D.	CATL	284	Rui, E.	ORGN	21	Rupar, P.A.	POLY	639
Ruddy, D.	CATL	285	Rui, M.	POLY	34	Rupasinghe, R.	CHED	1375
Ruddy, D.	CATL	384	Rui, M.	POLY	88	Rupich, S.M.	PHYS	352
Ruddy, D.	CATL	391	Ruijie, G.	CATL	512	Rupp, K.K.	CINF	73
Ruddy, D.	CATL	393	Ruitenbeek, M.	I&EC	88	Ruppel, J.V.	CHED	51
Ruddy, D.	CATL	434	Ruiz, A.M.	CHED	2036	Ruppel, J.V.	CHED	52
Ruddy, D.	CATL	394	Ruiz, A.M.	CHED	146	Ruppel, J.V.	CHED	1577
Ruddy, D.A.	CATL	283	Ruiz, A.M.	CHED	833	Ruppel, J.V.	CHED	1584
Ruddy, D.A.	CATL	390	Ruiz, E.	PHYS	644	Ruppel, J.V.	ORGN	169
Rudebusch, G.	POLY	477	Ruiz, G.	ANYL	350	Rupprecht, A.J.	CHED	1761
Rudell, N.	ORGN	260	Ruiz, J.	CHED	1366	Rusakov, A.	PHYS	84
Ruder, S.M.	CHED	2069	Ruiz, O.	CHED	929	Rusanov, I.	BIOT	144
Rudie, A.	CATL	470	Ruiz, P.	POLY	137	Ruscic, B.	NUCL	76
Rudisell, R.	CHED	838	Ruiz, R.S.	CHED	1556	Ruscic, J.	BIOT	35
Rudjito, R.	CELL	317	Ruiz, S.	BIOL	136	Rush, E.	CHED	1480
Rudolf, P.	COLL	479	Ruiz-Carmona, S.	COMP	382	Rush, E.	ENVR	584
Rudov, A.	POLY	339	Ruiz Ferrer, A.	CHED	1312	Rush, T.	GEOC	215
Rudov, A.	POLY	372	Ruiz Ferrer, A.	CHED	1812	Rushing, R.	CHED	891
Rudov, A.	POLY	377	Ruiz-Haas, P.A.	ENVR	690	Rushton, G.T.	CHED	67
Rudrakshula, M.	PROF	4	Ruiz-Hitzky, E.	PMSE	152	Rushton, W.	BIOT	295
Rudt, M.	BIOT	17	Ruiz-Hitzky, E.	PMSE	205	Rusineck, C.	CHED	998
Rudt, M.	BIOT	135	Ruiz-Hitzky, E.	PMSE	209	Rusinova, R.	MEDI	107
Rueda, D.	COMP	131	Ruiz-Morales, Y.	ENFL	463	Rusnak, J.	MEDI	356
Rueda, F.	CHED	1402	Ruiz Pestana, L.A.	COMP	43	Russ, B.T.	CHED	1730
Rueda, F.	CHED	1403	Ruiz Pestana, L.A.	COMP	405	Russ, B.T.	CHED	1731
Ruedenberg, K.	COMP	347	Ruiz-Ramiro, M.	CATL	45	Russ, B.	CHED	609
Ruedenberg, K.	NUCL	89	Ruiz-Ramiro, M.	CATL	377	Russ, J.	ANYL	168
Ruedenberg, K.	PHYS	1	Ruiz-Ramiro, M.	CATL	504	Russel, L.	ORGN	169
Ruedisser, S.	MEDI	271	Ruiz-Ramiro, M.	CATL	521	Russell, A.	CHED	1880
Ruelas, S.	INOR	436	Ruiz Velasco, T.	POLY	538	Russell, B.	CHED	1973
Ruepp, S.	MEDI	36	Rukes, S.C.	CHED	1796	Russell, C.	ENFL	166
Rueschhoff, L.	PMSE	510	Rukes, S.C.	CHED	1797	Russell, C.	ENFL	167
Rueschhoff, L.	PMSE	541	Rukes, S.C.	HIST	26	Russell, C.	ENFL	237
Rueschhoff, L.	PMSE	596	Rullière, P.	ORGN	575	Russell, D.H.	ANYL	365
Ruest, R.	MEDI	383	Rumble, C.A.	PHYS	338	Russell, D.E.	INOR	388
Ruett, U.	NUCL	46	Rumble, J.	CINF	33	Russell, F.	PMSE	343
Ruettlinger, W.F.	CATL	240	Ruminski, R.R.	INOR	987	Russell, J.	ORGN	153
Ruger, G.W.	SCHB	6	Rumpf, R.C.	PMSE	614	Russell, K.	BIOT	128
Ruger, G.W.	SCHB	8	Rumrill, S.M.	INOR	248	Russell, L.	CHED	51
Ruggeri, S.	ANYL	317	Rumsey, C.	CHED	551	Russell, L.	CHED	1823
Ruggerone, P.	COMP	356	Runcevski, T.	ENFL	491	Russell, M.D.	POLY	720
Ruggiu, F.	COMP	107	Runcevski, T.	INOR	621	Russell, N.T.	ORGN	39
Ruggiu, F.	COMP	198	Runcevski, T.	INOR	1218	Russell, S.	ANYL	208
Rugutt, E.	CHED	1030	Rundle, D.R.	CHED	1833	Russell, T.P.	PMSE	160
Ruhland, D.	ENFL	43	Rungthanaphatsophon, P.	INOR	1149	Russina, O.	PHYS	291

Russina, O.	PHYS	660	Ryder, K.S.	PHYS	114	Sabuj, A.	POLY	199
Russo, A.	BIOT	82	Rykaczewski, K.	ORGN	555	Sacanna, S.	COLL	668
Russo, P.	POLY	293	Rykaczewski, K.	ORGN	707	Sacchettiini, J.C.	CHED	720
Russo, P.	POLY	663	Ryll, B.	INOR	1397	Sacchettiini, J.C.	MEDI	273
Russo, P.	POLY	676	Rymarchyk, S.	BIOL	162	Sacci, R.	ENFL	252
Russo, R.	CHED	1881	Rymaruk, M.	COLL	535	Sacci, R.	ENFL	465
Russo, R.	ANYL	233	Ryngajillo, M.	CELL	356	Sach, N.	ORGN	21
Rustagi, M.	CHED	2109	Ryngajillo, M.	CELL	358	Sacher, O.	CINF	90
Ruston, L.	MEDI	244	Rytczak, P.P.	CELL	358	Sack, J.	MEDI	35
Rusznak, M.	CHED	1664	Rytting, B.M.	ENFL	162	Sack, J.	MEDI	36
Rusznak, M.	ORGN	220	Ryu, C.Y.	POLY	680	Sack, J.	MEDI	109
Ruta, B.	ENFL	446	Ryu, H.	ORGN	343	Sack, J.	MEDI	178
Ruther, R.E.	ENFL	252	Ryu, J.	PMSE	208	Sack, J.	MEDI	202
Ruther, R.E.	POLY	317	Ryu, J.	ENVR	662	Sackey-Addo, J.	CHED	1392
Ruthes, A.	CELL	317	Rzayev, J.	BIOL	233	Sackey-Addo, J.	CHED	1609
Ruths, M.	COLL	356	Rzayev, J.	PMSE	17	Sacko, O.	ENVR	41
Rutland, M.W.	COLL	162	Rzayev, J.	PMSE	22	Sackus, A.	ORGN	716
Rutland, M.W.	COLL	425	Rzayev, J.	PMSE	160	Sadeghifar, H.	CELL	49
Rutland, M.W.	POLY	333	Rzayev, J.	POLY	394	Sadek, A.	MEDI	400
Rutland, M.W.	POLY	795	Rzayev, J.	POLY	791	Sadek, A.	GEOC	82
Rutledge, D.	ENFL	427	Rzuczek, S.	CARB	13	Sadergaski, L.R.	NUCL	18
Ruttig, L.	POLY	122	S., S.	COLL	289	Sadetsky, J.	CHED	891
Ruttkies, C.	ENVR	738	Saad, D.	CHED	433	Sadighi, J.P.	INOR	239
Ruud, K.	PHYS	100	Saad, E.	ENVR	308	Sadighi, J.P.	INOR	1184
Ruvalcaba, H.M.	INOR	1083	Saal, T.	FLUO	13	Sadighi, J.P.	INOR	1300
Ruzsinszky, A.	PHYS	144	Saalwaechter, K.	POLY	133	Sadighi, J.P.	INOR	1348
Ruzsinszky, A.	PHYS	149	Saalwaechter, K.	POLY	529	Sadighi, J.P.	INOR	1407
Ryabinkin, I.G.	PHYS	597	Saari, G.	ANYL	385	Sadik, O.A.	AGFD	29
Ryabukhin, S.	ORGN	344	Saarinen, J.	CELL	294	Sadikin, F.	BIOT	298
Ryabukhin, S.	ORGN	617	Saavedra, D.	ORGN	740	Sadio, J.	CHED	954
Ryadnov, M.	BIOT	567	Saavedra, S.S.	COLL	785	Sadler, J.M.	PMSE	444
Ryan, A.	BIOT	168	Saavedra Lopez, J.	CATL	290	Sadler, J.M.	POLY	201
Ryan, A.	COLL	617	Saba, A.	ENVR	38	Sadlowski, L.M.	CHED	1468
Ryan, A.	COLL	648	Saba, S.	ORGN	338	Sadow, A.D.	CATL	350
Ryan, A.	PMSE	494	Saba, S.	ORGN	679	Sadow, A.D.	CATL	485
Ryan, A.	PMSE	521	Sabagh, B.	POLY	297	Sadow, A.D.	INOR	489
Ryan, A.	INOR	1147	Sabahi, M.	CHED	2002	Sadraei, S.	ORGN	71
Ryan, D.	INOR	1228	Sabahi, M.	PMSE	214	Saeed, A.M.	PMSE	137
Ryan, J.	PMSE	315	Sabat, M.	MEDI	201	Saeed, H.	ENVR	107
Ryan, J.	POLY	312	Sabat, R.	PMSE	290	Saenz, G.	POLY	809
Ryan, K.	ORGN	104	Sabatino, P.	POLY	18	Saer, R.	ANYL	246
Ryan, L.S.	ORGN	421	Sabbagh, S.	INOR	281	Saer, R.	PHYS	404
Ryan, M.D.	PMSE	428	Sabbe, M.	CATL	102	Saey, S.	BIOL	60
Ryan, M.D.	POLY	144	Sabella, M.	CHED	2033	Saez, A.E.	ENVR	189
Ryan, M.J.	CATL	518	Saber, M.R.	INOR	1117	Saez, A.E.	ENVR	489
Ryan, M.D.	CHED	1994	Sabio, R.	CHED	1463	Saez Cabezas, C.A.	ENVR	674
Ryan, S.	BIOT	277	Sabirianov, R.	COLL	443	Safabakhsh, N.	BIOT	87
Ryan, S.	CHED	137	Sable, I.	CELL	87	Safabakhsh, N.	BIOT	243
Rybak-Akimova, E.V.	INOR	679	Sabliov, C.	AGFD	11	Safabakhsh, N.	BIOT	272
Rybak-Akimova, E.V.	INOR	873	Sabo, J.	CHED	429	Safaeipour, M.	CHED	550
Rybak-Akimova, E.V.	INOR	1085	Sabo, M.	CHED	393	SafariMohsenabad, S.	ENVR	43
Rybak-Akimova, E.V.	INOR	1304	Sabo, M.	CHED	1902	Safeukui, I.	MEDI	76
Rybak-Akimova, E.V.	INOR	387	Sabo, R.	CELL	367	Safitri, C.	ENVR	699
Ryberg, E.	ENVR	236	Saboe, P.	BIOT	350	Saga, S.	ORGN	128
Rybkina, V.	PHYS	187	Sabol, J.E.	SCHB	6	Sagbas, S.	MEDI	135

Sagbas, S.	MEDI	141	Saint-Louis, C.J.	ORGN	471	Salas-de la Cruz, D.	CELL	101
Sagbas, S.	PMSE	429	Saito, K.	CELL	120	Salas-de la Cruz, D.	CELL	298
Sage, J.G.	INOR	262	Saito, K.	CELL	329	Salassa, G.	INOR	1239
Sager, J.	CHED	926	Saito, K.	POLY	590	Salazar, B.	ENVR	535
Sager, J.	GEOC	218	Saito, K.	POLY	591	Salazar, B.	INOR	853
Saghayezhian, M.	PHYS	455	Saito, K.	POLY	653	Salazar, B.	INOR	1113
Saglio, G.	MEDI	319	Saito, M.	INOR	43	Salazar, J.	CHED	1816
Saha, A.	PMSE	406	Saito, R.	COLL	669	Salazar, J.	POLY	330
Saha, A.	CHED	943	Saito, R.	PMSE	136	Salazar, M.	CATL	286
Saha, A.	ENVR	428	Saito, S.	ANYL	95	Saldajeno-Concar, M.	MEDI	277
Saha, A.	INOR	950	Saito, S.	COMP	233	Saldana, D.M.	BIOT	144
Saha, B.	PHYS	154	Saito, S.	COLL	552	Saldana, D.	CHED	1907
Saha, B.	CATL	474	Saito, T.	COMP	305	Saldana, D.	INOR	1018
Saha, N.	ENVR	38	Saito, T.	PMSE	64	Saldana, J.	ORGN	489
Saha, P.	CELL	194	Saito, T.	PMSE	108	Saldana Ramos, A.	ANYL	335
Saha, P.	CELL	372	Saito, T.	PMSE	140	Saldanha, K.	BIOT	353
Saha, P.	COLL	438	Saito, T.	PMSE	511	Saldívar-González, F.	CHED	157
Saha, R.	BIOT	91	Saito, T.	POLY	314	Sale, K.	ENFL	13
Saha, R.	BIOT	551	Saito, T.	POLY	350	Saleem, F.	PMSE	431
Saha, S.	ENFL	393	Saito, T.	POLY	502	Saleem, K.	CHED	1802
Sahai, S.	BIOT	22	Saito, T.	POLY	798	Saleem, M.	CHED	1839
Sahajwalla, V.	ENVR	59	Saito, T.	CELL	4	Saleh, A.	CHED	687
Sahiner, M.	BIOT	201	Saito, T.	CELL	26	Saleh, A.	CHED	716
Sahiner, M.	MEDI	158	Saito, T.	CELL	27	Saleh, M.A.	AGFD	63
Sahiner, N.	BIOT	201	Saito, T.	CELL	206	Saleh, M.A.	AGFD	180
Sahiner, N.	COLL	265	Saito, T.	CELL	334	Saleh, M.A.	AGFD	194
Sahiner, N.	MEDI	135	Saitta, E.	CHED	144	Saleh, M.A.	AGFD	199
Sahiner, N.	MEDI	141	Saiz, A.C.	CHED	1777	Saleh, M.A.	AGFD	214
Sahiner, N.	MEDI	158	Sajewicz, M.	POLY	474	Saleh, M.A.	ENVR	595
Sahiner, N.	PMSE	429	Sajjadi, B.	ENVR	42	Saleh, M.A.	MEDI	217
Sahiner, N.	POLY	291	Sajjadi, B.	ENVR	378	Saleh, M.A.	ORGN	396
Sahlholm, K.	MEDI	41	Sajjadi, B.	PHYS	421	Saleh, N.B.	ENVR	69
Sahlin, S.L.	ENFL	324	Sakadzic, S.	ORGN	293	Saleh, N.B.	ENVR	661
Sahmetlioglu, E.	POLY	659	Sakaguchi, G.	MEDI	310	Saleh, N.B.	ENVR	674
Sahu, A.	COLL	621	Sakai, M.	PMSE	139	Saleh, T.	MEDI	244
Sahu, A.	COLL	784	Sakamoto, I.	PMSE	430	Salehi, A.	BIOT	214
Sahu, I.	BIOT	335	Sakamoto, S.	POLY	634	Salehi, M.	ENVR	96
Sahu, I.	CHED	1735	Sakhno, T.	ENVR	550	Salem, D.	ANYL	195
Sahu, I.	CHED	1740	Sakhno, T.	PHYS	436	Salemi, M.	CHED	523
Sahu, I.	POLY	229	Sakong, S.	CATL	144	Sales, A.	PMSE	287
Sahu, S.	INOR	673	Sakthivel, N.	CHED	1066	Sales, C.M.	ENVR	452
Sahu, S.	ENVR	279	Sakthivel, N.	COLL	370	Salgado Lopez, N.	AGFD	22
Said, M.	ORGN	409	Sakuda, A.	ENFL	470	Salgueiro, D.C.	CHED	1912
Saido, K.	ANYL	106	Sakuda, A.	ENFL	472	Salgueiro, D.C.	ORGN	135
Saido, K.	ENVR	590	Sakunkaewkasem, S.	COLL	288	Salhi, E.	ENVR	137
Saido, K.	GEOC	197	Sakurai, K.	COLL	79	Saliba, B.	ORGN	619
Saikaew, R.	PMSE	479	Sakurai, K.	COLL	80	Saliba, G.	CHED	870
Saikia, N.	COMP	311	Sakya Opoku, N.	CHED	1294	Salihuddin, R.	I&EC	40
Saikia, N.	COMP	374	Salabert, J.	PMSE	188	Salimraftar, N.	ORGN	511
Sainas, S.	MEDI	319	Salah, T.	BIOL	95	Salinas, L.M.	ORGN	675
Saini, D.K.	MEDI	330	Salama, N.	FLUO	69	Salis, H.	BIOT	396
Saini, M.	ORGN	41	Salamat, A.	INOR	88	Salisbury, C.	BIOT	213
Saini, M.	ORGN	48	Salameh, L.	CHED	686	Sallans, L.	PHYS	499
Saini, R.	ENFL	233	Salanne, M.	PHYS	452	Salm, J.	BIOT	557
Saint-Louis, C.	ORGN	475	Salas, I.	CATL	148	Salmén, L.	CELL	5

Salmi, H.	CELL	35	Sampuda, K.	MEDI	130	Sanders, C.	ENFL	195
Salmon, G.	COMP	16	Samra, H.	BIOT	24	Sanders, E.	BIOL	113
Salomon, T.	PHYS	501	Sams, R.	ENVR	417	Sanders, E.	COMP	269
Saloranta-Simell, T.	ORGN	287	Sams, W.	ORGN	717	Sanders, J.R.	CHED	453
Salter, E.A.	PHYS	25	Samstag, A.	CATL	24	Sanders, J.	PMSE	184
Salter, S.	POLY	473	Samu, G.F.	ENFL	25	Sanders, K.	MEDI	90
Salter-Cid, L.	MEDI	6	Samuel, C.	PMSE	490	Sanders, M.	ENFL	138
Salter-Cid, L.	MEDI	20	Samuel, S.	CHED	652	Sanders, M.	ENFL	139
Salter-Cid, L.	MEDI	35	Samuel, S.	FLUO	48	Sanders, M.	ENFL	140
Salter-Cid, L.	MEDI	91	Sanabria-Rios, D.J.	CHED	1262	Sanders, M.	ENFL	141
Salter-Cid, L.	MEDI	178	Sanabria-Rios, D.J.	CHED	1264	Sanders, M.	ENFL	195
Salter-Cid, L.	MEDI	297	Sanaie, N.	BIOT	540	Sanders, M.	ENFL	326
Salter-Cid, L.M.	MEDI	109	Sanbonmatsu, K.	MEDI	304	Sanders, N.C.	CHED	623
Salter-Cid, L.M.	MEDI	202	Sanborn, C.	INOR	1168	Sanders, R.L.	CHED	926
Saltiel, J.	ORGN	314	Sanchez, A.	ORGN	732	Sanders, R.L.	CHED	991
Saltzman, A.	COMP	427	Sanchez, A.A.	ENVR	652	Sanders, R.L.	CHED	2187
Saluga, S.	PROF	50	Sanchez, A.	INOR	184	Sanders, R.L.	GEOC	218
Saluja, S.	BIOT	16	Sanchez, A.	INOR	1018	Sanders, V.A.	NUCL	44
Salum, M.	PMSE	186	Sanchez, C.A.	ORGN	425	Sanders, V.A.	NUCL	53
Salvage, J.P.	COLL	55	Sanchez, J.	INOR	1065	Sanders, W.C.	CHED	1913
Salveson, I.C.	BIOL	67	Sanchez, J.E.	POLY	351	Sanders, W.C.	ANYL	152
Salvo, A.	AGFD	198	Sanchez, J.	CHED	300	Sanderson-Brown, J.P.	INOR	187
Salzer, L.	CHED	183	Sanchez, K.	INOR	732	Sandford, S.A.	PHYS	586
Salzig, D.	BIOT	123	Sanchez, L.	CHED	368	Sandhage, K.H.	COLL	738
Salzig, D.	BIOT	172	Sanchez, L.M.	MEDI	197	Sandidge, D.	CINF	35
Salzig, D.	BIOT	552	Sanchez, P.	ENFL	514	Sandi-Urena, S.	CHED	819
Samani, A.M.	CHED	792	Sanchez, S.	CATL	212	Sandi-Urena, S.	CHED	2053
Samani, A.M.	CHED	2010	Sánchez, E.	ENFL	389	Sandi-Urena, S.	CHED	2057
Samanta, D.	INOR	1043	Sánchez, M.M.	CHED	1262	Sandler, D.	AGFD	160
Samanta, S.S.	ORGN	721	Sánchez, M.M.	CHED	1264	Sandoval, K.	CHED	1241
Samarakoon, K.P.	INOR	1424	Sanchez-Conde, F.	CHED	558	Sandoval, P.J.	COLL	381
Samaranayake, G.	CELL	88	Sanchez Diaz, S.	CELL	94	Sandoz, M.	POLY	41
Samarasekara, D.	CHED	254	Sanchez-Gonzalez, R.	PHYS	559	Sandoz, M.	POLY	231
Samaraweera, H.	ENVR	503	Sanchez-Iglesias, A.	COLL	500	Sandoz, M.	POLY	243
Samaraweera, H.	ENVR	504	Sánchez i Nogué, V.	CATL	217	Sandoz, M.	POLY	482
Samaritoni, J.G.	CHED	300	Sánchez i Nogué, V.	I&EC	27	Sandoz, M.	POLY	576
Samec, J.S.	CATL	46	Sanchez-Lengeling, B.	COMP	52	Sandre, O.	COLL	108
Samec, J.S.	CELL	150	Sánchez-Navarro, G.	CHED	1168	Sandrone, G.	MEDI	407
Samec, J.S.	CELL	187	Sanchez-Rodriguez, J.	FLUO	55	Sanduleanu, M.	CATL	140
Sameera, W.C.	PHYS	309	Sanchez Zayas, M.	POLY	511	Sandusky, P.O.	CHED	198
Sammalkorpi, M.	PMSE	55	Sandahl, M.	ANYL	123	Sanedrin, R.J.	COLL	691
Sammalkorpi, M.	POLY	326	Sandahl, M.	ANYL	124	Sanehira, E.	INOR	172
Sammelsohn, R.E.	ORGN	321	Sandberg, K.	ENVR	15	Saner, C.	CHED	1861
Sammeta, V.	ORGN	512	Sanden, A.	BIOT	135	Sanford, L.	CHED	1313
Samokhvalov, A.	MEDI	341	Sander, M.	ENVR	480	Sanford, L.	CHED	1888
Samokhvalov, A.	PHYS	393	Sander, M.	ENVR	492	Sanford, M.S.	ENFL	101
Samori, P.	INOR	1316	Sander, M.	GEOC	253	Sanford, M.S.	FLUO	50
Samoylova, O.N.	COLL	139	Sander, M.	POLY	261	Sanford, M.S.	INOR	406
Samp, L.	ORGN	641	Sanders, A.J.	CHED	28	Sanford, M.S.	ORGN	514
Sampaio, R.	INOR	1169	Sanders, A.J.	CHED	1903	Sanford, R.	ENVR	80
Sampaio, R.	INOR	1066	Sanders, B.	PHYS	249	Sanford, R.	ENVR	82
Sampat, S.	PHYS	352	Sanders, C.	ENFL	138	Sanford, R.	GEOC	72
Sample, C.	POLY	786	Sanders, C.	ENFL	139	Sanford, R.	GEOC	182
Sampson, J.	INOR	695	Sanders, C.	ENFL	140	Sanford, R.	BIOT	488
Sampson, N.S.	CHED	1753	Sanders, C.	ENFL	141	Sang, N.	ENVR	268

Sang, X.	INOR	1231	Santos, J.J.	COLL	230	Sarjeant, A.	INOR	860
Sangaranarayanan, M.V.	PHYS	502	Santos, J.J.	ENVR	698	Sarkanen, S.	CELL	368
Sangermano, A.	PHYS	583	Santos, L.	CHED	1805	Sarkar, A.	POLY	808
Sangiorgio, S.	NUCL	2	Santos, M.V.	CHED	902	Sarkar, C.A.	BIOT	528
Sangoro, J.	PHYS	344	Santos, R.G.	PROF	3	Sarkar, S.K.	ORGN	519
Sangoro, J.	PHYS	516	Santos, V.	I&EC	88	Sarker, P.	ENVR	633
Sangoro, J.	PHYS	538	Santos, W.L.	ORGN	365	Sarker, S.	ENFL	446
Sangoro, J.	PMSE	69	Santos Cancel, M.	ANYL	448	Sarkes, D.A.	COLL	96
Sangoro, J.	PMSE	275	Santosh, B.	ENFL	546	Sarkes, D.A.	ENFL	451
Sangoro, J.	PMSE	351	Santos Vazquez, Y.	CHED	279	Sarlah, D.	ORGN	61
Sanguantrakun, N.	ANYL	150	Santos Vazquez, Y.	CHED	738	Sarlah, D.	ORGN	76
Sanguantrakun, N.	CHED	240	Santos Vazquez, Y.	CHED	1304	Sarlah, D.	ORGN	526
Sanguramath, R.	POLY	656	Sanyal, S.	CATL	169	Sarmanik, A.	ENVR	775
Sani, M.	CATL	368	Sanyal, U.	ENFL	15	Sarnadharan, S.C.	PMSE	117
Sankar, R.	MEDI	43	Sanz, L.	PHYS	581	Sarnik, J.	MEDI	58
Sankaranarayanan, P.	PHYS	502	Saouma, C.T.	INOR	114	Sarnik, S.	BIOT	258
Sankaranarayanan, S.	CATL	75	Saparov, B.	INOR	571	Sarojadevi, M.	PMSE	481
Sankaranarayanan, S.	COLL	508	Saparov, B.	INOR	849	Sarott, R.	CHAS	45
Sankaranarayanan, S.	PHYS	563	Saperstein, Y.	ORGN	498	Sarpong, G.	ENFL	526
Sankaraman, S.	COLL	289	Sapia, R.	CHED	1916	Sarpong, R.	ORGN	523
Sano, K.	POLY	461	Sapienza, T.	CHED	1571	Sarra, M.	ENVR	354
Sanschagrín, P.	CINF	45	Sapkota, R.	AGFD	90	Sarrazin, P.	GEOC	198
Sanschagrín, P.	MEDI	88	Sapojnikov, V.	MEDI	81	Sartain, H.T.	ENFL	339
Sansom, R.	CHED	2045	Sapolsky, M.	COLL	252	Sarupria, S.	COLL	266
Sansom, R.	CHED	2056	Sapolsky, M.	PMSE	432	Sarver, P.J.	ORGN	196
Santabarbara, S.	PHYS	401	Sar, D.	COLL	218	Sasaki, D.Y.	COLL	468
Santamaria-Echart, A.	CELL	102	Sar, D.	ORGN	532	Sasaki, K.	ENVR	532
Santana, S.O.	ORGN	103	Sarabia, G.	CHED	394	Sasaki, K.	ENVR	544
Santana Bonilla, A.	COMP	339	Saraei, N.	INOR	960	Sasaki, K.	CATL	179
Santandrea, J.	CHED	2126	Saraha, H.	ORGN	710	Sasaki, N.	ANYL	99
Santandrea, J.	ORGN	572	Sarantes, C.A.	POLY	488	Sasaki, S.	MEDI	22
Santella, J.B.	MEDI	367	Sarapas, J.	POLY	342	Sasaki, T.	ENVR	150
Santhanaraj, D.	CATL	377	Saravanan, K.	CATL	191	Sasaki, Y.	PMSE	139
Santiago, I.	ENVR	2	Saravanan, K.	CATL	467	Sasan, K.	INOR	167
Santiago, L.	CHED	96	Sarazen, M.	I&EC	49	Sasaran, C.M.	INOR	27
Santiago, L.	CHED	1804	Sarazen, M.	I&EC	125	Sasik, R.	BIOT	30
Santiago, M.	AGFD	227	Sarazen, M.L.	CATL	34	Sasmaz, E.	CATL	21
Santiago Echevarria, J.	CHED	1267	Sardana, A.	ENVR	110	Sasongko, D.	BIOT	480
Santiago Echevarria, J.	CHED	1314	Sardar, R.	ANYL	373	Sassano, M.F.	COMP	400
Santiago Gonzalez, K.L.	PMSE	526	Sardar, R.	CHED	1298	Sassi, H.	I&EC	94
Santiago-Martoral, L.N.	ANYL	84	Sardar, R.	COLL	291	Sassi, J.	CELL	272
Santillan, J.	COLL	316	Sardar, R.	COLL	576	Sassi, M.	GEOC	251
Santillan-Jimenez, E.	CATL	374	Sardar, S.	I&EC	47	Sassi, M.	GEOC	255
Santillan-Jimenez, E.	CELL	131	Sardar, S.	INOR	1354	Sassi, M.B.	CATL	140
Santini, C.	ORGN	340	Sardashti, M.	ENFL	266	Satam, V.	MEDI	131
Santini, C.	ORGN	439	Sardon, H.	POLY	137	Sathish, H.A.	BIOT	525
Santini, C.	ORGN	671	Saremi, R.	CELL	74	Sathitsuksanoh, N.	CELL	9
Santmarti, A.	CELL	54	Saremi, R.	COLL	756	Sathitsuksanoh, N.	CELL	408
Santmarti, A.	CELL	402	Sarepalla, H.	MEDI	67	Sathyan, A.	POLY	455
Santomauro, F.	ENFL	64	Sargent, A.L.	ORGN	445	Satinover, S.	ENFL	58
Santoro, A.	INOR	43	Sargent, B.T.	ORGN	97	Sato, A.	POLY	60
Santoro, F.	COLL	207	Sargis, S.	BIOT	334	Sato, H.	ANYL	106
Santos, J.	CHED	1803	Sarimveis, H.	ENVR	518	Sato, H.	COMP	187
Santos, J.L.	MEDI	392	Sarjeant, A.	CINF	3	Sato, R.	COLL	444
Santos, J.	COLL	66	Sarjeant, A.	CINF	22	Sato, T.	ORGN	258

Sato, T.	GEOC	31	Savagatrup, S.	PMSE	578	Sbirrazzuoli, N.	PMSE	187
Sato, Y.	ANYL	421	Savage, A.M.	PMSE	604	Scaglia Drusini, F.	GEOC	235
Sato, Y.	BIOT	414	Savara, A.	CATL	254	Scales, S.A.	MEDI	19
Satoh, K.	PMSE	601	Savara, A.	CATL	438	Scales, S.A.	ORGN	21
Satoh, T.	ANYL	122	Savary, B.J.	AGFD	50	Scalfani, V.F.	CINF	1
Satoh, T.	ORGN	81	Savary, B.J.	AGFD	51	Scalfani, V.F.	CINF	19
Satoh, T.	PMSE	98	Savastano, M.	CATL	386	Scalfani, V.F.	POLY	439
Satoh, T.	PMSE	449	Savchak, M.	PMSE	569	Scalise, D.	POLY	59
Satoh, T.	PMSE	457	Savelieva, E.	BIOL	59	Scalmani, G.	COMP	384
Satoh, T.	PMSE	603	Savelkoul, H.	COLL	773	Scalmani, G.	PHYS	322
Satoh, Y.	PMSE	603	Savenka, A.	BIOL	207	Scalmani, G.	PHYS	477
Satpathy, A.	GEOC	60	Savic, M.M.	MEDI	113	Scanlan, M.M.	COLL	737
Sattarov, B.	CINF	10	Savić, T.	BIOL	100	Scanlon, D.	INOR	648
Sattarov, B.	CINF	99	Savikhin, S.	PHYS	103	Scanlon, D.	INOR	1271
Sattarov, B.	COMP	27	Savin, A.	PHYS	273	Scanlon, D.	INOR	1398
Sattarov, B.	COMP	110	Savin, D.A.	PMSE	243	Scanlon, J.	CHED	1675
Sattelberger, A.P.	INOR	614	Savin, D.A.	PMSE	331	Scanlon, J.	COMP	303
Sattelberger, A.P.	INOR	1120	Savin, D.A.	POLY	42	Scantland, J.	CHED	1499
Sattelkow, J.	CELL	52	Savin, D.A.	POLY	200	Scantland, J.	CHED	1905
Satterfield, C.S.	INOR	1424	Savin, D.A.	POLY	340	Scarlat, R.O.	CHED	2135
Satterthwaite, L.	ANYL	210	Savin, D.A.	POLY	677	Scarlat, R.O.	ENFL	531
Satterwhite, Y.	MEDI	340	Savych, O.	MEDI	350	Scarpitti, B.	MEDI	62
Satyal, U.	COLL	3	Sawada, D.	CELL	264	Scarpitti, B.	ORGN	223
Satyal, U.	COLL	620	Sawada, D.	CELL	322	Scarrow, R.C.	INOR	209
Sauceda, H.E.	CATL	69	Sawada, D.	CELL	326	Scarrow, R.C.	INOR	223
Sauceda, H.E.	CATL	117	Sawada, J.	POLY	371	Scarrow, R.C.	INOR	631
Saucedo, C.	INOR	17	Sawall, M.	INOR	1409	Scarton, A.M.	ANYL	212
Saucedo, V.	BIOT	83	Sawicki, L.	BIOT	483	Scatena, L.F.	COLL	787
Saucedo Chavez, K.	INOR	245	Sawtelle, V.	CHED	817	Schaad, M.	BIOT	456
Sauer, D.	BIOT	519	Sawvel, A.M.	POLY	252	Schaak, R.E.	INOR	836
Sauer, J.	CATL	11	Sawyer, Y.	CHED	1437	Schaak, R.E.	INOR	841
Sauer, J.	CATL	101	Sawyer, Y.	ORGN	571	Schaak, R.E.	INOR	1364
Saugar, D.	CHED	1099	Saxby, S.	BIOT	383	Schabes, B.	COLL	724
Saugstad, M.M.	INOR	916	Saxena, G.	CHED	2020	Schabron, J.F.	ENFL	164
Saulsberry, T.	CHED	1227	Saxowsky, T.	CHED	601	Schacht, M.	BIOT	547
Saunders, A.	CHED	1283	Saxowsky, T.	CHED	728	Schadler, L.	PMSE	30
Saunders, B.	POLY	333	Sayah, C.N.	CHED	1486	Schadock-Hewitt, A.	BIOT	307
Saunders, B.	POLY	745	Sayama, A.	PHYS	371	Schaef, H.T.	GEOC	238
Saunders, B.	POLY	795	Sayed, I.	CHED	395	Schaef, H.T.	GEOC	261
Saunders, J.M.	PHYS	586	Sayed, I.	CHED	448	Schaef, H.T.	GEOC	263
Saunders, K.C.	COLL	785	Sayed, M.	ENFL	233	Schaefer, C.	ENVR	179
Saunders, L.	MEDI	11	Sayed, M.	ENFL	234	Schaefer, C.	GEOC	72
Saunders, N.	ANYL	384	Sayed, S.	CHED	1486	Schaefer, G.	BIOT	192
Saunders, S.R.	COLL	59	Sayed, F.	ENVR	769	Schaefer, J.	BIOT	108
Saunders, S.R.	COLL	298	Sayes, C.M.	ENVR	206	Schaefer, J.L.	POLY	322
Saunders, S.R.	GEOC	105	Saykally, R.J.	PHYS	265	Schaefer, J.	BIOT	149
Saup, C.M.	ENVR	284	Sayle, R.A.	CINF	50	Schaefer, J.	ORGN	430
Sauter, L.	GEOC	80	Saylor, D.	PMSE	344	Schaefer, M.	POLY	133
Sautet, P.	CATL	33	Sayre, H.J.	INOR	16	Schaefer, M.	POLY	529
Sautet, P.	CATL	71	Sayre, H.J.	INOR	1071	Schaefer, M.V.	ENVR	340
Sautet, P.	CATL	102	Sayres, S.G.	PHYS	518	Schaefer, M.V.	GEOC	13
Sautet, P.	CATL	147	Sayyar, K.	MEDI	67	Schaefer, M.V.	GEOC	244
Sauvage, E.	ORGN	67	Sayyar, K.	MEDI	68	Schaefer, O.Z.	CHED	364
Sava Gallis, D.F.	CATL	406	Sazuka, Y.	POLY	686	Schaettle, K.	BIOL	5
Sava Gallis, D.F.	INOR	1328	Sbirrazzuoli, N.	CELL	425	Schafer, A.	CHED	212

Schafer, B.C.	ORGN	698	Schatzberg, W.E.	CHED	2073	Schieberle, P.H.	AGFD	210
Schafer, J.A.	CHED	815	Schaub, E.	POLY	124	Schieler, B.	BIOL	46
Schafer, K.	COMP	164	Schaub, T.	ORGN	605	Schieven, G.L.	MEDI	35
Schafer, K.	PHYS	528	Schauer, C.L.	ENVR	635	Schieven, G.L.	MEDI	36
Schafer, K.	PHYS	646	Schauer, C.K.	INOR	667	Schieven, G.L.	MEDI	178
Schäfer, H.	PMSE	235	Schauer, N.	MEDI	232	Schieven, G.L.	MEDI	202
Schäfer, P.	ANYL	457	Schech, A.J.	CINF	77	Schiewer, C.E.	INOR	447
Schäfer, P.	CELL	339	Scheeler, J.	CHED	1707	Schiff, E.B.	INOR	272
Schäfer, P.	COLL	142	Scheer, E.	COLL	345	Schiff, E.B.	INOR	1185
Schäfer, P.	INOR	703	Scheffel, A.	GEOC	21	Schiffman, J.D.	COLL	100
Schäfer, P.	ORGN	584	Scheffler, M.	CATL	170	Schiffman, J.D.	POLY	455
Schäfer, P.	POLY	73	Scheffler, M.	COMP	51	Schildkraut, I.	BIOL	292
Schaffer, C.	ENFL	486	Scheiderich, K.	GEOC	229	Schilling, C.	PMSE	592
Schaffer, N.P.	ENFL	312	Scheidt, R.A.	ENFL	25	Schilling, S.	MEDI	351
Schafhausen, E.	INOR	1114	Scheidt, R.A.	INOR	1153	Schilowitz, A.M.	COLL	129
Schafroth, M.A.	CHAS	45	Scheithauer, C.	COLL	691	Schimelfenig, M.	CHED	795
Schaible, E.	BIOL	198	Scheitler, A.	INOR	62	Schimelfenig, M.	CHED	799
Schaidle, J.	CATL	283	Schekman, J.M.	POLY	37	Schimelfenig, M.	CHED	845
Schaidle, J.	CATL	285	Schekman, J.M.	POLY	571	Schimp, N.	BIOL	201
Schaidle, J.	CATL	384	Schekman, J.M.	POLY	580	Schimpf, A.M.	INOR	452
Schaidle, J.	CATL	390	Schelble, S.M.	CHED	41	Schindler, C.	POLY	74
Schaidle, J.	CATL	391	Schelble, S.M.	CHED	829	Schindler, C.	ORGN	319
Schaidle, J.	CATL	393	Scheler, U.	POLY	602	Schindler, C.	ORGN	531
Schaidle, J.	CATL	394	Scheliga, F.	PMSE	248	Schindler, C.	ORGN	555
Schaidle, J.	CATL	396	Schell, J.	ENFL	145	Schindler, M.	GEOC	75
Schaidle, J.	CATL	434	Schell, J.	ENVR	759	Schinnerer, C.	CHED	576
Schaidle, J.	CATL	459	Schelling, M.	ENVR	278	Schiraldi, D.A.	PMSE	120
Schallenger, S.A.	MEDI	149	Schellinger, R.E.	CHED	947	Schiraldi, D.A.	PMSE	171
Schaller, A.	CHED	571	Schellman, M.	CHED	501	Schirm, C.	COLL	345
Schaller, R.D.	ENVR	53	Schellman, M.	CHED	1841	Schlaich, A.	COLL	453
Schaller, R.D.	PHYS	241	Schelster, E.J.	INOR	1143	Schlander, A.	PMSE	273
Schammel, M.H.	CHED	973	Schelster, I.	PHYS	147	Schlarman, H.	CHED	145
Schammel, M.H.	CHED	974	Schembri, L.	FLUO	53	Schlau-Cohen, G.	PHYS	176
Schanz, H.J.	CATL	477	Schenck, A.M.	CHED	566	Schlaus, A.	PHYS	378
Schanz, H.J.	CHED	1376	Schepergerdes, B.	COLL	84	Schlechtriem, C.	ANYL	235
Schanz, H.J.	CHED	1525	Schepergerdes, B.	POLY	194	Schlegel, F.	BIOT	5
Schanze, K.S.	INOR	1069	Scherer, J.E.	CHED	1416	Schlegel, F.	BIOT	368
Schanze, K.S.	POLY	280	Scherer, M.	ENVR	222	Schlegel, F.	BIOT	516
Schanze, K.S.	POLY	412	Scherer, M.	ENVR	536	Schlenk, D.	ENVR	410
Schanze, K.S.	POLY	422	Scherer, M.	ENVR	539	Schlenoff, J.B.	COLL	708
Schanze, K.S.	POLY	487	Scherer, M.	GEOC	12	Schlenoff, J.B.	POLY	325
Scharl-Hirsch, T.	BIOT	519	Scherer, M.	GEOC	65	Schlenoff, J.B.	POLY	783
Scharlott, L.	CHED	1365	Scherer, M.	GEOC	98	Schlenzig, D.	MEDI	351
Scharmman, B.	ORGN	243	Scherer, M.	GEOC	203	Schlessinger, A.	BIOL	222
Scharrer, E.	CHED	1488	Scherer, M.	GEOC	255	Schlessinger, A.	MEDI	39
Scharrer, E.	CHED	1500	Scherer, M.	GEOC	255	Schlessinger, A.	MEDI	165
Schartung, D.F.	CHED	1409	Scherer, M.	ENVR	309	Schlessinger, A.	MEDI	166
Schattner, L.	ENVR	27	Scherer, M.	INOR	262	Schlessinger, A.	MEDI	166
Schatz, G.C.	PHYS	301	Scheuermann, M.L.	POLY	212	Schlessinger, A.	MEDI	315
Schatz, G.C.	PHYS	367	Scheutz, G.	POLY	212	Schlessinger, A.	MEDI	315
Schatzberg, W.E.	CHED	287	Schibli, R.	NUCL	8	Schley, N.D.	INOR	892
Schatzberg, W.E.	CHED	400	Schick, C.P.	CHED	31	Schlotter, N.E.	CHED	2019
Schatzberg, W.E.	CHED	770	Schick, C.P.	CHED	152	Schluesener, M.	ENVR	782
Schatzberg, W.E.	CHED	820	Schick, S.F.	CHED	111	Schmehl, R.H.	INOR	354
Schatzberg, W.E.	CHED	1309	Schieber, M.C.	PHYS	515	Schmehl, R.H.	INOR	508
			Schieberle, P.H.	AGFD	114	Schmehl, R.H.	INOR	706
			Schieberle, P.H.	AGFD	205	Schmehl, R.H.	INOR	759

Schmehl, R.H.	INOR	1070	Schneider, J.	CHED	1856	Schofield, M.	BIOT	312
Schmehl, R.H.	INOR	1167	Schneider, L.N.	FLUO	39	Schofield, M.	BIOT	384
Schmehl, R.H.	INOR	1310	Schneider, S.	POLY	338	Scholes, R.	ENVR	184
Schmeisser, J.	CHED	11	Schneider, S.	POLY	380	Scholes, T.	POLY	769
Schmetz, Q.	CELL	305	Schneider, S.	PHYS	23	Schoffield, M.R.	MEDI	325
Schmid, M.	COLL	193	Schneider, S.	POLY	379	Scholl, W.	COLL	272
Schmid, M.	COLL	377	Schneider, S.	POLY	691	Scholl, W.E.	COLL	302
Schmid, M.	CARB	69	Schneider, S.R.	ENVR	116	Schollee, J.	ENVR	784
Schmid, M.	CHED	1675	Schneider, S.	INOR	120	Schols, D.	MEDI	347
Schmidt, B.	CHED	192	Schneider, T.L.	BIOL	232	Scholte, J.P.	POLY	800
Schmidt, D.	POLY	647	Schneider, W.F.	CATL	35	Scholten, M.	PMSE	359
Schmidt, D.	PHYS	629	Schneider, W.F.	CATL	107	Scholz, G.	COLL	46
Schmidt, D.	PHYS	630	Schneider, W.F.	COMP	147	Scholz, G.	FLUO	33
Schmidt, D.	COMP	364	Schneider, W.F.	I&EC	54	Schomaker, J.M.	ORGN	134
Schmidt, E.	CHED	2105	Schneiderman, D.K.	POLY	538	Schonbrunn, E.	MEDI	38
Schmidt, E.	CHED	2106	Schneiderman, D.K.	POLY	734	Schoneich, C.	BIOT	211
Schmidt, H.	POLY	785	Schnell, C.	MEDI	243	Schoneich, C.	ORGN	706
Schmidt, J.R.	ENVR	708	Schnell, M.	PHYS	275	Schonherr, H.	ANYL	235
Schmidt, J.G.	INOR	1084	Schnitzenbaumer, K.	CHED	9	Schönhoff, M.	POLY	321
Schmidt, M.M.	POLY	383	Schnitzenbaumer, K.	CHED	1324	Schonrock, Z.A.	INOR	304
Schmidt, M.	GEOC	250	Schnitzenbaumer, K.	CHED	1325	Schopp, N.	ANYL	94
Schmidt, M.W.	COMP	347	Schnitzenbaumer, K.	CHED	2074	Schopp, N.	CATL	341
Schmidt, M.W.	NUCL	89	Schnitzler, A.	BIOT	174	Schorp, J.	NUCL	1
Schmidt, M.W.	PHYS	357	Schnoebelen, A.	CHED	1140	Schorr, H.	CHED	1835
Schmidt, P.	POLY	683	Schnoebelen, C.	CHED	2075	Schorr, P.L.	ENVR	398
Schmidt, P.	POLY	730	Schnoor, J.L.	ENVR	8	Schorr, P.L.	ENVR	402
Schmidt, R.D.	ENFL	465	Schnoor, J.L.	ENVR	384	Schott, J.A.	I&EC	104
Schmidtchen, A.	POLY	797	Schnoor, J.L.	ENVR	432	Schottel, B.L.	ENVR	371
Schmitt, E.	BIOT	10	Schnoor, J.L.	ENVR	538	Schpiro, B.	PHYS	315
Schmitt, J.	ORGN	374	Schnoor, J.L.	ENVR	746	Schrader, A.M.	COLL	171
Schmitt, N.	CHED	1846	Schnoor, J.L.	GEOC	104	Schramm, N.	CHED	1788
Schmitt, T.	ENVR	460	Schnorr, J.M.	I&EC	114	Schramm, S.	BIOL	189
Schmitt-Kopplin, P.	ENVR	282	Schnupf, U.	COMP	319	Schramski, J.	ENFL	505
Schmitz, B.	BIOT	146	Schnupf, U.	COMP	425	Schreiber, E.	INOR	247
Schmitz, R.	ANYL	38	Schober, A.	INOR	447	Schreiber, S.L.	BIOL	169
Schmitz, U.	COMP	416	Schoelkopf, J.	COLL	165	Schreidah, C.M.	CHED	93
Schmuttermaer, C.A.	INOR	66	Schoendorff, G.	COMP	347	Schreidah, C.M.	CHED	268
Schnable, D.M.	CHED	1405	Schoendorff, G.	NUCL	89	Schreidah, C.M.	CHED	1824
Schnable, D.M.	ORGN	284	Schoendorff, G.	NUCL	90	Schreier, M.	INOR	1171
Schneck, E.	COLL	453	Schoenherr, S.	CELL	112	Schreiner, D.	CHED	634
Schnee, V.P.	POLY	703	Schoettle, C.	CATL	383	Schreiner, S.H.	CHED	336
Schneekloth, J.	MEDI	11	Schoettle, C.	INOR	75	Schreiner, S.H.	INOR	894
Schneekloth, J.S.	ORGN	366	Schoffers, E.	ENVR	319	Schreurs, D.	CHED	1162
Schneider, A.R.	ORGN	338	Schoffers, E.	HIST	17	Schreurs, D.	CHED	2111
Schneider, C.	ORGN	521	Schoffstall, A.M.	CHED	215	Schriber, J.B.	PHYS	424
Schneider, G.	PMSE	478	Schoffstall, A.M.	CHED	1434	Schrier, J.	INOR	761
Schneider, G.	POLY	294	Schoffstall, A.M.	CHED	1441	Schrier, J.	INOR	762
Schneider, G.	CELL	348	Schoffstall, A.M.	CHED	1447	Schrobiglen, G.J.	FLUO	2
Schneider, I.	BIOT	420	Schoffstall, A.M.	CHED	1450	Schrock, A.	INOR	286
Schneider, J.L.	CHED	161	Schoffstall, A.M.	CHED	1452	Schrock, A.	INOR	787
Schneider, J.L.	CHED	2190	Schoffstall, A.M.	CHED	1454	Schrock, A.	ORGN	475
Schneider, J.P.	BIOL	138	Schoffstall, A.M.	YCC	2	Schrock, H.	CHED	1066
Schneider, J.	CHED	17	Schofield, C.	MEDI	288	Schrock, R.R.	INOR	545
Schneider, J.	CHED	88	Schofield, D.P.	PHYS	539	Schroder, A.P.	COLL	320
Schneider, J.	CHED	1129	Schofield, K.	CHED	1521	Schröder, C.	PHYS	239

Schröder, C.	PHYS	659	Schulte, Z.M.	INOR	720	Schwaneberg, U.	POLY	388
Schröder, R.	POLY	377	Schulten, K.	COMP	420	Schwartz, A.	CHED	980
Schroeder, B.E.	CHED	1610	Schultz, A.	CHED	1820	Schwartz, A.H.	BIOT	289
Schroeder, B.C.	POLY	665	Schultz, B.	COMP	416	Schwartz, A.C.	ORGN	724
Schroeder, C.M.	MEDI	144	Schultz, C.	BIOL	29	Schwartz, A.J.	ANYL	230
Schroeder, C.	ENVR	223	Schultz, C.P.	PHYS	442	Schwartz, B.J.	PHYS	602
Schroeder, C.	PHYS	238	Schultz, D.M.	ORGN	10	Schwartz, B.J.	POLY	769
Schroeder, H.	INOR	1409	Schultz, D.	CHED	1627	Schwartz, C.M.	BIOT	549
Schroeder, I.	ORGN	737	Schultz, D.	CHED	1895	Schwartz, D.K.	BIOT	48
Schroeder, K.	PHYS	659	Schultz, J.	MEDI	103	Schwartz, D.K.	BIOT	522
Schroeder, K.	AGFD	218	Schultz, K.	CHED	600	Schwartz, D.K.	COLL	629
Schroeder, L.	CHED	1790	Schultz, K.	POLY	702	Schwartz, D.K.	COLL	634
Schroeder, L.	CHED	1908	Schultz, L.D.	CHED	473	Schwartz, D.	ANYL	51
Schroeder, L.J.	CHED	865	Schultz, L.D.	CHED	518	Schwartz, D.C.	COLL	279
Schroeder, M.J.	CHED	37	Schultz, L.D.	CHED	761	Schwartz, J.	POLY	141
Schroeder, M.J.	CHED	814	Schultz, L.D.	CHED	1866	Schwartz, J.K.	CHED	304
Schroeder, M.J.	CHED	898	Schultz, P.G.	BIOL	171	Schwartz, J.K.	CHED	2039
Schroeder, R.	CHED	1485	Schultz, Z.D.	ANYL	348	Schwartz, J.K.	CHED	2102
Schroeder, R.	MEDI	190	Schulz, A.	AGFD	18	Schwartz, N.	CATL	465
Schroeder, S.	PMSE	563	Schulz, C.E.	INOR	229	Schwartz, N.	INOR	1268
Schroeder, S.	COLL	665	Schulz, M.	POLY	133	Schwartz, T.J.	CATL	270
Schroeder, V.	INOR	813	Schulz, M.	POLY	529	Schwartz, T.J.	CATL	355
Schroeder, W.	BIOT	91	Schulz, M.D.	POLY	84	Schwartz, T.M.	CHED	1846
Schroer, H.	ENVR	180	Schulz, M.D.	POLY	176	Schwartzberg, A.	COLL	379
Schroeter, F.	ORGN	29	Schulz, P.	INOR	172	Schwartzberg, A.	INOR	767
Schroll, A.	CHED	1505	Schulz, R.	CHED	1836	Schwartz-Duval, A.S.	COLL	218
Schubert, A.	PHYS	578	Schulz, R.	COLL	335	Schwartz-Duval, A.S.	ENVR	406
Schubert, D.M.	INOR	978	Schulze, J.	BIOL	279	Schwarz, A.	CHED	926
Schubert, F.	CELL	362	Schulze, J.	CARB	8	Schwarz, A.	GEOC	218
Schubert, M.	CELL	314	Schulze, J.	MEDI	318	Schwarz, D.	MEDI	270
Schubmehl, B.	I&EC	158	Schulze, M.	CELL	348	Schwarz, J.	PHYS	568
Schuck, P.	INOR	175	Schulze, M.C.	ENFL	124	Schwarz, K.	BIOT	482
Schuck, P.	AGFD	142	Schulze, M.	PMSE	124	Schwarzacher, W.	COLL	117
Schuetz, S.	CELL	112	Schulze, T.	PHYS	17	Schwarzacher, W.	PHYS	247
Schug, K.	ANYL	386	Schulze, T.	ANYL	32	Schweibenz, C.	CHED	599
Schug, K.	ANYL	397	Schulzetenberg, P.G.	CHED	1455	Schweibenz, C.	CHED	631
Schug, N.	CHED	1746	Schumaker, J.E.	CELL	216	Schweickart, T.	CHED	1642
Schuhmann, W.	ENFL	394	Schumann, J.	CATL	103	Schweig, J.	ANYL	116
Schuhmann, W.	PMSE	134	Schumann, J.	ENFL	112	Schweins, R.	CELL	41
Schuhmann, W.	PMSE	233	Schupp, D.	ENVR	92	Schweitzer, B.	ENFL	492
Schukraft, G.	INOR	11	Schurko, R.W.	CATL	513	Schweitzer, B.	I&EC	142
Schuleit, M.	COLL	162	Schurman, L.	BIOL	227	Schweitzer, G.K.	NUCL	66
Schuler, B.	CHED	1924	Schurtenberger, P.	COLL	388	Schweitzer, L.E.	AGFD	73
Schuler, B.	COLL	379	Schurtenberger, P.	POLY	618	Schweitzer, N.	INOR	522
Schuler, B.	ENFL	156	Schut, G.J.	BIOL	289	Schweizerhof, S.	POLY	390
Schuler, B.	ENFL	462	Schütt, K.T.	CATL	117	Schwendeman, A.	BIOT	367
Schuler, H.	MEDI	127	Schuttlefield Christus, J.D.	CHED	2162	Schwendeman, S.P.	BIOT	183
Schuler, H.	MEDI	128	Schütz, C.	CELL	65	Schwenz, R.W.	PROF	18
Schulman, J.	CHED	1511	Schütz, C.	CELL	69	Schwieg, J.	ANYL	148
Schulman, R.	POLY	59	Schuurman, Y.	CATL	432	Schymanski, E.	ANYL	24
Schulte, F.	POLY	792	Schwab, C.	CINF	90	Schymanski, E.	ANYL	29
Schulte, K.	INOR	1115	Schwab, K.	CHED	468	Schymanski, E.	ANYL	32
Schulte, K.	INOR	1117	Schwab, P.	ENVR	720	Schymanski, E.	CINF	16
Schulte, M.	POLY	385	Schwab, S.P.	CHED	461	Schymanski, E.	CINF	19
Schulte, M.	BIOT	100	Schwaller, P.	COMP	23	Schymanski, E.	CINF	106

Schymanski, E.	ENVR	738	Sculimbrene, B.R.	CHED	1372	Seelinger, F.	BIOT	100
Schymanski, E.	ENVR	784	Sculimbrene, B.R.	CHED	1670	Seemaladinne, R.	INOR	1160
Scialdone, M.	CHAS	41	Sculimbrene, B.R.	ORGN	105	Seeman, M.	CHED	57
Scielzo, N.D.	NUCL	2	Scull, E.M.	CHED	1522	Seethamraju, S.	CELL	33
Scielzo, N.D.	NUCL	5	Sczepanski, J.	BIOL	274	Seeto, W.J.	BIOT	460
Scielzo, N.D.	NUCL	7	Sczepanski, J.	BIOL	295	Seferi, K.	CHED	980
Sconyers, D.J.	INOR	1129	Sczepanski, J.T.	BIOL	160	Seferos, D.S.	INOR	412
Sconyers, D.J.	INOR	1269	Sczepanski, J.T.	BIOT	200	Segal, D.	COLL	27
Scorah, N.	MEDI	201	Seager, C.	CHED	2063	Segall, M.D.	CINF	27
Scotka, M.	ORGN	676	Seangsai, A.	INOR	366	Segall, M.D.	CINF	55
Scott, A.	CHED	914	Searle, X.	MEDI	117	Segall, M.D.	COMP	24
Scott, B.	INOR	1005	Searles, D.J.	COMP	331	Segall, M.D.	MEDI	185
Scott, B.	INOR	1295	Searles, D.J.	POLY	774	Segalman, R.A.	PMSE	159
Scott, C.	MEDI	308	Sears, B.B.	CHED	1054	Segalman, R.A.	POLY	681
Scott, C.	ORGN	598	Sears, J.M.	CHED	134	Sehgal, A.	BIOL	64
Scott, C.	POLY	282	Sears, J.M.	INOR	498	Seibel, J.	COLL	374
Scott, C.N.	POLY	763	Sears, J.M.	INOR	606	Seibel, J.	PHYS	327
Scott, D.W.	ORGN	640	Seaux, A.K.	ANYL	192	Seiber, J.N.	AGFD	150
Scott, D.	CHED	713	Seay, A.	BIOT	132	Seibert, J.	PHYS	608
Scott, E.	CHED	1751	Seay, A.	BIOT	334	Seidel, H.	INOR	679
Scott, E.E.	CHED	817	Sebahar, H.L.	CHED	1885	Seideman, T.	PHYS	301
Scott, G.	ANYL	256	Seballos, L.	COLL	146	Seideman, T.	PMSE	516
Scott, J.	CELL	310	Sebastián, R.M.	PMSE	188	Seidlitz, A.	POLY	133
Scott, J.	ENVR	23	Sebastien, P.	CATL	102	Seidlitz, A.	POLY	529
Scott, J.	ENVR	151	Sebe, G.	CELL	198	Seidman, D.	ENFL	446
Scott, K.	CHED	512	Sebhat, I.K.	MEDI	92	Seifert, K.	PROF	44
Scott, K.D.	CHED	58	Sebhat, I.K.	MEDI	93	Seifert, S.	ENFL	433
Scott, L.C.	INOR	899	Sebold, M.B.	CHED	950	Seifert, T.	MEDI	33
Scott, M.	BIOT	361	Sebold, M.B.	CHED	1063	Seiffert, M.	ENVR	40
Scott, M.D.	NUCL	1	Sebold, M.B.	ENVR	519	Seiler, H.	MEDI	243
Scott, P.	POLY	115	Sebree, J.	CHED	474	Seiler, L.	CINF	31
Scott, P.J.	FLUO	50	Sebree, J.	CHED	516	Seiple, I.	ORGN	732
Scott, R.W.	CATL	89	Sebree, J.	CHED	732	Seise, I.	CHED	612
Scott, S.	ORGN	256	Sebree, J.	CHED	1713	Seiter, J.	ENVR	707
Scott, S.	INOR	974	Sebree, J.	CHED	1723	Seith, D.	BIOL	17
Scott, S.L.	CATL	51	Sebree, J.	CHED	1738	Seitz, O.	BIOL	279
Scott, S.L.	CATL	413	Sedighi Moghaddam, M.	COLL	690	Seivert, M.	ENVR	583
Scott, S.L.	CATL	435	Sedlak, C.	BIOT	400	Sejdarasi, L.	INOR	57
Scott, S.L.	CATL	514	Sedlak, D.L.	ENVR	64	Seka, D.	CHED	650
Scott, S.L.	CATL	515	Sedlak, D.L.	ENVR	133	Sekharan, M.	COLL	565
Scott, S.L.	I&EC	53	Sedlak, D.L.	ENVR	154	Sekharan, S.	MEDI	88
Scott, T.F.	PMSE	73	Sedlak, D.L.	ENVR	166	Seki, T.	COLL	309
Scott, T.F.	PMSE	393	Sedlak, D.L.	ENVR	184	Seki, T.	COMP	313
Scott, W.L.	CHED	300	Sedlak, D.L.	ENVR	347	Sekido, Y.	MEDI	157
Scotti, A.	POLY	370	Sedlak, D.L.	ENVR	713	Seko, T.	MEDI	32
Scotti, A.	POLY	372	Sedlak, D.L.	ENVR	762	Selby, M.D.	MEDI	25
Scotti, A.	POLY	385	Sedwick, V.	PMSE	185	Selby, T.P.	I&EC	115
Scotti, A.	POLY	386	Sedwick, V.	PMSE	186	Selby, T.D.	CHED	1552
Scotti, A.	POLY	623	Sedykh, A.	ENVR	326	Selby, T.D.	CHED	1556
Scotti, A.	POLY	739	See, K.A.	ENFL	50	Selby, T.D.	CHED	1559
Scotti, A.	POLY	792	See, X.	INOR	1078	Selby, T.D.	CHED	1563
Scow, K.	GEOC	13	Seeberger, P.H.	CELL	155	Selby, T.D.	CHED	1802
Scrudgers, K.	CHED	1893	Seeberger, P.H.	ORGN	265	Selby, T.D.	CHED	1818
Scrymgeour, D.A.	ORGN	242	Seefeldt, S.	ENVR	233	Selby, T.D.	COMP	258
Scudder, W.	CHED	615	Seeley, J.P.	FLUO	17	Selby-Karney, T.	INOR	983

Selegue, J.P.	INOR	1305	Senevirathne, I.	COLL	300	Serva, A.	GEOC	142
Selent, D.	HIST	47	Senftle, T.P.	CATL	149	Servinis, L.	COLL	781
Selent, D.	INOR	1409	Sengupta, A.	PMSE	87	Servius, H.W.	CHED	548
Seles, A.	INOR	1239	Sengupta, A.K.	ENVR	198	Servoss, S.L.	BIOT	206
Self, J.L.	POLY	511	Sengupta, A.K.	ENVR	372	Servoss, S.L.	BIOT	461
Sellberg, A.	BIOT	344	Sengupta, S.	ANYL	308	Seshadri, R.	ENFL	45
Sellens, K.	ANYL	81	Sengupta, S.	COLL	768	Seshadri, R.	INOR	649
Sellergren, B.	POLY	301	Sengupta, S.	POLY	208	Seshadri, R.	INOR	674
Selley, D.	MEDI	152	Sen Gupta, S.	INOR	1287	Seshadri, S.	ANYL	218
Sellge, G.	POLY	369	Senko, J.M.	GEOC	82	Seshimo, T.	PMSE	453
Selling, G.W.	CELL	300	Senn, R.M.	CHED	1607	Sessler, J.L.	INOR	538
Sellner, H.	MEDI	272	Senoo, M.	POLY	781	Sessler, J.L.	INOR	1046
Selman, M.	INOR	135	Senra, M.	ENFL	65	Sessler, J.L.	ORGN	269
Selph, L.	CHED	431	Senthil, S.	INOR	234	Sessums, J.C.	CHED	1163
Sels, B.F.	CATL	116	Senthil, S.	INOR	235	Sethumadhavan, K.	AGFD	226
Sels, B.F.	CATL	213	Senthil, S.	INOR	475	Sethumadhavan, K.	BIOT	268
Sels, B.F.	CATL	215	Seo, H.	BIOT	568	Setiawan, H.	POLY	446
Sels, B.F.	ENFL	447	Seo, H.	MEDI	232	Sette, M.	CELL	185
Selvan, D.	INOR	933	Seo, J.	ENVR	609	Setthakarn, K.	ORGN	91
Selvitelli, K.	BIOT	362	Seo, J.	ENVR	534	Settle, A.	CATL	372
Selwa, E.	COMP	381	Seo, J.	INOR	144	Settle, A.	CATL	448
Selzer, R.	CHED	1689	Seo, J.	INOR	1172	Severa, G.	ENFL	496
Semancik, S.	ANYL	174	Seo, M.	PMSE	173	Severance, Z.	BIOL	120
Semelsberger, T.	CATL	446	Seo, M.	PMSE	475	Severin, G.	NUCL	2
Semelsberger, T.	INOR	146	Seo, Y.	COLL	771	Severin, G.	NUCL	4
Semenikhin, N.	COLL	738	Seoane Fernandez, A.	ORGN	382	Severin, G.	NUCL	5
Sementa, L.	COLL	371	Sepehrpour, H.	INOR	952	Severin, G.	NUCL	7
Semeria, L.	PHYS	228	Sepela, R.	AGFD	203	Severt, S.	POLY	557
Semko, C.	MEDI	277	Seppala, J.	PMSE	505	Sevian, H.	CHED	60
Semreen, M.	ANYL	117	Seppälä, S.	BIOT	160	Sevian, H.	CHED	796
Semrouni, D.	INOR	711	Seppelt, K.	FLUO	1	Sevian, H.	CHED	831
Sen, R.	COLL	687	Sept, D.	COLL	19	Sevian, H.	CHED	2000
Sen, S.	CELL	49	Sepulveda, J.	CATL	272	Sexton, P.M.	MEDI	13
Sen, S.	POLY	522	Sequeira, N.	INOR	248	Sexton, T.M.	COMP	255
Sen, S.	POLY	523	Serafin, R.	CHED	1740	Sexton, T.M.	YCC	20
Sen, S.	POLY	524	Seraj, S.	ENVR	131	Seybert, D.W.	CHED	673
Sen, S.	INOR	317	Seraly, S.A.	INOR	765	Seyler, T.H.	ANYL	107
Sen, S.	INOR	1209	Serapiglia, V.	INOR	783	Sezer, A.O.	CHED	2089
Senadheera, S.	CHED	1747	Seredenina, T.	MEDI	150	Sfeir, M.	CATL	175
Senanayake, C.H.	ORGN	263	Seretkin, I.	BIOT	423	Sfeir, M.	POLY	599
Senanayake, R.D.	COMP	316	Serna Merino, P.	CATL	14	Sha, F.	INOR	477
Senanayake, S.D.	CATL	234	Serpa Guerra, A.M.	CELL	343	Sha, S.	BIOT	114
Senanayake, S.D.	CATL	238	Serpe, M.	POLY	744	Shaabani, S.	MEDI	276
Senanayake, S.D.	CATL	298	Serpersu, E.H.	CHED	1677	Shaabani, S.	MEDI	348
Senanayake, S.D.	CATL	404	Serrano, C.M.	MEDI	70	Shaabani, S.	PROF	4
Senanayake, S.D.	CATL	450	Serrano, E.	CATL	222	Shabbir-Hussain, M.	BIOT	159
Senanayake, W.	CHED	110	Serrano, E.	CATL	490	Shabestary, N.	CHED	1712
Senapati, S.	BIOL	283	Serrano, K.A.	COLL	633	Shabetai, M.R.	INOR	576
Senapati, S.	COMP	359	Serrano, K.A.	CHAS	1	Shabetai, M.R.	INOR	779
Senaratne, N.K.	INOR	870	Serrano, K.A.	POLY	83	Shabtai, I.	ENVR	154
Sencan, I.	ORGN	293	Serrano, M.	CHED	552	Shadid, A.	ANYL	78
Sendecki, A.	COLL	287	Serrano, M.	PMSE	361	Shadley, B.T.	CHED	181
Sendler, T.	COLL	345	Serrano, M.C.	CELL	66	Shadrick, M.	CARB	72
Senent, M.S.	PHYS	90	Serrano, W.	CHED	1593	Shafer, W.D.	ENFL	292
Senevirathne, B.	PHYS	309	Serreyn, A.	CHED	1523	Shafer-Peltier, K.	ENVR	778

Shafer-Peltier, K.	GEOC	131	Shalaev, E.	AGFD	123	Shao-Horn, Y.	CATL	240
Shafer-Peltier, K.	GEOC	155	Shalaev, E.	BIOT	423	Shao-Horn, Y.	ENFL	51
Shaffee, A.	I&EC	41	Shalit Peleg, H.	ORGN	146	Shao-Horn, Y.	ENFL	187
Shaffer, D.W.	INOR	662	Shallcross, R.	COLL	785	Shao-Horn, Y.	ENFL	469
Shaffer, D.	PMSE	38	Shamana, H.	PMSE	218	Shao-Horn, Y.	PMSE	544
Shaffer, K.	MEDI	45	Shamashkin, M.	BIOT	361	Shapeev, A.	COMP	79
Shaffer, R.	CHED	641	Shamkhalichenar, H.	ANYL	452	Shapiro, A.	MEDI	390
Shaffer, S.	COLL	291	Shamlou, E.	ENFL	57	Shapiro, J.D.	MEDI	198
Shaffer, T.M.	NUCL	61	Shamlou, P.	BIOT	484	Shapiro, J.D.	ORGN	698
Shaffer-Doan, A.N.	AGFD	196	Shamlou, P.	BIOT	512	Shapiro, J.A.	ORGN	64
Shafiefarhood, A.	ENFL	136	Shamsi, M.	ANYL	11	Shapiro, L.Z.	CHED	1204
Shafiq, M.	ENVR	466	Shamsi, S.	CHED	402	Sharits, A.	PMSE	315
Shafranek, R.	PMSE	406	Shan, B.	INOR	508	Sharland, J.	ORGN	688
Shah, A.	BIOT	333	Shan, B.	INOR	1066	Sharland, J.	ORGN	725
Shah, A.	ENVR	96	Shan, F.	PMSE	487	Sharma, A.	MEDI	323
Shah, A.	PMSE	440	Shan, F.	PMSE	540	Sharma, A.	COMP	210
Shah, D.	CHED	1788	Shan, W.	PMSE	179	Sharma, A.K.	CHED	821
Shah, D.	BIOT	179	Shanahan, J.P.	INOR	616	Sharma, A.K.	COLL	77
Shah, I.	CINF	87	Shanaiah, N.	INOR	1349	Sharma, A.K.	COMP	220
Shah, I.	CINF	88	Shand, P.M.	CHED	1141	Sharma, A.K.	ENVR	161
Shah, I.	ENVR	361	Shandilya, N.	CELL	380	Sharma, A.	BIOT	436
Shah, I.	ENVR	416	Shane, J.W.	CHED	225	Sharma, A.	BIOT	495
Shah, I.	ENVR	417	Shaner, S.E.	CHED	1860	Sharma, B.	ENVR	23
Shah, I.	ENVR	421	Shaner, S.E.	CHED	1971	Sharma, B.	ENVR	151
Shah, I.	ENVR	422	Shaner, S.E.	CHED	2152	Sharma, C.	ENVR	172
Shah, I.H.	CHED	1750	Shang, B.	COLL	175	Sharma, C.	ENVR	173
Shah, N.	MPPG	9	Shang, X.	ENVR	774	Sharma, C.	PMSE	311
Shah, P.K.	PMSE	613	Shang, X.	AGFD	95	Sharma, C.V.	CHED	621
Shah, P.	BIOT	284	Shang, Y.	CATL	343	Sharma, G.	BIOL	281
Shah, R.	BIOT	218	Shang, Y.	ENFL	377	Sharma, G.	CATL	503
Shah, R.	CELL	322	Shang, Z.	ANYL	325	Sharma, G.	INOR	1025
Shah, R.B.	BIOT	178	Shangguan, J.	CATL	56	Sharma, I.	ORGN	92
Shah, S.	CATL	437	Shangguan, J.	I&EC	78	Sharma, J.	ANYL	175
Shah, S.	COLL	140	Shank, N.	POLY	126	Sharma, K.	ORGN	227
Shah, S.	COLL	645	Shank, N.	POLY	573	Sharma, L.	ENFL	132
Shah, Y.V.	ORGN	48	Shankar, R.	POLY	429	Sharma, M.	BIOL	93
Shahami, M.	CATL	492	Shankel, S.	POLY	581	Sharma, M.	BIOT	137
Shahbazi, S.	NUCL	23	Shankles, P.	ANYL	395	Sharma, N.	ENVR	376
Shaheen, S.	GEOC	232	Shanks, B.	I&EC	25	Sharma, P.	PHYS	95
Shahin, Z.	CARB	63	Shanks, B.H.	CATL	518	Sharma, P.	COLL	270
Shahkaramipour, N.	ENVR	121	Shanks, B.H.	I&EC	26	Sharma, P.	BIOL	82
Shahkaramipour, N.	PMSE	189	Shankwitz, J.	ANYL	120	Sharma, R.	COLL	609
Shahrabani, E.	CHED	783	Shankwitz, J.E.	CHED	488	Sharma, R.K.	INOR	1286
Shahrudin, S.	I&EC	42	Shanmugasundaram, V.	COMP	170	Sharma, R.K.	CATL	189
Shahrudin, S.	I&EC	46	Shantz, D.F.	CATL	336	Sharma, R.	PMSE	614
Shaibu, R.O.	BIOL	230	Shantz, D.F.	CATL	492	Sharma, S.	INOR	118
Shaik, S.	CHED	1820	Shantz, D.F.	CATL	494	Sharma, S.	INOR	137
Shaikh, N.	GEOC	179	Shantz, D.F.	CATL	528	Sharma, S.C.	BIOL	5
Shaikh, S.	INOR	76	Shantz, D.F.	I&EC	83	Sharma, S.	COLL	99
Shakhashiri, B.Z.	ENVR	323	Shao, B.	ORGN	593	Sharma, S.	ANYL	53
Shakib, F.A.	COMP	329	Shao, M.	COLL	606	Sharma, S.	CELL	74
Shaktah, R.	ORGN	418	Shao, N.	COLL	443	Sharma, S.	MEDI	151
Shakya, R.	ANYL	76	Shao, Y.	COLL	313	Sharma, V.K.	ENVR	205
Shakya, R.	ANYL	78	Shao, Y.	ANYL	378	Sharma, V.K.	ENVR	206
Shakya, R.	ANYL	79	Shao, Z.	BIOT	548	Sharma, V.K.	ENVR	296

Shen, X.	GEOC	171	Sherrill, C.D.	MEDI	28	Shi, X.	PMSE	522
Shen, Y.	COLL	367	Sherrill, C.D.	PHYS	305	Shi, X.	POLY	443
Shen, Y.	COLL	461	Sherrill, C.D.	PHYS	424	Shi, X.	POLY	464
Shen, Y.	COLL	497	Sherrill, C.D.	PHYS	515	Shi, X.	ORGN	154
Shen, Z.	ANYL	456	Sherrrod, Z.	CHED	604	Shi, X.	ORGN	159
Shen, Z.	ENFL	183	Sherry, D.	INOR	419	Shi, X.	ORGN	381
Shen, Z.	BIOT	61	Sherwood, J.	BIOT	129	Shi, X.	CELL	379
Shen, Z.	PMSE	401	Sheu, B.	PHYS	407	Shi, Y.	POLY	741
Shen, Z.	PMSE	416	Sheumaker, P.	CHED	383	Shi, Y.	INOR	67
Shen, Z.	PMSE	571	Shevchenko, E.	COLL	505	Shi, Y.	CATL	312
Shenderova, O.	PHYS	647	Shevchuk, O.	POLY	45	Shi, Z.	MEDI	66
Shendre, S.	POLY	737	Shevlin, P.	CHED	1292	Shi, Z.	ENVR	225
Sheng, E.	AGFD	14	Shevlin, P.	COLL	189	Shi, Z.	CELL	391
Sheng, E.	ANYL	199	Shevlin, S.	CATL	439	Shi, Z.	POLY	456
Sheng, H.	ORGN	12	Shewmaker, A.G.	CINF	46	Shibatomi, K.	ORGN	26
Sheng, J.	ENFL	93	Shi, A.	PMSE	174	Shibl, M.	ENFL	525
Sheng, R.	ANYL	97	Shi, C.	PMSE	249	Shibukawa, M.	ANYL	95
Sheng, W.	ENFL	363	Shi, C.	ANYL	221	Shibuta, Y.	COLL	444
Sheng, Y.	ANYL	371	Shi, C.	ANYL	222	Shibuya, Y.	POLY	633
Sheng, Y.	BIOT	413	Shi, C.	ANYL	363	Shiel, A.E.	ENVR	554
Shepard, A.	BIOL	191	Shi, C.	BIOT	78	Shields, A.	COMP	257
Shepard, S.	INOR	550	Shi, C.	ENVR	692	Shields, A.	NUCL	73
Sheperd, P.	CHED	1189	Shi, C.	MEDI	390	Shields, A.	NUCL	95
Shephard, H.E.	MEDI	64	Shi, D.	CATL	504	Shields, C.	COLL	486
Shephard, H.E.	MEDI	359	Shi, D.	AGFD	137	Shields, D.	ORGN	519
Shepherd, E.	MEDI	57	Shi, G.	ANYL	336	Shields, S.	MPPG	15
Shepherd, J.	BIOT	146	Shi, H.	CHED	1263	Shif, J.A.	COLL	3
Shepherd, R.	PMSE	554	Shi, H.	MEDI	20	Shih, A.	COMP	15
Shepherd, S.L.	INOR	238	Shi, H.	CHED	674	Shih, A.J.	I&EC	54
Shepherd, T.D.	CHED	887	Shi, H.	CHED	725	Shih, J.	ORGN	743
Shepherd, T.D.	CHED	1942	Shi, H.	CHED	1348	Shih, W.	INOR	887
Shepler, B.	CHED	2007	Shi, H.	CATL	3	Shih, W.	INOR	1201
Sheppard, D.	PHYS	388	Shi, J.	CELL	115	Shilling, L.	CHED	32
Sheppard, K.	CHED	188	Shi, J.	CELL	132	Shilts, K.	COLL	106
Sheppard, P.	CHED	27	Shi, J.	ORGN	659	Shim, B.S.	PMSE	294
Sher, M.	ANYL	6	Shi, J.	CATL	548	Shim, J.	AGFD	47
Sher, P.M.	ORGN	303	Shi, J.	CATL	301	Shim, J.	BIOT	405
Sherazi, S.	BIOL	244	Shi, J.	BIOL	154	Shim, M.	COMP	14
Sherer, E.C.	COMP	57	Shi, K.	ENVR	146	Shimabuku, K.	ENVR	74
Sherer, E.C.	WCC	14	Shi, K.	INOR	740	Shimabuku, K.	ENVR	431
Sherer, E.	COMP	181	Shi, L.	CARB	78	Shimeta, J.	ENVR	786
Sherer, S.	CHAS	44	Shi, L.	COMP	421	Shimizu, K.	PHYS	235
Sheridan, M.V.	INOR	1066	Shi, Q.	MEDI	6	Shimizu, K.	PHYS	657
Sheridan, P.M.	CHED	1730	Shi, Q.	MEDI	36	Shimizu, K.	CATL	17
Sheridan, P.M.	CHED	1731	Shi, Q.	ENFL	53	Shimizu, M.	CELL	4
Sherif, Z.	CHED	652	Shi, Q.	ENFL	99	Shimizu, M.	CELL	334
Sherlock, C.	CHED	1391	Shi, R.	ENFL	277	Shimizu, Y.	MEDI	133
Sherman, A.K.	COLL	251	Shi, R.	ENFL	495	Shimojo, F.	COLL	444
Sherman, B.	INOR	1069	Shi, W.	PMSE	483	Shimokawa, K.	PMSE	325
Sherman, B.J.	INOR	1066	Shi, W.	PMSE	589	Shimokawa, K.	PMSE	202
Sherman, D.H.	CARB	88	Shi, X.	POLY	727	Shin, K.	INOR	793
Sherman, M.C.	PHYS	542	Shi, X.	ANYL	313	Shin, K.	BIOT	422
Sherman, W.	BIOL	141	Shi, X.	COLL	304	Shin, M.	ENFL	50
Sherriff, N.K.	GEOC	275	Shi, X.	COLL	683	Shin, M.	BIOL	227
Sherrill, C.D.	MEDI	27	Shi, X.	PMSE	254	Shin, S.	ANYL	115

Shin, S.	COMP	13	Shoemaker, B.	CINF	4	Shrestha, S.	ENFL	204
Shin, S.	PHYS	517	Shoemaker, J.A.	ENVR	470	Shrestha, S.	ENFL	340
Shin, S.	COLL	336	Shoff, K.	CHED	1619	Shrestha, S.	ENFL	378
Shin, S.	COLL	601	Shoff, K.	CHED	1838	Shrestha, T.B.	MEDI	354
Shin, T.	ENVR	610	Shogbon, C.	ANYL	90	Shrestha, T.B.	BIOL	110
Shin, Y.	GEOC	24	Shoichet, B.	COMP	400	Shrestha, U.	INOR	1327
Shin, Y.	INOR	1367	Shoichet, M.S.	BIOT	463	Shrestha, U.R.	COMP	355
Shin, Y.	MEDI	142	Shoichet, M.S.	PMSE	542	Shrikhande, G.	POLY	522
Shin, Y.	COMP	44	Shoichet, M.S.	PMSE	597	Shroeder, C.	CATL	493
Shinada, M.	COLL	308	Shoichet, M.S.	POLY	514	Shrout, J.	ANYL	70
Shinde, A.	ENFL	244	Shoji, A.	POLY	674	Shtoyko, T.	CHED	399
Shinde, S.	CELL	218	Shoji, O.	INOR	922	Shu, Y.	MEDI	373
Shinkazh, O.	BIOT	317	Shoji, O.	INOR	923	Shu, Y.	CATL	223
Shinn, C.	CHED	369	Shoji, O.	INOR	1021	Shu, Z.	BIOL	119
Shinnar, A.E.	CHED	2172	Shoji, T.	ENVR	217	Shuai, D.	ENVR	122
Shiotani, T.	BIOT	326	Shokat, K.M.	CHED	694	Shuai, D.	ENVR	254
Shiozaki, T.	PHYS	20	Shokoya, E.	CHED	1653	Shuai, D.	ENVR	277
Shiozaki, T.	PHYS	304	Sholl, D.	CATL	1	Shuai, D.	ENVR	392
Shiple, E.	CHED	732	Shoman, M.E.	BIOL	224	Shubert, S.	INOR	241
Shiple, E.	CHED	1713	Shoman, M.E.	MEDI	406	Shuford, K.L.	COLL	139
Shiple, E.	CHED	1723	Shomglin, K.	BIOT	541	Shuford, K.L.	INOR	977
Shiple, N.	POLY	418	Shon, J.	INOR	1194	Shukla, A.A.	BIOT	279
Shipp, D.A.	POLY	101	Shong, B.	COLL	447	Shukla, A.A.	BIOT	281
Shipp, D.A.	POLY	235	Shores, M.P.	INOR	512	Shukla, M.K.	ENVR	446
Shipp, D.A.	POLY	238	Shores, M.P.	INOR	1377	Shukla, M.K.	ENVR	558
Shirahata, T.	ORGN	521	Shorish, Y.L.	CHED	2018	Shukla, M.K.	ENVR	707
Shirasawa, R.	CINF	111	Short, A.	CHED	616	Shukla, M.K.	ENVR	709
Shiratori, S.	COLL	215	Short, C.	CHED	529	Shulda, S.	ENFL	391
Shiratori, S.	COLL	240	Short, G.	POLY	584	Shuler, M.L.	BIOT	450
Shiratori, S.	COLL	702	Short, G.	POLY	711	Shull, K.R.	POLY	645
Shiratori, S.	COLL	751	Shortlidge, E.E.	CHED	138	Shulman, I.	POLY	647
Shirazi, F.	ENVR	715	Shoseyov, O.	CELL	30	Shultz, M.J.	COLL	147
Shirazinejad, C.	PHYS	333	Shoseyov, O.	CELL	136	Shultz, M.J.	PHYS	503
Shirke, A.	BIOT	133	Shotton, E.J.	COLL	665	Shultz, Z.	MEDI	377
Shirkey, J.	BIOT	424	Shoty, W.	ENVR	476	Shumaker-Parry, J.S.	COLL	198
Shirkey, J.	CHED	745	Shoukry, M.	CHED	1075	Shumaker-Parry, J.S.	COLL	253
Shirley, H.	INOR	1070	Shoulders, M.	BIOL	254	Shumaker-Parry, J.S.	COLL	272
Shirley, H.	INOR	1075	Shoulders, M.	BIOL	300	Shumaker-Parry, J.S.	COLL	302
Shirley, H.	INOR	1299	Shoulders, M.	BIOL	301	Shuman, N.	PHYS	191
Shirley, H.P.	ENFL	392	Shoulders, M.	BIOL	302	Shumlas, S.L.	INOR	1063
Shirman, E.	CATL	276	Shoup, D.N.	COLL	203	Shuoping, D.	CATL	311
Shirman, T.	CATL	276	Shoval, S.	CELL	30	Shuoping, D.	CATL	312
Shiro, Y.	INOR	922	Shrader, S.	ANYL	408	Shuoping, D.	CATL	314
Shiro, Y.	INOR	923	Shreiber, S.	CHED	1918	Shurtleff, V.W.	ORGN	355
Shishido, Y.	MEDI	157	Shreiber, S.	ORGN	153	Shusterman, G.P.	CHED	138
Shishlov, A.	POLY	564	Shrestha, A.	MEDI	50	Shusterman, J.	NUCL	7
Shivakumar, D.	COMP	416	Shrestha, A.	MEDI	209	Shusterman, J.A.	NUCL	5
Shivokevich, P.	INOR	871	Shrestha, A.	INOR	966	Shustova, N.B.	INOR	37
Shivokevich, P.	INOR	1098	Shrestha, A.	INOR	584	Shustova, N.B.	INOR	94
Shkrob, I.A.	PHYS	399	Shrestha, A.	INOR	902	Shustova, N.B.	INOR	623
Shkurenko, A.	INOR	727	Shrestha, J.P.	MEDI	212	Shuto, S.	BIOL	163
Shmeliov, A.	COLL	55	Shrestha, L.	PMSE	48	Shuto, S.	MEDI	157
Shmunes, M.	INOR	1320	Shrestha, R.	MEDI	148	Shuttleworth, J.	ANYL	70
Shoaf, A.L.	PHYS	601	Shrestha, R.	CHED	720	Shuyu, M.	ORGN	50
Shoda, S.	CELL	62	Shrestha, R.	MEDI	273	Shwarz, E.	CELL	360

Shyue, J.	ANYL	135	Sievers, C.	CATL	1	Silver, P.	INOR	128
Si, C.	PHYS	532	Sievers, C.	CATL	199	Silver, S.	CHED	1757
Si, J.	PHYS	494	Sievers, C.	CATL	441	Silver, S.	POLY	652
Si, L.	ENVR	557	Siewert, I.	INOR	120	Silver, S.C.	CHED	151
Siade, A.	GEOC	90	Siewert, I.	INOR	447	Silver, S.C.	CHED	648
Siahrostami, S.	CATL	478	Sigman, M.S.	ENFL	101	Silverman, B.R.	BIOT	406
Siahrostami, S.	CATL	481	Sigman, M.S.	ORGN	89	Silverman, J.A.	PROF	50
Siahrostami, S.	CATL	533	Sigman, M.S.	ORGN	271	Silverman, J.R.	CATL	93
Siangproh, W.	ANYL	455	Sigman, M.S.	ORGN	514	Silverstein, M.S.	PMSE	166
Sibakoti, T.R.	ANYL	181	Sigman, M.S.	ORGN	614	Silverstein, M.S.	PMSE	176
Sibbald, P.A.	ORGN	506	Sigmann, S.B.	CHAS	16	Silverstein, M.S.	POLY	615
Sibbick, J.	ANYL	171	Sigmann, S.B.	CHED	805	Silverstein, M.S.	POLY	656
Sibener, S.J.	CATL	152	Sigmann, S.B.	CHED	2023	Silverstone, H.J.	PHYS	2
Sibert, E.L.	YCC	19	Sigmon, G.	NUCL	18	Silvestre, A.	CELL	149
Sibi, M.P.	ORGN	121	Sigurdson, J.	CHED	1281	Silvestre, A.	CELL	361
Sibley, D.	MEDI	180	Sihlbom, C.	MEDI	33	Silvestri, E.	CHED	1251
Sica, A.	CHED	602	Sika, A.	ENVR	41	Silvestrov, P.	COMP	240
Sica, A.	CHED	1839	Sika, A.	I&EC	110	Silvestry Padilla, P.N.	CHED	1830
Siccardi, A.	ENVR	742	Sikes, H.	BIOT	566	Sim, M.	GEOC	135
Siciliano, S.	GEOC	102	Sikes, H.D.	BIOT	152	Sim, U.	COLL	156
Sickerman, N.	INOR	1017	Sikka, S.C.	AGFD	131	Sim, Y.	CELL	226
Siddel, D.	POLY	314	Sikligar, K.	INOR	641	Simanova, A.	GEOC	239
Siddiq, M.	PHYS	509	Sikma, R.E.	INOR	1028	Simas, A.B.	CARB	65
Siddiqui, S.	CHED	2198	Sikma, R.E.	INOR	1046	Simberg, D.	COLL	5
Sidhu, G.	MEDI	299	Sikma, R.E.	INOR	715	Simes, M.	CHED	1175
Sidler, D.	COMP	37	Sik Shin, W.	ENVR	653	Simister, R.	GEOC	151
Sidler, D.	COMP	217	Sik Shin, W.	ENVR	775	Simister, R.	GEOC	227
Sidorenko, A.	COLL	599	Sil, D.	INOR	919	Simkhada, B.	INOR	242
Sidorenko, A.	COLL	612	Silakov, A.	INOR	788	Simmer, R.	ENVR	538
Siebecker, M.	GEOC	158	Silan, C.	MEDI	135	Simmonett, A.C.	PHYS	424
Sieburth, S.M.	ORGN	23	Silan, C.	PMSE	429	Simmons, B.A.	ENFL	13
Sieburth, S.M.	ORGN	257	Silar, N.L.	INOR	1203	Simmons, B.A.	PHYS	65
Sieck, S.R.	CHED	1527	Silberg, J.J.	ENVR	750	Simmons, B.J.	ORGN	45
Sieck, S.R.	CHED	1536	Silcock, A.	CHAS	35	Simmons, C.	AGFD	26
Sieck, S.R.	CHED	1548	Silcock, P.	AGFD	206	Simmons, C.	CARB	42
Siefker, D.	POLY	355	Silenski, M.	CHED	1827	Simmons, D.P.	CHED	1276
Siegal, H.	ENFL	384	Siletti, C.A.	BIOT	381	Simms, J.D.	CHED	1357
Siegel, A.	ANYL	250	Siletti, C.A.	BIOT	382	Simocko, C.K.	POLY	22
Siegel, A.	ANYL	369	Siletti, C.A.	ENFL	353	Simon, G.	POLY	653
Siegel, A.	ANYL	370	Siletti, C.A.	ENFL	354	Simon, J.	FLUO	68
Siegel, C.	COMP	109	Silks, L.A.	ENFL	404	Simon, J.	AGFD	231
Siegelman, R.	INOR	621	Sillart, S.	CHED	1389	Simon, S.N.	CHED	1638
Siegelman, R.	INOR	1218	Silva, A.S.	CHED	326	Simon, S.	HIST	36
Sieghart, W.	MEDI	113	Silva, A.S.	CHED	1998	Simon, U.	POLY	376
Siegrist, H.	ENVR	293	Silva, C.	COLL	625	Simon, Y.C.	PMSE	355
Siek, S.	INOR	1299	Silva, J.	MEDI	75	Simon, Y.C.	PMSE	396
Siemes, E.	POLY	381	Silva, N.H.	CELL	235	Simon, Y.C.	PMSE	507
Siepmann, I.V.	CHED	1100	Silva, N.H.	CELL	315	Simon, Y.C.	POLY	119
Siepmann, J.I.	COLL	192	Silva, P.J.	AGFD	7	Simon, Y.C.	POLY	571
Siepmann, J.I.	COLL	727	Silva, W.	ANYL	312	Simon, Y.C.	POLY	579
Siepmann, J.I.	I&EC	70	Silveira, R.L.	COLL	66	Simon, Y.C.	POLY	580
Siepmann, J.I.	I&EC	141	Silveira, R.L.	COLL	230	Simon, Y.C.	POLY	629
Siepmann, J.I.	PHYS	655	Silver, J.E.	MEDI	108	Simon, Y.C.	POLY	749
Siepmann, T.	SCHB	6	Silver, J.E.	MEDI	154	Simon Araya, S.	ENFL	324
Siercke, M.	PHYS	17	Silver, P.	BIOT	9	Simonato, J.	COLL	435

Simone, O.M.	ORGN	698	Singh, K.	ENVR	167	Sirianni, D.	PHYS	424
Simonetti, A.	GEOC	195	Singh, M.	MEDI	277	Sirimulla, S.	COMP	111
Simonetti, A.	GEOC	212	Singh, N.	INOR	611	Sirirak, J.	INOR	1375
Simonetti, A.	GEOC	213	Singh, N.	BIOT	181	Siriwardana, N.	CHED	1270
Simonetti, A.	GEOC	214	Singh, N.	BIOT	307	Sirk, T.W.	POLY	341
Simon-Friedt, B.R.	AGFD	157	Singh, N.	BIOT	358	Siro Brigiano, F.	PHYS	259
Simons, C.L.	ORGN	39	Singh, N.	BIOT	376	Siro Brigiano, F.	PHYS	489
Simons, M.	CATL	194	Singh, N.	BIOT	444	Siska, C.	BIOT	120
Simon Sarkadi, L.	HIST	9	Singh, N.	BIOT	447	Sisko, E.	CHED	1372
Simon Sarkadi, L.	HIST	23	Singh, P.	BIOT	355	Sisodiya, S.	ORGN	48
Simonson, H.	CATL	187	Singh, P.	ENVR	168	Sissay, A.	PHYS	646
Simonson, J.M.	GEOC	188	Singh, R.	YCC	12	Sita, L.R.	INOR	374
Simonutti, R.	POLY	673	Singh, R.	MEDI	336	Sita, L.R.	PMSE	584
Simpson, A.	ENVR	435	Singh, R.	BIOT	430	Sitarik, I.	CHED	1921
Simpson, F.M.	INOR	27	Singh, R.	BIOT	431	Sitaula, S.	MEDI	100
Simpson, H.	CHED	679	Singh, R.	BIOT	490	Sitaula, S.	CHED	124
Simpson, I.	MEDI	293	Singh, S.	CATL	173	Sitkoff, D.	MEDI	27
Simpson, L.W.	BIOT	527	Singh, S.	CHED	1522	Sitkoff, D.	MEDI	28
Simpson, M.	POLY	794	Singh, S.	BIOT	523	Sitong, L.	MEDI	379
Simpson, S.	ANYL	165	Singh, V.	ENVR	376	Sittaramane, V.	CHED	1329
Simpson, S.	BIOT	155	Singh, Y.	CARB	23	Sittenfeld, D.F.	CHED	2166
Simpson, S.	I&EC	45	Singha, P.	COLL	750	Sitterle, P.	POLY	616
Simpson, S.	INOR	508	Singiser, R.H.	CHED	668	Sitterley, K.	ANYL	389
Sims, H.	PMSE	370	Singleton, S.	GEOC	193	Situma, C.N.	CHAS	5
Sims, M.B.	POLY	25	Singleton, D.A.	CHED	867	Siu, B.	PHYS	25
Sims, M.B.	POLY	212	Singleton, M.J.	ENVR	465	Siu, B.	PHYS	552
Sims, P.	COLL	682	Singleton, N.	CHED	1525	Siu, P.	INOR	625
Sinclair, R.	ANYL	194	Sing-udom, P.	CELL	116	Siu, Y.	POLY	164
Sinclair, S.	CHED	1150	Sinha, A.	INOR	1337	Sivakumaran, D.	POLY	739
Sinclair, T.S.	INOR	563	Sinha, A.	MEDI	353	Sivakumaran, D.	POLY	793
Sindhikara, D.	COMP	414	Sinha, J.	POLY	36	Sivaramakrishnan, K.	ENFL	170
Sing, K.	BIOT	307	Sinha, J.	POLY	43	Sivasankarapillai, G.	CELL	263
Singamaneni, S.	ENVR	185	Sinha, J.	POLY	421	Sivells, T.	CHED	1092
Singamaneni, S.	POLY	276	Sinha, J.	POLY	492	Sivey, J.D.	CHED	973
Singer, A.	ENFL	181	Sinha, J.	POLY	732	Sivey, J.D.	CHED	974
Singer, D.	GEOC	118	Sinha, S.	POLY	86	Sivey, J.D.	ENVR	479
Singer, K.	ENFL	514	Sinha, S.	INOR	116	Sivey, J.D.	ENVR	484
Singer, P.C.	ENVR	5	Sinha Roy, S.	INOR	380	Sivy, T.	CHED	564
Singer, S.L.	ENVR	427	Sinniah, K.	ORGN	289	Sivy, T.	CHED	2150
Singer, S.L.	ENVR	664	Sinniah, R.	MEDI	11	Siwabut, N.	INOR	607
Singh, A.R.	ENFL	178	Sinsabaugh, R.	BIOL	68	Siwabut, N.	INOR	973
Singh, A.	CELL	250	Sinuco Leon, D.C.	AGFD	46	Siwak, M.	BIOT	71
Singh, A.	COLL	489	Sipes, M.	CHED	948	Siwek, A.	FLUO	5
Singh, A.J.	COLL	432	Sipila, J.	CELL	110	Sixta, H.	CELL	99
Singh, A.	ENFL	545	Sipila, J.	CELL	119	Sixta, H.	CELL	264
Singh, A.	ORGN	691	Sipila, J.	CELL	135	Sixta, H.	CELL	326
Singh, A.	MEDI	117	Sipponen, M.	CELL	288	Sizemore, H.E.	CHED	546
Singh, A.	NUCL	8	Sipponen, M.	CELL	290	Skaanild, M.T.	MEDI	223
Singh, D.	INOR	1356	Siqueira, G.	CELL	314	Skaar, S.	CHED	664
Singh, D.	ANYL	40	Siraj, N.	ANYL	284	Skaggs, C.	ANYL	103
Singh, I.	ENFL	162	Siraj, N.	ANYL	355	Skala, S.	MEDI	6
Singh, J.	AGFD	215	Siraj, N.	ENFL	458	Skala, S.	MEDI	297
Singh, J.	COLL	217	Siraj, N.	PHYS	480	Skalak, K.J.	GEOC	84
Singh, K.	ORGN	349	Siramdas, R.	COLL	137	Skanthakumar, S.	NUCL	19
Singh, K.	ORGN	407	Siramdas, R.	INOR	819	Skanthakumar, S.	NUCL	46

Skapin, T.	FLUO	19	Sletten, E.	POLY	299	Smith, A.B.	ORGN	357
Skeels, M.C.	CHED	392	Slininger Lee, M.	BIOT	225	Smith, A.	BIOL	55
Skelton, A.A.	COMP	412	Slipchenko, L.V.	PHYS	354	Smith, A.	CARB	11
Skerratt, P.A.	CHED	895	Slipher, G.	COLL	163	Smith, A.	INOR	977
Skerratt, P.A.	CHED	1843	Sliwinski, T.	MEDI	58	Smith, A.	INOR	818
Skillman, A.G.	CINF	46	Sloan, C.	CHED	756	Smith, A.	INOR	824
Skillman, A.G.	COMP	85	Sloane, M.	CINF	78	Smith, A.	INOR	1235
Skinner, S.F.	INOR	721	Slobodchikova, I.	ORGN	228	Smith, A.	CATL	160
Skinner, T.A.	CHED	1583	Slobodnik, J.	ANYL	29	Smith, A.	ORGN	598
Skobieranda, F.	MEDI	226	Slocombe, D.	ANYL	434	Smith, B.	I&EC	169
Skochko, A.R.	AGFD	84	Slocumb, H.S.	INOR	477	Smith, B.R.	INOR	1386
Skochko, A.R.	ANYL	208	Slone, C.	CHED	1544	Smith, B.	MEDI	147
Skoglar, H.	BIOT	303	Sloop, J.	CHED	2007	Smith, B.	PHYS	461
Skolik, R.	BIOL	264	Sloop, J.	CHED	2051	Smith, B.	CHED	561
Skolnick, J.	ORGN	39	Slough, D.	COMP	376	Smith, C.	CHED	1742
Skolrood, L.	CHED	444	Slowing, I.I.	CATL	350	Smith, C.J.	FLUO	73
Skompska, M.	CATL	453	Slowing, I.I.	CATL	485	Smith, C.	ANYL	444
Skorupska, M.	MEDI	407	Slowing, I.I.	INOR	489	Smith, C.J.	PHYS	450
Skorupskii, G.	INOR	1332	Slupsky, C.	AGFD	148	Smith, C.J.	PHYS	454
Skotty, J.	CELL	282	Sløk, F.A.	ORGN	716	Smith, C.R.	CHED	1598
Skouteris, D.	PHYS	190	Smaldone, R.	PMSE	411	Smith, C.	CHED	1823
Skouteris, D.	PHYS	257	Smaldone, R.	PMSE	477	Smith, C.	PMSE	140
Skrabalak, S.E.	COLL	417	Smaldone, R.A.	PMSE	310	Smith, C.	POLY	653
Skrabalak, S.E.	COLL	737	Smaldone, R.A.	PMSE	336	Smith, D.	MEDI	297
Skrabalak, S.E.	INOR	823	Smaldone, R.A.	PMSE	399	Smith, D.G.	PHYS	305
Skreiberg, Ø.	ENFL	14	Smaldone, R.A.	PMSE	579	Smith, D.G.	PHYS	424
Skudas, R.	BIOT	100	Small, L.S.	COLL	640	Smith, D.G.	PHYS	515
Skudas, R.	BIOT	319	Small, L.J.	INOR	624	Smith, D.L.	INOR	888
Skudas, R.	BIOT	321	Small, M.C.	BIOT	53	Smith, D.L.	ORGN	723
Skylaris, C.	COMP	82	Small, M.C.	COLL	96	Smith, D.	COLL	522
Skylaris, C.	PHYS	52	Smalley, A.L.	CHED	2138	Smith, D.K.	PROF	6
Skyner, R.	CINF	42	Smanski, M.	BIOT	15	Smith, D.	INOR	88
Slade, K.	CHED	703	Smanski, M.	BIOT	471	Smith, D.W.	POLY	426
Slade, L.	AGFD	19	Smardz, M.	CHED	1235	Smith, D.W.	POLY	428
Slade, P.	BIOT	3	Smardz, M.	CHED	1236	Smith, D.	ENFL	464
Slager, J.	POLY	32	Smeets, N.	POLY	794	Smith, E.L.	CHED	811
Slama, D.	POLY	152	Smeitink, J.	POLY	230	Smith, E.L.	CHED	1819
Slama, J.	BIOL	51	Smernoff, D.	BIOT	92	Smith, E.A.	INOR	1055
Slama, J.	MEDI	214	Smets, J.	CINF	25	Smith, E.M.	ORGN	712
Slater, M.	CINF	24	Smets, J.	POLY	104	Smith, E.	MEDI	280
Slater, M.	COMP	192	Smeureanu, G.	CHED	155	Smith, G.M.	CHED	1582
Slater, O.	CHED	763	Smiar, K.A.	CHED	800	Smith, G.	COLL	354
Slater, O.	CHED	1241	Smilen, S.H.	ORGN	712	Smith, G.	ENFL	484
Slattery, J.M.	PHYS	622	Smiley, M.	CHED	827	Smith, H.	BIOL	228
Slattery, M.	ORGN	742	Smirnov, S.	CHED	662	Smith, H.	CHED	686
Slaughter, G.	ANYL	251	Smirnova, A.	ENFL	473	Smith, H.J.	CHED	1762
Slaughter, L.M.	INOR	1412	Smirnova, E.	PMSE	362	Smith, H.T.	COMP	163
Slavney, A.	INOR	650	Smit, W.	GEOC	167	Smith, H.T.	COMP	309
Slawek, P.	PMSE	342	Smith, A.	CHED	91	Smith, H.T.	PHYS	479
Slebodnick, C.	PMSE	501	Smith, A.C.	MEDI	275	Smith, H.T.	PHYS	649
Sleck, M.	INOR	245	Smith, A.C.	ORGN	641	Smith, I.	INOR	650
Slegeris, R.	PMSE	20	Smith, A.	INOR	1111	Smith, I.	MEDI	312
Sleight, A.	INOR	772	Smith, A.	CHED	660	Smith, I.	PMSE	331
Sleighter, R.	GEOC	236	Smith, A.	CHED	1825	Smith, J.	INOR	854
Sletten, E.	CARB	48	Smith, A.B.	MEDI	12	Smith, J.	INOR	1098

Smith, J.	ORGN	85	Smith, P.E.	COMP	6	Snaider, J.	PHYS	366
Smith, J.A.	MEDI	277	Smith, P.J.	ENVR	535	Snead, W.	COLL	636
Smith, J.	AGFD	224	Smith, P.R.	BIOT	140	Sneider, Y.G.	CATL	135
Smith, J.M.	CHED	453	Smith, P.R.	BIOT	354	Snetsinger, P.A.	CHED	980
Smith, J.	CHED	1329	Smith, P.R.	BIOT	388	Snetsinger, P.A.	ENVR	625
Smith, J.	CELL	8	Smith, P.R.	BIOT	456	Snider, J.	ANYL	136
Smith, J.	COMP	355	Smith, R.	POLY	644	Snider, T.	ANYL	113
Smith, J.O.	CATL	289	Smith, R.A.	MEDI	45	Snier, Z.J.	CHED	99
Smith, J.D.	COLL	417	Smith, R.D.	CATL	508	Snow, D.D.	ENVR	487
Smith, J.D.	INOR	823	Smith, R.	ORGN	198	Snow, D.D.	GEOC	93
Smith, J.E.	CHED	1339	Smith, R.	ENVR	244	Snow, S.	ENVR	238
Smith, J.E.	COLL	231	Smith, R.J.	PMSE	47	Snowden, J.	CHED	1846
Smith, J.M.	INOR	988	Smith, S.	INOR	302	Snowden-Swan, L.	CATL	396
Smith, J.S.	COMP	54	Smith, S.K.	ENVR	79	Snurr, R.	CATL	24
Smith, J.S.	COMP	264	Smith, S.K.	ENVR	661	Snurr, R.	CATL	137
Smith, J.S.	COMP	276	Smith, S.R.	COLL	338	Snurr, R.	CATL	407
Smith, J.S.	PHYS	253	Smith, S.R.	COLL	409	Snurr, R.	COMP	61
Smith, K.	CHED	1248	Smith, S.R.	PROF	23	Snurr, R.	I&EC	70
Smith, K.	ORGN	107	Smith, S.R.	INOR	182	Snurr, R.	I&EC	72
Smith, K.	CHED	996	Smith, S.A.	CHED	837	Snurr, R.	INOR	505
Smith, K.	PHYS	464	Smith, S.A.	CHED	1734	Snyder, C.	INOR	888
Smith, K.C.	CHED	186	Smith, S.A.	COMP	258	Snyder, C.	BIOT	297
Smith, K.C.	CHED	2041	Smith, S.A.	COMP	260	Snyder, H.	BIOL	227
Smith, K.C.	CHED	2050	Smith, S.A.	COMP	263	Snyder, J.	CHED	9
Smith, K.C.	PHYS	379	Smith, S.A.	COMP	273	Snyder, L.	I&EC	161
Smith, K.	ENVR	774	Smith, S.A.	COMP	274	Snyder, M.A.	BIOT	68
Smith, K.W.	PHYS	12	Smith, S.A.	COMP	288	Snyder, M.A.	BIOT	74
Smith, K.W.	PHYS	392	Smith, S.A.	COMP	289	Snyder, M.	BIOT	80
Smith, L.J.	PMSE	542	Smith, S.A.	COMP	308	Snyder, M.	BIOT	456
Smith, L.	CHED	988	Smith, S.J.	CHED	1702	Snyder, N.I.	CHED	51
Smith, L.	POLY	323	Smith, S.P.	ENVR	612	Snyder, N.I.	CHED	52
Smith, M.D.	ANYL	303	Smith, S.P.	GEOC	115	Snyder, N.I.	CHED	1424
Smith, M.	INOR	953	Smith, S.	COLL	762	Snyder, N.I.	CHED	1577
Smith, M.	CHED	150	Smith, T.H.	POLY	256	Snyder, N.I.	ORGN	169
Smith, M.	INOR	1246	Smith, W.	CHED	526	Snyder, N.I.	ORGN	586
Smith, M.	CHED	2100	Smith, Z.P.	PMSE	239	Snyder, R.L.	POLY	503
Smith, M.	ENFL	87	Smith-Carpenter, J.E.	CHED	590	Snyder, S.E.	FLUO	42
Smith, M.	ENFL	517	Smith-Carpenter, J.E.	CHED	2122	Snyder, S.A.	ENVR	477
Smith, M.	CHED	2164	Smoak, J.	CHED	902	So, H.	INOR	377
Smith, M.	CHED	1336	Smolentsev, N.	COLL	82	So, I.	PMSE	433
Smith, M.	COLL	571	Smolentsev, N.	GEOC	167	So, J.	CATL	1
Smith, M.	CHED	921	Smoliakova, I.P.	CELL	216	So, M.C.	INOR	728
Smith, M.D.	INOR	4	Smoliakova, I.P.	POLY	80	So, M.C.	INOR	730
Smith, M.J.	BIOL	44	Smoll, E.J.	PHYS	622	So, M.C.	INOR	1181
Smith, M.	INOR	138	Smotkin, E.S.	CATL	148	Soares, S.	CHED	1037
Smith, M.	INOR	202	Smoukov, S.K.	ENFL	355	Sobell, Z.	INOR	763
Smith, M.A.	CATL	349	Smoukov, S.K.	INOR	716	Sobhi, H.F.	ENFL	399
Smith, M.A.	CHED	1594	Smoukov, S.K.	INOR	1422	Sobkow, M.J.	BIOT	214
Smith, M.R.	INOR	112	Smulders, M.	COLL	773	Sobolev, A.N.	COLL	340
Smith, M.R.	INOR	468	Smyly, A.R.	COMP	258	Soboleva, T.	ORGN	417
Smith, M.R.	INOR	1285	Smyth, D.	MEDI	378	Soboleva, T.	ORGN	428
Smith, N.	CHED	1414	Smyth, M.	CELL	394	Sobolewska, S.	CHED	1106
Smith, P.J.	CHED	2027	Smyth, S.	ENVR	577	Sobus, J.	ANYL	28
Smith, P.J.	PHYS	451	Smythers, A.	CHED	894	Sobus, J.	ANYL	387
Smith, P.	PMSE	406	Smythers, A.	ENVR	533	Sobus, J.	ENVR	731

Sobus, J.	ENVR	733	Soles, C.	POLY	322	Sonberg, J.C.	ORGN	698
Sockwell, K.	NUCL	62	Soles, C.L.	PMSE	268	Song, B.	GEOC	246
Sode, K.	ANYL	354	Soles, C.L.	POLY	736	Song, C.	INOR	792
Sode, O.	CHED	850	Soliday, R.	CHED	857	Song, C.	ENFL	113
Sode, O.	CHED	853	Soligno, G.	COLL	120	Song, C.	ENFL	249
Sode, O.	COMP	314	Soliman, T.M.	BIOT	462	Song, C.	ENFL	297
Sode, O.	COMP	386	Solis-Ibarra, D.	INOR	646	Song, C.	ENFL	299
Soderberg, D.	CELL	297	Söll, D.	BIOL	299	Song, C.	ENFL	301
Soderberg, D.	PMSE	277	Sollogoub, M.	CHED	1473	Song, C.	ENFL	315
Soderholm, L.	NUCL	19	Solomon, G.C.	COLL	26	Song, E.	INOR	970
Soderholm, L.	NUCL	46	Solomon, G.C.	COLL	31	Song, H.	PMSE	241
Soderholm, L.	NUCL	48	Solomon, G.C.	COLL	343	Song, H.	CATL	319
Soderquist, R.G.	BIOT	284	Solomon, K.	BIOT	153	Song, H.	ENFL	509
Sodhi, V.	ENVR	442	Solomon, K.	BIOT	434	Song, J.M.	CATL	67
Sodupe, M.	PHYS	312	Solomon, K.	BIOT	547	Song, J.	ENVR	257
Soellner, J.	INOR	889	Solomon, R.	CHED	1247	Song, J.	ANYL	283
Soellner, J.	INOR	1196	Solomonik, E.	PHYS	81	Song, J.	COLL	613
Soergal, D.G.	MEDI	226	Solouki, T.	ANYL	383	Song, J.	ENVR	691
Soesanto, M.	ENVR	510	Solouki, T.	ANYL	392	Song, J.	INOR	339
Soeta, H.	CELL	26	Solovyov, A.	CATL	493	Song, J.	INOR	353
Sofka, H.A.	CARB	14	Solovyov, A.	INOR	75	Song, J.	CHED	863
Sogayar, M.C.	PMSE	222	Soltani, M.	PHYS	25	Song, J.	CHED	875
Soh, H.T.	ANYL	323	Soltani, M.	PHYS	552	Song, J.	CHED	882
Soh, L.	ENFL	65	Soltani, M.	PHYS	573	Song, J.	ORGN	619
Soh, M.	INOR	791	Soltani, M.	PHYS	577	Song, K.	MEDI	52
Sohail, S.H.	ANYL	246	Soltau, S.R.	CHED	1157	Song, K.	CELL	291
Sohn, B.	PMSE	392	Soltau, S.R.	INOR	911	Song, K.	ENVR	645
Sohn, D.	PMSE	207	Solti, D.	COLL	744	Song, M.	AGFD	15
Sohn, D.	PMSE	208	Soltis, A.	ORGN	640	Song, M.	MEDI	72
Sokefun, Y.	CATL	192	Soltis, J.A.	COLL	742	Song, V.	CELL	304
Sokirniy, I.	MEDI	10	Soltis, J.A.	GEOC	121	Song, W.	ENVR	46
Sokkalingam, P.	INOR	754	Soltis, J.A.	GEOC	272	Song, X.	CATL	309
Sokolik, C.	CHED	1703	Soltis, J.A.	PROF	8	Song, X.	CATL	310
Sokolik, C.	CHED	1710	Sombers, L.A.	GEOC	165	Song, Y.	CATL	98
Sokolnicki, A.	BIOT	366	Sombolestani, S.	BIOT	272	Song, Y.	CATL	374
Sokolnicki, A.	BIOT	377	Somers, A.	COLL	425	Song, Y.	ENVR	687
Sokolov, A.P.	COLL	50	Somerville, J.E.	MEDI	109	Song, Y.	INOR	45
Sokolov, A.P.	COLL	65	Somia, N.	BIOT	15	Song, Y.	POLY	649
Sokolov, A.P.	ENFL	252	Somisetti, S.	POLY	638	Song, Y.	CELL	40
Sokolov, A.P.	PMSE	64	Sommer, R.	MEDI	21	Song, Y.	PMSE	52
Sokolov, A.P.	PMSE	140	Sommer, R.	MEDI	110	Song, Y.	PMSE	424
Sokolov, A.P.	POLY	502	Sommerdijk, N.A.	POLY	295	Song, Y.	CATL	343
Sokolov, A.P.	POLY	798	Somorjai, G.A.	CATL	348	Song, Y.	ENFL	377
Sokolova, A.	COLL	725	Somorjai, G.A.	ENFL	298	Song, Y.	CATL	40
Sokolsky, M.	BIOT	465	Somoza, J.	MEDI	37	Song, Y.	CATL	105
Sokorai, K.	AGFD	83	Son, D.	COLL	667	Song, Y.	CATL	357
Solà, M.	CATL	482	Son, D.H.	COLL	509	Song, Z.	COLL	285
Solakidou, M.	ENFL	200	Son, D.H.	PHYS	242	Soni, I.	MEDI	43
Solano, D.M.	CHED	1459	Son, H.	INOR	348	Soniat, T.M.	AGFD	158
Solares, S.	ENVR	122	Son, H.	INOR	349	Sonnenberg, J.L.	PHYS	477
Solarez, S.	BIOT	202	Son, H.	INOR	350	Sonnentag, J.	ORGN	175
Solarez, S.	BIOT	410	Son, H.	INOR	821	Sönnichsen, C.	PHYS	402
Soldatova, A.	GEOC	164	Son, H.	INOR	822	Soo, Y.	COLL	443
Soldatova, A.	INOR	45	Son, J.	WCC	12	Sood, A.	BIOL	233
Soler, P.	BIOT	178	Son, Y.	ANYL	110	Sood, P.	COLL	238

Sood, R.	CHED	752	Souza, N.	ENVR	634	Spencer, M.	PHYS	378
Soong, Y.	I&EC	122	Souza, S.A.	PROF	30	Spencer, N.D.	MEDI	64
Soper, A.	AGFD	123	Souza Filho, M.M.	CELL	108	Spencer, P.	CHED	248
Soper, J.D.	INOR	119	Sow, M.	INOR	390	Spencer, P.	ENVR	357
Soper, S.A.	ANYL	316	Sow, M.	INOR	510	Spencer, R.K.	COLL	174
Sophos, J.M.	CHED	129	Sowa, S.	BIOT	486	Spergel, S.	MEDI	35
Sorauf, K.J.	CHED	937	Sowaileh, M.	MEDI	376	Spergel, S.	MEDI	178
Sorbier, L.	ENFL	95	Sowan, N.	POLY	167	Spergel, S.	MEDI	202
Sorcic, A.	NUCL	24	Sower, A.	CHED	197	Sperger, C.	CELL	260
Sorensen, K.	COLL	274	Sower, A.	CHED	1940	Sperry, H.	CHED	1625
Sorensen, K.	COLL	682	Sower, G.	CHAL	2	Speshock, J.	CHED	1188
Sorensen-Unruh, C.	CHED	129	Sowers, K.R.	ENVR	751	Speshock, J.	CHED	1192
Sorenson, S.A.	CATL	145	Sowers, T.D.	ENVR	342	Speth, T.	ENVR	771
Sorin, E.J.	COMP	250	Sowers, T.D.	GEOC	37	Spezia, R.	PHYS	259
Sorkin, H.	AGFD	25	Spaeth, A.D.	INOR	222	Spiegel, D.A.	ORGN	521
Sorlin, A.	ORGN	233	Spagnolie, S.	PMSE	526	Spiegel, M.	INOR	977
Soror, S.	MEDI	385	Spagnuolo, M.	BIOT	159	Spiehs, M.	ENVR	106
Sorourifar, F.	PHYS	452	Spagnuolo, M.	BIOT	546	Spielman-Sun, E.	ENVR	440
Soroush, A.	ENVR	119	Spahr, S.	ENVR	64	Spielman-Sun, E.	ENVR	441
Sorrell, J.	CHED	73	Spahr, Z.	CHED	1257	Spielvogel, K.D.	INOR	340
Sorrell, J.	POLY	119	Spain, S.	POLY	296	Spielvogel, K.D.	INOR	940
Sorrenti, A.	POLY	60	Spang, N.	AGFD	26	Spielvogel, K.D.	INOR	1080
Sorret, L.	COLL	634	Spang, N.	CELL	240	Spieser, C.	CHED	794
Sorte, E.G.	POLY	68	Spannenberg, A.	CATL	214	Spieser, H.	CELL	92
Sorte, E.G.	POLY	525	Spano, F.C.	PHYS	62	Spieß, H.W.	POLY	64
Sortedahhl, N.	ORGN	464	Spano, T.L.	GEOC	195	Spikes, H.A.	COLL	430
Sosa, R.	GEOC	277	Spano, T.L.	GEOC	212	Spilde, M.	GEOC	22
Sosić, I.	ORGN	67	Spano, T.L.	GEOC	214	Spiliopoulos, P.	CELL	234
Sostarecz, A.	CHED	1179	Sparks, D.L.	ANYL	462	Spink, A.	I&EC	139
Sostre, A.J.	CHED	1249	Sparks, D.L.	ENVR	342	Spiriti, J.M.	COMP	76
Sotero Esteva, J.O.	BIOT	328	Sparks, D.L.	GEOC	16	Spirk, S.	CELL	52
Soth, M.J.	MEDI	64	Sparks, D.L.	GEOC	37	Spirk, S.	CELL	75
Soth, M.J.	MEDI	359	Sparks, D.L.	GEOC	62	Spirk, S.	CELL	296
Sotiriou-Leventis, C.	PMSE	137	Sparks, D.L.	GEOC	242	Spirk, S.	CELL	336
Soto, I.	ORGN	260	Sparks, D.L.	GEOC	245	Spiro, T.G.	GEOC	164
Soto, M.	PMSE	188	Sparks, T.C.	YCC	10	Spiro, T.G.	INOR	45
Soto, M.	PMSE	235	Sparling, B.	MEDI	3	Spittle, S.	PHYS	538
Soto, V.	CHED	1817	Sparr, E.	COLL	317	Spitz, H.	CHED	495
Soto Torres, T.	CHED	1230	Sparrow, C.	INOR	293	Spitzer, N.	CHED	686
Sottos, N.R.	POLY	182	Spatafora, G.	BIOL	37	Spivak, D.	ENVR	612
Sottos, N.R.	POLY	183	Spataro, J.	ENVR	191	Spivak, D.	GEOC	115
Sotzing, G.	CHED	121	Specht, K.M.	INOR	316	Spivak, D.	POLY	271
Sotzing, G.	POLY	86	Specht, R.	PHYS	625	Spivey, J.J.	CATL	139
Soubias, O.	COLL	403	Spehar, J.M.	CHED	1173	Spivey, J.J.	ENFL	34
Soucek, M.D.	POLY	124	Speller, J.	INOR	300	Spjuth, O.	ENVR	518
Soulestin, J.	PMSE	490	Speller, N.	ANYL	284	Splan, K.E.	CHED	606
Soulsby, D.P.	CHED	719	Speltz, T.	ORGN	589	Spokoyny, A.M.	INOR	558
Soulsby, D.P.	MEDI	362	Spelz, B.	ANYL	235	Spokoyny, A.M.	PHYS	496
Sours, J.	CHED	1935	Spence, J.	GEOC	151	Spokoyny, A.M.	POLY	804
Sours, R.E.	CHED	478	Spencer, J.L.	CHED	61	Spontak, R.J.	COLL	61
Souther, J.	BIOT	164	Spencer, L.A.	CHED	559	Spontak, R.J.	PMSE	439
Southerland, W.M.	COMP	197	Spencer, L.A.	CHED	759	Spontak, R.J.	POLY	500
Southern, M.	CINF	56	Spencer, L.A.	CHED	1248	Spore, A.	CHED	1118
Souto, D.	PMSE	264	Spencer, M.K.	BIOL	58	Sporer, C.	CHED	2071
Souza, N.	ENVR	334	Spencer, M.	ENFL	517	Spradlin, S.F.	BIOL	234

Spradlin, S.F.	CHED	1848	Srivastava, I.	COLL	596	Stair, P.C.	ENFL	30
Sprague-Klein, E.	PHYS	301	Srivastava, I.	ORGN	532	Stair, P.C.	I&EC	11
Sprakel, J.	POLY	622	Srivastava, R.	ORGN	164	Staker, J.	CATL	172
Sprenger, J.	FLUO	39	Srivastava, R.	BIOT	237	Stalpaert, M.	CATL	265
Sprick, R.S.	PMSE	31	Srivastava, R.	BIOT	440	Stamatin, R.	ORGN	709
Spriet, M.R.	INOR	602	Srivastava, S.	POLY	310	Stambaugh, M.	ANYL	51
Spring, A.	BIOL	186	Srivastava, S.C.	NUCL	60	Stamford, A.W.	MEDI	257
Spring, D.R.	ORGN	227	Srivastava, V.	COLL	346	Stamp, M.	INOR	240
Springer, C.	MEDI	295	Srivastava, V.	PHYS	618	Stan, P.L.	CHED	1970
Springer, M.	CHED	1659	St, L.	COLL	247	Stana Kleinschek, K.	CELL	373
Springer, S.	MEDI	166	St. Amant, A.	POLY	560	Stana Kleinschek, K.	CELL	374
Springer, S.	MEDI	315	St. Amant, A.	POLY	581	Stana-Kleinschek, K.	CELL	93
Sproules, S.	INOR	1312	St. Clair, K.	CHED	1326	Stanard, B.	BIOT	80
Spurgeon, S.	PHYS	645	St. Onge, B.	ORGN	160	Stancil, P.	PHYS	140
Spurgeon, S.	GEOC	121	Staben, S.T.	MEDI	259	Stanco, N.	PHYS	585
Spurgus, N.W.	CHED	801	Staby, A.	BIOT	560	Standaert, R.F.	COLL	335
Spurlin, R.	CHED	626	Stacchiola, D.J.	CATL	126	Standaert, R.F.	COLL	553
Squiggins, K.	CHED	895	Stace, J.J.	CHED	1044	Standard, J.M.	PHYS	459
Squiggins, K.	CHED	1843	Stach, C.	BIOT	15	Standard, J.M.	PHYS	531
Srebnik, S.	AGFD	120	Stachel, S.	MEDI	69	Standke, S.	ANYL	446
Srebotnjak, T.	ENVR	343	Stachel, S.	MEDI	191	Stanek, J.	INOR	64
Srebro-Hooper, M.	CATL	419	Stachowiak, J.	BIOT	436	Staněk, J.	COLL	686
Srebro-Hooper, M.	PHYS	330	Stachowiak, J.	COLL	635	Stanfield, J.K.	INOR	922
Sremaniak, L.S.	BMGT	4	Stachowiak, J.	COLL	636	Stanfill, J.	COLL	785
Sresht, V.	COMP	87	Stachura, S.M.	MEDI	35	Stanford, C.L.	CHED	2069
Sriboonpeng, P.	PMSE	435	Stachura, S.M.	MEDI	109	Stang, P.J.	INOR	541
Sridhar, J.	CHED	53	Stachurski, P.	CATL	437	Stang, P.J.	INOR	952
Sridhar, J.	CHED	1485	Stack, A.G.	GEOC	6	Stanich, C.	CHED	1963
Sridhar, J.	MEDI	190	Stack, A.G.	GEOC	7	Stanker, L.H.	AGFD	167
Sridhar, J.	MEDI	386	Stack, A.G.	GEOC	8	Stanker, L.H.	AGFD	168
Sridhar, J.	MEDI	387	Stack, A.G.	GEOC	54	Stanker, L.H.	AGFD	169
Sridhar, J.	MEDI	388	Stack, A.G.	GEOC	170	Stanley, B.	BIOT	298
Sridhar, U.	PMSE	127	Stack, A.G.	GEOC	188	Stanley, C.B.	COLL	335
Sridhar, U.	PMSE	436	Stack, A.G.	GEOC	189	Stanley, D.	CHED	1564
Sridhar, V.	ENVR	515	Stack, A.G.	INOR	711	Stanley, J.L.	ORGN	443
Srinivas, K.	CELL	274	Stack, T.D.	INOR	536	Stanley, J.	CHED	382
Srinivasan, R.	CHED	518	Stadler, B.	INOR	1191	Stanley, L.M.	CHED	1401
Srinivasan, R.	CHED	919	Stadnytskyi, V.	PHYS	103	Stanley, L.M.	INOR	1088
Srinivasan, R.	CHED	922	Staebler-Siewell, B.G.	CHED	475	Stanley, L.M.	ORGN	99
Srinivasan, R.	CHED	1188	Stafford, C.M.	PMSE	33	Stanley, L.M.	ORGN	693
Srinivasan, R.	CHED	1192	Stafford, C.M.	PMSE	38	Stanley, R.	ANYL	143
Srinivasan, S.	CHED	140	Stafford, C.M.	POLY	322	Stanley, R.	ENVR	574
Srinivasan, S.	CHED	2190	Stafford, D.	MEDI	270	Stanley, T.	CHED	1395
Srinivasan, S.	CHED	2196	Stafford, G.R.	PMSE	38	Stansbury, J.W.	PMSE	613
Srinivasarao, M.	PMSE	259	Stahl, S.S.	CATL	92	Stansbury, J.W.	POLY	421
Srinoi, P.	COLL	267	Stahl, S.S.	INOR	446	Stansbury, J.W.	POLY	802
Sripada, S.	BIOT	507	Stahman, J.	MPPG	10	Stanton, A.L.	POLY	83
Sriperambudur, R.	PMSE	288	Stains, C.I.	BIOL	142	Stanton, C.	ANYL	69
Srivastava, A.	CELL	159	Stains, C.I.	BIOL	204	Stanton, D.T.	CINF	25
Srivastava, A.S.	MEDI	36	Stains, C.I.	BIOL	277	Stanton, D.T.	CINF	28
Srivastava, A.S.	MEDI	367	Stains, C.I.	BIOL	312	Stanton, J.	CELL	298
Srivastava, D.J.	GEOC	209	Stains, M.N.	CHED	66	Stanton, J.F.	PHYS	252
Srivastava, I.	COLL	217	Stains, M.N.	CHED	258	Stanzione, J.F.	POLY	658
Srivastava, I.	COLL	218	Stair, P.C.	COLL	523	Stanzione, J.F.	POLY	709
Srivastava, I.	COLL	463	Stair, P.C.	COMP	61	Stapf, S.	POLY	605

Stapf, S.	POLY	606	Stec, J.	MEDI	17	Steiner, A.	INOR	1046
Staples, O.	CATL	446	Stec, J.	ORGN	46	Steiner, A.	POLY	49
Staples, O.	INOR	146	Steck, V.	INOR	68	Steiner, B.	MEDI	37
Staples, R.J.	CHED	1397	Stedmon, C.	ENVR	237	Steiner, J.D.	ENFL	184
Staples, R.J.	CHED	1399	Steeffel, C.	GEOC	66	Steiner, J.D.	I&EC	175
Stapleton, A.	CHED	1841	Steele, A.	BIOT	390	Steiner, L.M.	CELL	283
Stapleton, D.	MEDI	216	Steele, A.	ORGN	79	Steiner, L.R.	INOR	834
Starchenko, V.	GEOC	6	Steele, A.	ORGN	738	Steinhoff, B.	ANYL	235
Starchenko, V.	GEOC	8	Steele, B.A.	CHED	1243	Steinke, I.	CHED	1399
Starchman, E.	CHED	1517	Steele, D.	INOR	907	Steinkuhler, C.	MEDI	407
Starck, C.	CELL	396	Steen, A.E.	CHED	58	Steinly, S.	ENVR	524
Starcovic, S.	CHED	2163	Steen, A.E.	PHYS	535	Steinmiller, E.	CHED	1140
Stark, J.C.	BIOT	147	Steets, J.	CHED	1096	Steinruck, H.	PHYS	619
Stark, J.C.	BIOT	226	Steets, J.	CHED	1825	Steinrueck, H.	PHYS	623
Stark, J.C.	BIOT	468	Steets, J.	INOR	476	Steinschulte, A.	COLL	78
Stark, N.	CELL	345	Stefan, M.C.	PMSE	340	Stell, T.	CHED	1059
Stark, N.	CELL	367	Stefan, M.C.	POLY	146	Stella, G.	BIOT	514
Stark, T.D.	AGFD	42	Stefan, M.C.	POLY	435	Stelmack, A.	ANYL	412
Starkey, L.	CHED	2185	Stefan, M.C.	POLY	593	Stelmacovich, G.	CHED	940
Starkey, S.D.	CHED	797	Stefani, M.	ENVR	354	Stelmacovich, G.	CHED	1859
Staros, D.J.	CHED	1688	Stefanov, I.	CELL	349	Stelter, M.	ENVR	641
Staroverov, V.N.	PHYS	597	Steffen, M.	PMSE	437	Stemmer, P.	COMP	175
Stasiuk, G.	BIOL	104	Steffey, D.	CHED	971	Stemmler, E.A.	BIOL	265
Stasko, D.	CHED	1901	Stefik, M.	POLY	808	Stemp, E.D.	CHED	355
Stassen, I.	INOR	1178	Steiger, M.	CHED	278	Stemp, E.D.	CHED	550
Stateler, P.K.	BIOL	238	Steiger, M.	CHED	1327	Stemp, E.D.	CHED	552
Stateman, L.M.	ORGN	611	Steigerwald, M.L.	PHYS	562	Stemp, E.D.	CHED	592
Stateman, L.M.	ORGN	700	Steiman, T.	CATL	529	Stengel, D.	POLY	728
States, M.	CHED	1514	Steimle, B.C.	INOR	841	Stenken, J.A.	ANYL	88
Stathi, P.	ENFL	442	Stein, A.N.	POLY	720	Stenken, J.A.	ANYL	113
Statler, J.	CHED	2128	Stein, A.	INOR	283	Stennett, E.M.	CHED	966
Staton, J.	AGFD	172	Stein, B.W.	FLUO	67	Stensel, H.	GEOC	137
Staton, J.	COLL	789	Stein, B.W.	INOR	1210	Stenson, A.C.	PHYS	25
Stauber, J.	INOR	550	Stein, G.	PMSE	19	Stenström, K.E.	ANYL	123
Stauber, R.	COLL	1	Stein, G.	PMSE	90	Stenzel, M.	AGFD	160
Stauche, K.	CELL	299	Stein, G.	PMSE	351	Stepanov, V.	COLL	616
Stauffer, H.U.	PHYS	507	Stein, J.	COLL	365	Stepanova, N.	BIOT	73
Stavaas, B.L.	CHED	1649	Stein, J.	COLL	367	Stephan, D.W.	INOR	551
Stavaas, B.L.	CHED	1889	Stein, J.	INOR	596	Stephan, J.T.	INOR	234
Stavila, V.	CATL	397	Stein, K.	BIOT	566	Stephan, J.T.	INOR	235
Stavila, V.	ENFL	147	Stein, L.	PMSE	331	Stephan, J.T.	INOR	475
Stavila, V.	ENFL	277	Stein, L.Y.	INOR	48	Stephen, M.R.	MEDI	113
Stavila, V.	INOR	432	Stein, T.	PHYS	193	Stephens, A.	CHED	1871
Stavila, V.	INOR	730	Steinberg, D.	CHED	2161	Stephens, B.	COLL	63
Stavila, V.	INOR	1181	Steinberg, D.	ORGN	136	Stephens, E.	INOR	263
Stavitskaya, A.	PMSE	353	Steinberg, L.	ENVR	648	Stephens, E.A.	BIOT	88
Stavitskaya, A.	PMSE	157	Steinberg, L.	PMSE	114	Stephens, J.	INOR	170
Stavitskaya, A.	PMSE	362	Steinbock, O.	GEOC	47	Stephens, N.	CHED	1028
Stavitski, E.	CATL	199	Steinbock, O.	PHYS	420	Stephenson, C.	COMP	308
Staykova, M.	COLL	640	Steinbock, O.	POLY	58	Stephenson, C.J.	ORGN	124
Stead, D.	MEDI	94	Steinbrecher, T.B.	COMP	103	Stephenson, C.J.	ORGN	453
Steadman, M.	MEDI	308	Steinbrecher, T.B.	COMP	417	Stephenson, C.J.	ORGN	473
Steadman, N.	CHED	1801	Steinebach, F.	I&EC	17	Stephenson, C.	CATL	96
Stears, B.	I&EC	93	Steinecker, M.	PHYS	159	Stephenson, C.	ORGN	315
Stebe, K.J.	COLL	12	Steiner, A.	INOR	718	Stephenson, C.	ORGN	565

Stephenson, C.	ORGN	604	Stewart, B.	ENFL	229	Stockman, B.J.	MEDI	81
Stephenson, C.	ORGN	683	Stewart, C.	CHED	1282	Stockman, R.	ORGN	43
Stephenson, D.	CATL	228	Stewart, C.	CHED	1294	Stockman, R.	ORGN	117
Stephenson, S.	CHED	917	Stewart, C.	PMSE	240	Stockman, R.A.	ORGN	24
Stephenson, S.	CHED	532	Stewart, F.	GEOC	106	Stockman, R.A.	POLY	453
Stephenson, S.	CHED	538	Stewart, J.	BIOT	146	Stockman, R.A.	POLY	707
Stepherson, J.R.	INOR	83	Stewart, J.	BIOT	433	Stocks, M.	MEDI	411
Stercho, T.S.	CHED	1660	Stewart, J.	POLY	229	Stocksdale, M.G.	BIOL	133
Sterling, M.D.	INOR	1083	Stewart, J.L.	INOR	59	Stoddard, J.	COLL	754
Sterling, S.	POLY	565	Stewart, J.L.	INOR	61	Stoddard, S.	ORGN	432
Stern, C.L.	INOR	83	Stewart, J.L.	INOR	182	Stoddard, S.	ORGN	718
Stern, L.A.	BIOT	498	Stewart, J.L.	INOR	187	Stoddard, S.	ORGN	719
Stern, M.	ORGN	626	Stewart, J.L.	INOR	188	Stodolka, M.	CHED	1356
Stern, N.	GEOC	11	Stewart, J.D.	COMP	246	Stoeckel, D.	CELL	65
Sterner, M.	CELL	320	Stewart, K.	MEDI	180	Stoeckman, A.K.	CHED	270
Sternhagen, G.L.	POLY	277	Stewart, K.A.	CHED	1454	Stoeckman, A.K.	CHED	1256
Sternhagen, G.L.	POLY	294	Stewart, P.	AGFD	160	Stoeckman, A.K.	CHED	1258
Sterpone, F.	COMP	358	Stewart, S.	GEOC	254	Stoehr, J.	MEDI	150
Sterrer, M.	CATL	157	Stewart, T.	ENVR	665	Stoerzinger, K.	INOR	1367
Stessman, N.Y.	CHED	1553	Stewart, O.C.	INOR	1145	Stoian, S.	INOR	601
Stetson, N.	ENFL	146	Stey, P.	BIOT	79	Stoian, S.	INOR	710
Stettner, J.	CATL	181	StFort, E.	PMSE	343	Stoiljkovic, A.	POLY	147
Stetzler, J.	CHED	1898	St-Gallay, S.	MEDI	293	Stoitzner, P.	BIOL	279
Stevanovic, A.	CATL	276	Stich, T.A.	GEOC	164	Stokes, C.	MEDI	182
Stevenazzi, A.	MEDI	407	Stich, T.A.	INOR	45	Stokes, C.	MEDI	349
Stevens, C.V.	CELL	231	Stickelmaier, C.	CATL	113	Stokes, S.	CHED	88
Stevens, C.V.	ORGN	16	Stickelmaier, C.	CATL	341	Stokes, S.	CHED	1856
Stevens, C.V.	ORGN	579	Stieber, S.E.	COMP	282	Stokes, S.L.	INOR	388
Stevens, C.	BIOT	55	Stieglitz, J.T.	BIOT	151	Stokes, S.P.	CHED	1394
Stevens, D.	ANYL	298	Stigman, A.E.	ENFL	517	Stolar, M.	ORGN	637
Stevens, D.	ENVR	734	Stiff, C.M.	MEDI	14	Stolee, J.	BIOT	10
Stevens, E.D.	PHYS	467	Stillwell, B.C.	BIOL	67	Stoler, E.	CHED	314
Stevens, J.	BIOT	109	Stine, K.J.	CARB	23	Stoll, S.L.	INOR	180
Stevens, K.	POLY	279	Stingelin, N.	PMSE	465	Stoll, S.	INOR	27
Stevens, K.	POLY	555	Stinger, B.L.	PHYS	512	Stolle, A.	ENVR	641
Stevens, K.G.	ORGN	620	Stinson, T.A.	INOR	341	Stollenz, M.	INOR	607
Stevens, K.	YCC	17	Stirn, Z.	PMSE	486	Stollenz, M.	INOR	973
Stevens, L.	CHED	1481	Stirn, Z.	PMSE	539	Stoltz, B.M.	ORGN	521
Stevens, M.	COLL	493	Stirnemann, G.	COMP	358	Stoltz, B.M.	ORGN	524
Stevens, M.	POLY	177	Stiith, T.	I&EC	85	Stolz, A.	INOR	226
Stevens, T.E.	INOR	1378	Stitzel, S.E.	CHED	478	Stone, A.L.	COLL	744
Stevenson, A.	CHED	2164	St-Jean, F.	ANYL	147	Stone, A.T.	GEOC	85
Stevenson, A.	CHED	714	St John, R.	BIOT	166	Stone, D.	CHED	992
Stevenson, M.	INOR	909	Stock, R.	BIOT	384	Stone, J.	CHED	877
Stevenson, N.	ORGN	394	Stockdale, A.	BIOT	185	Stone, J.W.	CHED	345
Stevenson, N.	NUCL	57	Stockdill, J.L.	I&EC	131	Stone, J.W.	CHED	1326
Stevenson, T.C.	BIOT	147	Stockdill, J.L.	ORGN	709	Stone, J.W.	CHED	1328
Stevenson, T.M.	I&EC	115	Stockdill, J.L.	ORGN	710	Stone, J.W.	CHED	1329
Steward, K.A.	CHED	986	Stocker, K.M.	CHED	117	Stone, J.W.	CHED	1341
Steward, K.A.	ENVR	276	Stockmal, K.A.	POLY	270	Stone, J.W.	COLL	125
Stewart, A.L.	CHED	539	Stockmal, K.A.	POLY	550	Stone, K.L.	CHED	2152
Stewart, A.L.	CHED	540	Stockmal, K.A.	POLY	507	Stone, K.	AGFD	84
Stewart, A.	MEDI	39	Stockman, B.	CHED	792	Stone, K.	ANYL	208
Stewart, A.F.	POLY	429	Stockman, B.J.	MEDI	79	Stone, K.	CHED	2124
Stewart, B.	ENFL	194	Stockman, B.J.	MEDI	80	Stone, M.	BIOT	70

Stone, M.	BIOT	106	Stratis-Cullum, D.N.	COLL	96	Stromberg, C.J.	CHED	194
Stone, M.	BIOT	308	Stratis-Cullum, D.N.	ENFL	451	Stromer, B.	ENVR	511
Stone, M.	CATL	523	Stratton, J.	POLY	152	Strömme, M.	CELL	38
Stone, S.M.	INOR	1320	Straub, A.	ENVR	188	Strömme, M.	CELL	395
Stoner, J.	BIOT	70	Straub, C.	CHED	418	Strömstedt, A.A.	POLY	795
Stoner, J.P.	SCHB	17	Straub, C.T.	BIOT	221	Strong, D.	BMGT	2
Stoner, L.	MEDI	166	Straub, T.	BIOL	282	Strong, K.L.	MEDI	55
Stoner, L.	MEDI	315	Strauch, C.	POLY	691	Strong, K.	CHED	1338
Stoppelman, J.	CHED	880	Strausbaugh, M.A.	CHED	139	Strongin, D.R.	CATL	507
Stopper, A.	BIOL	245	Strauss, D.	BIOT	333	Strongin, D.R.	GEOC	246
Storage, M.	CHED	752	Strauss, D.	BIOT	479	Strongin, D.R.	INOR	833
Storey, R.F.	PMSE	372	Strauss, S.H.	FLUO	36	Strongin, D.R.	INOR	1062
Storey, R.F.	POLY	789	Stravs, M.	ANYL	32	Strongin, D.R.	INOR	1063
Stork, D.	BIOL	299	Straw, R.J.	AGFD	196	Stroock, A.	COLL	532
Stork, M.	BIOT	3	Strazewski, P.	CHED	1268	Stroock, A.	I&EC	68
Stork, M.	BIOT	190	Strecker, T.E.	MEDI	66	Strope, C.	COMP	21
Storr, T.	INOR	686	Street, C.	CHED	1243	Stroud, R.	CATL	400
Stothard, A.	CHED	1855	Street, C.	CHED	1250	Stroud, S.M.	CHED	1415
Stothard, A.I.	CARB	64	Street, D.P.	PMSE	69	Strouse, G.F.	INOR	601
Stouch, T.R.	COMP	142	Street, D.P.	PMSE	506	Strouse, G.F.	INOR	1323
Stoudt, S.J.	INOR	312	Street, R.	ANYL	51	Strouse, G.F.	INOR	1363
Stoumpos, C.	INOR	649	Street, S.	COLL	735	Strouse, G.F.	INOR	1391
Stout, L.	GEOC	39	Strefling, F.	BIOT	483	Strouse, K.	CHED	1847
Stover, M.	COMP	256	Strehmel, B.	POLY	145	Strunk, J.	I&EC	65
Stowers, K.J.	CHED	2045	Streifel, B.	PMSE	101	Struss, J.A.	CHED	1894
Stoxen, W.	NUCL	18	Streit, J.	COLL	650	Strutton, J.	PMSE	438
Stoyanov, S.	COMP	375	Streit, J.	PMSE	66	Strych, U.	BIOT	363
Stoyer, M.A.	NUCL	5	Streng, I.	ANYL	235	Stryker, E.	CHED	1423
Stoyer, M.A.	NUCL	7	Stretz, H.A.	ENVR	252	Strynar, M.	ENVR	231
Stoyko, S.S.	PROF	33	Streu, C.	CHED	1189	Strynar, M.	ENVR	314
St-Pierre, G.	CARB	79	Streu, C.	CHED	1190	Stuart, B.	ENFL	380
Straatsma, T.	COMP	117	Streu, C.	ORGN	412	Stuart, D.	FLUO	8
Stradner, A.	COLL	323	Streu, C.	ORGN	414	Stuart, R.	CHAS	16
Strahan, A.	BIOT	213	Strey, R.	COLL	459	Stuart, R.	CHED	2169
Strandman, S.	POLY	466	Strickland, J.	CHED	1199	Stuart, R.	CHED	2171
Stranick, S.	CELL	33	Strickland, K.S.	CHED	1378	Stuart, R.	CINF	38
Strano, M.	ANYL	16	Strickland, K.S.	ORGN	471	Stubb, N.	CHED	719
Strano, M.	ANYL	194	Strickley, M.B.	CHED	434	Stubbs, A.W.	INOR	1086
Strano, M.	ANYL	195	Striegel, A.M.	POLY	290	Stubbs, C.	POLY	115
Strano, M.	COLL	177	Striegler, S.	INOR	372	Stubbs, J.M.	INOR	442
Strano, M.	COLL	590	Striker, K.	CHED	1177	Stubbs, J.	CATL	84
Strano, M.	COLL	736	Striolo, A.	COLL	83	Stubbs, J.	GEOC	240
Strano, M.	ENFL	369	Striolo, A.	COLL	228	Stubbs, J.	GEOC	279
Strassner, T.	INOR	889	Striolo, A.	GEOC	280	Stubbs, J.	PHYS	410
Strassner, T.	INOR	1196	Stripe, B.	ANYL	218	Stubbs, J.M.	COMP	225
Strassner, T.	ORGN	29	Stritzinger, J.T.	INOR	1146	Stubbs, W.A.	INOR	301
Strate, A.	PHYS	293	Strobel, N.	CHED	1877	Stubelius, A.	COLL	68
Stratford, I.	MEDI	94	Stroeva, E.	GEOC	210	Stubenrauch, C.	COLL	539
Strathmann, T.J.	ENVR	135	Stroka, J.	INOR	141	Stuchell, S.	CHED	436
Strathmann, T.J.	ENVR	179	Strollo, C.M.	CHED	912	Stuchell, S.	CHED	1722
Strathmann, T.J.	ENVR	391	Strollo, C.M.	CHED	960	Stuckey, J.	ENVR	342
Strathmann, T.J.	ENVR	393	Ström, A.	CELL	104	Stuckey, J.	GEOC	37
Strathmann, T.J.	ENVR	394	Ström, J.	ENVR	451	Stucky, G.D.	INOR	461
Strathmann, T.J.	GEOC	72	Stromberg, C.J.	CHAS	4	Studart, A.	CELL	72
Stratis-Cullum, D.N.	BIOT	53	Stromberg, C.J.	CHED	27	Stueckler, F.	BIOT	130

Stuessel, K.	CHED	593	Subasinghege Don, V.	PHYS	500	Sugiyama, J.	CELL	252
Stuff, J.R.	AGFD	212	Subbarap, N.	ANYL	417	Sugiyama, Y.	COLL	587
Stuffle, E.	CHED	1294	Subbotina, E.	CATL	46	Suguri, T.	PMSE	129
Stultz, L.K.	CHED	1153	Subedi, B.	ENVR	543	Suh, J.L.	COMP	377
Stultz, L.K.	INOR	895	Subir, M.	ENVR	552	Suh, S.	CHED	1083
Stump, S.	ORGN	321	Subniak, S.	CHED	404	Suh, T.	MEDI	90
Stumpe, E.	CHED	150	Subramani, S.	ORGN	678	Suhara, R.	CELL	152
Stunkel, J.	CATL	448	Subramaniam, A.B.	COLL	179	Suhling, K.	COLL	770
Sturchio, N.C.	GEOC	86	Subramaniam, A.B.	COLL	233	Sui, N.	INOR	371
Sturgeon, B.E.	BIOL	31	Subramaniam, A.B.	COLL	254	Sui, N.	INOR	782
Sturgeon, B.E.	BIOL	60	Subramaniam, A.B.	COLL	331	Sui, S.	BIOT	296
Sturgeon, B.E.	BIOL	67	Subramaniam, B.	CATL	93	Suib, S.L.	INOR	398
Sturgeon, B.	CHED	1867	Subramaniam, B.	I&EC	12	Suib, S.L.	INOR	399
Sturgill, T.	CHED	1250	Subramaniam, B.	INOR	1269	Suib, S.L.	INOR	400
Sturm, A.	GEOC	151	Subramaniam, S.	CATL	288	Suib, S.L.	INOR	401
Styers, J.	CHED	196	Subramanian, B.	ENVR	612	Suib, S.L.	INOR	1059
Styers, M.	CHED	2072	Subramanian, B.	GEOC	115	Suib, S.L.	INOR	1368
Styler, S.A.	ENVR	116	Subramanian, G.	ENVR	446	Suiter, K.	CHED	1486
Styles, G.	AGFD	9	Subramanian, H.	ORGN	121	Suiter, K.	CHED	1809
Styring, S.	ENFL	443	Subramanian, M.	INOR	772	Suiter, K.	CHED	1810
Su, A.	INOR	980	Subramanian, N.D.	CATL	373	Suiter, K.	CHED	1811
Su, D.	ENFL	303	Subramanian, V.	PMSE	294	Sujansky, S.J.	BIOL	231
Su, H.	ENFL	74	Sucheck, S.	BIOL	217	Sujansky, S.J.	CHED	1918
Su, H.	ENVR	333	Sucomel, E.	GEOC	203	Sukanick, N.	CHED	1793
Su, J.C.	CHED	1632	Sucomel, M.R.	INOR	83	Sukhbaatar, T.	PHYS	28
Su, J.	NUCL	93	Suciu, A.	COMP	179	Sukhishvili, S.A.	PMSE	57
Su, L.	PMSE	587	Sudhakar, N.	MEDI	65	Sukumar, J.	CHED	189
Su, M.	COLL	759	Sudhakar, N.	MEDI	146	Sulca, D.	CHED	1849
Su, M.	CHED	674	Sudhakaran, R.	BIOL	248	Sulea, T.	BIOT	212
Su, M.	CHED	725	Suding, V.	ORGN	672	Sulkes, M.	PHYS	447
Su, M.	CHED	1348	Sudowe, R.	NUCL	24	Sulkowska, J.I.	PMSE	200
Su, N.	PHYS	145	Sudowe, R.	NUCL	39	Sullins, T.	CHED	136
Su, N.	PHYS	272	Sudowe, R.	NUCL	40	Sullivan, C.F.	ORGN	698
Su, N.	PHYS	605	Sudowe, R.	NUCL	85	Sullivan, C.	CHED	1564
Su, P.	MEDI	214	Sudrik, C.	BIOT	24	Sullivan, C.	CHED	1911
Su, Q.	INOR	845	Sudrik, C.	BIOT	525	Sullivan, D.	CHED	770
Su, Q.	ORGN	537	Suen, P.	BIOL	300	Sullivan, D.	BIOT	557
Su, W.	COLL	722	Suenaga, M.	ORGN	258	Sullivan, D.R.	CHED	78
Su, X.	PMSE	406	Suenaga, S.	CELL	309	Sullivan, D.R.	CHED	1939
Su, X.	ENFL	172	Sufita, J.M.	AGFD	158	Sullivan, J.	GEOC	232
Su, X.	ENFL	325	Sugai, C.	ENFL	496	Sullivan, K.	CATL	295
Su, X.	INOR	381	Sugama, J.	MEDI	133	Sullivan, K.	CATL	300
Su, X.	INOR	501	Suganuma, K.	POLY	776	Sullivan, K.	CATL	405
Su, X.	INOR	509	Sugar, J.D.	ENFL	326	Sullivan, M.R.	INOR	754
Su, X.	INOR	1075	Sugimoto, H.	INOR	922	Sullivan, M.O.	BIOT	126
Su, X.	BIOT	10	Sugimoto, H.	INOR	923	Sullivan, M.O.	BIOT	458
Su, X.	ENFL	74	Sugimoto, T.	FLUO	38	Sullivan, S.	PHYS	457
Su, Y.	CATL	188	Suginome, M.	ORGN	54	Sullivan, S.	CHED	569
Su, Y.	COLL	646	Sugita, H.	PMSE	245	Sullivan, T.	COMP	200
Su, Y.	COLL	674	Sugita, Y.	COMP	428	Sullivan, T.	COMP	201
Su, Y.	ENVR	755	Sugiuchi, M.	INOR	784	Sultan, F.	COLL	662
Su, Y.	PMSE	206	Sugiyama, F.	PMSE	578	Sultan, N.	POLY	340
Su, Y.	PMSE	255	Sugiyama, J.	CELL	42	Sulu, M.	BIOT	256
Suarez Martinez, P.C.	PMSE	105	Sugiyama, J.	CELL	139	Sum, A.K.	ENFL	551
Suazo, K.G.	BIOL	225	Sugiyama, J.	CELL	143	Suma, A.	PMSE	300

Sumerlin, B.S.	COLL	124	Sun, J.	ORGN	326	Sun, T.	POLY	609
Sumerlin, B.S.	PMSE	229	Sun, J.	ORGN	643	Sun, W.	BIOT	548
Sumerlin, B.S.	PMSE	243	Sun, J.	CATL	507	Sun, W.	CHAS	3
Sumerlin, B.S.	POLY	25	Sun, J.	PHYS	149	Sun, W.	COLL	140
Sumerlin, B.S.	POLY	200	Sun, J.	PHYS	214	Sun, W.	COLL	645
Sumerlin, B.S.	POLY	212	Sun, J.	PHYS	216	Sun, W.	INOR	815
Sumerlin, B.S.	POLY	351	Sun, J.	PHYS	604	Sun, W.	COLL	487
Sumerlin, B.S.	POLY	415	Sun, J.	BIOT	113	Sun, W.	COLL	611
Sumerlin, B.S.	POLY	416	Sun, J.	ENFL	528	Sun, W.	BIOT	370
Sumi, K.	ANYL	106	Sun, J.	ENVR	631	Sun, W.	ENFL	488
Sumkaria, D.	ORGN	41	Sun, J.	GEOC	109	Sun, W.	INOR	1219
Summe, M.	ENVR	396	Sun, J.	POLY	85	Sun, W.	I&EC	120
Summer, S.	MEDI	181	Sun, J.	AGFD	135	Sun, W.	INOR	1156
Summers, R.S.	ENVR	429	Sun, J.	AGFD	137	Sun, W.	COLL	304
Summers, R.S.	ENVR	431	Sun, J.	AGFD	138	Sun, W.	PMSE	522
Summers, T.J.	BIOL	106	Sun, K.	I&EC	101	Sun, X.	PHYS	578
Sumner, I.	CHED	857	Sun, K.	I&EC	102	Sun, X.	FLUO	47
Sumner, J.	ENFL	451	Sun, K.	PMSE	567	Sun, X.	PMSE	423
Sumner, L.	CHED	1066	Sun, K.	ENVR	171	Sun, X.	POLY	167
Sumner, L.	PHYS	564	Sun, K.	GEOC	14	Sun, X.	AGFD	135
Sumpter, B.	COLL	21	Sun, L.	BIOT	80	Sun, X.	BIOL	129
Sumpter, B.	ENFL	484	Sun, L.	INOR	1177	Sun, X.	BIOL	211
Sumpter, B.	PMSE	84	Sun, L.	ANYL	399	Sun, Y.	COLL	711
Sun, B.	CATL	16	Sun, L.	MEDI	320	Sun, Y.	BIOT	489
Sun, B.	AGFD	135	Sun, L.	MEDI	382	Sun, Y.	CINF	56
Sun, B.	AGFD	138	Sun, L.	ENVR	257	Sun, Y.	COLL	213
Sun, C.	ENFL	513	Sun, M.	ANYL	430	Sun, Y.	POLY	255
Sun, C.	ORGN	244	Sun, M.	ENVR	314	Sun, Y.	CHED	1231
Sun, C.	INOR	217	Sun, M.	ENVR	426	Sun, Y.	MEDI	371
Sun, C.	INOR	220	Sun, M.	MEDI	187	Sun, Y.	ENVR	762
Sun, C.	INOR	1116	Sun, M.	COMP	370	Sun, Y.	MEDI	295
Sun, C.	ENFL	541	Sun, M.	GEOC	39	Sun, Y.	ENVR	122
Sun, C.	ANYL	388	Sun, M.	ANYL	283	Sun, Y.	COLL	39
Sun, C.	ENVR	476	Sun, P.	ENVR	25	Sun, Y.	CARB	77
Sun, C.	INOR	321	Sun, P.	POLY	193	Sun, Y.	ENFL	293
Sun, C.	BIOT	282	Sun, P.	POLY	601	Sun, Y.	INOR	735
Sun, D.	BIOL	11	Sun, Q.	INOR	733	Sun, Y.	CATL	352
Sun, D.	INOR	907	Sun, Q.	INOR	1033	Sun, Y.	CATL	429
Sun, D.Z.	MEDI	6	Sun, Q.	MEDI	134	Sun, Y.	INOR	1403
Sun, E.	GEOC	259	Sun, Q.	BIOT	193	Sun, Y.	COLL	657
Sun, E.	GEOC	260	Sun, R.	PMSE	102	Sun, Z.	MEDI	360
Sun, G.	COLL	604	Sun, R.	POLY	433	Sun, Z.	MEDI	390
Sun, G.	CATL	33	Sun, R.	CELL	426	Sun*, Z.	POLY	34
Sun, G.	CATL	71	Sun, S.	WCC	1	Sun*, Z.	POLY	88
Sun, H.	ENVR	684	Sun, S.	ENVR	247	Sunasee, R.	CHED	1353
Sun, H.	PMSE	229	Sun, S.	COLL	739	Sun Cao, P.	MEDI	110
Sun, H.	POLY	197	Sun, S.	ENFL	366	Sunda-Meya, A.	ANYL	172
Sun, H.	MEDI	168	Sun, S.	ENFL	370	Sundar, U.	ENFL	385
Sun, H.	COMP	340	Sun, S.	INOR	816	Sundararaman, R.	CATL	80
Sun, H.	ENVR	748	Sun, S.	INOR	817	Sundararaman, R.	PMSE	30
Sun, H.	PMSE	120	Sun, S.	COLL	287	Sunday, D.F.	PMSE	33
Sun, H.	MEDI	20	Sun, S.	COLL	470	Sundberg, A.	CHED	817
Sun, H.	MEDI	91	Sun, S.	COLL	712	Sundberg, B.	ANYL	444
Sun, H.	MEDI	109	Sun, S.	COLL	719	Sundberg, D.C.	POLY	361
Sun, J.	MEDI	345	Sun, T.	ENFL	37	Sundberg, J.D.	ORGN	289

Sundhagen, S.E.	CHED	1373	Sutton, A.D.	CATL	446	Swanson, J.	CHED	2047
Sundstrom, E.	BIOT	92	Sutton, A.D.	ENFL	404	Swanson, J.	ENFL	473
Sung, E.R.	PHYS	394	Sutton, A.D.	INOR	146	Swanson, L.M.	CHED	1434
Sung, K.	BIOT	152	Sutton, C.	CATL	170	Swanson, R.	BIOT	69
Sung, L.	ENVR	87	Sutton, C.	COMP	51	Swanson, S.	POLY	152
Sung, L.	PMSE	588	Sutton, J.E.	CATL	438	Swanson, T.L.	CHED	973
Sung, S.	INOR	383	Sutton, M.	CHED	1270	Swanson, T.L.	CHED	974
Sung, S.	INOR	501	Sutton, S.	PHYS	518	Swanson, T.L.	ENVR	484
Sung, S.	INOR	1265	Suuberg, E.	ENVR	451	Sward, E.C.	CHED	1693
Sung, S.	INOR	1280	Suzol, S.	ORGN	670	Sward, E.C.	CHED	1739
Sunkara, M.	ENFL	308	Suzuki, D.	COLL	660	Sward, E.C.	CHED	1741
Sunseri, J.	COMP	320	Suzuki, D.	POLY	99	Swart, I.	COLL	193
Suon, S.	MEDI	191	Suzuki, D.	POLY	371	Swart, I.	COLL	377
Supalo, C.A.	CHED	289	Suzuki, D.	POLY	378	Swart, O.	CARB	15
Supalo, C.A.	CINF	91	Suzuki, D.	POLY	382	Swartling, D.J.	CHED	347
Supalo, C.A.	PROF	19	Suzuki, D.	POLY	384	Swartling, D.J.	CHED	797
Supek, F.	MEDI	254	Suzuki, D.	POLY	389	Swartling, D.J.	CHED	1009
Super, J.D.	CATL	396	Suzuki, D.	POLY	392	Swartz, B.M.	BIOL	130
Supnet, M.	BIOL	136	Suzuki, D.	POLY	686	Swartz, B.M.	BIOL	247
Supple, J.A.	CHED	1006	Suzuki, D.	POLY	799	Swartz, B.M.	CARB	56
Supur, M.	COLL	409	Suzuki, K.	INOR	922	Swartz, B.M.	CARB	60
Supuran, C.T.	MEDI	311	Suzuki, N.	MEDI	22	Swartz, B.M.	CARB	62
Surblys, D.	COMP	428	Suzuki, R.	MEDI	32	Swartz, B.M.	CARB	64
Sureka, H.	PMSE	8	Suzuki, S.	MEDI	90	Swartz, B.M.	CARB	66
Surendran Assary, R.	COMP	150	Suzuki, Y.	POLY	726	Swartz, B.M.	CARB	85
Surendranath, Y.	INOR	453	Suzuki, Y.	ANYL	403	Swartz, A.	BIOT	476
Surendranath, Y.	INOR	1171	Svagan, A.J.	CELL	390	Swartz, B.	CHED	1189
Suresh, A.	ENVR	674	Svård, A.	CELL	320	Swartz, J.	POLY	200
Suresh, V.	CHED	743	Svec, F.	CHED	522	Swartz, M.M.	COLL	198
Surette, M.C.	ENVR	263	Svechkarev, D.	POLY	363	Sweeder, R.	CHED	150
Surette, V.	INOR	931	Svelle, S.	CATL	15	Sweeder, R.D.	CHED	185
Suri, M.	INOR	172	Svenum, I.	CATL	439	Sweeder, R.D.	CHED	2113
Surin, M.	PHYS	155	Svenum, I.	COMP	404	Sweeney, C.	AGFD	217
Suriyanarayanan, S.	ANYL	133	Swabeck, J.K.	COLL	420	Sweeney, J.	POLY	700
Surmaitis, R.	COLL	708	Swadzba-Kwasny, M.	INOR	1251	Sweers, J.	MEDI	131
Surnar, B.	BIOL	221	Swager, T.M.	I&EC	114	Sweetman, B.	CHED	1557
Surnar, B.	MEDI	370	Swager, T.M.	INOR	657	Sweningson, S.	CHED	1794
Suryavanshi Magar, D.	INOR	223	Swager, T.M.	INOR	813	Sweningson, S.	CHED	1795
Suryavanshi Magar, D.	INOR	631	Swager, T.M.	PMSE	56	Swensen, A.	MEDI	117
Susienka, M.J.	BIOT	162	Swager, T.M.	POLY	262	Swerin, A.	COLL	165
Suslick, K.S.	ANYL	272	Swails, R.J.	CHED	1063	Swerin, A.	COLL	167
Süssenbacher, M.	CELL	52	Swails, R.J.	CHED	1065	Swerin, A.	COLL	690
Sussman, V.J.	I&EC	79	Swain, C.	CHED	1208	Swesi, A.	ENFL	330
Sutanto, C.	PMSE	493	Swain, E.B.	GEOC	110	Swett, R.	COMP	154
Sutch, T.	COLL	592	Swain, G.M.	CHED	998	Swientoniewski, L.	ENVR	718
Sutheimer, S.	CHED	257	Swallow, S.	MEDI	293	Swientoniewski, L.	PMSE	317
Sutherlin, L.	NUCL	1	Swamidass, S.	CINF	12	Swientoniewski, L.T.	COLL	11
Sutherlin, L.T.	NUCL	5	Swaminathan, S.	COMP	26	Swientoniewski, L.T.	COLL	564
Sutherlin, L.T.	NUCL	7	Swanier, J.	ANYL	213	Swientoniewski, L.T.	PMSE	321
Sutherlin, L.T.	NUCL	43	Swanner, E.D.	GEOC	107	Swienty-Busch, J.	CINF	94
Sutian, M.	ENFL	99	Swanson, B.	PMSE	22	Swierk, J.	INOR	66
Sutterfield, B.	CHED	576	Swanson, C.	ANYL	461	Swietlicki, E.	ANYL	123
Sutthirat, N.	INOR	183	Swanson, D.D.	INOR	26	Swift, A.	GEOC	209
Sutton, A.	CHAS	35	Swanson, G.	INOR	931	Swift, C.	BIOT	532
Sutton, A.D.	CATL	445	Swanson, J.	CHED	1826	Swift, E.	ORGN	204

Swift, M.	INOR	234	Szente, L.	CARB	12	Taillefert, M.	GEOC	183
Swift, M.	INOR	235	Szeto, K.C.	CATL	413	Taillefert, M.	GEOC	268
Swift, M.	INOR	475	Szkodny, A.	BIOT	385	Taillemaud, S.	ORGN	158
Swift, M.	BIOT	22	Szleifer, I.	PHYS	334	Tailor, D.	MEDI	336
Swihart, T.H.	ORGN	627	Szot, C.	ANYL	112	Taimoory, S.	PMSE	542
Swilley, S.	POLY	41	Szot, C.	ANYL	383	Tait, S.L.	CATL	294
Swilley, S.	POLY	231	Szot, C.	ANYL	392	Tait, S.L.	COLL	244
Swilley, S.	POLY	242	Szulczewski, G.	ANYL	120	Tait, S.L.	COLL	375
Swilley, S.	POLY	243	Szulczewski, G.	CHED	488	Tait, S.L.	INOR	1077
Swilley, S.	POLY	482	Szulczewski, G.	COLL	592	Taitt, B.J.	CATL	211
Swilley, S.	POLY	576	Szulzewsky, F.	CHED	632	Tajber, L.	PHYS	343
Swirsky, L.	FLUO	68	Szumski, D.	COLL	117	Tajc, S.G.	CHED	954
Swonger, K.	BIOT	426	Szwedo, S.M.	CHED	1873	Tajc, S.G.	CHED	956
Swope, W.C.	PMSE	82	Szymczak, G.V.	CHED	34	Tajc, S.G.	CHED	1546
Swords, W.	INOR	553	Szymczak, G.V.	CHED	61	Tajc, S.G.	CHED	1976
Swords, W.	INOR	1073	Szymczak, G.V.	CHED	126	Tajima, H.	CELL	42
Sworen, J.C.	POLY	204	Szymczak, G.V.	CHED	1957	Tajima, K.	PMSE	449
Syal, M.	ENVR	96	Szymczak, G.V.	CHED	2195	Tajima, K.	PMSE	457
Sychugov, I.	CELL	79	Szymczak, G.V.	CINF	97	Tajiri, H.	POLY	195
Sydlik, S.A.	PMSE	327	Szymczak, N.K.	INOR	616	Tajkhorshid, E.	COLL	355
Sydlik, S.A.	POLY	228	Ta, A.T.	COMP	207	Tajon, C.	BIOL	260
Sydora, O.L.	INOR	480	Tabassum, N.	CHED	854	Takabe, K.	CELL	137
Syed, A.	CHED	1912	Tabbaa, J.	CHED	1651	Takada, K.	POLY	760
Syed, S.B.	MEDI	106	Tabbaa, J.	ORGN	223	Takagaki, S.	POLY	461
Syed, Z.	CATL	208	Tabei, E.S.	INOR	317	Takahama, Y.	ORGN	141
Sygula, A.	POLY	426	Tabor, C.E.	COLL	696	Takahara, A.	PMSE	204
Sykes, D.G.	CHED	129	Tabor, D.P.	COMP	52	Takahashi, G.	CHED	2079
Sykes, D.G.	CHED	2021	Tabor, D.P.	YCC	19	Takahashi, K.	AGFD	50
Sykora, M.	INOR	1295	Tabor, R.	COLL	83	Takahashi, K.	AGFD	51
Sykora, M.	PHYS	370	Tabor, R.	COLL	228	Takahashi, K.	CELL	81
Sylvester, E.C.	CHED	1019	Tabor, R.	COLL	704	Takahashi, K.	CELL	124
Sylvia, A.	CHED	523	Tabor, R.	COLL	725	Takahashi, K.	PHYS	64
Sylvia, C.	CHED	725	Tachapermon, Y.	INOR	1375	Takahashi, K.	CATL	476
Symcox, M.	CHED	429	Tachibana, A.	PHYS	43	Takahashi, M.	ORGN	110
Symes, M.	ENFL	270	Tackie-Yarboi, E.	MEDI	397	Takahashi, R.	POLY	609
Sysoiev, D.	COLL	345	Tadepalli, S.	POLY	276	Takahashi, R.	COLL	79
Sytsma, T.M.	CHED	778	Taechalertpaisarn, J.	BIOL	185	Takahashi, R.	COLL	80
Syverud, K.	CELL	237	Taechalertpaisarn, J.	MEDI	70	Takahashi, R.	BIOL	121
Syverud, K.	CELL	388	Taechalertpaisarn, J.	MEDI	95	Takahashi, T.	BIOL	121
Syvret, R.G.	FLUO	29	Tafazolian, H.	MEDI	95	Takahashi, Y.	INOR	319
Szabo, A.	ENVR	667	Taft, J.R.	INOR	708	Takahashi, Y.	INOR	1254
Szabo, K.	ORGN	35	Tafti, N.D.	INOR	1396	Takai, S.	MEDI	32
Szabo, K.	ORGN	36	Taggart, M.	ENVR	102	Takai, T.	MEDI	61
Szabo, K.	ORGN	151	Taha, M.	ENVR	48	Takaki, D.C.	ENVR	346
Szabo, L.	CELL	124	Taha, M.	CELL	276	Takakura, N.	MEDI	133
Szabo, L.	CELL	124	Tahara, T.	CELL	276	Takakura, N.	MEDI	133
Szajek, S.	CHED	1315	Tahara, T.	ANYL	48	Takakusagi, S.	CATL	17
Szanyi, J.	CHED	1315	Tahara, T.	PHYS	48	Takakusagi, S.	CATL	17
Szanyi, J.	CATL	3	Tahara, Y.	PHYS	371	Takamatsu, Y.	COMP	17
Szanyi, J.	CATL	293	Tahara, Y.	MEDI	114	Takanabe, K.	I&EC	64
Szanyi, J.	CATL	293	Taheri, A.	MEDI	114	Takanabe, K.	I&EC	64
Szanyi, J.	I&EC	13	Taheri, A.	PHYS	68	Takano, R.	MEDI	379
Szczepanski, A.	I&EC	13	Tahmouesilerd, B.	PHYS	68	Takano, R.	MEDI	379
Szczepanski, A.	CHED	1565	Tahseen, D.	INOR	36	Takano, T.	CELL	152
Szczepura, L.F.	CHED	1565	Tahseen, D.	INOR	36	Takano, T.	CELL	152
Szczepura, L.F.	INOR	265	Tahsini, N.	CHED	1392	Takaoka, T.	POLY	461
Szczepura, L.F.	INOR	266	Tahsini, N.	CHED	1392	Takaoka, T.	POLY	461
Szczerba, P.	CATL	461	Taie, I.	CATL	461	Takata, T.	PMSE	96
Szczerba, P.	MEDI	191	Taie, I.	COLL	53	Takata, T.	PMSE	96
Szczodrowski, A.J.	MEDI	191	Taifan, W.	COLL	53	Takata, T.	POLY	371
Szczodrowski, A.J.	CHED	1011	Taillefert, M.	CATL	36	Takatama, K.	ANYL	106
Szczygiel, A.	CHED	1011	Taillefert, M.	CATL	36	Takatama, K.	ANYL	106
Szczygiel, A.	COLL	86	Taillefert, M.	GEOC	76	Takatama, K.	ENVR	590
Szczygiel, A.	COLL	86	Taillefert, M.	GEOC	106	Takeda, S.	PMSE	29
Szczygiel, A.	COLL	86	Taillefert, M.	GEOC	106	Takeda, S.	PMSE	29

Takeda, T.	COMP	196	Talpade, A.	ANYL	89	Tang, H.	MEDI	36
Takeichi, T.	PMSE	136	Talukdar, K.	INOR	995	Tang, J.	ENVR	760
Takeiri, F.	INOR	768	Tam, C.	AGFD	168	Tang, M.	ENVR	98
Takematsu, K.	PHYS	460	Tam, C.	AGFD	169	Tang, M.L.	PHYS	349
Takematsu, K.	PHYS	476	Tam, R.Y.	PMSE	542	Tang, M.L.	PHYS	521
Takemura, M.	CHED	790	Tam, R.Y.	PMSE	597	Tang, M.	I&EC	101
Takenaka, N.	CHED	1916	Tamang, S.R.	INOR	1099	Tang, M.	I&EC	102
Takeoka, Y.	COLL	309	Tamerius, A.	INOR	450	Tang, M.	PMSE	567
Takeoka, Y.	POLY	621	Tami, J.	INOR	236	Tang, M.	ENFL	467
Takeoka, Y.	ENFL	367	Tamizifar, M.	COLL	604	Tang, S.	BIOT	529
Takeoka, Y.	PMSE	328	Tammela, P.	CELL	38	Tang, S.	ENFL	513
Takeoka, Y.	PMSE	374	Tammelín, T.	CELL	91	Tang, S.	ORGN	222
Takeoka, Y.	PMSE	375	Tammelín, T.	COLL	539	Tang, S.	POLY	753
Takeoka, Y.	PMSE	389	Tamminen, T.	CELL	253	Tang, V.	MEDI	35
Takeoka, Y.	PMSE	409	Tamminen, T.	CELL	406	Tang, W.	ENVR	192
Takeoka, Y.	PMSE	430	Tamura, J.	CELL	59	Tang, W.	ENFL	434
Takeuchi, E.S.	ENFL	251	Tamura, Y.O.	MEDI	133	Tang, W.	COLL	778
Takeuchi, E.S.	INOR	534	Tan, J.	COLL	653	Tang, W.	CARB	42
Takeuchi, E.S.	PMSE	257	Tan, J.	ENFL	286	Tang, W.	CARB	44
Takeuchi, K.J.	ENFL	251	Tan, J.	ENFL	287	Tang, W.	CARB	45
Takeuchi, K.J.	INOR	534	Tan, J.	ENVR	724	Tang, W.	CARB	90
Takeuchi, K.J.	PMSE	257	Tan, K.	MEDI	351	Tang, W.	MEDI	215
Takeuchi, M.	CELL	4	Tan, L.	CELL	64	Tang, W.	MEDI	216
Takeuchi, Y.	BIOT	35	Tan, M.	BIOT	28	Tang, X.	PHYS	407
Taki, M.	ANYL	421	Tan, M.	CHED	1012	Tang, X.	ANYL	292
Takigawa, I.	CATL	17	Tan, M.	INOR	550	Tang, Y.	BIOL	4
Takise, R.	ORGN	410	Tan, Q.	I&EC	35	Tang, Y.	ENVR	765
Takizawa, M.	POLY	686	Tan, S.	CATL	34	Tang, Y.	CATL	58
Talamantez-Lyburn, S.	INOR	177	Tan, S.	ENVR	626	Tang, Y.	ENFL	307
Talapatra, A.	INOR	1231	Tan, W.	ENFL	360	Tang, Y.	ENVR	37
Talapin, D.	COLL	149	Tan, W.	GEOC	243	Tang, Y.	ENVR	308
Talapin, D.	COLL	346	Tan, X.	COLL	213	Tang, Y.	ENVR	752
Talapin, D.V.	PHYS	241	Tan, X.	POLY	255	Tang, Y.	GEOC	42
Talapin, D.V.	PHYS	618	Tan, Z.	COLL	140	Tang, Y.	GEOC	183
Talavera, M.	FLUO	20	Tan, Z.	CARB	77	Tang, Y.	GEOC	190
Talbert, J.	ANYL	319	Tan, Z.	CHED	341	Tang, Y.	GEOC	221
Talbi, D.	PHYS	258	Tanabe, M.	COLL	469	Tang, Y.	GEOC	268
Talbot, C.	BIOT	92	Tanabe, Y.	CATL	219	Tang, Y.	MPPG	12
Talbot, M.O.	INOR	395	Tanaka, K.	CINF	111	Tang, Z.	INOR	818
Tale, E.	COMP	220	Tanaka, R.	CELL	55	Tang, Z.	PMSE	104
Taleb, R.I.	BIOL	287	Tanaka, S.	PMSE	457	Tangar, A.	ORGN	14
Tal-Gan, Y.	CHED	609	Tanaka, T.	BIOT	326	Tangney, P.	CATL	80
Tal-Gan, Y.	CHED	708	Tanaka, T.	POLY	712	Tanguay, R.L.	GEOC	152
Tal-Gan, Y.	CHED	733	Tanaka, Y.	CELL	152	Tanida, Y.	COMP	187
Taliaferro, C.M.	INOR	1076	Tanasova, M.	ORGN	442	Tanida, Y.	COMP	253
Talin, A.A.	INOR	730	Tanasova, M.	ORGN	448	Tanifum, E.A.	FLUO	44
Talin, A.A.	INOR	1181	Tandon, R.	INOR	936	Taniguchi, N.	ORGN	521
Tallapally, V.	INOR	1241	Tandon, R.	ORGN	478	Taniguchi, T.	MEDI	22
Talley, K.	INOR	1227	Tandon, S.S.	INOR	1015	Tanimoto, S.	COMP	242
Talley, S.	POLY	790	Tang, C.	INOR	930	Tanimoto, T.	MEDI	379
Tallman, K.A.	CHED	156	Tang, D.T.	ORGN	556	Tanimoto, Y.	COLL	716
Tallon, A.	ORGN	507	Tang, D.	COMP	391	Tanis, P.	MEDI	201
Talluri, S.K.	MEDI	38	Tang, F.	ENFL	400	Tanko, J.	ORGN	18
Talluri, S.G.	PMSE	467	Tang, H.	INOR	373	Tanski, J.	INOR	991
Talosis, A.	INOR	147	Tang, H.	INOR	520	Tansky, M.	POLY	200

Tantawi, K.	CHED	118	Tariq, A.	CHED	152	Taylor, A.	POLY	6
Tantillo, D.J.	CHED	855	Tarkhov, A.	CINF	90	Taylor, A.	POLY	57
Tantillo, D.J.	COMP	172	Tarnas, K.	ENVR	175	Taylor, A.M.	COLL	262
Tanyeli, C.	ORGN	115	Tarnavchyk, I.	POLY	45	Taylor, A.M.	INOR	794
Tanyeli, C.	ORGN	119	Tarnovsky, A.N.	PHYS	468	Taylor, A.	ORGN	475
Tao, A.	MEDI	391	Tarnovsky, A.N.	PHYS	499	Taylor, C.C.	INOR	244
Tao, F.	CATL	58	Tarnowski, M.	ENVR	232	Taylor, C.	CHED	1091
Tao, F.	CATL	127	Tarpeh, W.	ENVR	437	Taylor, C.M.	CHED	1604
Tao, F.	CATL	235	Tarpeh, W.	ENVR	546	Taylor, C.	ORGN	199
Tao, F.	CATL	388	Tarr, M.A.	AGFD	152	Taylor, C.J.	CHED	114
Tao, F.	CATL	389	Tarr, M.A.	AGFD	158	Taylor, E.	CHED	2031
Tao, F.	ENFL	86	Tarr, M.A.	CHED	1061	Taylor, G.	MEDI	308
Tao, F.	I&EC	9	Tarr, M.A.	CHED	1252	Taylor, H.	CHED	1617
Tao, J.	PHYS	215	Tartakoff, S.S.	CHED	1436	Taylor, H.	CHED	1639
Tao, J.	CATL	180	Tartakoff, S.S.	CHED	1635	Taylor, H.	ORGN	480
Tao, J.	COLL	742	Tartakoff, S.S.	CHED	1733	Taylor, J.M.	COLL	226
Tao, J.	GEOC	24	Tarver, J.	ENFL	149	Taylor, J.	ANYL	116
Tao, J.	GEOC	46	Tasca, J.	ANYL	444	Taylor, J.	PHYS	455
Tao, L.	GEOC	164	Taschner, I.	CHED	1468	Taylor, K.E.	ENVR	389
Tao, L.	INOR	45	Tasei, Y.	POLY	533	Taylor, K.	BIOL	47
Tao, N.	ORGN	521	Tasheva, D.	MEDI	163	Taylor, L.	INOR	241
Tao, N.	COLL	118	Tasheva, D.	MEDI	164	Taylor, L.	INOR	1202
Tao, P.	COMP	72	Tasheva, D.	ORGN	426	Taylor, L.	CELL	189
Tao, P.	COMP	236	Tasinato, N.	PHYS	88	Taylor, L.	POLY	493
Tao, S.	ENVR	85	Tasinato, N.	PHYS	190	Taylor, M.S.	CARB	89
Tao, W.A.	ANYL	39	Tasker, R.	CHED	2079	Taylor, M.E.	INOR	785
Tao, X.	POLY	348	Tasker, T.	GEOC	156	Taylor, M.	MEDI	41
Tao, X.	POLY	498	Tasooji, M.	CELL	255	Taylor, R.	ENVR	617
Tao, Y.O.	ORGN	533	Tassinari, F.	PHYS	487	Taylor, R.	ENVR	619
Tao, Y.	BIOT	443	Tassinari, F.	PHYS	492	Taylor, R.	PHYS	662
Tao, Z.	GEOC	224	Tassone, C.	COLL	123	Taylor, R.T.	CHED	402
Taoufik, M.	CATL	367	Tatarchuk, B.J.	CATL	42	Taylor, S.	PHYS	393
Taoufik, M.	CATL	413	Tate, G.	CATL	431	Taylor, S.M.	CHED	310
Tapavicza, E.	PHYS	431	Tateyama, S.	POLY	760	Taylor, S.	INOR	1215
Tapia, D.	INOR	1006	Tathod, A.P.	ENFL	31	Taylor, S.H.	ENFL	35
Tapia Hernandez, R.	CHED	1332	Tatlock, J.	ORGN	21	Taylor, S.	ENVR	553
Tapia Hernandez, R.	COLL	275	Tatlock, J.H.	MEDI	19	Taylor, T.	MEDI	6
Tapia Hernandez, R.	ENVR	20	Taton, D.	POLY	813	Taylor, T.	MEDI	20
Tapu, D.	INOR	874	Tatsumisago, M.	ENFL	470	Taylor, T.	MEDI	91
Tapu, D.	INOR	875	Tatsumisago, M.	ENFL	472	Taylor, T.	MEDI	297
Tapu, D.	INOR	876	Tauzin, L.	COLL	607	Taylor, W.	MEDI	409
Tapu, D.	INOR	877	Tauzin, L.J.	BIOT	327	Taylor, W.S.	CHED	1715
Tarabara, V.	ENVR	238	Tauzin, L.J.	PHYS	392	Taylor, Z.A.	BIOL	60
Tarano, O.A.	INOR	732	Tauzin, L.J.	PHYS	394	Tchoua, R.	PMSE	26
Tarasevich, B.	GEOC	24	Tavakkoli, S.	ENFL	57	Teague, C.M.	CHED	80
Tarasevich, T.	ORGN	680	Tavakkoli, S.	ENVR	186	Teague, M.L.	ENFL	109
Tarawneh, K.	COLL	443	Tavares, C.D.	BIOL	315	Teague, W.E.	COLL	403
Tarbox, H.	CHED	1637	Taverna, M.	CELL	109	Teahan, C.N.	INOR	238
Tarbox, H.	CHED	1839	Tavlarides, L.L.	ENFL	554	Teat, S.J.	INOR	738
Tardugno, R.	AGFD	198	Taw, E.	CATL	424	Tebben, A.	COMP	366
Tardy, B.L.	CELL	162	Taw, E.	ENVR	761	Tebben, A.	MEDI	6
Tardy, B.L.	CELL	265	Taw, E.	I&EC	50	Tebben, A.	MEDI	297
Tardy, B.L.	CELL	399	Tay, J.	CARB	88	Tebes-Stevens, C.	ENVR	183
Tardy, B.L.	COLL	539	Tay, N.	ORGN	401	Tebo, B.M.	GEOC	158
Tarifa, A.	ENVR	658	Taylor, A.	INOR	996	Tebo, B.M.	GEOC	164

Tebo, B.M.	INOR	45	Tenorio, R.	ENVR	179	Tewari, S.	ENVR	495
Tebo, B.M.	INOR	46	Teo, J.	COLL	771	Tewari, S.V.	CHED	966
Tedesco, S.	INOR	169	Teodor, A.	CHED	748	Tewatia, A.	PMSE	319
Teegarden, M.D.	AGFD	235	Teplyakov, A.V.	COLL	450	Texter, J.	COLL	598
Teel, K.	ENFL	264	Terakado, M.	MEDI	32	Texter, J.	POLY	737
Teerlink, J.	ENVR	415	Terakura, K.	CATL	164	Texter, J.	POLY	743
Teesdale, J.	INOR	980	Teramoto, Y.	CELL	25	Teymorian, S.	INOR	194
Teesdale, J.	INOR	1262	Teramoto, Y.	CELL	29	Tezcan, F.A.	COLL	439
Teeters, D.C.	CHED	1308	Terauchi, H.	MEDI	90	Tezcan, F.A.	INOR	463
Teeters, D.C.	CHED	1411	Terauchi, T.	MEDI	90	Tezuka, Y.	PMSE	144
Teets, T.S.	INOR	968	Terentis, A.C.	ANYL	404	Tezuka, Y.	PMSE	244
Teets, T.S.	INOR	972	Terentis, A.C.	CHED	199	Tezuka, Y.	PMSE	303
Teets, T.S.	INOR	1194	Terfloth, G.J.	BIOT	388	Tfaily, M.	GEOC	36
Teets, T.S.	INOR	1195	Terfort, A.	COLL	374	Thacker, D.L.	CHAS	40
Teets, T.S.	INOR	1344	Terfort, A.	PHYS	327	Thackeray, J.W.	YCC	9
Teets, T.	INOR	1309	Ter Haar, L.W.	INOR	721	Thaemlitz, C.J.	POLY	209
Tefashe, U.	COLL	409	Ter Halle, A.	CHED	933	Thai, J.	BIOT	103
Teferi, M.	INOR	96	Ternes, T.	ENVR	782	Thakkar, J.	CATL	539
Tefferi, M.	CHED	121	Tero, R.	COLL	552	Thakur, A.	INOR	924
Tegen, S.B.	CINF	32	Tero, R.	COLL	558	Thakur, R.	CATL	346
Tegenkamp, G.	CHED	346	Terova, O.	BIOT	360	Thakur, R.	CHED	1028
Tegenkamp, G.	CHED	1069	Terr, J.R.	BIOL	68	Thakurathi, M.	ANYL	296
Teh, S.	ENVR	556	Terr, J.R.	CHED	1891	Thalangamaarachchige, V.	ANYL	296
Tehan, B.G.	COMP	362	Terr, J.	BIOT	150	Thalgaspitiya, W.R.	INOR	398
Teichen, P.	POLY	633	Terrell, C.	CHED	2115	Thalhammer, K.O.	GEOC	207
Teichert, M.A.	CHED	35	Terrell, E.	CELL	127	Thallapally, P.K.	INOR	1029
Teichert, M.A.	CHED	37	Terrell, J.	BIOT	53	Thallapuram, S.K.	BIOL	134
Teichert, M.A.	CHED	161	Terrell, J.	COLL	96	Thallapuram, S.K.	COLL	200
Teichert, M.A.	CHED	814	Terrell, J.	ENFL	451	Thaller, A.	CELL	259
Teichert, M.A.	CHED	2190	Terrett, J.A.	ORGN	355	Thames, J.E.	CHED	1535
Teitz, T.	MEDI	204	Terrill, L.	CHED	1402	Thames, J.E.	CHED	1865
Teixeira Veiga, E.	INOR	574	Terrill, L.	CHED	1403	Thammavongsy, Z.	INOR	183
Teixido, M.	ENVR	154	Terrill, N.J.	PMSE	494	Thanou, M.	COLL	649
Teixido, M.	ENVR	166	Territo, P.	MEDI	60	Thapa, P.	MEDI	354
Teixido Planes, M.	ENVR	64	Territo, P.	MEDI	132	Thapa Magar, T.B.	MEDI	50
Tejeda, N.	BIOT	109	Terry, J.L.	CHED	1513	Thapa Magar, T.B.	MEDI	209
Tekinalp, H.L.	CELL	34	Tescione, L.	BIOT	44	Tharmalingam, T.	BIOT	109
Teles, C.	I&EC	35	Tescione, L.	BIOT	262	Tharp, J.M.	BIOL	241
Teli, M.	ANYL	370	Tesfu, E.	ANYL	151	Tharp, O.M.	CHED	93
Telikepalli, H.	COMP	424	Tessier, P.	BIOT	121	Tharp, O.M.	CHED	1824
Telser, J.A.	INOR	152	Tessier, P.	BIOT	177	Thavornpradit, S.	INOR	1375
Telu, S.	FLUO	55	Tessier, P.	BIOT	492	Thaxton, K.	AGFD	212
Tempas, C.	COLL	375	Tessman, H.	BIOT	483	Thayumanavan, S.	ANYL	131
Tempas, C.	INOR	1077	Testa, J.	CINF	54	Thayumanavan, S.	PMSE	127
Templeton, J.L.	PHYS	175	Tester, M.	AGFD	32	Thayumanavan, S.	PMSE	361
Ten, X.	ENFL	350	Tetard, L.	CELL	93	Thayumanavan, S.	PMSE	367
Ten, X.	ENFL	519	Tetrault, T.J.	MEDI	396	Thayumanavan, S.	PMSE	395
Tenewitz, J.	PHYS	191	Tetrick, M.	ANYL	67	Thayumanavan, S.	PMSE	436
Teng, X.	ENFL	487	Tettenhorst, D.R.	ENVR	470	Thayumanavan, S.	PMSE	583
Tenjimbayashi, M.	COLL	215	Teunissen, L.	CATL	95	Theard, B.	CHED	1351
Tenjimbayashi, M.	COLL	240	Tew, G.N.	POLY	38	Theberge, A.B.	PMSE	406
Tenjimbayashi, M.	COLL	751	Tew, G.N.	POLY	52	Theiler, Z.	INOR	1010
Tenkanen, M.	CELL	138	Tew, G.N.	POLY	459	Theis, T.	PHYS	381
Tennant, A.	GEOC	217	Tew, G.N.	POLY	611	Theisen, R.M.	CHED	183
Tenorio, K.M.	INOR	8	Tew, G.N.	POLY	731	Theivendran, S.	COLL	370

Theivendran, S.	COLL	371	Thomas, B.M.	ORGN	694	Thompson, D.	CHED	1162
Theliander, H.	CELL	327	Thomas, C.M.	INOR	608	Thompson, D.	CHED	1164
Thenuwara, A.	INOR	1062	Thomas, C.M.	INOR	710	Thompson, H.	CHED	1569
Thenuwara, A.	INOR	1063	Thomas, C.M.	INOR	989	Thompson, J.F.	PMSE	141
Theobald, E.	CHED	2159	Thomas, C.M.	INOR	1388	Thompson, J.G.	ENVR	413
Theodhori, E.	CHED	858	Thomas, D.	CHED	687	Thompson, J.	POLY	98
Theopold, K.H.	INOR	154	Thomas, D.	CHED	716	Thompson, J.	I&EC	159
Theopold, N.M.	CHED	1494	Thomas, D.	BIOT	440	Thompson, J.E.	INOR	245
Theret, I.	COMP	382	Thomas, E.	MEDI	308	Thompson, K.	POLY	107
Theriot, J.	INOR	979	Thomas, G.	CHED	33	Thompson, K.	CHED	1891
Theroff, J.	MEDI	64	Thomas, G.J.	MEDI	175	Thompson, L.	CHED	993
Therrien, J.H.	MEDI	37	Thomas, G.	CHED	735	Thompson, L.M.	INOR	698
Theus, M.	PMSE	40	Thomas, J.	PHYS	496	Thompson, L.M.	NUCL	100
Thevarajah, J.J.	POLY	530	Thomas, K.A.	CHED	366	Thompson, L.T.	I&EC	30
Thevarajah, J.J.	POLY	671	Thomas, K.A.	CHED	1870	Thompson, L.B.	CHED	391
Thibado, S.	CHED	1116	Thomas, K.	NUCL	7	Thompson, L.B.	CHED	1285
Thibaudeau, S.	FLUO	32	Thomas, K.	CHED	415	Thompson, L.B.	CHED	1286
Thibault de Chanvalon, A.	GEOC	158	Thomas, L.	BIOT	477	Thompson, L.B.	CHED	1288
Thiede, J.	MEDI	104	Thomas, M.	CHED	582	Thompson, M.W.	GEOC	26
Thieker, D.F.	BIOL	103	Thomas, M.	ORGN	370	Thompson, P.K.	INOR	1184
Thiele, G.	ENFL	491	Thomas, P.	CHED	1869	Thompson, R.H.	CHED	110
Thielemans, W.	CELL	69	Thomas, P.	CHED	625	Thompson, R.	CELL	303
Thieme, J.	GEOC	221	Thomas, P.W.	MEDI	390	Thompson, S.	CHED	380
Thierer, L.M.	INOR	852	Thomas, R.B.	CHED	410	Thompson, S.	FLUO	50
Thies, J.	POLY	111	Thomas, R.	MEDI	20	Thompson, S.A.	INOR	387
Thies, M.C.	CELL	409	Thomas, R.	ENVR	359	Thompson, S.R.	CHED	957
Thiessen, P.	CHED	2169	Thomas, R.	ENVR	421	Thompson, T.W.	PHYS	431
Thiessen, P.	CINF	4	Thomas, S.W.	PMSE	280	Thomsen, N.M.	MEDI	295
Thiessen, P.	CINF	21	Thomas, S.W.	POLY	215	Thomsett, M.	POLY	707
Thiessen, P.	CINF	43	Thomas, S.R.	ANYL	404	Thomson, J.	CHED	1177
Thieu, L.M.	POLY	67	Thomas, S.	POLY	403	Thomson, R.J.	ORGN	318
Thieuleux, C.	CATL	364	Thomas, T.S.	CHED	814	Thomson, R.K.	INOR	988
Thi Hong Vo, H.	ENVR	489	Thomas, T.S.	CHED	2190	Thorbjornsen, K.	GEOC	196
Thilakarathne, M.	ENVR	515	Thomason, K.A.	CHED	466	Thorenz, U.R.	ENVR	782
Thirumalai, D.	COLL	636	Thomasson, J.A.	COLL	358	Thorgaard, S.N.	ANYL	451
Thirupapliyur, K.	BIOT	82	Thomasson, K.	CHED	856	Thorgaard, S.N.	CHED	413
Thite, N.	BIOT	168	Thomforde, J.	CHED	1455	Thorgaard, S.N.	CHED	1311
Thite, N.	BIOT	189	Thomforde, J.	MEDI	413	Thornburg, N.	ENVR	761
Thoburn, J.D.	ORGN	481	Thomopoulos, S.	GEOC	23	Thornburg, N.	I&EC	50
Thoburn, J.D.	ORGN	485	Thompson, A.	GEOC	10	Thornburg, Z.	ORGN	472
Thoburn, J.D.	ORGN	486	Thompson, A.	GEOC	12	Thornburg, Z.R.	CHED	496
Thogluva, D.	ENFL	396	Thompson, A.	POLY	803	Thorne, M.A.	AGFD	158
Thom, M.	MEDI	308	Thompson, B.	POLY	480	Thornell, T.L.	POLY	510
Thomaidis, N.S.	ANYL	29	Thompson, B.L.	INOR	617	Thornell, T.L.	POLY	613
Thomas, A.A.	BIOL	222	Thompson, B.	COLL	610	Thornton, M.	AGFD	236
Thomas, A.A.	MEDI	165	Thompson, B.	POLY	486	Thorsell, A.	MEDI	127
Thomas, A.A.	MEDI	166	Thompson, B.	POLY	559	Thorsell, A.	MEDI	128
Thomas, A.A.	MEDI	315	Thompson, B.	POLY	566	Thorsell, V.M.	CHED	79
Thomas, A.P.	MEDI	94	Thompson, C.	PMSE	15	Thorsell, V.M.	CHED	164
Thomas, A.	CHED	1885	Thompson, C.	PMSE	477	Thorwirth, S.	PHYS	501
Thomas, A.E.	PHYS	22	Thompson, C.	PMSE	579	Thrasher, C.	COLL	696
Thomas, A.L.	CHED	1198	Thompson, C.J.	GEOC	261	Thrasher, J.S.	FLUO	30
Thomas, A.L.	CHED	1245	Thompson, C.	COLL	575	Thron, F.	ENVR	782
Thomas, A.L.	CHED	1917	Thompson, D.E.	CHED	110	Thummel, R.P.	INOR	492
Thomas, B.M.	CHED	1466	Thompson, D.	CHED	1104	Thurairatnam, S.	MEDI	274

Thurber, G.M.	BIOT	85	Tiggas, A.	GEOC	168	Tirrell, D.A.	PMSE	65
Thurecht, K.	POLY	11	Tiggas, M.	CHED	990	Tirrell, M.V.	PMSE	191
Thurecht, K.	POLY	300	Tigner, J.	ANYL	152	Tirrell, M.V.	POLY	310
Thurman, E.M.	ANYL	389	Tijhaar, E.	COLL	773	Tischler, J.L.	CHED	1864
Thurman, E.M.	ENVR	735	Tiley, B.L.	INOR	27	Tischler, J.L.	CHED	1946
Thurn-Albrecht, T.	POLY	133	Tilitsky, J.M.	BIOL	141	Tisdale, W.A.	ANYL	194
Thurn-Albrecht, T.	POLY	529	Till, N.	ORGN	408	Tisdale, W.A.	INOR	1155
Thurston, J.H.	CHED	588	Tillack, A.	COMP	350	Tisdale, W.A.	INOR	1332
Thurston, J.H.	MEDI	391	Tillack, A.F.	COMP	338	Tisdale, W.A.	PHYS	245
Tiainen, P.	BIOT	365	Tillekeratne, V.	MEDI	409	Tisdale, W.A.	PHYS	478
Tiainen, P.	BIOT	560	Tiller, K.	BIOT	121	Titchener-Hooker, N.	BIOT	506
Tian, B.	INOR	175	Tiller, M.	CHED	957	Tittle, S.	CHED	769
Tian, C.	INOR	1240	Tiller, M.	ENVR	615	Tittle, S.	CHED	971
Tian, F.	COLL	376	Tilley, L.J.	CHED	1654	Tittle, S.	PHYS	457
Tian, F.	ENVR	642	Tilley, L.J.	CHED	1656	Tiwari, D.	ENFL	23
Tian, H.	INOR	28	Tilley, T.	INOR	87	Tiwary, C.	ENFL	105
Tian, J.	BIOL	282	Tilley, T.	INOR	434	Tjandra, A.	CHED	1327
Tian, J.	BIOT	486	Tillman, E.S.	PMSE	99	Tjandra, H.	BIOT	186
Tian, J.	I&EC	174	Tillman, E.S.	POLY	578	Tjhung, K.	BIOL	205
Tian, L.	COMP	179	Tillman, H.	FLUO	42	Tkachenko, V.	CINF	10
Tian, Q.	ENVR	544	Tillman, K.R.	POLY	235	Tkachenko, V.	CINF	41
Tian, T.	AGFD	95	Tillman, K.R.	POLY	238	Tkachenko, V.	CINF	84
Tian, X.	ANYL	378	Tilly, D.	ORGN	380	Tkachenko, V.	CINF	99
Tian, Y.	CATL	404	Tilly, J.	PMSE	439	Tkachenko, V.	CINF	102
Tian, Y.	COLL	734	Tilly, J.	POLY	500	Tkachenko, V.	CINF	112
Tian, Y.	BIOT	460	Tilson, B.M.	CHED	881	Tkachenko, V.	COMP	27
Tian, Y.	COLL	63	Timm, A.	ENVR	232	Tkachenko, V.	COMP	110
Tian, Y.	ENVR	339	Timmel, C.	INOR	998	Tkatchenko, A.	CATL	69
Tian, Z.	ENVR	473	Timmel, E.	CHED	976	Tkatchenko, A.	CATL	117
Tian, Z.	INOR	750	Timo, L.	CELL	435	Tkatchenko, A.	COMP	56
Tiano, D.	CHED	300	Timoshenko, J.	CATL	276	To, B.	BIOT	137
Tiano, T.	ENVR	650	Timoshenko, J.	CATL	279	To, W.	INOR	550
Tibbetts, K.	ANYL	49	Timperman, A.	ANYL	70	Toader, V.	POLY	13
Tibbits, A.	PMSE	66	Timpson, C.J.	CHED	1077	Toader, V.	POLY	531
Tibbits, A.	POLY	90	Ting, J.M.	POLY	310	Tobiason, D.M.	CHED	1565
Tibrewal, N.	MEDI	277	Ting, P.	ANYL	246	Tobiason, J.E.	ENVR	130
Tice, J.	ANYL	408	Tinker, C.	INOR	359	Tobler, S.A.	BIOT	141
Tice, N.C.	INOR	888	Tinker, C.	INOR	360	Toda, M.J.	COMP	279
Tice, N.C.	ORGN	723	Tinnacher, R.M.	GEOC	59	Todd, R.J.	BIOT	325
Ticich, T.M.	CHED	1822	Tinnacher, R.M.	GEOC	63	Todd, T.	COLL	778
Ticknor, C.	NUCL	68	Tino, J.A.	MEDI	6	Todolli, S.	CHED	120
Ticknor, M.A.	COLL	253	Tino, J.A.	MEDI	36	Toenjes, S.	CHED	1390
Ticknor, M.A.	COLL	302	Tino, J.A.	MEDI	297	Toenjes, S.	ORGN	449
Tidwell, J.	CHED	1159	Tinoco, A.	ORGN	77	Togawa, E.	CELL	14
Tiegs, B.J.	POLY	261	Tinoco, A.D.	CHED	603	Toida, T.	BIOL	187
Tielens, F.	CATL	36	Tinoco, A.D.	CHED	1036	Tokairin, D.	ORGN	726
Tielens, X.	PHYS	194	Tinoco, A.D.	INOR	583	Tokarski, J.S.	MEDI	35
Tien, L.T.	CHED	35	Tinoco, A.D.	INOR	914	Tokarski, J.S.	MEDI	178
Tien, M.	CELL	357	Tinoco, S.	CHED	1831	Tokarski, J.S.	MEDI	202
Tiernan, E.M.	ORGN	485	Tinsley, I.C.	ORGN	288	Tokarski, R.J.	MEDI	87
Tierney, D.L.	CHED	625	Tinucci, S.L.	CHED	1242	Tokura, Y.	COLL	751
Tiet, F.	GEOC	26	Tinworth, C.	MEDI	312	Tolar, J.	BIOT	568
Tieu Ngo, T.	CHED	1809	Tirafferri, A.	ENVR	56	Tolbert, R.W.	CINF	46
Tieu Ngo, T.	CHED	1810	Tirrell, D.A.	BIOL	297	Tolbert, S.H.	INOR	174
Tieu Ngo, T.	CHED	1811	Tirrell, D.A.	BIOT	406	Tolchard, J.R.	CATL	439

Toledo, P.V.	CELL	429	Tong, L.	PMSE	455	Toro, T.	CHED	533
Toledo, P.V.	PMSE	271	Tong, L.	MEDI	175	Toro, T.	CHED	544
Toledo, S.A.	CHED	174	Tong, L.	PMSE	360	Toro, T.	CHED	556
Toledo, S.A.	CHED	887	Tong, R.	POLY	156	Toro, T.	CHED	613
Toledo, S.A.	INOR	184	Tong, W.	INOR	27	Torr, K.	CELL	366
Toledo, S.A.	INOR	1018	Tong, X.	CELL	183	Torrance, B.	CHED	1140
Toledo Warshaviak, D.	BIOT	489	Tong, X.	COLL	460	Torrents, A.	ENVR	301
Tollefson, E.	CHED	2062	Tong, Y.	INOR	331	Torrents, A.	ENVR	302
Tollefson, E.	PROF	2	Tong, Y.	ENVR	427	Torres, C.A.	CHED	1291
Tolman, W.B.	CINF	36	Tong, Y.	ENVR	664	Torres, C.	GEOC	22
Tolman, W.B.	INOR	445	Tonge, M.	MEDI	293	Torres, C.	ENVR	306
Tolman, W.B.	INOR	537	Toniatti, C.	MEDI	64	Torres, J.	AGFD	146
Tom, J.	BIOL	136	Toniatti, C.	MEDI	359	Torres, K.A.	AGFD	181
Tom, L.A.	CHED	411	Tonks, I.	CATL	551	Torres, K.A.	CHED	360
Toma, F.	ENFL	244	Tonks, I.	INOR	405	Torres, S.M.	ORGN	461
Toma, M.	MEDI	58	Tonks, I.	INOR	483	Torres, V.C.	CHED	395
Toma, S.H.	COLL	230	Tonks, I.	INOR	858	Torres, V.C.	CHED	448
Tomandl, D.	AGFD	183	Tonks, I.	INOR	880	Torres, Y.	ORGN	465
Tomar, D.	COMP	29	Tonks, I.	INOR	1078	Torres Martínez, Z.	ORGN	729
Tomas, H.	POLY	443	Tonks, I.	INOR	1111	Torres-Martínez, C.	CHED	925
Tomasik, J.H.	CHED	2150	Tonks, I.	INOR	1345	Torres Mejias, V.	CHED	1807
Tomasio, S.	COMP	192	Tonks, I.	ORGN	83	Torres Mejias, V.	CHED	1813
Tomat, E.	CHED	603	Tonner, R.	COLL	193	Torri, G.	CELL	398
Tomat, M.	INOR	92	Tonner, R.	COLL	377	Torsæter, O.	CELL	237
Tomcavage, M.	BIOL	133	Tonner, R.	COLL	446	Tort, F.F.	ENFL	164
Tomco, P.L.	ENVR	233	Tonui, E.	ANYL	302	Torvinen, K.	CELL	435
Tomczyk, A.	CHED	1636	Toogood, P.L.	MEDI	283	Torvisco, A.	INOR	1254
Tomczyk, A.	CHED	1900	Tooker, P.	HIST	21	Toste, D.	CATL	357
Tomioka, Y.	BIOT	339	Toomey, M.	PMSE	32	Toste, D.	INOR	748
Tomita, S.	ANYL	186	Toomey, M.	PMSE	440	Toste, D.	ORGN	95
Tomiya, S.	CINF	111	Toomey, R.G.	PMSE	410	Toste, D.	ORGN	161
Tomko, K.	BIOT	456	Topalian, P.J.	CATL	500	Toste, D.	ORGN	614
Tomlin, J.	ORGN	102	Topczewski, J.	ENVR	23	Toste, D.	POLY	264
Tomlin, K.	BIOL	122	Topczewski, J.	ORGN	661	Toste, D.	POLY	268
Tomlinson, A.L.	CHED	1699	Topczewski, J.	ORGN	672	Toteu Djomte, V.	ENVR	617
Tomlinson, I.A.	MPPG	14	Topete Camacho, A.	CELL	385	Toteu Djomte, V.	ENVR	619
Tomlovich, R.A.	CHED	1613	Topgaard, D.	COLL	317	Toth, A.	ENVR	635
Tommasi, R.	MEDI	390	Topham, B.	CINF	79	Toth, D.	CHED	1213
Tomoike, F.	BIOL	119	Topić, F.	INOR	29	Toth, M.	POLY	700
Tomoike, F.	MEDI	157	Toporek, Y.J.	GEOC	76	Toth, S.J.	AGFD	176
Tomov, A.K.	I&EC	46	Topping, K.	ANYL	8	Totleben, J.	COLL	148
Tomsho, J.W.	BIOL	271	Tor, Y.	ORGN	367	Totsch, T.R.	INOR	1108
Tomsho, J.W.	ORGN	231	Torabifard, H.	COMP	136	Touchton, A.J.	PROF	26
Tomsich, J.	CHED	832	Torda, B.H.	INOR	237	Toupin, N.	CHED	1550
Tomson, C.	CHED	2050	Torelli, A.T.	CHED	264	Tour, J.M.	INOR	403
Tomson, N.C.	INOR	1340	Torgunrud, J.	CHED	49	Tournassat, C.	GEOC	59
Tonchev, A.	NUCL	7	Torgunrud, J.	CHED	1806	Tournassat, C.	GEOC	66
Tondast-Navaei, S.	ORGN	39	Torikai, K.	ORGN	258	Touve, M.	POLY	23
Tondelier, C.	ENVR	783	Torkelson, J.	ENVR	689	Touve, M.A.	COLL	124
Tondreau, A.M.	INOR	886	Torkelson, J.M.	PMSE	551	Tovar, T.	INOR	1089
Tondreau, A.M.	INOR	1000	Torkelson, J.M.	POLY	733	Tower, C.W.	POLY	561
Tondreau, A.M.	INOR	1192	Törmä, P.	PHYS	177	Towns, M.H.	CHED	1962
Tondreau, A.M.	INOR	1193	Torn, M.	GEOC	13	Towns, M.H.	CHED	2052
Toney, M.	POLY	597	Törnroos, K.	INOR	857	Townsend, J.	COMP	305
Tong, A.	ENFL	520	Toro, C.	CINF	32	Townsend, L.T.	GEOC	273

Townsend, S.D.	CARB	2	Tran-Gyamfi, M.	BIOT	222	Triebel, S.	ORGN	655
Townsend, S.D.	CARB	91	Tran-Gyamfi, M.	ENFL	455	Trieu, E.	CHED	1895
Townsend, T.	CHED	1299	Trani, G.	MEDI	378	Trieu, K.D.	ORGN	376
Toy, P.H.	ORGN	339	Transue, W.J.	INOR	107	Trimarchi, G.	INOR	1226
Tözendemir, D.	ORGN	115	Trant, J.F.	PMSE	542	Trimmer, B.	CHED	439
Tozer, D.	PHYS	596	Trant, J.F.	ORGN	71	Trimmer, E.E.	BIOL	178
Trabbic, C.	MEDI	214	Trate, J.M.	CHED	161	Trimmer, E.E.	CHED	689
Trabelsi, S.	ENFL	168	Trate, J.M.	CHED	2111	Trimmer, E.E.	CHED	701
Trabelsi, T.	PHYS	86	Trate, J.M.	CHED	2190	Trimpin, S.	ANYL	379
Tracey, K.L.	CHED	1146	Tratnyek, P.G.	ENVR	287	Trimpin, S.	COMP	175
Traeger, S.C.	MEDI	6	Tratnyek, P.G.	GEOC	98	Trindade, T.	AGFD	12
Trafton, B.	BIOT	359	Tratras Contis, E.	PRES	1	Trindle, C.	INOR	1098
Tramontano, E.	COMP	356	Traub, E.L.	GEOC	118	Trinh, C.T.	BIOT	467
Tran, A.	POLY	376	Trautman, J.	CHED	717	Trinh, J.	CHED	1212
Tran, A.	CHED	1001	Travis, S.	COMP	288	Trinh, W.	ORGN	407
Tran, B.	BIOT	380	Trawick, M.L.	MEDI	66	Triolo, A.	PHYS	660
Tran, B.	BIOT	537	Traylor, S.J.	BIOT	444	Tripathi, A.K.	POLY	224
Tran, C.	INOR	946	Traylor, S.J.	BIOT	476	Tripathi, A.K.	POLY	361
Tran, C.	BIOT	442	Traynelis, S.	MEDI	55	Tripathi, A.	CELL	383
Tran, C.D.	ANYL	262	Traynelis, S.	MEDI	181	Tripathi, I.	COLL	463
Tran, C.D.	POLY	565	Treadwell, L.J.	INOR	291	Tripathi, I.	COLL	596
Tran, D.N.	ANYL	302	Treadwell, L.J.	INOR	498	Tripathi, I.	ENVR	23
Tran, E.N.	CHED	88	Treadwell, L.J.	INOR	1319	Tripathi, I.	ENVR	151
Tran, E.N.	CHED	1547	Treasure, T.	CELL	282	Tripathi, K.	ANYL	350
Tran, E.N.	CHED	1856	Trébosc, J.	CATL	417	Trischman, J.A.	CHED	55
Tran, H.	CHED	1440	Trefonas, P.	YCC	9	Trischman, J.A.	CHED	56
Tran, K.	ORGN	671	Treichberg, J.A.	MEDI	37	Trischman, J.A.	CHED	369
Tran, K.	ORGN	646	Treich, G.	POLY	86	Trischman, J.A.	CHED	1221
Tran, M.	BIOT	230	Treich, G.M.	CHED	121	Tritt, R.	CHED	1561
Tran, M.H.	CHED	504	Treich, N.R.	INOR	617	Tritt, R.	CHED	1711
Tran, M.	CHED	1511	Trejo Machin, A.	PMSE	441	Trivedi, E.R.	INOR	57
Tran, M.	CHED	1774	Trejo-Machin, A.	PMSE	132	Trivedi, E.R.	INOR	959
Tran, M.	CHED	1207	Treleaven, D.	POLY	676	Tro, N.	CHED	238
Tran, N.X.	CHED	1342	Tremaine, P.R.	CHED	1688	Trobe, M.	ORGN	37
Tran, N.X.	CHED	1345	Trenary, M.	CATL	246	Trogen, M.	CELL	264
Tran, N.T.	CHED	1590	Trenary, M.	COLL	154	Trogen, M.	CELL	326
Tran, N.H.	CHED	1668	Trentle, M.C.	ANYL	219	Troian-Gautier, L.	INOR	1066
Tran, P.	I&EC	63	Tresp, D.	CHED	1352	Troian-Gautier, L.	INOR	1073
Tran, P.	COLL	381	Tresp, D.	INOR	965	Troisi, A.	COMP	339
Tran, R.H.	CHED	1522	Tressaud, A.	FLUO	37	Trojanowski, J.	MEDI	12
Tran, R.	INOR	389	Tretiak, S.	PHYS	388	Trombetta, M.	CELL	324
Tran, R.	INOR	1281	Trevino, A.D.	ENVR	615	Tromp, M.	CATL	479
Tran, R.N.	ENVR	290	Trewyn, B.G.	CATL	398	Tropea, J.	MEDI	11
Tran, T.	INOR	575	Trewyn, B.G.	I&EC	137	Tropp, J.	ENVR	400
Tran, T.	INOR	233	Trexler, K.	CHED	1251	Tropp, J.	ENVR	403
Tran, T.	INOR	1278	Tria, G.	MEDI	295	Tropp, J.	POLY	313
Tran, T.	ENVR	121	Triantafillu, U.L.	BIOT	565	Tropp, J.	POLY	517
Tran, T.	COLL	294	Triantafyllidis, K.	CELL	145	Tropsha, A.	BIOT	465
Tran, T.	CHED	435	Triantafyllidis, K.	CELL	365	Tropsha, A.	CINF	41
Tran, Y.	CHED	1890	Triantafyllidis, K.	ENFL	448	Tropsha, A.	COMP	341
Tran, Y.A.	CHED	1586	Tribe, L.	COLL	150	Tropsha, A.	ENVR	360
Trana, C.	MEDI	68	Tribe, L.	COLL	206	Tropsha, A.	ENVR	420
Tran-Dube, M.B.	MEDI	19	Tribe, L.	COLL	276	Tropsha, A.	HIST	5
Tran-Dube, M.B.	ORGN	21	Trice, R.	PMSE	510	Trosien, S.	CELL	114
Tran-Gyamfi, M.	ANYL	264	Trichard, F.	ENFL	95	Trossini, G.H.	MEDI	77

Trossini, G.H.	MEDI	121	Truong, J.	CHED	547	Tsuchida, M.	ANYL	95
Trost, M.	MEDI	232	Truong, K.	CHED	581	Tsuda, K.	CATL	17
Tröster, A.	PHYS	327	Truong, L.A.	BIOL	214	Tsuda, K.	PMSE	79
Trotochaud, L.	CATL	158	Truong, P.	MEDI	129	Tsuda, S.	BIOT	326
Trotta, C.R.	ORGN	369	Truong, T.	AGFD	141	Tsuge, Y.	COLL	702
Trotta, J.T.	CHED	1768	Truskett, T.	BIOT	436	Tsui, E.	INOR	564
Trottier, R.	COLL	155	Truskett, T.	BIOT	495	Tsui, M.	INOR	844
Trouiller, A.	FLUO	32	Trygstad, T.M.	CHED	1455	Tsuji, G.	BIOL	163
Trout, B.L.	BIOT	24	Tsai, A.S.	MEDI	275	Tsukegi, T.	CELL	124
Trout, B.L.	BIOT	525	Tsai, A.S.	ORGN	641	Tsukruk, V.V.	PMSE	569
Trout, R.	MEDI	309	Tsai, B.	CELL	232	Tsukruk, V.V.	POLY	258
Trouten, A.	CHED	906	Tsai, C.	COMP	151	Tsukruk, V.V.	POLY	276
Trovatti, E.	CELL	98	Tsai, C.	INOR	737	Tsun, M.	CHED	823
Trowbridge, J.	CHED	1921	Tsai, C.	BIOL	213	Tsunashima, K.	PHYS	344
Troya, D.	CATL	296	Tsai, E.	BIOT	463	Tsung, C.	INOR	1088
Troya, D.	CATL	298	Tsai, H.	INOR	1249	Tsutsumi, Y.	POLY	674
Troya, D.	CATL	299	Tsai, I.	POLY	466	Tu, D.	ORGN	546
Troya, D.	CATL	404	Tsai, M.	AGFD	218	Tu, J.	ORGN	51
Troya, D.	POLY	70	Tsang, D.	GEOC	74	Tu, M.	COMP	87
Troyer, D.L.	BIOL	110	Tsang, J.B.	CHED	1084	Tu, M.	MEDI	275
Troyer, D.L.	I&EC	157	Tsang, J.B.	CHED	1085	Tu, Q.	ENVR	61
Troyer, D.L.	MEDI	111	Tsao, Y.T.	POLY	256	Tu, S.	POLY	61
Troyer, D.L.	MEDI	354	Tsao, Y.	POLY	542	Tu, W.	I&EC	32
Troyer, D.L.	PROF	32	Tsarevsky, N.V.	HIST	4	Tu, Y.	AGFD	40
Trucks, G.W.	PHYS	477	Tsarevsky, N.V.	PMSE	172	Tu, Y.	COMP	294
Trudel, V.	ANYL	169	Tsargorodska, A.	PHYS	177	Tu, Z.	FLUO	48
Trudell, M.L.	MEDI	333	Tsavalas, J.	POLY	224	Tu, Z.	PMSE	460
Trudell, M.L.	MEDI	380	Tsavalas, J.	POLY	361	Tu, Z.	PMSE	485
Trudell, M.L.	ORGN	497	Tsavalas, J.	POLY	738	Tubbs, S.	COLL	283
Trudell, M.L.	ORGN	644	Tsay, C.	INOR	436	Tuccelli, R.	BIOT	273
True, H.	CHED	1212	Tschumper, G.S.	CHED	1743	Tucker, A.	BIOT	128
Trueman, B.	ENVR	28	Tschumper, G.S.	COMP	40	Tucker, B.	POLY	98
Truesdale, L.	CHED	1894	Tschumper, G.S.	COMP	255	Tucker, C.J.	POLY	33
Truhlar, D.G.	INOR	522	Tschumper, G.S.	COMP	262	Tucker, E.	MEDI	63
Truhlar, D.G.	INOR	1419	Tschumper, G.S.	COMP	286	Tucker, J.W.	ORGN	220
Truhlar, D.G.	PHYS	95	Tschumper, G.S.	COMP	293	Tucker, K.	ENVR	514
Truhlar, D.G.	PHYS	217	Tschumper, G.S.	ENVR	444	Tucker, K.	ENVR	593
Truhlar, D.G.	PHYS	448	Tschumper, G.S.	ENVR	558	Tucker, L.J.	CHED	811
Trujillo, B.J.	INOR	921	Tschumper, G.S.	ORGN	492	Tucker, L.J.	CHED	2144
Trujillo, M.	MEDI	92	Tschumper, G.S.	PHYS	535	Tucker, L.J.	INOR	308
Trujillo, M.	MEDI	93	Tschumper, G.S.	PHYS	658	Tucker, M.J.	ANYL	248
Trujillo, M.N.	CHED	1441	Tschumper, G.S.	PROF	45	Tucker, M.J.	ANYL	342
Trujillo-Minero, N.N.	CINF	20	Tschumper, G.S.	YCC	20	Tucker, M.J.	PHYS	471
Truksa, S.	INOR	977	Tschumper, G.S.	YCC	22	Tucker, S.	PMSE	41
Trulove, P.C.	ANYL	290	Tschumper, G.S.	YCC	23	Tucker, S.	AGFD	67
Trulove, P.C.	ANYL	292	Tse, C.	MEDI	117	Tuga, B.	CHED	1353
Trulove, P.C.	CELL	262	Tse, H.M.	COLL	776	Tugcu, N.	BIOT	134
Trulove, P.C.	CHED	1022	Tseng, H.	COLL	519	Tugcu, N.	BIOT	514
Trulove, P.C.	CHED	1275	Tseng, W.	ENFL	109	Tugcu, N.	BIOT	554
Trummel, V.	NUCL	84	Tseng, Y.	COMP	294	Tuinier, R.	POLY	295
Trunfio, N.	BIOT	259	Tsikourkitoudi, V.	ENFL	442	Tulchinsky, M.	COLL	731
Trunfio, N.	BIOT	387	Tsinas, Z.	ANYL	291	Tulchinsky, M.	POLY	33
Trunfio, N.	BIOT	391	Tsoi, M.	CHED	2051	Tullier, M.P.	POLY	475
Truong, D.V.	PMSE	90	Tsouris, C.	ENFL	58	Tulloch, A.G.	BIOT	82
Truong, H.	ENVR	355	Tsouris, C.	GEOC	69	Tulloch, A.G.	BIOT	141

Tully, T.	BIOT	190	Turpin-Nagel, K.	ENVR	618	Uddin, M.	PMSE	333
Tulve, N.	ENVR	733	Turro, C.	INOR	6	Uddin, M.	PMSE	400
Tulyagankhodjaev, J.	PMSE	577	Turro, C.	INOR	16	Udo, H.	CHED	661
Tumminello, P.R.	CHED	944	Turro, C.	INOR	1071	Udovic, T.	ENFL	446
Tumuluri, U.	CATL	5	Turro, C.	INOR	1341	Udovic, T.J.	ENFL	149
Tuncil, Y.	BIOT	95	Turro, R.	ORGN	109	Udovic, T.J.	ENFL	205
Tungtrongchitr, A.	AGFD	94	Tuttle, P.	ORGN	14	Udovic, T.J.	ENFL	434
Tunick, M.H.	AGFD	129	Tuttle, P.	ORGN	173	Uebele, V.	MEDI	191
Tunstad, L.M.	CHED	1366	Tuttle, T.	ANYL	256	Uehara, E.	PMSE	197
Tunstad, L.M.	CHED	1367	Tveit, A.	ENVR	365	Uehara, E.	PMSE	442
Tunstad, L.M.	ORGN	489	Twenter, B.M.	ORGN	521	Uematsu, M.	ENFL	472
Tuominen, M.	COLL	690	Twight, L.	ENVR	728	Ueno, Y.	AGFD	122
Turcotte, P.	ENVR	577	Twilton, J.	ORGN	193	Uesugi, S.	PMSE	547
Turedi, B.	ANYL	279	Tyagi, R.	ENVR	633	Uetake, Y.	AGFD	122
Turgeon, P.	PHYS	229	Tyer, D.L.	INOR	1186	Ugarte Trejo, O.	INOR	607
Turgeon, P.	PHYS	589	Tyler, B.	CHED	2139	Ugarte Trejo, O.	INOR	973
Turiano, M.	BIOT	106	Tyler, D.R.	CHED	1388	Ugliengo, P.	PHYS	312
Turk, J.	ORGN	705	Tyler, D.R.	POLY	127	Uhrich, K.E.	PMSE	260
Turkani, L.	PMSE	31	Tysoe, W.T.	CATL	4	Uhrich, K.E.	POLY	1
Turkman, N.	NUCL	44	Tysoe, W.T.	COLL	43	Ujang, Z.	ENVR	604
Turley, T.	ANYL	85	Tyson, B.	CHED	1915	Uka, V.	AGFD	85
Turlington, M.D.	INOR	553	Tyson, J.F.	ANYL	35	Ukwathhage, T.	ANYL	173
Turlington, M.D.	INOR	1073	Tyson, J.F.	ANYL	171	Ulapane, S.B.	COLL	148
Turn, S.Q.	ENFL	14	Tyson, J.F.	ANYL	271	Ulep, T.	ANYL	361
Turn, S.Q.	ENFL	62	Tyson, T.B.	CHED	1058	Ulijin, R.	ANYL	256
Turn, S.Q.	ENFL	63	Tywoniuik, B.	COMP	38	Ulissi, Z.	CATL	22
Turnbull, B.W.	ORGN	27	Tzanov, T.	BIOT	127	Ulloa, J.	CHED	1804
Turnbull, B.W.	ORGN	343	Tzanov, T.	BIOT	564	Ulmer, J.	BIOT	454
Turner, A.	CHED	697	Tzanov, T.	CELL	349	Ulrich, E.M.	ENVR	733
Turner, A.M.	PHYS	92	Tzanov, T.	COLL	518	Ulrich, R.	CHED	1627
Turner, A.C.	CHED	262	Tzanov, T.	COLL	520	Ulrich, R.	ORGN	69
Turner, C.H.	CATL	236	Tzanov, T.	COLL	597	Ulu, A.	BIOL	73
Turner, C.L.	INOR	763	Tzanov, T.	COLL	676	Ulvestad, A.	ENFL	131
Turner, D.	BIOL	275	Tzeng, S.	ANYL	38	Umapathi, S.	ENFL	330
Turner, J.	CHED	491	Tzemos, R.G.	ANYL	163	Umasankar, Y.	ANYL	287
Turner, J.M.	MEDI	47	Tzitzilonis, C.	MEDI	277	Umasankar, Y.	ANYL	288
Turner, J.M.	MEDI	122	Tzou, S.	MEDI	131	Umasankar, Y.	ANYL	289
Turner, J.L.	CHED	729	Ubbink, J.	AGFD	22	Umbricht, C.	NUCL	8
Turner, L.	COMP	191	Ubbink, J.	AGFD	103	Umerska, A.	COLL	747
Turner, M.L.	PMSE	244	Ubbink, J.	POLY	670	Umerska, A.	POLY	797
Turner, M.L.	PMSE	303	Ubiera, A.R.	BIOT	140	Umetani, M.	INOR	896
Turner, M.L.	POLY	20	Ubiera, A.R.	BIOT	354	Umezaki, Y.	MEDI	379
Turner, R.	PMSE	379	Uborsky, D.V.	INOR	487	Umile, T.P.	CHED	483
Turner, S.R.	PMSE	114	Uborsky, D.V.	INOR	490	Ummidisetti, N.	ORGN	164
Turner, S.R.	PMSE	120	Uchihashi, T.	COLL	660	Unda, F.	CELL	321
Turner, S.R.	POLY	202	Uchihashi, T.	POLY	382	Underwood, K.	CHED	1550
Turner, S.	CHED	17	Uchimiya, S.M.	ENFL	12	Underwood, S.M.	CHED	172
Turner, S.	CHED	88	Uchimura, K.	POLY	641	Underwood, S.M.	CHED	782
Turner, S.	CHED	1856	Uchitelle, A.	CHED	1320	Underwood, S.M.	CHED	817
Turney, J.	PHYS	424	Uchitelle, A.	CHED	1323	Underwood, S.M.	CHED	1955
Turnhoff, S.K.	POLY	370	Uchitelle, A.	COLL	7	Underwood, S.M.	CHED	1958
Turnpenny, B.	CHED	326	Uchiyama, N.	MEDI	22	Underwood, T.R.	GEOC	174
Turnpenny, B.	CHED	1998	Uchiyama, T.	ORGN	731	Undieh, A.	COLL	98
Turpin, B.	ENVR	370	Uddin, J.	ENFL	399	Unegbu, C.	ENVR	380
Turpin, D.	CATL	470	Uddin, M.	PMSE	177	Uneyama, H.	AGFD	3

Ung, D.	INOR	1125	Usov, P.	INOR	3	Vail, H.	CHED	791
Ung, P.M.	MEDI	39	Usta, O.	BIOL	13	Vailonis, K.M.	INOR	1327
Ungarean, C.	ORGN	76	Uster, B.	GEOC	165	Väinämö, S.	CELL	355
Unger, J.	ORGN	109	Ustick, J.	ANYL	168	Vaisburg, A.	MEDI	146
Uno, T.	PMSE	497	Usuki, T.	ORGN	726	Vaishnav, C.	ANYL	239
Unocic, K.	CATL	443	Usuki, T.	ORGN	731	Vaissier, V.	BIOL	5
Unocic, K.A.	CATL	392	Ute, K.	POLY	776	Vaithyanathan, M.	BIOT	56
Unocic, K.A.	CATL	285	Ute, K.	POLY	781	Vaithyanathan, M.	BIOT	272
Unocic, K.A.	CATL	393	Utley, B.	CHED	1902	Vaithyanathan, M.	BIOT	374
Unocic, R.	ENFL	303	Uto, T.	CELL	47	Vaithyanathan, M.	BIOT	408
Unruh, A.	INOR	151	Utt, K.	CELL	300	Vajda, S.	CATL	155
Unwalla, R.	COMP	87	Utz, M.	POLY	16	Vajgrt, K.	CHED	1606
Upadhyay, B.S.	POLY	552	Utz, T.	CHED	1235	Vajo, J.	ENFL	275
Upadhyay, B.S.	POLY	270	Utz, T.	CHED	1236	Vajtai, R.	ENFL	105
Upadhyay, B.S.	POLY	550	Uwiduhaye, E.	AGFD	192	Vakil, P.	INOR	1323
Upmacis, R.K.	CHED	2188	Uyeda, C.	CATL	529	Vakkasoglu, A.S.	BIOT	462
Uporov, I.	CHED	856	Uyeda, C.	INOR	482	Vala, M.	POLY	457
Upp, C.	CELL	122	Uyeda, C.	ORGN	38	Valcarce, R.V.	ANYL	129
Uppuluri, R.	COLL	442	Uyeda, C.	ORGN	98	Valcarce, R.V.	ANYL	139
Upton, B.	CATL	108	Uzair, U.	ANYL	285	Valcarce, R.V.	ANYL	140
Upton, K.	MEDI	128	Uzarevic, K.	COLL	427	Valcarce, R.V.	ANYL	152
Ura, Y.	CELL	143	Uzarski, J.	COLL	695	Valcarce, R.V.	CHED	792
Uraki, Y.	CELL	176	Uzarski, J.R.	POLY	703	Valcarce, R.V.	CHED	823
Urayama, K.	POLY	392	Uzategui, A.C.	PMSE	613	Valcarce, R.V.	CHED	1913
Urbach, A.R.	CHED	749	Uzategui-White, G.	CHED	1899	Valcarce, R.V.	CHED	2010
Urbach, A.R.	CHED	1617	Vaal, J.	CHED	1567	Valcin, S.	CHED	1305
Urbach, A.R.	CHED	1639	Vaal, S.M.	CHED	984	Valcourt, A.H.	CHED	2018
Urbach, A.R.	ORGN	480	Vabbilisetty, P.	BIOL	211	Valdebenito, F.	CELL	82
Urban, D.	POLY	646	Vacala, T.L.	ORGN	254	Valdes, C.	ANYL	83
Urban, J.	ENFL	440	Vaccari, L.	COLL	12	Valdes, C.	ANYL	211
Urban, J.J.	ENFL	499	Vaccaro, P.H.	PHYS	222	Valdez, C.A.	NUCL	67
Urban, M.W.	POLY	165	Vaccaro, P.H.	PHYS	223	Valdez, G.	POLY	728
Urban, V.	CELL	8	Vacha, M.	PMSE	244	Valdivia-Berroeta, G.	CHED	1702
Urban, V.	COLL	776	Vacha, M.	PMSE	303	Valdivia-Berroeta, G.A.	PHYS	571
Urban, V.	COMP	355	Vachet, R.W.	ANYL	131	Valeev, E.F.	PHYS	83
Urban, V.	PMSE	274	Vachet, R.W.	PMSE	361	Valencia, D.W.	CHED	1048
Urban, V.	POLY	783	Vadas, T.M.	ENVR	153	Valencia, D.W.	CHED	1053
Urbina, L.	CELL	102	Vadas, T.M.	ENVR	618	Valent, S.	CHED	1561
Ureño-Moreno, M.	CHED	2048	Vaddypally, S.	INOR	1026	Valente, B.	CELL	163
Urgun-Demirtas, M.	ENVR	104	Vaden, T.D.	PHYS	512	Valente, J.	BIOT	345
Uribe-Romo, F.J.	INOR	322	Vadola, P.A.	ORGN	254	Valente, M.	CHED	1758
Uribe-Romo, F.J.	INOR	524	Vaghjiani, G.L.	PHYS	23	Valentin, E.M.	CHED	1475
Uribe-Romo, F.J.	INOR	732	Vagvala, T.	INOR	758	Valentin, E.M.	CHED	1532
Uribe-Romo, F.J.	INOR	741	Vahabi, H.	I&EC	116	Valentin, E.M.	ORGN	658
Uribe-Romo, F.J.	INOR	742	Vahabi, H.	POLY	330	Valentine, A.M.	INOR	833
Uribe-Romo, F.J.	INOR	838	Vahchuama, P.	CHED	734	Valentine, K.A.	PMSE	114
Uribe-Romo, F.J.	INOR	1182	Vaia, R.	COLL	650	Valentine, K.A.	PMSE	380
Uribe-Romo, F.J.	ORGN	376	Vaia, R.	PMSE	66	Valentine, K.A.	PMSE	575
Urieta-Mora, J.	ORGN	295	Vaida, V.	PHYS	256	Valentine, M.	ANYL	244
Urquilla, A.	ORGN	498	Vaida, V.	PHYS	426	Valentine, M.	PHYS	466
Urrutia, P.	AGFD	141	Vaidehi, N.	COMP	401	Valentín Méndez, E.	CHED	524
Usama, S.M.	MEDI	99	Vaidya, N.A.	SCHB	6	Valenzuela, F.	MEDI	193
Uskokovic, V.	COLL	627	Vaidyanathan, N.	BIOL	282	Valenzuela, J.	INOR	907
Uslaner, J.	MEDI	191	Vail, A.	BIOT	161	Valenzuela, M.S.	MEDI	193
Usov, P.	CATL	296	Vail, D.	ENFL	514	Valero-Vidal, C.	CATL	27

Valientes, L.	CHED	1842	Vanden Heuvel, J.	GEOC	156	Van Heuvelen, K.M.	INOR	95
Valientes, L.	CHED	1878	Vanden Heuvel, J.	GEOC	177	Van Hoof, M.	CATL	376
Vallalpa-Arroyo, A.	AGFD	51	Vandenplas, J.R.	CHED	185	Van Hoomissen, D.	ENVR	393
Vallavoju, N.	ORGN	72	Vandenplas, J.R.	CHED	2113	Van Hoomissen, D.J.	ENVR	394
Valle, C.L.	PMSE	614	van den Reijen, J.	CATL	381	Van Hoomissen, D.J.	ORGN	393
Valle, H.U.	INOR	388	van de Pas, D.	CELL	366	van Horn, C.	BIOL	271
Valle, H.U.	YCC	23	VandePutte, A.	CATL	433	Van Horn, R.M.	PMSE	437
Valle, J.	ANYL	211	van der Avoird, A.	PHYS	135	Van Horn, R.M.	POLY	539
Valle-Delgado, J.	COLL	709	Van Der Donk, W.A.	BIOL	118	Van Horn, R.M.	POLY	561
Valles, D.	ORGN	578	Van Der Donk, W.A.	ORGN	583	VanHouten, J.	CHED	2150
Valles, D.J.	COLL	689	Vanderesse, R.	MEDI	342	Van Hovel, R.	CHED	764
Vallet, V.	NUCL	9	Vanderford, B.	ENVR	545	Van Hovel, R.	CHED	1460
Vallet, V.	NUCL	19	van der Heijden, N.J.	COLL	193	Van Hovel, R.	CHED	1464
Valley, N.A.	CHED	578	van der Heijden, N.J.	COLL	377	Van Hovel, R.	CHED	1466
Valley, N.A.	COLL	325	van der Hulst, L.	AGFD	207	Van Hovel, R.	ORGN	694
Valley, N.A.	COLL	395	van der Linden, B.	CATL	135	Van Humbeck, J.	ORGN	210
Valley, N.A.	COLL	787	Vandermark, E.	BIOL	282	Vanitcha, A.	ORGN	559
Valley, N.A.	PHYS	446	van der Meulen, N.	NUCL	8	Vanitcha, A.	ORGN	699
Vallina, E.	COLL	528	van der Sman, R.	AGFD	125	Vankayala, K.	PHYS	492
Valocchi, A.	GEOC	72	Vander Tuin, Z.T.	CHED	413	Van Kirk, K.	CHED	2095
Valocchi, A.	GEOC	182	Van der Ven, A.	ENFL	420	Van Klink, G.	CELL	254
Valone, S.	PHYS	5	van der Vlugt, J.	INOR	618	van Leeuwen, M.P.	POLY	671
Valtchev, V.	ENFL	333	Van der Waal, J.C.	CELL	254	van Leeuwen, P.W.	CATL	502
Valtchev, V.	ENFL	502	Vander Wood, D.	BIOT	533	Van Lehn, R.	PHYS	331
Valtiner, M.	COLL	530	Vanderwoude, G.	PMSE	174	van Lier, J.	ENVR	667
Valverde, M.	BIOT	115	van der Zant, H.	COLL	342	van Lith, S.	POLY	230
Van, N.	BIOL	176	Van de Sanden, R.	ENFL	114	Vanmaekelbergh, D.	COLL	120
Van Aelst, J.	CATL	213	Van Deventer, J.A.	BIOT	151	van Montfort, R.	MEDI	16
Vanagas, N.A.	INOR	1012	VandeVondele, J.	PHYS	187	VanNatta, P.	INOR	261
Van Aken, K.	GEOC	26	Van de Voorde, K.	PMSE	443	Vanness, B.G.	CHED	985
Van Allsburg, K.	CATL	396	van Driessche, A.	GEOC	187	Vanness, B.G.	CHED	1544
Van Allsburg, K.M.	CATL	390	Van Driessche, I.	COLL	445	Vannucci, A.K.	CATL	320
Van Alstine, J.	BIOT	71	Van Driessche, I.	INOR	1051	Vannucci, A.K.	CATL	321
van Alten, R.S.	INOR	120	Van Driessche, I.	PROF	7	Vannucci, A.K.	INOR	1187
van Andel, E.	COLL	773	Van Dross, R.	ORGN	443	Vannucci, A.K.	INOR	1284
Vanapalli, S.	ANYL	459	Vandsburger, L.	I&EC	169	Vannucci, A.K.	ORGN	403
Van Ardenne, J.	CHED	1695	Van Duin, A.C.	COMP	44	Vannucci, A.K.	ORGN	592
Van Berkel, G.J.	ANYL	382	Van Duin, A.C.	ENFL	511	Vannucci, A.K.	ORGN	634
van Blitterswijk, C.	PMSE	309	Vanduyfhuys, L.	COMP	3	van Nuijs, A.	ENVR	414
Van Bramer, S.	CHED	42	Van Duyne, R.P.	PHYS	301	van Oosterwijk, N.	MEDI	276
Vanbriesen, J.M.	ENVR	410	Van Duzor, A.G.	CHED	2055	van Oostrum, P.	COLL	10
Van Buren, J.	ENVR	133	VanDyke, B.	INOR	60	van Oppen, L.	POLY	230
Van Burns, E.	PHYS	520	VanDyke, B.	INOR	190	van Opstal, M.T.	CHED	131
Van Buskirk, J.S.	ENVR	629	Van Dyke, A.R.	CHED	463	Van Otterlo, W.	MEDI	346
Vancaeyzeele, C.	PMSE	482	Van Dyke, A.R.	CHED	2122	Van Overtveldt, M.A.	ORGN	16
Van Citters, K.	BIOT	214	Van Engelen, D.L.	CHED	187	Van Raden, J.	ORGN	488
Vandaele, A.	PHYS	631	van Erp, T.S.	COMP	404	Van Raden, J.	ORGN	493
Van Dam, B.R.	ENVR	401	Vang, D.	COLL	476	Van Ravenstein, S.	BIOL	315
Vandegrift, G.	INOR	207	Vang, L.	BIOT	348	Van Renterghem, L.	CELL	351
van den Berg, A.	AGFD	72	van Geen, L.	GEOC	109	van Rijn, P.	POLY	338
van den Berg, F.G.	ENFL	462	VanGordon, M.	COMP	133	van Rijt, M.	POLY	295
Vandenbrande, S.	COMP	3	Van Hecke, G.R.	CHED	1724	Van Riper, J.M.	CHED	951
van den Broek, F.	CINF	57	van Herpt, J.	COLL	479	Van Riper, J.M.	CHED	1166
van den Broek, F.	CINF	58	van Hest, J.	POLY	230	van Rooy, P.	AGFD	7
VanDenburgh, C.M.	CHED	1368	Van Heuvelen, K.	INOR	185	Van Ryswyk, H.	ENVR	343

Van Santen, R.A.	CATL	536	Varma-Nelson, P.	CHED	1985	Vazquez, C.	CHED	669
van Schooten, K.J.	CATL	366	Varma-Nelson, P.	CHED	1988	Vazquez, J.	COMP	74
van Spanning, R.	ENVR	349	Varma-Nelson, P.	CHED	1991	Vazquez, M.	POLY	354
Van Speybroeck, V.	CATL	60	Varnado, C.D.	HIST	6	Vazquez, M.	COMP	319
Van Speybroeck, V.	COMP	3	Varnek, A.	CINF	113	Vazquez, P.	AGFD	136
Vantangoli, N.J.	MEDI	200	Varnum, H.H.	INOR	929	Vazquez, S.B.	CHED	1650
Vanterpool, E.	CHED	1294	Varona, M.	ANYL	331	Vazquez, S.B.	CHED	1845
van Tol, J.	INOR	601	Varonka, M.S.	GEOC	84	Vazquez-Campos, X.	GEOC	122
Van Valkenburgh, J.	INOR	907	Vartak, A.	BIOL	217	Vazquez-Mayagoitia, A.	PHYS	41
Van Veen, A.	CATL	248	Vartanian, A.	COLL	9	Vazquez-Mayagoitia, A.	PHYS	414
Van Veen, A.	ENFL	71	Vartanian, A.	COLL	349	Vazquez-Molina, D.A.	INOR	322
Van Vliet, M.	INOR	1123	Vartanian, A.	ENVR	20	Vazquez-Molina, D.A.	INOR	838
Vanweerd, M.	ANYL	152	Vartanian, A.	ENVR	655	Vazquez-Molina, D.A.	ORGN	376
van Wezel, A.P.	CINF	107	Vasagar, V.	POLY	37	Vazquez Montelongo, E.A.	COMP	302
van Wijk, K.	ANYL	41	Vasagar, V.	POLY	121	Vazquez Montelongo, E.A.	COMP	424
Van Winkle, M.	ORGN	242	Vasagar, V.	POLY	505	Vebrosky, E.N.	ENVR	239
Van Winkle, M.	ORGN	463	Vasagar, V.	POLY	574	Vecchiarello, N.	BIOT	1
Van Wyngarden, A.L.	ENVR	589	Vasagar, V.	POLY	735	Vecchiarello, N.	BIOT	539
Van Wynsberghe, A.W.	COMP	183	Vasdev, N.	FLUO	46	Vedarajan, R.	ENFL	125
Van Wynsberghe, A.W.	COMP	185	Vasdev, N.	FLUO	54	Vedarajan, R.	ENFL	545
Van Wynsberghe, A.W.	COMP	189	Vasic, J.	BIOT	219	Vedarajan, R.	ENFL	546
Van Zandt, P.	CHED	2072	Vasic, J.	BIOT	293	Vedarajan, R.	POLY	655
Van Zwieten, L.	AGFD	9	Vasicek, T.	CHED	13	Veenbaas, S.	CHED	1261
Vapaavuori, J.	PMSE	290	Vasilii, M.	INOR	22	Veenis, A.J.	BIOL	17
Varanasi, L.	ENVR	478	Vasilii, M.	INOR	284	Veenstra, L.	CHED	1120
Varani, G.	CARB	17	Vasilii, M.	NUCL	11	Vega, A.	CHED	1842
Vardanega, J.	CHED	722	Vasilii, M.	NUCL	75	Vega, B.	CELL	83
Vardon, D.	CATL	372	Vasilii, M.	NUCL	98	Vega-Baudrit, J.	CELL	126
Vardon, D.	CATL	445	Vasilyeva, A.	ORGN	14	Vega-Baudrit, J.	CELL	96
Vardon, D.	CATL	448	Vasilyeva, A.	ORGN	173	Vega-Baudrit, J.	CELL	125
Varga, T.	CATL	380	Vasquez, G.	ANYL	238	Vega Erramuspe, I.	CELL	386
Varga, T.	GEOC	186	Vasquez, K.M.	CHED	583	Vega-Figueroa, K.	CHED	890
Varganov, S.A.	PHYS	138	Vassell, J.	AGFD	28	Vegge, T.	CATL	120
Vargas, A.	ORGN	107	Vasu, V.	PMSE	42	Veihar, K.	BIOT	512
Vargas, A.	ORGN	108	Vasu, V.	POLY	396	Veiga Rodrigues, M.	CATL	441
Vargas, B.	INOR	646	Vasudevan, D.	GEOC	232	Veige, A.S.	PMSE	243
Vargas, J.	CHED	983	Vasudevan, K.	ORGN	218	Veisi, M.	GEOC	155
Vargas, M.	COLL	593	Vasylichenko, O.	MEDI	124	Veith, G.M.	ENFL	252
Vargas, R.	PHYS	41	Vatamanu, J.	PHYS	236	Veithen, A.	AGFD	189
Vargas-Barbosa, N.M.	PHYS	112	Vaughan, E.B.	CHED	1509	Vejar, M.R.	GEOC	200
Vargas Jentzsch, A.	PHYS	492	Vaughan, S.	ANYL	284	Vejar, M.R.	GEOC	201
Vargas-Lara, F.	PMSE	201	Vaughan, T.	PHYS	533	Vekasy, M.	POLY	130
Vargas-Myers, T.	ENFL	20	Vaughey, J.T.	ENFL	419	Vekasy, M.	POLY	482
Vargas Padilla, S.M.	CHED	1830	Vaughey, J.T.	ENFL	430	Vekasy, M.	POLY	488
Vargas-Rodriguez, O.	BIOL	299	Vaughn, J.	POLY	528	Vela, A.	PHYS	4
Vargas Trujillo, D.	CHED	769	Vaughn, J.	POLY	778	Vela, A.	PHYS	636
Vargas Trujillo, D.	INOR	974	Vaughn, M.	CHED	748	Vela, A.	PHYS	637
Varghese, A.	PHYS	131	Vautier, M.	MEDI	244	Vela, J.	INOR	149
Varghese, D.	PMSE	592	Vayer, M.	ORGN	33	Vela, J.	INOR	826
Varghese, D.	POLY	499	Vaz, B.G.	ANYL	102	Vela, J.	INOR	1055
Vargiu, A.V.	COMP	356	Vaze, A.	CHED	589	Vela, J.	CMA	4
Varley, J.	ENFL	272	Vazquez, A.	CHED	1036	Vela, J.	COLL	503
Varma, R.S.	CATL	88	Vazquez, A.	INOR	914	Vela, J.	INOR	673
Varma, R.S.	ENVR	203	Vazquez, A.	CHED	1036	Vela, J.	INOR	848
Varma-Nelson, P.	CHED	1935	Vazquez, A.	INOR	914	Vela, J.	INOR	1152

Velagapudi, S.	CARB	13	Venkatram, S.	COLL	238	Verstraelen, T.	COMP	3
Velarde, L.A.	ANYL	308	Venkatraman, S.	POLY	737	Verstraelen, T.	PHYS	273
Velarde, L.A.	COLL	242	Venteicher, B.	BIOL	222	Verstraelen, T.	PHYS	641
Velarde, L.A.	COLL	768	Venteicher, B.	MEDI	165	Verstraete, P.	POLY	104
Velarde, L.A.	COLL	786	Venteicher, B.	MEDI	315	Veser, G.	ENFL	90
Velasco, C.	GEOC	128	Ventosa, E.	ENFL	394	Vethamuthu, M.S.	COLL	622
Velasco, C.	GEOC	129	Veräjänkorva, E.	MEDI	334	Vetter, T.	BIOT	556
Velasco, J.	CHED	730	Veranitisagul, C.	PMSE	283	Vettleison, M.	INOR	27
Velasquez, J.A.	CELL	343	Veranitisagul, C.	PMSE	489	Veza, A.A.	CHED	994
Velayudhan, A.	BIOT	329	Verburg, P.	ENVR	83	Vezzoli, A.	COLL	112
Velayudhan, A.	BIOT	347	Verburg, P.	ENVR	461	Vezzoli, A.	COLL	117
Velayudhan, A.K.	BIOT	256	Vercauteren, D.	COMP	5	Vezzoli, A.	COLL	413
Velazquez, G.	AGFD	146	Vercauteren, D.P.	COMP	403	Vezzoli, A.	PHYS	247
Velázquez, J.M.	INOR	769	Verde, M.E.	POLY	137	Via, B.	CELL	345
Velázquez, J.M.	INOR	774	Verde, M.E.	POLY	540	Via, G.G.	CHED	12
Velazquez Bello, L.C.	CHED	1872	Verdin, F.P.	CHED	1295	Vialshin, I.	POLY	230
Velev, O.D.	ANYL	20	Verduyck, J.	CATL	376	Viano, D.	ENFL	446
Velev, O.D.	ANYL	52	Verduzco, C.	BIOT	402	Vibbert, H.B.	INOR	1104
Velev, O.D.	COLL	486	Verduzco, R.	PMSE	19	Vicars, Z.	PHYS	344
Veleva, V.	I&EC	147	Verduzco, R.	PMSE	469	Vicent, T.	ENVR	354
Velez, C.	COMP	214	Verduzco, R.	POLY	400	Vicic, D.A.	INOR	1183
Vélez-Gerena, C.	CHED	1262	Vergani, B.	MEDI	407	Vick, A.	CHED	480
Velian, A.	INOR	107	Vergara, J.	PMSE	312	Vickerman, K.	CHED	1401
Veloso, A.	PMSE	412	Vergara, J.	PMSE	444	Vickers, G.E.	MEDI	188
Velugula, S.	BIOT	215	Vergara, J.	POLY	201	Vickery, R.	MEDI	6
Velugula, S.	BIOT	391	Verge, P.	PMSE	132	Vickery, R.	MEDI	297
Velugula, S.	BIOT	394	Verge, P.	PMSE	187	Vidad, A.R.	COMP	77
Velugula, S.	BIOT	253	Verge, P.	PMSE	441	Vidakovic, D.	COLL	561
Velugula, S.	BIOT	259	Verge, P.	PMSE	482	Vidal, F.	PMSE	482
Velugula, S.	BIOT	387	Vergelati, C.	CELL	337	Vidavsky, N.	GEOC	43
Venceslau, S.	GEOC	135	Vergil, C.	CHED	937	Videla, P.	COLL	242
Vencil, M.A.	CHED	1424	Vergnes, B.	CELL	269	Videla, P.	COLL	786
Venderbosch, B.	CATL	479	Verheijden, M.	COLL	548	Vidic, R.D.	ENFL	54
Venditti, R.A.	CELL	273	Verheye, I.	CELL	231	Vidic, R.D.	ENFL	57
Venditti, R.A.	CELL	276	Verhoest, P.R.	MEDI	14	Vidic, R.D.	ENVR	186
Venditti, R.A.	ENVR	704	Verkhivker, G.	COMP	153	Vidic, R.D.	ENVR	249
Venditto, V.	POLY	637	Verlander, A.	CHED	367	Vidic, R.D.	ENVR	464
Vengosh, A.	ENVR	488	Verma, A.	ENFL	525	Vidic, R.D.	ENVR	727
Vengosh, A.	ENVR	572	Verma, H.	PMSE	573	Vidic, R.D.	GEOC	276
Vengosh, A.	GEOC	157	Verma, P.	PHYS	94	Vidic, R.D.	I&EC	145
Vengsarkar, P.S.	BIOT	278	Verma, R.S.	MEDI	113	Vidiella del Blanco, M.	CELL	78
Venkata Annadata, H.	COLL	482	Vermaas, J.V.	COMP	429	Vidović, K.	GEOC	216
Venkataraman, D.	ENFL	338	Vermaas, J.V.	ENFL	17	Vieille, C.	ORGN	110
Venkataraman, L.	COLL	115	Vermeire, K.	MEDI	347	Viereck, P.	ORGN	190
Venkataraman, L.	COLL	116	Vermette, J.	PHYS	229	Viggiano, A.A.	PHYS	191
Venkataraman, L.	COLL	341	Vermette, J.	PHYS	589	Viggiano, R.P.	POLY	506
Venkataraman, L.	COLL	343	Vermeulen, C.E.	NUCL	8	Vigilante, N.	CHED	860
Venkataraman, L.	COLL	408	Vernon, J.	ENVR	157	Vignau, A.	MEDI	49
Venkataraman, L.	COLL	477	Verplanck, P.L.	GEOC	132	Vignolini, S.	CELL	66
Venkataraman, M.	BIOT	545	Verpoorte, E.	ANYL	449	Vignolini, S.	CELL	68
Venkatesan, S.	ENVR	706	Verret, D.	CHED	477	Vignolini, S.	CELL	71
Venkatesh, A.	BIOT	284	Verrill, D.	CELL	298	Vignolini, S.	CELL	283
Venkateswarlu, D.	BIOL	66	Verrill, D.E.	CELL	101	Vignolle, J.	POLY	813
Venkateswarlu, D.	PHYS	566	Versaw, B.	POLY	786	Vigourox, J.	CELL	164
Venkatnathan, A.	INOR	1123	Vershinin, V.	ORGN	125	Vigueras, A.	AGFD	209

Viguie, J.	CELL	332	Villarreal, P.	ENFL	400	Vitale-Sullivan, M.	MEDI	391
Vij, A.	FLUO	7	Villasenor, A.G.	MEDI	37	Vitas, S.	CELL	78
Vij, S.	ANYL	250	Villavicencio, I.	COLL	277	Vitek, A.	COMP	304
Vijayakumar, A.	ANYL	42	Villavicencio, I.	COLL	618	Vitek, A.	PMSE	85
Vijjamarri, S.	INOR	385	Villavicencio, I.	ENFL	212	Vitillo, J.	INOR	290
Vik, R.	CHED	2105	Vimalchand, P.	ENFL	52	Vitillo, J.	INOR	1166
Vik, R.	CHED	2106	Vimalchand, P.	ENVR	467	Vitillo, J.	CATL	194
Vikesland, P.J.	CHED	179	Vincent, J.	POLY	748	Vittadini, E.	AGFD	126
Vikesland, P.J.	COLL	533	Vincent, J.B.	CHED	1150	Viveros, V.	CHED	354
Vikesland, P.J.	ENVR	11	Vincent, J.B.	INOR	899	Vivier, D.	FLUO	62
Vikesland, P.J.	ENVR	336	Vincent, J.B.	INOR	900	Vivod, S.L.	POLY	504
Vikesland, P.J.	ENVR	513	Vincent, J.B.	INOR	915	Vizuet, J.P.	INOR	1216
Vila, J.	ENVR	473	Vincent, O.	COLL	532	Vlachos, D.G.	CATL	474
Vila, J.	ENVR	719	Vinci, V.	BIOT	352	Vlaisavljevich, B.	NUCL	97
Vilanova, S.	PROF	36	Vinckeiviciute, J.	ENFL	420	Vlassiuk, I.	I&EC	97
Vilaplana, F.	CELL	277	Vine, L.	ENVR	227	Vlassopoulos, D.	COLL	560
Vilaplana, F.	CELL	280	Vining, W.	I&EC	63	Vlcek, L.	ENFL	488
Vilaplana, F.	CELL	317	Vin-Nnajiolor, M.	CELL	132	Vlcek, L.	GEOC	50
Vilaplana, F.	CELL	323	Vinod, N.	BIOT	465	Vlcek, L.	GEOC	54
Vilardi, S.C.	BIOT	357	Vinogradov, S.	ORGN	293	Vlcek, L.	GEOC	265
Vilarem, G.	CELL	307	Vinokurov, V.	PMSE	353	Vlcek, V.	PHYS	315
Vilbert, A.C.	INOR	143	Vinokurov, V.	CATL	487	Vo, B.	CHED	1051
Vilela, C.	CELL	163	Vinokurov, V.	COLL	743	Vo, L.	CELL	304
Vilela, C.	CELL	235	Vinokurov, V.	PMSE	155	Vo, M.	PHYS	25
Vilela, C.	CELL	315	Vinokurov, V.	PMSE	157	Vo, M.	PHYS	552
Vilela, C.	CELL	361	Vinokurov, V.	PMSE	362	Vo, M.	PHYS	577
Viljoen, A.	MEDI	17	Vinson, A.V.	CHED	1222	Vo, T.D.	CARB	28
Villa, C.	I&EC	59	Vinson, J.A.	AGFD	57	Vo, T.D.	CARB	43
Villa, E.M.	INOR	602	Vinton, T.	CHED	1113	Vo, T.	AGFD	43
Villa, E.M.	INOR	975	Viola-Villegas, N.	FLUO	64	Vodovotz, Y.	AGFD	164
Villa, E.M.	INOR	1008	Violette, K.	PHYS	370	Voegel, P.D.	ANYL	60
Villa, E.M.	INOR	1009	Violin, J.	MEDI	226	Voegel, P.D.	CHED	1103
Villa, E.M.	INOR	1141	Virca, C.N.	PHYS	408	Voegelin, A.	GEOC	253
Villa, K.	CHED	1803	Virgen, S.	CHED	988	Voehringer-Martinez, E.	COMP	4
Villada Villada, Y.A.	CELL	344	Virk, P.S.	I&EC	3	Voelz, J.	ENVR	288
Villafane-Garcia, S.	CHED	2151	Virtanen, T.	CELL	406	Vogel, M.	POLY	319
Villaggi, A.	CHED	508	Vishnu, A.	COMP	109	Vogel, R.	MEDI	69
Villagrasa, M.	ENVR	354	Vishnubhotla, S.	COLL	428	Voges, K.	PHYS	17
Villalba, A.	POLY	728	Vismara, E.	CELL	398	Voges-Haupt, F.	INOR	945
Villalobos, M.	GEOC	248	Visneski, S.	CHED	1529	Vogiatzis, K.D.	COMP	261
Villalobos, M.	GEOC	266	Visser, A.	ENVR	465	Vogiatzis, K.D.	COMP	305
Villalta-Cerdas, A.	CHED	779	Visser, A.	NUCL	2	Vogiatzis, K.D.	INOR	374
Villalta-Cerdas, A.	CHED	789	Visser, A.	NUCL	4	Vogiatzis, K.D.	INOR	684
Villalta-Cerdas, A.	CHED	2131	Viswanath, V.	PMSE	443	Vogt, K.	COMP	230
Villalva, B.	CHED	1891	Viswanathan, G.	INOR	294	Vogt, L.	CATL	344
Villani, C.	ANYL	109	Viswanathan, H.	ENFL	93	Vogt, R.	ANYL	235
Villanueva, O.	INOR	212	Viswanathan, R.	BIOL	284	Vogtt, K.	COLL	81
Villanueva-Tagle, M.	CHED	301	Viswanathan, R.	CHED	536	Vogtt, K.	COLL	212
Villares, A.	CELL	164	Viswanathan, T.	ENFL	458	Vohidov, F.	POLY	234
Villares, A.	CELL	417	Viswanathan, T.	ENVR	623	Vohidov, F.	POLY	278
Villarreal, C.C.	ENFL	454	Vitaku, E.	POLY	636	Vohringer-Martinez, E.	PHYS	641
Villarreal, M.	POLY	79	Vitale, A.	POLY	62	Vohs, J.K.	CHED	1070
Villarreal, P.	COLL	277	Vitale, A.	POLY	92	Vohs, J.K.	CHED	1071
Villarreal, P.	COLL	618	Vitale, G.	CHED	422	Vohs, J.K.	CHED	1088
Villarreal, P.	ENFL	212	Vitale, R.	BIOL	54	Vohs, J.K.	CHED	1660

Vohs, J.K.	CHED	2040	Voronov, A.S.	COLL	512	Vyas, S.	COMP	207
Vohs, J.M.	I&EC	34	Voronov, A.S.	POLY	45	Vyas, S.	ENVR	393
Voit, W.	PMSE	608	Voronov, S.	POLY	45	Vyas, S.	ENVR	394
Voit, W.	PMSE	610	Vorontsov, A.V.	CATL	241	Vyas, S.	INOR	1240
Voit, W.	POLY	330	Vorontsov, A.V.	PHYS	389	Vyas, S.	ORGN	393
Volckens, J.	ANYL	9	Vorotnikov, V.	CATL	217	Vyas, S.	PROF	12
Voleti, N.	ENVR	576	Vorotnikov, V.	CATL	449	Vyas, S.	CINF	22
Volford, A.	CINF	17	Vorotnikov, V.	I&EC	27	Vyas, S.	CINF	45
Volford, A.	CINF	19	Vortherms, T.	MEDI	117	Vyas, S.	INOR	860
Volgraf, M.	MEDI	281	Vosburg, D.A.	INOR	640	Vyvyan, J.R.	CHED	1449
Volk, K.	POLY	687	Vosburg, D.A.	ORGN	502	Vyvyan, J.R.	CHED	1463
Volkenborn, N.	ENVR	457	Voskian, S.	ENVR	213	Vyvyan, J.R.	CHED	1517
Volkov, A.G.	CHED	751	Voskoboynikov, A.Z.	INOR	487	Wachs, I.E.	CATL	5
Volkringer, C.	NUCL	20	Voskoboynikov, A.Z.	INOR	490	Wachs, I.E.	CATL	36
Vollmer, I.	CATL	135	Voss, B.	AGFD	190	Wachs, I.E.	CATL	382
Vollmer, M.V.	INOR	235	Voss, C.	BIOT	295	Wachs, I.E.	ENFL	132
Vollmer, M.V.	INOR	475	Voss, J.M.	YCC	26	Wachs, I.E.	I&EC	65
Vollmer, M.V.	INOR	1166	Voss, J.	FLUO	72	Wachter, N.	CHED	1637
Volna, E.	CHED	653	Voss, P.A.	CHED	648	Wacker, D.A.	ORGN	303
Volobujeva, O.	INOR	1390	Voulvoulis, N.	ENVR	307	Wacker, J.N.	INOR	1145
Volochnyuk, D.	ORGN	344	Vowinkel, S.	PMSE	273	Wackerle, B.G.	CHED	45
Volochnyuk, D.	ORGN	617	Vowinkel, S.	PMSE	445	Wackerle, B.G.	INOR	1011
Voloshin, A.	BIOT	442	Voylov, D.	ENFL	252	Wäckerlin, C.	COLL	374
Voloshin, A.M.	BIOT	73	Voytsekhovskaya, E.	MEDI	184	Wacks, D.B.	CHED	187
Volpe, K.	CHED	1575	Vratsanos, M.A.	POLY	782	Wacks, D.B.	CHED	719
Volpe, M.	ENVR	35	Vreeke, M.	BMGT	1	Wada, B.	INOR	185
Von Bargaen, C.D.	COMP	344	Vreeke, M.	SCHB	7	Wada, M.	CELL	141
von Delft, F.	CINF	42	Vreeken, J.	CATL	170	Waddell, E.A.	CHED	118
von der Heiden, D.	ORGN	389	Vu, A.	CHED	1846	Waddell, M.K.	CHED	2186
Von Der Kammer, F.	ENVR	86	Vu, A.	PMSE	87	Wade, C.R.	INOR	34
von Domaros, M.	PHYS	119	Vu, B.	BIOT	354	Wade, T.L.	AGFD	159
von Grotthuss, E.	INOR	73	Vu, G.H.	BIOL	265	Wadekar, S.	ENVR	249
von Gunten, K.	ENVR	43	Vu, O.D.	INOR	83	Wadekar, S.	ENVR	464
von Gunten, U.	ENVR	50	Vu, P.J.	COMP	251	Wadekar, S.	ENVR	727
von Gunten, U.	ENVR	109	Vu, V.P.	COLL	5	Wadle, A.	CHED	995
von Gunten, U.	ENVR	137	Vuckovic, D.	ORGN	228	Wadsworth, B.	INOR	1163
von Gunten, U.	ENVR	293	Vuckovic, S.	PHYS	317	Waeschenbach, L.	COMP	39
von Hahmann, C.	FLUO	20	Vue, B.	MEDI	49	Waetzig, G.	INOR	1231
Von Hoven, T.	AGFD	227	Vue, B.	ORGN	221	Wagberg, L.	CELL	171
von Klitzing, R.	POLY	689	Vue, P.	CHED	994	Wagberg, L.	CELL	295
von Lieres, E.	BIOT	330	Vugler, A.	MEDI	25	Wagberg, L.	CELL	297
von Lieres, E.	BIOT	375	Vugts, D.	FLUO	56	Wagberg, L.	CELL	311
von Lilienfeld, O.	CATL	121	Yukicevich, M.	CHED	1514	Wagberg, L.	CELL	313
Von Meerwall, E.	POLY	676	Vukmirovic, M.B.	CATL	281	Wagberg, L.	CELL	323
Vonn Dyke, S.	INOR	313	Vukovic, L.	COLL	421	Wagberg, L.	CELL	338
Vono, L.	CATL	182	Vulpe, C.D.	ENVR	363	Wagberg, L.	CELL	340
von Rudorff, G.F.	CATL	84	Vulpetti, A.	MEDI	271	Wagberg, L.	CELL	354
von Rudorff, G.	PHYS	410	Vuocolo, L.	CHED	2012	Wagberg, L.	CELL	412
von Rudorff, G.	PHYS	411	Vuong, H.T.	CHED	1706	Wagberg, L.	CELL	431
von Rudorff, G.	PHYS	412	Vuong, V.	COMP	390	Wagener, K.B.	POLY	19
Vora, H.	BIOL	182	Vura-Weis, J.	ANYL	343	Wagener, K.B.	POLY	402
Vorlicek, T.P.	CHED	994	Vura-Weis, J.	PHYS	76	Wagener, K.B.	POLY	415
Vormittag, P.	BIOT	493	Vutolkina, A.	CATL	487	Wagener, K.B.	POLY	416
Vornheder, T.	CHED	582	Vy, N.H.	PMSE	88	Wagenstaller, M.	AGFD	188
Voronin, K.N.	MEDI	297	Vyas, R.	CINF	9	Waggoner, A.	CHED	1599

Waggoner, A.	CHED	1919	Walch, N.	BIOT	519	Walker, W.	PMSE	407
Waggoner, S.	CHED	1555	Walczak, M.A.	CARB	33	Walker, W.	POLY	488
Waghe, A.B.	CHED	8	Walczak, M.A.	CARB	81	Walker, W.D.	POLY	482
Waghe, A.B.	CHED	218	Waldbauer, J.	GEOC	135	Walkinshaw, M.	COMP	156
Waghe, A.A.	CHED	8	Walden, K.	CHED	786	Walkinshaw, M.	COMP	380
Waghe, A.A.	CHED	218	Walden, M.E.	CHED	1180	Walkley, S.	CARB	11
Waghmare, U.V.	CATL	169	Waldie, K.M.	INOR	105	Wall, D.E.	NUCL	26
Wagner, A.J.	ORGN	239	Waldie, K.M.	INOR	338	Wall, D.E.	NUCL	37
Wagner, A.M.	POLY	110	Waldie, K.M.	INOR	691	Wall, D.E.	NUCL	84
Wagner, B.L.	ORGN	288	Waldman, J.V.	ANYL	464	Wall, K.	BIOL	217
Wagner, C.R.	BIOT	60	Waldmann, H.	MEDI	249	Wall, M.	INOR	1324
Wagner, C.R.	BIOT	498	Waldow, D.A.	POLY	577	Wall, M.	NUCL	61
Wagner, C.R.	COLL	647	Waldow, D.A.	POLY	582	Wall, N.	NUCL	26
Wagner, E.	CELL	208	Waldvogel, S.R.	CELL	328	Wall, N.	NUCL	37
Wagner, G.W.	CATL	315	Walensky, J.R.	INOR	1149	Wallace, K.J.	CHED	349
Wagner, J.E.	CHED	1901	Walensky, J.R.	PROF	36	Wallace, K.J.	ENVR	400
Wagner, J.M.	BIOT	545	Walker, A.	COMP	131	Wallace, K.	PHYS	584
Wagner, J.	CHED	1336	Walker, A.	COMP	175	Wallace, K.	PHYS	600
Wagner, J.	COLL	571	Walker, A.V.	INOR	853	Wallace, L.A.	CHED	1743
Wagner, M.	INOR	73	Walker, A.V.	INOR	1113	Wallace, M.	INOR	963
Wagner, M.	INOR	1244	Walker, A.Y.	POLY	782	Wallace, M.A.	MEDI	297
Wagner, M.	ENVR	712	Walker, A.	CHED	859	Wallace, V.	BIOT	463
Wagner, M.J.	ENVR	392	Walker, D.R.	CHED	2157	Wallach, J.	CHED	1972
Wagner, N.J.	ORGN	84	Walker, D.	CATL	437	Wallby, E.	BIOT	373
Wagner, N.J.	BIOT	51	Walker, D.	ENFL	135	Waller, S.E.	PHYS	231
Wagner, N.J.	COLL	60	Walker, E.	ENVR	482	Waller, S.E.	PHYS	526
Wagner, N.J.	COLL	318	Walker, G.	GEOC	110	Walley, S.	POLY	340
Wagner, N.J.	PMSE	128	Walker, G.	CHED	1367	Wallick, J.	I&EC	172
Wagner, N.J.	POLY	196	Walker, H.	ENVR	563	Wallin, S.C.	CHED	1223
Wagner, S.	ENVR	86	Walker, H.	ENVR	766	Wallqvist, V.	COLL	165
Wagner, V.	CHED	1900	Walker, J.	CHED	1401	Walls, B.E.	MEDI	145
Wagoner, A.	CHED	570	Walker, J.	ANYL	198	Walpen, N.	ENVR	492
Wahab, H.A.	COMP	18	Walker, J.D.	ORGN	662	Walravens, W.	INOR	675
Wahab, H.A.	MEDI	342	Walker, J.K.	MEDI	100	Walravens, W.	INOR	1051
Wahab, H.A.	MEDI	357	Walker, J.P.	CHED	131	Walroth, R.C.	GEOC	198
Wahalathantrige Don, R.W.	POLY	282	Walker, J.P.	CHED	2055	Walser, M.E.	CHED	597
Wahalathantrige Don, R.W.	POLY	763	Walker, J.	BIOT	508	Walser-Kuntz, R.	ORGN	136
Wahl, T.	CHAS	13	Walker, K.D.	ORGN	413	Walseth, T.	BIOL	51
Wai, M.	COLL	689	Walker, L.	COLL	389	Walseth, T.	MEDI	214
Waidyanatha, S.	ENVR	425	Walker, L.	COLL	562	Walsh, A.A.	BIOT	289
Waite, D.	ENVR	114	Walker, M.	MEDI	244	Walsh, A.	INOR	1398
Waite, D.	ENVR	192	Walker, N.	CHED	1822	Walsh, C.D.	ANYL	61
Waite, D.	ENVR	221	Walker, N.	CHED	1446	Walsh, J.P.	INOR	450
Waite, D.	GEOC	122	Walker, N.	INOR	352	Walsh, J.	CHED	1182
Waite, H.	INOR	44	Walker, R.A.	COLL	326	Walsh, J.	ENFL	184
Wakankar, A.	BIOT	180	Walker, R.A.	ENFL	533	Walsh, J.	I&EC	175
Wakefield, B.	ORGN	737	Walker, R.	COMP	321	Walsh, J.H.	NUCL	53
Wakefield, S.	CHED	1507	Walker, S.L.	ENVR	125	Walsh, K.M.	INOR	718
Wakidi, H.	CHED	1077	Walker, S.L.	ENVR	436	Walsh, K.M.	INOR	306
Wakidi, H.	CHED	1892	Walker, S.	CHED	1744	Walsh, P.S.	PHYS	507
Wakihara, T.	ENFL	332	Walker, T.L.	CHED	1468	Walsh, P.S.	YCC	19
Wakimoto, S.	MEDI	379	Walker, W.	ENVR	2	Walsh, R.M.	CHED	1837
Wakui, K.	ANYL	95	Walker, W.	ENVR	260	Walt, D.	CHED	744
Wakui, K.	BIOT	432	Walker, W.	ENVR	669	Walter, C.A.	ORGN	534
Walbrun, Z.S.	COLL	223	Walker, W.	CHED	1540	Walter, E.D.	CATL	51

Walter, E.D.	CATL	67	Wang, A.	CATL	371	Wang, D.	ORGN	342
Walter, E.D.	CATL	293	Wang, A.	CATL	420	Wang, D.	AGFD	107
Walter, E.D.	CATL	515	Wang, A.	CATL	293	Wang, D.	PMSE	599
Walter, E.D.	GEOC	238	Wang, A.	ENFL	132	Wang, D.	INOR	1066
Walter, J.C.	CHED	262	Wang, A.	ENVR	681	Wang, D.	COMP	373
Walter, M.	CELL	263	Wang, A.	POLY	654	Wang, D.	COLL	406
Walter, T.	ORGN	413	Wang, B.	ANYL	224	Wang, D.	ENFL	519
Walters, J.	CHED	1574	Wang, B.	BIOL	32	Wang, D.	ORGN	36
Walters, P.	COMP	169	Wang, B.	BIOL	72	Wang, D.	ORGN	151
Walther, A.	CELL	166	Wang, B.	BIOL	78	Wang, D.	PMSE	574
Walther, A.	PMSE	51	Wang, B.	CATL	362	Wang, D.	PMSE	609
Walther, A.	POLY	10	Wang, B.	ENFL	264	Wang, D.	PMSE	255
Walther, A.	POLY	740	Wang, B.	ENVR	517	Wang, D.	PMSE	491
Walther, J.	BIOT	485	Wang, B.	ENVR	757	Wang, D.	PMSE	529
Walton, A.	GEOC	273	Wang, B.	PHYS	422	Wang, E.	CHED	1233
Walton, C.L.	ANYL	230	Wang, B.	INOR	1376	Wang, F.	MEDI	109
Walton, L.	ORGN	24	Wang, B.	INOR	913	Wang, F.	MEDI	19
Walton, P.	INOR	535	Wang, B.	MEDI	176	Wang, F.	ORGN	21
Walton-Day, K.	GEOC	132	Wang, B.	MEDI	240	Wang, F.	POLY	193
Walwark, D.J.	PHYS	181	Wang, B.	MEDI	322	Wang, F.	CATL	97
Walz, K.	INOR	1235	Wang, B.	MEDI	329	Wang, F.	ENFL	346
Walz-Mitra, K.L.	INOR	824	Wang, B.	MEDI	332	Wang, F.	MEDI	10
WaMaina, M.	CHED	1294	Wang, B.	ENVR	430	Wang, F.	BIOT	271
Wambaugh, J.	CINF	87	Wang, B.	INOR	508	Wang, F.	BIOL	98
Wambaugh, J.	CINF	110	Wang, B.	INOR	626	Wang, F.	ORGN	81
Wambaugh, J.	ENVR	360	Wang, B.	INOR	1312	Wang, G.	BIOT	8
Wambaugh, J.	ENVR	416	Wang, C.	PMSE	460	Wang, G.	BIOT	474
Wambaugh, J.	ENVR	421	Wang, C.	COLL	169	Wang, G.	PMSE	466
Wamhoff, E.	BIOL	279	Wang, C.	MEDI	366	Wang, G.	PHYS	422
Wamhoff, E.	MEDI	318	Wang, C.	CATL	471	Wang, G.T.	COLL	449
Wammer, K.H.	CHED	907	Wang, C.	ENVR	148	Wang, G.	ANYL	450
Wammer, K.H.	CHED	981	Wang, C.	COLL	772	Wang, G.	MEDI	160
Wammer, K.H.	CHED	982	Wang, C.	ENFL	5	Wang, G.	COLL	5
Wammer, K.H.	ENVR	111	Wang, C.	POLY	167	Wang, G.	COMP	92
Wammer, K.H.	ENVR	112	Wang, C.	POLY	409	Wang, G.	ENVR	745
Wamser, N.E.	INOR	479	Wang, C.	POLY	693	Wang, H.	PMSE	587
Wamuo, O.	POLY	348	Wang, C.	ENFL	520	Wang, H.	ENVR	257
Wan, A.	CHED	1459	Wang, C.	ENFL	457	Wang, H.	CELL	325
Wan, B.	MEDI	69	Wang, C.	PMSE	142	Wang, H.	GEOC	217
Wan, B.	MPPG	12	Wang, C.	POLY	174	Wang, H.	INOR	431
Wan, G.	CATL	548	Wang, C.	CATL	309	Wang, H.	INOR	738
Wan, H.	PMSE	37	Wang, C.	CATL	310	Wang, H.	CATL	533
Wan, H.	INOR	1243	Wang, C.	GEOC	96	Wang, H.	CARB	42
Wan, H.	MEDI	134	Wang, C.	COLL	742	Wang, H.	COLL	541
Wan, J.	PMSE	578	Wang, C.	ANYL	348	Wang, H.	ENFL	113
Wan, L.	ENFL	499	Wang, C.	ENVR	142	Wang, H.	ORGN	370
Wan, M.	ENVR	223	Wang, C.	MEDI	6	Wang, H.	COLL	606
Wan, Q.	INOR	550	Wang, C.	MEDI	295	Wang, H.	MEDI	119
Wan, R.	INOR	1177	Wang, D.	COLL	119	Wang, H.	I&E	157
Wan, W.	POLY	644	Wang, D.	ENFL	123	Wang, H.	MEDI	111
Wan, W.	CELL	400	Wang, D.	PHYS	108	Wang, H.	MEDI	354
Wan, Y.	PHYS	246	Wang, D.	COLL	213	Wang, H.	MEDI	257
Wandless, T.J.	BIOL	306	Wang, D.	PMSE	543	Wang, H.	ORGN	66
Wang, H.	MEDI	39	Wang, D.	POLY	255	Wang, H.	ENFL	499
Wang, Y.	ENVR	25	Wang, D.	ENFL	364	Wang, H.	ENFL	488

Wang, H.	GEOC	50	Wang, J.	PMSE	133	Wang, M.	PMSE	34
Wang, H.	GEOC	54	Wang, J.	PMSE	145	Wang, M.	PMSE	447
Wang, H.	GEOC	188	Wang, J.	POLY	76	Wang, M.	COLL	778
Wang, H.	INOR	711	Wang, K.	ORGN	515	Wang, M.	BIOT	136
Wang, H.	COLL	216	Wang, K.	ANYL	102	Wang, M.	COLL	375
Wang, H.	COLL	303	Wang, K.	ANYL	112	Wang, M.	MEDI	60
Wang, H.	ENFL	120	Wang, K.	ANYL	141	Wang, M.	MEDI	132
Wang, H.	CATL	227	Wang, K.	ANYL	383	Wang, M.	PMSE	563
Wang, H.	CATL	390	Wang, K.	ANYL	392	Wang, P.	CATL	412
Wang, H.	CATL	392	Wang, K.	PHYS	58	Wang, P.	ENFL	441
Wang, H.	INOR	686	Wang, K.	COLL	112	Wang, P.	COLL	304
Wang, H.	BIOL	10	Wang, K.	COLL	413	Wang, P.	MEDI	39
Wang, H.	ANYL	456	Wang, K.	INOR	31	Wang, P.G.	CARB	32
Wang, H.	PMSE	238	Wang, L.	CELL	17	Wang, P.	ANYL	39
Wang, H.	MEDI	51	Wang, L.	ANYL	107	Wang, P.	COLL	506
Wang, H.	CATL	315	Wang, L.	POLY	464	Wang, P.	ENFL	529
Wang, H.	COLL	778	Wang, L.	CHED	880	Wang, P.	INOR	390
Wang, H.	ENFL	293	Wang, L.	COMP	45	Wang, P.	INOR	510
Wang, H.	ENFL	308	Wang, L.	BIOT	119	Wang, P.	ORGN	37
Wang, H.	MEDI	152	Wang, L.	CHED	1411	Wang, Q.	CATL	298
Wang, I.A.	ENVR	52	Wang, L.	INOR	662	Wang, Q.	INOR	1418
Wang, J.H.	PMSE	611	Wang, L.	PHYS	372	Wang, Q.	BIOL	256
Wang, J.H.	POLY	705	Wang, L.	COLL	482	Wang, Q.	GEOC	161
Wang, J.H.	POLY	757	Wang, L.	ENFL	538	Wang, Q.	GEOC	181
Wang, J.	PHYS	174	Wang, L.	ENVR	275	Wang, Q.	GEOC	225
Wang, J.C.	INOR	1068	Wang, L.	BIOL	103	Wang, Q.	GEOC	226
Wang, J.C.	PHYS	370	Wang, L.	ENFL	527	Wang, Q.	POLY	645
Wang, J.	CATL	53	Wang, L.	BIOT	466	Wang, Q.	POLY	594
Wang, J.	CATL	251	Wang, L.	ENFL	202	Wang, Q.	ENFL	538
Wang, J.	CINF	53	Wang, L.	ENVR	145	Wang, Q.	PHYS	420
Wang, J.	INOR	1224	Wang, L.	I&EC	57	Wang, Q.	CATL	243
Wang, J.	MEDI	134	Wang, L.	INOR	371	Wang, Q.	CATL	322
Wang, J.	CATL	537	Wang, L.	INOR	782	Wang, Q.	ORGN	152
Wang, J.	MEDI	295	Wang, L.	CELL	270	Wang, Q.	ORGN	275
Wang, J.	COLL	245	Wang, L.	COMP	194	Wang, Q.	PHYS	365
Wang, J.	PMSE	446	Wang, L.	COMP	379	Wang, R.	ENVR	226
Wang, J.	GEOC	113	Wang, L.	COMP	414	Wang, R.	POLY	87
Wang, J.	NUCL	94	Wang, L.	COMP	416	Wang, R.	ORGN	221
Wang, J.J.	ENVR	102	Wang, L.	COMP	417	Wang, R.	ORGN	228
Wang, J.J.	ENVR	165	Wang, L.	COLL	636	Wang, R.	PMSE	196
Wang, J.J.	ENVR	506	Wang, L.	COMP	155	Wang, R.	POLY	76
Wang, J.	ENFL	151	Wang, L.	AGFD	153	Wang, R.	COLL	683
Wang, J.	ORGN	154	Wang, L.	ORGN	96	Wang, R.	PMSE	49
Wang, J.	COLL	147	Wang, L.	ORGN	543	Wang, S.	BIOT	557
Wang, J.	NUCL	45	Wang, L.	COLL	400	Wang, S.	CELL	188
Wang, J.	PHYS	503	Wang, L.	INOR	1180	Wang, S.	ENVR	509
Wang, J.	BIOL	178	Wang, L.	ORGN	609	Wang, S.	ENVR	510
Wang, J.	ENVR	88	Wang, L.	ORGN	701	Wang, S.	ENVR	606
Wang, J.	ENVR	468	Wang, M.	GEOC	73	Wang, S.	CATL	197
Wang, J.	CELL	284	Wang, M.	COLL	166	Wang, S.	CATL	543
Wang, J.	BIOT	485	Wang, M.	PMSE	361	Wang, S.	COLL	303
Wang, J.	ANYL	51	Wang, M.	ENVR	102	Wang, S.	ENFL	47
Wang, J.	CHED	689	Wang, M.	INOR	1376	Wang, S.	PMSE	354
Wang, J.	PHYS	248	Wang, M.	PMSE	232	Wang, S.	ENFL	69
Wang, J.	BIOT	394	Wang, M.	ANYL	313	Wang, S.	INOR	1173

Wang, S.	POLY	331	Wang, X.	GEOC	270	Wang, Y.	I&EC	90
Wang, S.	POLY	534	Wang, X.	CELL	228	Wang, Y.	PMSE	299
Wang, S.	POLY	535	Wang, X.	MPPG	9	Wang, Y.	INOR	750
Wang, S.	ENVR	182	Wang, X.	INOR	575	Wang, Y.	PHYS	620
Wang, S.	ENVR	486	Wang, X.	INOR	1154	Wang, Y.	PMSE	175
Wang, S.	BIOT	23	Wang, X.	INOR	1245	Wang, Y.	PMSE	364
Wang, S.	I&EC	31	Wang, X.	BIOL	195	Wang, Y.	MEDI	75
Wang, S.	COMP	243	Wang, X.	CATL	488	Wang, Y.	COLL	149
Wang, S.	INOR	1030	Wang, X.	ENFL	512	Wang, Y.	POLY	465
Wang, S.	CARB	43	Wang, X.	ENVR	83	Wang, Y.	ORGN	81
Wang, S.	ENFL	541	Wang, X.	ENVR	85	Wang, Y.	POLY	286
Wang, S.	BIOL	184	Wang, X.	GEOC	42	Wang, Y.	PMSE	555
Wang, S.	CATL	23	Wang, X.	CELL	218	Wang, Y.	POLY	633
Wang, S.	COMP	95	Wang, X.	MEDI	366	Wang, Y.	GEOC	239
Wang, S.	ENVR	157	Wang, X.	PMSE	593	Wang, Y.	BIOL	285
Wang, S.	AGFD	58	Wang, X.	INOR	750	Wang, Y.	COMP	340
Wang, S.	INOR	737	Wang, X.	ENFL	346	Wang, Y.	ENVR	773
Wang, S.	INOR	552	Wang, X.	BIOT	154	Wang, Y.	INOR	161
Wang, T.	CATL	102	Wang, X.	CELL	208	Wang, Y.	PROF	46
Wang, T.	ENFL	211	Wang, X.	FLUO	36	Wang, Y.	INOR	723
Wang, T.	ORGN	171	Wang, X.	ANYL	221	Wang, Y.	CATL	543
Wang, T.	ORGN	354	Wang, X.	MEDI	117	Wang, Y.	ENFL	47
Wang, T.	PMSE	368	Wang, X.	CATL	455	Wang, Y.	PMSE	354
Wang, T.	PMSE	448	Wang, Y.	BIOT	211	Wang, Z.	PMSE	529
Wang, T.	INOR	789	Wang, Y.	BIOT	213	Wang, Z.	CATL	455
Wang, T.	INOR	1236	Wang, Y.	ENVR	141	Wang, Z.	ORGN	607
Wang, T.	AGFD	64	Wang, Y.	ORGN	564	Wang, Z.	ENVR	187
Wang, T.	ENVR	588	Wang, Y.	CATL	186	Wang, Z.	CELL	38
Wang, T.	ENFL	355	Wang, Y.	ENFL	186	Wang, Z.	COMP	404
Wang, T.	INOR	716	Wang, Y.	ENFL	541	Wang, Z.	ANYL	450
Wang, T.	INOR	1422	Wang, Y.	ENVR	88	Wang, Z.	CHED	430
Wang, T.C.	INOR	432	Wang, Y.A.	PHYS	48	Wang, Z.	CHED	446
Wang, T.	I&EC	96	Wang, Y.	CATL	541	Wang, Z.	CHED	1027
Wang, T.	POLY	27	Wang, Y.	COMP	196	Wang, Z.	CHED	1029
Wang, T.	CELL	1	Wang, Y.	AGFD	213	Wang, Z.	CHED	1269
Wang, W.	ENVR	692	Wang, Y.	CATL	114	Wang, Z.	ENFL	175
Wang, W.	I&EC	116	Wang, Y.	ENFL	85	Wang, Z.	INOR	345
Wang, W.	POLY	330	Wang, Y.	I&EC	10	Wang, Z.	ENVR	406
Wang, W.	AGFD	213	Wang, Y.	MEDI	66	Wang, Z.	MEDI	277
Wang, W.	INOR	619	Wang, Y.	GEOC	28	Wang, Z.	INOR	756
Wang, W.	COLL	578	Wang, Y.	CATL	67	Wang, Z.	MEDI	19
Wang, W.	COLL	586	Wang, Y.	I&EC	13	Wang, Z.	ENFL	26
Wang, W.	COLL	607	Wang, Y.	ENVR	135	Wang, Z.	CATL	460
Wang, W.	PHYS	384	Wang, Y.	ENVR	275	Wang, Z.	CHED	171
Wang, W.	ENVR	326	Wang, Y.	ENVR	395	Wang, Z.	COLL	54
Wang, W.	MEDI	332	Wang, Y.	ENFL	48	Wang, Z.	ENVR	681
Wang, W.	INOR	786	Wang, Y.	ENFL	416	Wang, Z.L.	ANYL	411
Wang, X.	CATL	3	Wang, Y.	ENVR	25	Wang, Z.	COLL	416
Wang, X.	ORGN	377	Wang, Y.	INOR	1066	Wang, Z.	ENVR	57
Wang, X.	CELL	73	Wang, Y.	ORGN	303	Wang, Z.	CATL	475
Wang, X.	MEDI	294	Wang, Y.	PHYS	115	Wang, Z.	ENFL	68
Wang, X.	ORGN	538	Wang, Y.	ANYL	364	Wang, Z.	INOR	489
Wang, X.	ENVR	84	Wang, Y.	CATL	67	Wang, Z.	ENFL	34
Wang, X.	ENVR	724	Wang, Y.	CATL	293	Wang, Z.	COLL	734
Wang, X.	GEOC	243	Wang, Y.	I&EC	36	Wang, Z.	ENFL	106

Wang, Z.	ENVR	434	Warner, I.M.	ANYL	111	Watanabe, D.	COLL	240
Wang, Z.	I&EC	30	Warner, I.M.	ANYL	260	Watanabe, K.	PMSE	449
Wanhala, A.K.	GEOC	189	Warner, I.M.	ANYL	284	Watanabe, M.	PHYS	285
Wanichacheva, N.	INOR	1375	Warner, I.M.	ANYL	295	Watanabe, M.	MEDI	133
Wanjiku, F.	CHED	831	Warner, I.M.	ANYL	355	Watanabe, M.	MEDI	90
Wankel, S.D.	GEOC	78	Warner, I.M.	ANYL	375	Watanabe, N.	PHYS	314
Wanless, E.	COLL	535	Warner, I.M.	ANYL	376	Watanabe, T.	POLY	99
Wannemo, K.	CHED	1849	Warner, I.M.	BIOL	99	Watanabe, T.	POLY	378
Wanzenböck, J.	ANYL	235	Warner, I.M.	CHED	33	Watanabe, T.	POLY	384
Wapeesittipan, P.	COMP	156	Warner, I.M.	ENFL	20	Watanabe, T.	POLY	392
Wappes, E.	ORGN	559	Warner, I.M.	ENFL	515	Watanabe, T.	MEDI	379
Wappes, E.	ORGN	611	Warner, I.M.	ENVR	629	Watanabe, T.	MEDI	32
Wappes, E.	ORGN	697	Warner, I.M.	PHYS	480	Watanabe, Y.	INOR	922
Wappes, E.	ORGN	699	Warner, I.M.	PMSE	530	Watanabe, Y.	INOR	923
Wappes, E.	ORGN	700	Warner, J.C.	CHED	245	Watanabe, Y.	INOR	1021
Wappes, S.	CHED	971	Warner, J.C.	CHED	316	Watanabe, Y.	COLL	308
Wappes, S.	PHYS	519	Warner, J.C.	PROF	39	Waterhouse, A.L.	AGFD	204
Ward, A.	ENFL	189	Warner, N.R.	GEOC	152	Waterhouse, A.L.	AGFD	220
Ward, C.P.	ENFL	461	Warner, N.R.	GEOC	153	Waterman, R.	INOR	156
Ward, C.P.	ENVR	117	Warner, N.R.	GEOC	156	Waterman, R.	INOR	1112
Ward, C.P.	ENVR	520	Warner, T.	INOR	441	Waterman, R.	INOR	1253
Ward, C.P.	ENVR	522	Warnke, K.R.	CHED	1291	Waterman, R.	INOR	1295
Ward, D.	CHED	130	Waroquier, M.E.	COMP	3	Waters, C.	CHED	1621
Ward, D.	CHED	1945	Warr, G.	PHYS	63	Waters, K.	COMP	374
Ward, D.	CHED	2049	Warr, G.	PHYS	292	Waters, M.	CELL	83
Ward, J.	ORGN	236	Warr, G.	PHYS	656	Watford, S.	CINF	82
Ward, J.	ORGN	380	Warr, W.A.	CINF	49	Watkins, D.L.	ORGN	469
Ward, J.	ORGN	24	Warrack, B.M.	BIOT	12	Watkins, D.L.	ORGN	492
Ward, L.	MEDI	244	Warrack, B.M.	MEDI	20	Watkins, D.L.	PHYS	535
Ward, L.	PMSE	26	Warrag, S.E.	PHYS	655	Watkins, D.L.	PMSE	450
Ward, M.B.	INOR	62	Warren, E.	GEOC	71	Watkins, D.L.	PMSE	478
Ward, R.M.	POLY	671	Warren, G.L.	COMP	85	Watkins, E.	CHED	1598
Ward, R.	MEDI	227	Warren, J.J.	INOR	116	Watkins, G.	BIOL	230
Ward, R.	MEDI	293	Warren, M.	CHED	1703	Watkins, S.M.	MEDI	381
Ward, S.	ANYL	116	Warren, N.	COLL	78	Watkins, T.S.	ENFL	50
Ward, S.	ANYL	148	Warren, T.D.	BIOT	62	Watson, A.	CHED	61
Ward, S.	PMSE	320	Warren, T.H.	COMP	282	Watson, A.E.	CHED	445
Ward, S.P.	PMSE	44	Warren, W.S.	PHYS	381	Watson, A.J.	ORGN	384
Ward, S.E.	MEDI	308	Warwar Damouny, C.	CATL	136	Watson, A.J.	BIOL	94
Ward, S.	CINF	3	Washburn, A.	INOR	1365	Watson, A.J.	ENVR	695
Ward, S.	CINF	19	Washington, K.E.	POLY	146	Watson, A.J.	ORGN	34
Ward, S.	CINF	22	Washington, R.E.	GEOC	252	Watson, B.	CHED	335
Ward, T.R.	INOR	70	Washton, N.	CATL	51	Watson, B.	CHED	1919
Ward, T.R.	INOR	633	Washton, N.	CATL	67	Watson, C.	CHED	1901
Warden, E.	INOR	408	Washton, N.	CATL	514	Watson, D.E.	COMP	344
Ware, G.R.	INOR	201	Washton, N.	CATL	515	Watson, G.	ENVR	375
Warhausen, A.	CHED	1108	Wasielewski, M.R.	ENFL	80	Watson, K.	ENVR	779
Warikoo, V.	BIOT	556	Wasielewski, M.R.	INOR	1334	Watson, L.A.	INOR	182
Warin, N.	MEDI	244	Wasielewski, M.R.	ORGN	310	Watson, M.A.	COMP	89
Waris, G.	MEDI	110	Wasielewski, M.R.	PHYS	122	Watson, M.A.	COMP	103
Warlick, C.	PMSE	370	Wasike, P.	ANYL	302	Watson, M.A.	COMP	186
Warner, D.	CHED	1354	Wasilewski, E.	CHAS	42	Watson, M.A.	COMP	278
Warner, D.	ORGN	249	Wasinger, E.C.	INOR	536	Watson, M.P.	ORGN	102
Warner, D.	CHED	757	Wass, D.	INOR	155	Watson, M.P.	ORGN	103
Warner, D.	CHED	916	Wassarman, K.	MEDI	168	Watson, S.J.	PMSE	588

Watson, T.J.	CHED	97	Weaver, J.D.	ORGN	563	Webster, C.E.	INOR	1200
Watson, V.	ENVR	439	Weaver, M.R.	COLL	81	Webster, C.E.	INOR	1276
Watt, C.	ORGN	223	Weaver, M.R.	COLL	212	Webster, C.E.	INOR	1297
Watt, G.	MEDI	25	Webb, A.	CHED	1233	Webster, C.E.	PHYS	540
Watt, S.L.	CHED	33	Webb, A.	CHED	1320	Webster, D.C.	POLY	706
Watt, T.	CHED	533	Webb, A.	COLL	7	Webster, T.	BIOL	97
Watt, T.	CHED	544	Webb, A.	INOR	755	Weck, P.	INOR	84
Watt, T.	CHED	556	Webb, C.	BIOL	284	Weck, P.	NUCL	69
Watt, T.	CHED	613	Webb, C.	CHED	536	Weck, P.	NUCL	72
Wattanathana, W.	PMSE	283	Webb, D.	ENVR	485	Weckhuysen, B.	CATL	95
Wattanathana, W.	PMSE	489	Webb, L.J.	BIOT	25	Weckhuysen, B.	CATL	277
Wattanatorn, N.	COLL	519	Webb, L.J.	BIOT	52	Weckhuysen, B.	CATL	425
Watterson, D.	MEDI	308	Webb, L.J.	CHED	2156	Weckhuysen, B.	CELL	215
Watterson, S.H.	MEDI	6	Webb, L.J.	COLL	713	Weder, C.	CELL	67
Watterson, S.H.	MEDI	36	Webb, M.T.	PHYS	588	Weder, C.	CELL	419
Watterson, S.H.	MEDI	297	Webb, M.	PROF	45	Weder, C.	PMSE	13
Watts, E.	MEDI	63	Webb, R.	CHED	1893	Weder, C.	POLY	614
Watts, L.	ENVR	337	Webber, C.L.	AGFD	181	Wedler, H.	PROF	20
Watts, M.R.	POLY	148	Webber, C.L.	CHED	358	Wee, K.	INOR	1066
Watts, S.	BIOT	383	Webber, C.L.	CHED	360	Weeks, A.M.	BIOL	15
Waugh, D.	MEDI	11	Webber, H.	MEDI	69	Weeks, C.L.	CHED	1141
Waugh, S.	ENVR	563	Webber, T.	INOR	283	Weeks, C.	ENVR	690
Waugh, S.	ENVR	766	Webber, T.	PROF	51	Weeks, E.R.	CATL	405
Wawrzinek, R.	BIOL	279	Webber, T.	CATL	194	Weeks, J.W.	COMP	293
Wawrzinek, R.	CARB	8	Webber, T.	INOR	1419	Weeks, K.	CHED	633
Wawrzinek, R.	MEDI	318	Weber, A.E.	MEDI	261	Weeks, K.M.	ORGN	368
Wax, M.	ENVR	31	Weber, A.E.	WCC	15	Weeks, W.	CHED	1792
Way, A.	POLY	538	Weber, C.	POLY	184	Weeks, W.	PMSE	420
Wayama, F.	BIOT	432	Weber, D.	COLL	345	Weeks, W.	POLY	473
Waychunas, G.A.	GEOC	88	Weber, E.J.	ENVR	183	Weerakkody, C.	INOR	1368
Wayland, B.B.	INOR	850	Weber, J.	GEOC	6	Weeramange, C.J.	BIOL	131
Wayland, B.B.	INOR	986	Weber, J.	GEOC	7	Weeramange, C.J.	MEDI	358
Wayment, D.	AGFD	181	Weber, J.	GEOC	8	Weerapana, E.	BIOL	200
Wayment, D.	CHED	358	Weber, J.	GEOC	279	Weetall, M.	ORGN	369
Wayment, D.	CHED	360	Weber, K.	GEOC	93	Wegener, A.	ORGN	735
Wayment, D.	CHED	2137	Weber, K.	INOR	1379	Wegener, A.	PHYS	486
Wayment, L.	CHED	588	Weber, R.J.	CHED	2096	Wegener, A.R.	PHYS	469
Wayment, L.	MEDI	391	Weber, R.	CATL	428	Wegener, K.	CHED	1846
Waymouth, R.M.	INOR	105	Weber, S.L.	BIOL	77	Weghorst, C.M.	AGFD	235
Waymouth, R.M.	PMSE	548	Weber, S.	MEDI	340	Wegmann, A.	ENFL	482
Wayne, C.	BIOT	347	Weber-Bargioni, A.	COLL	379	Wegner, J.	COMP	120
Wear, M.	COMP	380	Weberg, A.B.	INOR	1340	Wehlin, S.A.	INOR	1073
Weare, J.	GEOC	141	Webster, C.E.	INOR	159	Wehrens, X.H.	CHED	275
Weathington, N.	MEDI	231	Webster, C.E.	INOR	390	Wei, A.	MEDI	2
Weaver, A.A.	ANYL	72	Webster, C.E.	INOR	485	Wei, C.	ENVR	286
Weaver, G.C.	CHED	288	Webster, C.E.	INOR	496	Wei, C.	BIOL	34
Weaver, G.C.	CHED	1989	Webster, C.E.	INOR	508	Wei, C.	BIOL	201
Weaver, J.D.	ORGN	8	Webster, C.E.	INOR	510	Wei, C.	BIOL	202
Weaver, J.D.	ORGN	180	Webster, C.E.	INOR	690	Wei, C.	ORGN	159
Weaver, J.D.	ORGN	230	Webster, C.E.	INOR	707	Wei, J.	CATL	343
Weaver, J.D.	ORGN	349	Webster, C.E.	INOR	882	Wei, L.	MEDI	92
Weaver, J.D.	ORGN	353	Webster, C.E.	INOR	1070	Wei, L.	MEDI	93
Weaver, J.D.	ORGN	404	Webster, C.E.	INOR	1197	Wei, L.	CELL	345
Weaver, J.D.	ORGN	407	Webster, C.E.	INOR	1198	Wei, L.	CELL	367
Weaver, J.D.	ORGN	561	Webster, C.E.	INOR	1199	Wei, L.	PMSE	527

Wei, N.	ENVR	396	Weinreb, S.M.	ORGN	549	Welch, J.T.	FLUO	17
Wei, N.	ENVR	716	Weinrich, M.	CHED	2116	Welch, J.T.	ORGN	680
Wei, N.	MEDI	69	Weinstein, D.S.	MEDI	109	Welch, K.	INOR	862
Wei, P.	POLY	630	Weinstein, Z.B.	CATL	350	Welch, L.A.	ENVR	164
Wei, Q.	AGFD	85	Weinstein, Z.B.	CATL	485	Welch, R.M.	INOR	1060
Wei, S.	PHYS	375	Weinstock, J.	MEDI	10	Welch, S.A.	ENVR	580
Wei, S.	COLL	408	Weir, E.S.	ORGN	715	Welden, A.R.	CHED	163
Wei, T.	COMP	372	Weir, M.G.	CHED	1295	Welder, C.	CHED	211
Wei, T.	ENFL	287	Weirath, N.A.	CHED	1623	Welker, E.A.	INOR	27
Wei, T.	PMSE	73	Weisberg, E.	MEDI	232	Welker, M.E.	ORGN	243
Wei, W.	ENFL	293	Weise, N.	COLL	221	Wellen, A.	POLY	508
Wei, W.	PMSE	576	Weisel, M.D.	MEDI	327	Wellen, A.	POLY	509
Wei, W.	CATL	318	Weiss, C.A.	ENVR	703	Wellen, R.	CELL	95
Wei, W.	FLUO	64	Weiss, D.	COMP	400	Weller, D.	PMSE	91
Wei, W.	POLY	244	Weiss, D.J.	CHED	1938	Weller, D.	POLY	309
Wei, X.	COMP	410	Weiss, E.	COLL	772	Weller, H.	COLL	419
Wei, X.	ORGN	28	Weiss, E.	ENFL	5	Weller, H.	COLL	577
Wei, Y.	INOR	481	Weiss, E.A.	INOR	569	Wells, D.	ENVR	743
Wei, Y.	COLL	487	Weiss, E.A.	PHYS	345	Wells, E.A.	BIOT	235
Wei, Y.	ENVR	621	Weiss, E.A.	PHYS	367	Wells, G.	CATL	424
Wei, Z.	ENVR	169	Weiss, J.	INOR	497	Wells, G.	ENVR	761
Wei, Z.	CHED	1404	Weiss, J.	INOR	1316	Wells, G.	INOR	54
Weibley, W.L.	ORGN	590	Weiss, J.	ORGN	468	Wells, J.A.	BIOL	15
Weickhardt, A.	BIOL	300	Weiss, J.	ORGN	637	Wells, J.A.	BIOL	168
Weidner, C.	CHED	1840	Weiss, M.	POLY	703	Wells, J.	CHED	823
Weidner, S.M.	PMSE	248	Weiss, M.	BIOT	37	Wells, P.	CATL	130
Weidner, T.	BIOT	123	Weiss, M.M.	MEDI	3	Wells, P.	CATL	373
Weidner, T.	BIOT	172	Weiss, P.S.	CHED	1923	Welsch, T.	CHED	1512
Weidner, T.	BIOT	270	Weiss, P.S.	COLL	293	Welsh, C.	ORGN	718
Weidner, T.	BIOT	452	Weiss, P.S.	COLL	452	Welsh, C.	ORGN	719
Weidner, T.	BIOT	552	Weiss, P.S.	COLL	519	Welsh, D.	CATL	160
Weigand, J.	POLY	484	Weiss, P.S.	COLL	686	Welsh, J.	BIOT	4
Weigand, J.	POLY	563	Weiss, P.S.	COLL	746	Welsh, J.H.	BIOT	449
Weigand, W.A.	CHED	1125	Weiss, P.S.	PHYS	496	Welshons, J.	CHED	664
Weigand, W.A.	CHED	1126	Weiss, W.	ENFL	95	Welti-Chanes, J.	AGFD	146
Weigand, W.A.	CHED	1127	Weiss, W.	ENFL	291	Welton, T.	PHYS	119
Weigel, T.	ORGN	109	Weiss, W.A.	CHED	694	Wen, C.	CATL	337
Weigle, P.R.	BIOL	263	Weisser, S.	BIOT	388	Wen, C.	CATL	21
Weigelt, C.A.	MEDI	36	Weiss-Errico, M.J.	ENVR	147	Wen, J.	I&EC	174
Weigelt, C.A.	MEDI	109	Weiss-Errico, M.J.	ENVR	231	Wen, J.	COLL	414
Weiland, K.	CELL	333	Weiss-Errico, M.J.	ENVR	385	Wen, L.	MEDI	67
Weiland, M.	POLY	126	WeiBl, M.	CELL	336	Wen, L.	MEDI	68
Weiland, M.	POLY	575	Weissman, B.	BIOL	20	Wen, P.	AGFD	233
Weiman, D.	CHED	175	Weissman, B.	BIOL	22	Wen, W.	I&EC	30
Weimer, A.W.	ENFL	397	Weissmann, D.	INOR	313	Wen, X.	ENVR	455
Weinberg, D.R.	INOR	245	Weisz, A.	ANYL	128	Wen, X.	ANYL	245
Weinberg, J.B.	BIOT	104	Weitz, A.	INOR	604	Wen, X.	ANYL	204
Weinberg, J.B.	CHED	243	Weitz, A.	INOR	632	Wen, X.	BIOT	423
Weinberg, J.B.	CHED	2012	Weitz, A.	INOR	1017	Wen, X.	POLY	174
Weinberger, D.	CATL	240	Weitz, D.A.	ANYL	17	Wen, Z.	ORGN	14
Weinert, E.E.	BIOL	117	Weitz, E.	I&EC	66	Wen, Z.	ORGN	173
Weinert, E.E.	BIOL	123	Welander, E.	CHED	1833	Wenbin, L.	PMSE	133
Weinert, E.E.	CHED	273	Welbaum, J.	AGFD	74	Wenbin, L.	PMSE	484
Weinert, E.E.	CHED	274	Welborn, M.	COMP	349	Wencewicz, T.A.	BIOL	155
Weinman, S.T.	PMSE	190	Welch, E.	BIOL	39	Wencewicz, T.A.	MEDI	316

Wencewicz, T.A.	ORGN	64	Wesolowski, D.	GEOC	4	Westrope, M.	COMP	260
Wendel, S.O.	I&EC	157	Wesolowski, D.	GEOC	56	Westwood, N.J.	CATL	94
Wendel, S.O.	MEDI	111	Wesolowski, D.	GEOC	258	Wetmore, S.D.	FLUO	8
Wendeler, M.	BIOT	217	Wesolowski, E.	CHED	457	Wette, M.	COLL	387
Wendell, C.I.	ORGN	596	Wesolowski, G.	MEDI	69	Wetterhall, M.	BIOT	291
Wendler, F.	CELL	299	Wessel, J.	CHED	965	Wetterhall, M.	BIOT	544
Wendover, K.	CHED	1758	Wesselkamper, S.	ENVR	417	Wetzler, M.	NUCL	62
Wendt, M.	CHED	1169	Wesselkamper, S.	ENVR	421	Wetzler, M.	ORGN	590
Weng, C.	MEDI	41	Wessels, H.	PMSE	501	Wetzler, S.	POLY	78
Wengryniuk, S.	ORGN	528	Wessner, K.	MEDI	69	Wetzler, S.	POLY	83
Wenk, J.	ENVR	764	Wessner, K.	MEDI	191	Wewers, J.	ENVR	388
Wenner, R.	COMP	183	West, A.C.	COMP	347	Wexler, R.R.	MEDI	2
Wenner, R.	COMP	189	West, A.C.	NUCL	89	Wezendonk, T.	I&EC	88
Wennerström, H.	COLL	317	West, A.C.	NUCL	90	Whalen, K.	ORGN	535
Wennerström, H.	COLL	455	West, G.	MEDI	321	Whaley, J.A.	ENFL	147
Wennerström, H.	COLL	528	West, H.	COLL	647	Whalley, A.	ORGN	375
Wenrich, F.	CHED	1790	West, J.D.	BIOL	58	Wharton, M.	CHED	1878
Wentzel, M.	CHED	47	West, J.D.	BIOL	239	Wheat, T.M.	INOR	979
Wentzel, M.	CHED	816	West, J.	BIOT	12	Wheeldon, I.R.	BIOT	232
Wentzel, M.T.	CHED	834	West, J.K.	CHED	1641	Wheeldon, I.R.	BIOT	549
Wentzel, M.T.	CHED	1478	West, K.N.	PHYS	25	Wheeler, C.	ANYL	214
Wentzell, J.	COLL	395	West, K.N.	PHYS	552	Wheeler, C.	CHED	969
Wenz, A.	CHED	25	West, M.C.	CHED	985	Wheeler, D.R.	INOR	606
Wenzel, M.	INOR	682	West, N.	CHED	1690	Wheeler, K.A.	CHED	1399
Wenzel, T.J.	CHED	261	West, N.R.	BIOL	239	Wheeler, K.A.	INOR	56
Werba, O.	POLY	310	Westbrook, E.G.	CHED	1300	Wheeler, K.A.	INOR	249
Werling, K.	COMP	327	Westcott, B.L.	CHED	993	Wheeler, K.A.	ORGN	288
Wermer, J.R.	ENFL	446	Westcott, B.L.	CHED	1094	Wheeler, K.A.	ORGN	482
Werner, A.	CELL	198	Westerberg, K.	BIOT	5	Wheeler, L.	INOR	172
Werner, E.J.	INOR	259	Westerberg, K.	BIOT	516	Wheeler, M.C.	CATL	355
Werner, E.J.	INOR	260	Westerhoff, L.	COMP	231	Wheeler, R.	PMSE	315
Werner, E.J.	INOR	420	Westerhoff, P.K.	CATL	462	Wheeler, R.M.	ENVR	541
Werner, J.	PMSE	89	Westerhoff, P.K.	ENVR	88	Wheeler, S.	COMP	135
Werner, J.	PMSE	235	Westerhoff, P.K.	ENVR	152	Wheeler, S.E.	COMP	387
Werth, C.J.	ENVR	80	Westerhoff, P.K.	ENVR	258	Wheeler, S.E.	MEDI	30
Werth, C.J.	ENVR	82	Westerlund, B.	BIOT	285	Wheeler, T.A.	INOR	880
Werth, C.J.	ENVR	131	Westerlund, B.	BIOT	309	Whelton, A.	INOR	459
Werth, C.J.	ENVR	390	Westermaier, Y.	COMP	382	Whelton, A.J.	ENVR	96
Werth, C.J.	GEOC	72	Westerman, C.	POLY	357	Wherry, B.	AGFD	56
Werth, C.J.	GEOC	182	Westerman, C.	POLY	398	Whitaker, C.	CHED	1551
Werth, C.J.	GEOC	202	Westerman, D.	ENVR	310	Whitcomb, S.	CHED	1358
Werth, C.J.	GEOC	282	Westerman, D.	ENVR	410	White, A.	NUCL	68
Werth, J.	ORGN	98	Westgate, C.	CHED	620	White, A.	BIOT	76
Werth, M.T.	CHED	79	Westheimer, B.	COMP	213	White, A.	BIOT	77
Wertz, I.E.	MEDI	235	Westheimer, B.	PHYS	358	White, A.	ENFL	142
Wesdemiotis, C.	PMSE	301	Westland, K.	BIOT	191	White, A.	CHED	1277
Weselinski, L.	INOR	727	Westmeier, D.	COLL	1	White, A.	INOR	149
Weselinski, L.J.	ORGN	448	Westmoreland, D.	INOR	569	White, B.M.	ORGN	15
Wesibrod, C.	ENFL	464	Westoby, M.	BIOT	362	White, C.A.	POLY	583
Wesley, N.	INOR	58	Westoby, M.	BIOT	508	White, C.C.	PMSE	588
Wesolowski, D.	ENFL	488	Weston, C.	ANYL	76	White, C.	COMP	371
Wesolowski, D.	GEOC	1	Weston, M.	INOR	625	White, C.	INOR	49
Wesolowski, D.	GEOC	49	Weston, S.	COLL	644	White, C.J.	INOR	205
Wesolowski, D.	GEOC	210	Westover, A.S.	ENFL	465	White, D.	ENVR	24
Wesolowski, D.	INOR	711	Westrop, J.	GEOC	93	White, J.B.	CHED	1592

White, J.F.	CATL	396	Whitman, C.P.	ENVR	134	Wiedner, E.S.	INOR	612
White, J.L.	ENFL	147	Whitman, T.	ENVR	747	Wiedner, E.S.	INOR	665
White, J.L.	CATL	538	Whitmer, T.	GEOC	209	Wiegand, J.	ENVR	578
White, J.L.	ENFL	264	Whitmore, L.	ENFL	404	Wiegmann, T.	CATL	181
White, J.L.	POLY	188	Whitnell, R.M.	CHED	80	Wiemer, A.J.	MEDI	256
White, J.	CHED	95	Whitnell, R.M.	CHED	2082	Wiemer, A.J.	MEDI	372
White, J.	CHED	98	Whitnell, R.M.	CHED	2139	Wiemer, D.F.	MEDI	144
White, J.	CHED	1844	Whitt, J.	MEDI	125	Wiemer, D.F.	MEDI	372
White, J.	COMP	224	Whitt, J.	MEDI	179	Wienk, H.L.	CELL	215
White, J.R.	GEOC	41	Whittaker, A.	POLY	774	Wienke, M.	COLL	374
White, J.R.	GEOC	234	Whittaker, C.A.	BIOT	28	Wienstock, L.	POLY	656
White, M.	ORGN	52	Whittaker, L.L.	INOR	96	Wierzbicka, C.	POLY	301
White, M.	ORGN	596	Whittaker, R.E.	CHED	1400	Wierzbicki, A.	PHYS	25
White, M.G.	CATL	154	Whittaker, R.E.	ORGN	47	Wiese, T.E.	ANYL	450
White, M.A.	COLL	503	Whittaker, R.E.	ORGN	615	Wiesenfeld, L.	PHYS	139
White, M.A.	INOR	826	Whittaker, T.N.	CATL	506	Wieser, T.	CHED	1780
White, N.	ENVR	403	Whittaker, T.N.	INOR	292	Wiesner, A.	INOR	320
White, N.	ORGN	286	Whittemore, T.J.	INOR	16	Wiesner, M.	ENVR	199
White, N.	ORGN	491	Whitten, D.G.	ORGN	311	Wiesner, M.R.	ENVR	244
White, P.	INOR	899	Whyatt, G.	ENFL	319	Wiesner, U.B.	INOR	1372
White, P.M.	AGFD	181	Whyte, C.	ORGN	622	Wiesner, U.B.	PMSE	89
White, P.M.	CHED	358	Wiaderek, K.M.	ENFL	254	Wiest, O.	MEDI	76
White, P.M.	CHED	360	Wiberg, K.	ENVR	781	Wiest, J.M.	ANYL	215
White, R.C.	HIST	3	Wiberg, K.	ENVR	785	Wiest, J.M.	CHED	1315
White, S.R.	POLY	182	Wiberg, K.B.	PHYS	477	Wiest, J.M.	CHED	2087
White, S.R.	POLY	183	Wicht, D.K.	CHED	239	Wietstock, S.	ANYL	67
White, S.S.	BMGT	1	Wick, P.	ENVR	324	Wiget, P.	CHED	1410
White, S.S.	SCHB	7	Wicker, B.F.	INOR	1211	Wiget, P.	CHED	1574
White, T.J.	POLY	544	Wickham, J.R.	GEOC	219	Wiget, P.	CHED	1658
White, T.J.	POLY	631	Wicklein, B.	PMSE	205	Wiget, P.	ORGN	390
White, T.A.	INOR	1067	Wickliffe, J.	AGFD	157	Wiggins, B.	CATL	152
White, T.A.	INOR	16	Wickman, M.	BIOL	39	Wiggins, J.S.	PMSE	41
White, T.	POLY	798	Wickramasinghe, L.	INOR	492	Wiggins, J.S.	PMSE	352
White, W.	INOR	1168	Wickramasinghe, S.R.	PMSE	193	Wiggins, J.S.	PMSE	418
Whitecavage, J.	AGFD	212	Wickramasinghe, S.	BIOT	441	Wiggins, J.S.	POLY	484
Whitcotton, L.	ENFL	38	Wickramasinghe, S.	BIOT	480	Wiggins, J.S.	POLY	512
Whited, M.T.	INOR	246	Wickramasinghe, S.	PMSE	87	Wigginton, K.	ENVR	73
Whited, M.T.	INOR	890	Widen, J.C.	MEDI	38	Wigginton, K.	ENVR	81
Whited, M.T.	INOR	891	Widenhoefer, R.	ORGN	394	Wigginton, K.	ENVR	235
Whitehead, B.R.	MEDI	257	Widera, J.	CATL	453	Wigginton, K.	ENVR	255
Whitehead, B.R.	MEDI	327	Widera, J.	ENFL	82	Wigginton, K.	ENVR	437
Whitehead, H.D.	ANYL	464	Widick, D.	CHED	1352	Wigginton, K.	ENVR	513
Whitehead, H.D.	CHED	424	Widick, D.	CHED	1838	Wigginton, K.	ENVR	546
Whitehead, P.S.	CHED	370	Widicus Weaver, S.L.	PHYS	134	Wigman, B.W.	ORGN	612
Whitehead, P.S.	CHED	1869	Widmer, J.	CHED	989	Wiillson, T.	MEDI	402
Whitehead, S.	ORGN	384	Widstrom, A.	PHYS	508	Wiita, E.	INOR	343
Whitesell, A.N.	CHED	1509	Widya, M.	MEDI	16	Wijayapala, R.	POLY	343
Whitesides, G.M.	COLL	480	Wiederkehr, R.	CHED	396	Wijeratne, G.B.	INOR	118
Whitfield, R.	POLY	213	Wiederoder, M.S.	POLY	703	Wijeratne, G.B.	INOR	137
Whitford, C.L.	COMP	61	Wiediger, S.D.	CHED	145	Wijeratne, G.B.	INOR	211
Whiting, Q.T.	CHED	981	Wiediger, S.D.	CHED	763	Wijngaard, H.	BIOT	316
Whiting, Q.T.	ENVR	112	Wiediger, S.D.	CHED	835	Wilborn, E.	POLY	239
Whitlatch, A.	CHED	111	Wiediger, S.D.	CHED	2175	Wilbur, D.S.	FLUO	71
Whitley, J.W.	PMSE	356	Wiedner, E.S.	INOR	121	Wilcox, B.	CHED	712
Whitley, M.	COLL	731	Wiedner, E.S.	INOR	269	Wilcox, E.	CHED	784

Wilcox, M.J.	ANYL	109	Wilkinson, K.	AGFD	207	Williams, A.J.	ENVR	421
Wilcox, M.J.	CHAS	7	Wilkinson, R.	MEDI	122	Williams, A.J.	ENVR	422
Wilcox, M.J.	CHAS	43	Wilks, A.	BIOL	69	Williams, A.J.	ENVR	731
Wilcox, W.D.	CHED	1778	Wilks, A.	INOR	134	Williams, A.J.	HIST	5
Wild, M.	CHED	963	Wilks, A.	MEDI	395	Williams, A.	BIOL	187
Wild, S.	INOR	888	Wilks, L.	BIOT	436	Williams, A.	PHYS	527
Wilde, N.	CATL	213	Wilks, L.	BIOT	495	Williams, B.M.	WCC	8
Wilde, N.	CATL	266	Willard, A.	CATL	28	Williams, B.	CHED	1244
Wilder, S.C.	CHED	917	Willard, A.	CATL	32	Williams, B.	BIOT	169
Wildes, D.	MEDI	277	Willard, A.	COMP	325	Williams, B.	INOR	844
Wildfire, C.	ENFL	517	Willard, A.	PHYS	173	Williams, B.W.	CHED	1433
Wildman, A.	GEOC	85	Willard, A.	POLY	140	Williams, B.	CHED	656
Wildman, C.	ENVR	129	Willard, A.	POLY	633	Williams, C.	BIOT	55
Wildman, M.	ENVR	739	Willard, A.P.	COMP	13	Williams, C.	PHYS	658
Wildman, S.A.	COMP	84	Willard, A.P.	PHYS	347	Williams, C.G.	ORGN	254
Wildman, S.A.	MEDI	112	Willard, A.P.	PHYS	397	Williams, C.	BIOT	132
Wiley, J.B.	INOR	354	Willard, A.P.	PHYS	517	Williams, C.	BIOT	130
Wiley, J.B.	INOR	574	Willauer, H.D.	CATL	250	Williams, C.	BIOT	311
Wiley, J.B.	INOR	764	Willcox, E.	CHED	1641	Williams, C.	MEDI	85
Wiley, J.B.	INOR	794	Wille, E.E.	HIST	31	Williams, C.C.	ORGN	698
Wiley, J.B.	INOR	797	Willemin, M.	ENVR	424	Williams, C.G.	COLL	375
Wiley, J.B.	INOR	798	Willemsen, J.	GEOC	172	Williams, C.	ENVR	511
Wiley, J.B.	INOR	835	Willers, T.	COLL	691	Williams, C.	COLL	535
Wiley, J.B.	ORGN	497	Willetts, K.A.	ANYL	177	Williams, C.	MEDI	125
Wiley, K.	CHED	830	William, C.	COLL	749	Williams, C.	MEDI	179
Wilfer, C.	INOR	65	Williams, A.K.	POLY	313	Williams, D.	CARB	52
Wilfred, C.D.	I&EC	47	Williams, A.	BIOT	259	Williams, D.	ORGN	737
Wilhelm, C.	CHAS	30	Williams, A.	CHED	1193	Williams, D.	INOR	1336
Wilhelm, C.	CHED	622	Williams, A.	BIOT	399	Williams, D.R.	ORGN	570
Wilhelm, C.	CHED	777	Williams, A.K.	CARB	14	Williams, D.	INOR	1353
Wilhelm, C.	CHED	1864	Williams, A.K.	CHED	599	Williams, D.G.	CINF	1
Wilhelm, J.	PHYS	187	Williams, A.K.	CHED	1568	Williams, E.	BIOT	545
Wilhelm, M.	POLY	600	Williams, A.	BIOT	537	Williams, E.	MEDI	129
Wilhelm, M.R.	CHED	777	Williams, A.M.	BIOL	11	Williams, E.R.	INOR	1320
Wilhelm, M.R.	CHED	1864	Williams, A.	CINF	110	Williams, F.	ORGN	599
Wilhelm, M.R.	ENVR	320	Williams, A.J.	ANYL	24	Williams, F.	PMSE	379
Wilhelm, S.N.	ORGN	517	Williams, A.J.	ANYL	28	Williams, F.	POLY	801
Wilk, M.	CHED	769	Williams, A.J.	ANYL	29	Williams, G.J.	BIOT	535
Wilk, M.	CHED	971	Williams, A.J.	ANYL	32	Williams, G.	AGFD	134
Wilk, M.	INOR	974	Williams, A.J.	ANYL	387	Williams, I.	CHED	1021
Wilke, C.	ENVR	240	Williams, A.J.	CINF	14	Williams, J.	CHED	874
Wilke, T.	CATL	505	Williams, A.J.	CINF	15	Williams, J.	INOR	441
Wilkening, R.	MEDI	92	Williams, A.J.	CINF	16	Williams, J.C.	ORGN	439
Wilkening, R.	MEDI	93	Williams, A.J.	CINF	19	Williams, J.	CHED	1272
Wilkerson-Dixon, U.	CHED	361	Williams, A.J.	CINF	60	Williams, J.	CHED	1343
Wilking, J.	COLL	13	Williams, A.J.	CINF	82	Williams, J.	CHED	118
Wilkins, B.	GEOC	44	Williams, A.J.	CINF	83	Williams, J.P.	MEDI	280
Wilkins, B.	INOR	1293	Williams, A.J.	CINF	84	Williams, J.S.	PMSE	450
Wilkins, D.	COLL	152	Williams, A.J.	CINF	85	Williams, J.S.	PMSE	478
Wilkins, D.	PHYS	335	Williams, A.J.	CINF	87	Williams, J.	CHED	692
Wilkins, M.	ANYL	281	Williams, A.J.	CINF	102	Williams, J.R.	CHED	1966
Wilkins, M.J.	ENVR	284	Williams, A.J.	CINF	106	Williams, J.R.	CHED	2038
Wilkinson, B.	COLL	725	Williams, A.J.	ENVR	359	Williams, K.	CHED	1718
Wilkinson, J.	NUCL	5	Williams, A.J.	ENVR	416	Williams, K.	GEOC	123
Wilkinson, J.	NUCL	6	Williams, A.J.	ENVR	417	Williams, K.	CHED	132

Williams, K.	CHED	1091	Wilson, R.C.	BIOT	363	Winalski, L.	ANYL	411
Williams, K.	CHED	1093	Wilson, R.C.	COLL	268	Winans, K.	CELL	240
Williams, K.	INOR	1332	Wilmer, J.	COMP	350	Winans, R.E.	ENFL	551
Williams, K.M.	CHED	1234	Wilming, A.	BIOT	493	Winchester, W.R.	CHED	1193
Williams, K.	CHED	163	Wilsey, L.J.	COLL	236	Windus, T.L.	PHYS	250
Williams, L.	PMSE	531	Wilson, A.	CELL	83	Windus, T.L.	PROF	22
Williams, L.	CHED	2009	Wilson, A.	CHED	1792	Winegar, A.T.	CHED	1138
Williams, M.	POLY	288	Wilson, A.	POLY	473	Winetrou, J.	POLY	512
Williams, M.	NUCL	21	Wilson, A.J.	ANYL	177	Winey, K.I.	PMSE	228
Williams, M.	PHYS	128	Wilson, A.K.	COMP	307	Winfield, J.M.	FLUO	24
Williams, N.	INOR	182	Wilson, A.K.	COMP	348	Winfield, L.	CHED	211
Williams, N.	INOR	263	Wilson, A.	CHED	679	Winfield, L.	CHED	1668
Williams, N.S.	POLY	367	Wilson, B.	CHED	847	Winfield, S.	CINF	101
Williams, N.J.	INOR	1001	Wilson, B.L.	AGFD	180	Wing, D.	CARB	62
Williams, R.	COMP	202	Wilson, B.	INOR	230	Wingfield, R.C.	ENVR	439
Williams, R.	ENVR	9	Wilson, B.	INOR	319	Wingo, K.	CHED	73
Williams, R.F.	INOR	1084	Wilson, D.	ANYL	19	Wingo, K.	POLY	118
Williams, R.	MEDI	340	Wilson, D.	CATL	160	Wingo, K.	POLY	128
Williams, S.M.	CHED	971	Wilson, E.	CHED	554	Wink, D.J.	CHED	191
Williams, S.M.	PHYS	513	Wilson, H.K.	CHED	608	Wink, D.J.	CHED	1959
Williams, T.	ENVR	246	Wilson, J.	PMSE	307	Wink, D.J.	CHED	1990
Williams, T.	POLY	506	Wilson, J.	PMSE	357	Winkelman, J.W.	MEDI	65
Williams, T.J.	PHYS	536	Wilson, J.	POLY	226	Winkelman, J.W.	MEDI	146
Williams, T.D.	CHED	1861	Wilson, J.D.	CHED	1798	Winklarek, J.E.	INOR	308
Williams, T.	ANYL	234	Wilson, K.	CATL	210	Winn, B.A.	MEDI	66
Williams, T.A.	ENVR	552	Wilson, K.	CATL	374	Winner, J.	PHYS	559
Williams Colaciello, L.W.	INOR	1240	Wilson, K.	CATL	375	Winner, J.	CHED	1690
Williams Colaciello, L.W.	PROF	12	Wilson, K.	INOR	854	Winnik, F.M.	POLY	741
Williamson, C.	COMP	42	Wilson, K.	ORGN	85	Winnik, M.	POLY	335
Williamson, H.R.	CHED	565	Wilson, K.L.	ENVR	695	Winograd, B.	CHED	163
Williamson, J.	POLY	755	Wilson, M.	ANYL	38	Winslow, C.	PMSE	117
Williamson, L.	INOR	463	Wilson, M.J.	AGFD	157	Winstanley, E.	GEOC	274
Williamson, T.E.	CARB	58	Wilson, N.M.	CATL	55	Winston-Mcpherson, G.N.	MEDI	215
Williamson, V.M.	CHED	129	Wilson, P.	COLL	665	Winston-Mcpherson, G.N.	MEDI	216
Williamson, V.M.	CHED	2154	Wilson, R.	INOR	426	Winter, A.	CELL	100
Williford, E.	CHED	1458	Wilson, R.	NUCL	33	Winter, J.E.	ANYL	191
Willis, C.	POLY	418	Wilson, R.	NUCL	47	Winter, J.	SCHB	15
Willis, C.	POLY	554	Wilson, R.M.	PHYS	499	Winter, M.	FLUO	31
Willis, C.	POLY	570	Wilson, S.	CHED	972	Winter, N.	CHED	1705
Willis, C.	COLL	665	Wilson, S.B.	CHED	1985	Winter, R.	BIOT	460
Willis, J.	CATL	37	Wilson, S.	ANYL	80	Winter, T.	PMSE	273
Willitsch, S.	PHYS	230	Wilson, S.E.	MEDI	277	Winters, A.	MEDI	66
Willman, J.A.	ENFL	73	Wilson, T.	MEDI	87	Winters, A.N.	CHED	1232
Willneff, E.A.	COLL	665	Wilson, T.	MEDI	344	Winters, B.J.	CHED	1120
Willner, L.	COLL	23	Wilson, W.	INOR	265	Winters, B.J.	CHED	1412
Willner, L.	COLL	659	Wilson, W.	BIOL	184	Winters, B.J.	CHED	1419
Willlock, D.J.	ENFL	35	Wilson, W.	BIOL	188	Wirick, J.J.	CHED	967
Willoughby, P.	CHED	816	Wilson, W.	BIOL	190	Wirick, J.J.	CHED	1220
Willoughby, P.	CHED	1484	Wilson, W.	CARB	28	Wirpsza, L.A.	CHED	2026
Willoughby, P.	CHED	1675	Wilson, W.	CARB	43	Wirth, B.	ENVR	40
Willour, J.J.	CHED	907	Wilson, W.	MEDI	177	Wirth, D.M.	ANYL	464
Wills, N.R.	INOR	281	Wilson, W.	MEDI	365	Wirth, M.J.	ANYL	398
Willson, C.G.	PMSE	165	Wilson, W.	FLUO	7	Wirth, T.	ORGN	276
Willson, C.G.	PMSE	212	Wilt, I.	CHED	1100	Wirth, T.	ORGN	580
Willson, R.C.	BIOT	327	Wiltzius, M.	CATL	160	Wise, A.R.	CHAS	14

Wise, C.	INOR	670	Wohlert, J.	CELL	323	Wong, L.	BIOT	395
Wise, H.	ENFL	402	Wohlhauser, S.	CELL	419	Wong, M.	BIOT	311
Wise, S.	CHED	260	Wojas, N.A.	COLL	165	Wong, M.S.	CATL	410
Wise, S.	MEDI	37	Wojnar, M.	PROF	34	Wong, M.S.	CATL	427
Wishard, A.	INOR	744	Wojnarowska, Z.	PHYS	343	Wong, M.S.	ENVR	405
Wishard, A.	INOR	751	Wojtecki, R.J.	PMSE	498	Wong, M.S.	ENVR	449
Wishard, A.	ORGN	329	Wolbach, J.	INOR	27	Wong, M.	ANYL	16
Wishart, D.	CINF	8	Wolcott, A.	COLL	381	Wong, M.	ANYL	194
Wishart, D.	CINF	103	Wolczanski, P.T.	INOR	440	Wong, P.T.	POLY	753
Wishart, J.F.	NUCL	58	Woldeyes, M.	BIOT	496	Wong, P.	MEDI	2
Wisian-Neilson, P.	PMSE	425	Wolf, J.	COLL	345	Wong, S.	I&EC	112
Wisman, D.	COLL	375	Wolf, M.	INOR	497	Wong, S.	BIOT	76
Wisman, D.	INOR	1077	Wolf, M.	INOR	1254	Wong, T.	INOR	1074
Wisniewska, H.	ORGN	641	Wolf, M.	INOR	1254	Wong, T.	INOR	1074
Wisniewska, H.M.	MEDI	275	Wolf, S.F.	CHED	472	Wong, Y.	CHED	341
Wisniewski, N.A.	ANYL	254	Wolfe, J.P.	ENVR	157	Wongkasemjit, S.	CATL	303
Wissel, A.	COLL	231	Wolff, M.W.	BIOT	40	Wongkasemjit, S.	CELL	116
Wissinger, J.E.	CHED	235	Wolff, M.W.	BIOT	315	Wongkasemjit, S.	ENVR	628
Wissinger, J.E.	CHED	2005	Wolff, M.W.	BIOT	477	Wongkasemjit, S.	PMSE	183
Wissinger, J.E.	CHED	2006	Wolfgang, J.	PMSE	114	Wongkasemjit, S.	PMSE	371
Witcher, J.	CHED	579	Wolfson, A.	CHED	257	Wongkasemjit, S.	PMSE	381
Witcher, J.	CHED	591	Wolgemuth, D.K.	INOR	388	Wongkasemjit, S.	PMSE	435
Witczak, Z.J.	MEDI	58	Woll, M.G.	MEDI	253	Woo, B.	ENVR	481
Witczak, Z.J.	ORGN	623	Woll, M.G.	ORGN	369	Woo, J.	BIOT	540
Witherspoon, V.	POLY	322	Wöll, A.K.	BIOT	521	Woo, K.	INOR	1224
Witkowski, A.	POLY	235	Wöll, D.	POLY	376	Woo, S.	MEDI	72
Witkowski, A.	POLY	238	Wollacott, R.B.	BIOT	320	Wood, B.	MEDI	175
Witmer, R.	CHED	133	Wollenburg, A.	CHED	1377	Wood, B.	ENFL	147
Witt, M.	ENFL	462	Wollman, S.E.	ENFL	48	Wood, B.	ENFL	272
Witt, S.	INOR	1071	Wollman, S.E.	PHYS	115	Wood, B.	ENFL	276
Witt, W.C.	PHYS	98	Wolschendorf, F.	BIOL	115	Wood, B.	ENFL	277
Witte, K.	ANYL	235	Wolschendorf, F.	ORGN	324	Wood, B.	ENFL	495
Wittenberg, J.W.	CHED	825	Wolschendorf, F.	PROF	32	Wood, B.	ENFL	496
Wittkop, C.	GEOC	107	Wolsleger, R.	ORGN	440	Wood, J.L.	ORGN	521
Wittkopp, F.	BIOT	100	Wolverton, C.	CATL	168	Wood, M.	CHED	398
Wittman, T.	CHED	1484	Womack, J.C.	PHYS	52	Wood, M.	CHED	945
Wittmer, Y.F.	INOR	303	Wommack, A.J.	ORGN	69	Wood, P.	CHED	27
Witus, L.	CHED	1519	Won, S.	COLL	95	Wood, R.E.	ANYL	246
Witzigmann, C.	MEDI	113	Won, W.	MEDI	277	Wood, T.	ENFL	437
Witzler, M.	CELL	348	Wong, A.	COLL	689	Wood, Z.A.	INOR	225
Wlodarczyk, M.T.	COLL	677	Wong, A.	ORGN	578	Woodall, D.W.	COMP	175
Wnek, G.E.	POLY	782	Wong, A.R.	CHED	1768	Woodard, D.	INOR	1319
Wnuk, S.F.	BIOL	212	Wong, B.	MEDI	37	Woodard, J.L.	MEDI	384
Wnuk, S.F.	ORGN	14	Wong, B.	I&EC	90	Wood-Black, F.K.	I&EC	113
Wnuk, S.F.	ORGN	173	Wong, B.	BIOT	280	Woodbridge, C.	CHED	2007
Wnuk, S.F.	ORGN	670	Wong, B.Y.	BIOT	42	Woodbury, B.	ENVR	106
Wodzanowski, K.	CHED	1692	Wong, B.M.	COMP	333	Woodbury, B.	ENVR	511
Wodzinski, R.	CHED	747	Wong, B.M.	ENVR	52	Woodcock, H.L.	COMP	98
Woell, D.	POLY	381	Wong, B.M.	POLY	770	Woodcock, J.W.	CELL	33
Woell, D.	POLY	746	Wong, C.	CELL	158	Woodfield, B.F.	GEOC	55
Woellner, M.	POLY	120	Wong, C.K.	ENVR	753	Woodford, J.N.	CHED	879
Woellner, M.B.	POLY	429	Wong, E.	BIOT	89	Woodruff, M.	CHED	1174
Wofford, J.D.	INOR	1148	Wong, G.	COLL	293	Woodruff, P.	CARB	64
Wohlert, J.	CELL	277	Wong, H.	I&EC	58	Woods, B.	INOR	682
Wohlert, J.	CELL	280	Wong, J.	CHED	1603	Woods, E.F.	ORGN	399
			Wong, K.	COMP	78	Woods, R.J.	BIOL	102

Woods, R.J.	BIOL	103	Woys, A.M.	BIOT	51	Wu, G.	ENFL	441
Woods, T.J.	INOR	1117	Woytowitz, E.	ENVR	232	Wu, H.	MEDI	360
Woodward, R.L.	CHED	208	Wozniak, B.	CATL	214	Wu, H.	POLY	295
Woodward, R.L.	CHED	1588	Wragg, D.	INOR	1390	Wu, H.	ORGN	713
Woodward, S.	ORGN	371	Wrasmus, C.	CATL	37	Wu, H.	POLY	310
Woodworth, B.	CHED	714	Wrasmus, C.	CATL	231	Wu, H.	ENFL	238
Woody, A.	COMP	259	Wrasmus, C.	CATL	464	Wu, H.	PMSE	158
Woody, A.	COMP	287	Wrasmus, C.	COLL	593	Wu, H.	MEDI	112
Woojuh, J.	CHED	1367	Wren, D.	CHED	2097	Wu, H.	POLY	167
Woodridge, A.	BIOT	460	Wren, S.	COLL	395	Wu, H.	ENFL	50
Wooley, K.L.	ENVR	246	Wren, S.	COLL	787	Wu, H.	AGFD	233
Wooley, K.L.	PMSE	227	Wright, A.M.	CATL	208	Wu, H.	MEDI	178
Wooley, K.L.	PMSE	587	Wright, A.M.	INOR	441	Wu, H.	BIOL	233
Wooley, K.L.	POLY	225	Wright, A.M.	INOR	1420	Wu, H.	ENFL	434
Wooley, K.L.	POLY	256	Wright, B.	FLUO	58	Wu, H.	INOR	433
Wooley, K.L.	POLY	542	Wright, D.	COLL	124	Wu, J.	I&EC	12
Wolf, N.	PHYS	629	Wright, D.	POLY	23	Wu, J.	ENFL	368
Woolfolk, C.	ANYL	116	Wright, J.	CHED	930	Wu, J.	CHED	1321
Woolley, A.	ANYL	7	Wright, J.C.	ANYL	62	Wu, J.	MEDI	10
Woolley, A.	ANYL	305	Wright, L.K.	ANYL	93	Wu, J.	POLY	143
Woolston, C.	ANYL	129	Wright, M.	GEOC	158	Wu, J.	BIOL	210
Woon, D.E.	PHYS	445	Wright, P.M.	CHED	1352	Wu, J.	GEOC	27
Wooten, A.L.	FLUO	71	Wright, S.	MEDI	25	Wu, J.	ENVR	17
Wooten, M.L.	PHYS	555	Wright, S.E.	PMSE	247	Wu, J.	ENFL	453
Wooten-Moyer, R.	CHED	28	Wright, T.	POLY	229	Wu, J.	ENVR	760
Wooten-Moyer, R.	CHED	1903	Wright, T.A.	BIOT	146	Wu, J.	ORGN	342
Wordofa, D.	GEOC	15	Wright, T.A.	BIOT	433	Wu, J.	ANYL	230
Worker, S.	CHED	2164	Wright, T.B.	ORGN	27	Wu, J.	COMP	295
Workie, B.	INOR	179	Wright, Z.	CHED	586	Wu, J.S.	ENVR	298
Works, C.F.	INOR	271	Wright, Z.	POLY	228	Wu, K.	AGFD	123
Worley, S.D.	AGFD	178	Wrobel, A.	INOR	1351	Wu, L.	COLL	123
Worley, S.D.	I&EC	119	Wrobleski, S.	MEDI	35	Wu, L.	COLL	593
Wornow, M.	BIOT	470	Wrobleski, S.	MEDI	178	Wu, L.	GEOC	5
Worobo, R.	AGFD	133	Wrobleski, S.	MEDI	202	Wu, L.	COLL	606
Woroch, C.	CHED	1664	Wrona, J.	PHYS	290	Wu, L.	ENVR	270
Woroch, C.P.	ORGN	220	Wu, A.	POLY	218	Wu, L.	ENVR	455
Worrell, B.	POLY	409	Wu, B.	PHYS	620	Wu, L.	POLY	784
Worrell, B.	POLY	693	Wu, C.	PHYS	168	Wu, M.	BIOT	451
Worrell, B.	POLY	732	Wu, C.	COMP	295	Wu, N.	CHED	741
Worrell, B.T.	POLY	546	Wu, C.	PHYS	419	Wu, P.	INOR	154
Worsley, M.A.	COLL	451	Wu, C.	ENVR	229	Wu, Q.	POLY	46
Worsley, M.A.	COLL	490	Wu, C.	ENVR	412	Wu, Q.	COMP	373
Worthington, K.	POLY	98	Wu, C.	COMP	182	Wu, Q.	PHYS	642
Worthington-Kirsch, S.	INOR	190	Wu, C.	COMP	393	Wu, Q.	PHYS	181
Worthy, S.E.	CHED	114	Wu, D.	MEDI	6	Wu, Q.	AGFD	231
Wortmann, W.	BIOT	243	Wu, D.	MEDI	109	Wu, Q.	PMSE	498
Woski, S.A.	BIOL	214	Wu, D.	COLL	298	Wu, Q.	CATL	180
Wostenberg, C.W.	CHED	578	Wu, D.	COMP	36	Wu, Q.	CATL	280
Woster, P.M.	MEDI	15	Wu, D.	COMP	227	Wu, R.	ENFL	404
Woster, P.M.	MEDI	47	Wu, F.H.	AGFD	88	Wu, R.	INOR	1295
Woster, P.M.	MEDI	122	Wu, F.H.	ORGN	342	Wu, R.	ENFL	527
Woydziak, Z.	CHED	1194	Wu, F.	PHYS	441	Wu, S.	GEOC	111
Woydziak, Z.	CHED	1196	Wu, F.	POLY	777	Wu, S.	PHYS	296
Woydziak, Z.	CHED	1197	Wu, G.	ORGN	303	Wu, S.	PHYS	546
Woydziak, Z.	MEDI	145	Wu, G.	ORGN	303	Wu, S.	CATL	318

Wu, S.	MEDI	199	Wuest, W.	ORGN	738	Xia, R.	CHED	1536
Wu, S.	MEDI	363	Wuest, W.M.	MEDI	284	Xia, X.	ORGN	114
Wu, S.	BIOL	120	Wuhrer, R.	POLY	526	Xia, Y.	COLL	34
Wu, S.	PMSE	104	Wuhrer, R.	POLY	530	Xia, Z.	BIOT	332
Wu, S.	PMSE	28	Wujcik, E.	INOR	1160	Xia, Z.	CELL	16
Wu, S.	PMSE	451	Wulf, M.	BIOL	292	Xian, M.	MEDI	236
Wu, T.	COLL	443	Wunch, M.	COLL	624	Xian, M.	MEDI	239
Wu, T.	I&EC	142	Wunder, S.L.	INOR	1123	Xiang, A.Z.	CHED	629
Wu, W.	ENVR	208	Wurm, F.	POLY	56	Xiang, B.	PHYS	31
Wu, W.	POLY	568	Wurm, F.	POLY	813	Xiang, B.	ANYL	151
Wu, W.	POLY	628	Wurrey, C.J.	PHYS	537	Xiang, J.	ENFL	522
Wu, W.	POLY	648	Wurtz, N.	MEDI	2	Xiang, L.	COLL	118
Wu, W.	ANYL	327	Wusimanjiang, Y.	CHED	1297	Xiang, Q.	ORGN	303
Wu, W.	PMSE	600	Wusimanjiang, Y.	COLL	510	Xiang, S.	CATL	308
Wu, X.	INOR	961	Wusterbarth, E.	INOR	1386	Xiang, W.	CELL	387
Wu, X.	PMSE	49	Wustrow, A.E.	INOR	771	Xiang, W.	COLL	539
Wu, X.	ORGN	114	Wuttig, A.	INOR	1171	Xiang, Y.	CATL	463
Wu, X.	PHYS	214	Wuttke, S.	COLL	585	Xiang, Y.	CATL	537
Wu, X.	PMSE	102	Wutz, J.	BIOT	108	Xiang, Y.	COLL	440
Wu, X.	ENVR	243	Wyan, L.	CHED	510	Xiao, C.	CATL	553
Wu, X.	ENVR	462	Wyatt, A.	CHED	1309	Xiao, D.	INOR	1110
Wu, X.	CATL	114	Wyatt, Q.	POLY	451	Xiao, D.J.	INOR	80
Wu, Y.	ANYL	105	Wyatt, R.	CHED	1267	Xiao, F.	ENFL	334
Wu, Y.	COLL	119	Wyatt, V.T.	ENFL	61	Xiao, F.	INOR	1033
Wu, Y.	ENVR	767	Wynn, M.	CHED	1889	Xiao, F.	ENFL	346
Wu, Y.	FLUO	69	Wynne, B.	PHYS	353	Xiao, F.	ENFL	347
Wu, Y.	PMSE	528	Wynne, J.H.	CATL	297	Xiao, G.	CARB	44
Wu, Y.	COMP	414	Wynne, J.H.	COLL	219	Xiao, H.	COLL	175
Wu, Y.	POLY	197	Wynne, J.H.	COLL	221	Xiao, H.	MEDI	20
Wu, Y.	BIOT	332	Wynne, J.H.	PMSE	101	Xiao, H.	MEDI	91
Wu, Z.	POLY	598	Wynne, J.H.	POLY	109	Xiao, H.	AGFD	15
Wu, Z.	MEDI	191	Wynne, K.J.	POLY	174	Xiao, H.	AGFD	37
Wu, Z.	I&EC	78	Wyse, N.E.	CHED	1051	Xiao, H.	AGFD	109
Wu, Z.	INOR	500	Wysocki, L.	CHED	2058	Xiao, H.	AGFD	230
Wu, Z.	ENVR	688	Wysocki, V.H.	INOR	45	Xiao, J.	POLY	167
Wu, Z.	ENFL	527	Wythes, M.	MEDI	19	Xiao, J.	POLY	501
Wu, Z.	PHYS	407	Wythes, M.	ORGN	21	Xiao, K.	INOR	1154
Wu, Z.	CATL	5	Wytko, J.	INOR	497	Xiao, L.	ENFL	364
Wu, Z.	CATL	52	Wytko, J.	INOR	1316	Xiao, L.	CELL	392
Wu, Z.	CATL	128	Wytko, J.	ORGN	468	Xiao, N.	CINF	94
Wu, Z.	CATL	271	Wytko, J.	ORGN	637	Xiao, P.	CATL	317
Wu, Z.	CATL	392	Xenakis, J.J.	CHED	1248	Xiao, P.	COMP	404
Wu, Z.	CATL	421	Xenopoulos, A.	BIOT	477	Xiao, Q.	CHED	1364
Wu, Z.	ENFL	179	Xerri, L.	MEDI	309	Xiao, Q.	CHED	1516
Wu, Z.	I&EC	7	Xi, H.	ENFL	349	Xiao, R.	PMSE	398
Wucherpennig, T.	BIOT	108	Xi, W.	POLY	425	Xiao, R.	PMSE	454
Wudarski, C.	MEDI	69	Xi, Y.	CATL	410	Xiao, X.	ENVR	179
Wudl, F.	ENFL	45	Xi, Y.	CATL	358	Xiao, X.	ENVR	393
Wudl, F.	INOR	674	Xi, Z.	ENFL	366	Xiao, X.	ENVR	432
Wudl, F.	PMSE	464	Xi, Z.	INOR	816	Xiao, X.	ENVR	500
Wuelfing, W.	MEDI	191	Xia, D.	INOR	284	Xiao, Y.	ENVR	644
Wuerz, S.	ENVR	680	Xia, D.	NUCL	11	Xiao, Y.	ANYL	313
Wuest, W.	MEDI	149	Xia, K.	ENVR	16	Xiao, Z.	INOR	731
Wuest, W.	ORGN	79	Xia, P.	PHYS	349	Xiao, Z.	MEDI	20
Wuest, W.	ORGN	225	Xia, Q.	ANYL	97	Xiao, Z.	MEDI	91

Xie, C.	CHED	264	Xin, Z.	PMSE	591	Xu, J.	BIOT	487
Xie, C.	ENFL	298	Xing, B.	ENVR	83	Xu, J.	POLY	82
Xie, D.	INOR	493	Xing, B.	ENVR	84	Xu, J.	GEOC	44
Xie, D.	CATL	542	Xing, B.	ENVR	171	Xu, J.	GEOC	199
Xie, H.	MEDI	215	Xing, B.	ENVR	491	Xu, J.	POLY	85
Xie, H.	MEDI	216	Xing, B.	GEOC	14	Xu, J.	ORGN	218
Xie, J.	MEDI	20	Xing, H.	INOR	433	Xu, J.	INOR	176
Xie, J.	MEDI	91	Xing, K.	POLY	502	Xu, J.	ANYL	437
Xie, J.	MEDI	109	Xing, L.	MEDI	29	Xu, J.	ANYL	463
Xie, J.	ENVR	13	Xing, Y.	COLL	210	Xu, J.	CATL	417
Xie, J.	ENVR	555	Xing, Y.	ENVR	353	Xu, J.	ENFL	165
Xie, J.	ENVR	753	Xiong, D.	CHED	1831	Xu, J.	ENFL	359
Xie, J.	COLL	778	Xiong, H.	ORGN	42	Xu, J.	CATL	316
Xie, J.	INOR	1166	Xiong, J.	ENVR	711	Xu, J.	CATL	335
Xie, J.	INOR	1295	Xiong, S.	ENFL	307	Xu, J.	MEDI	75
Xie, J.	MEDI	57	Xiong, S.	ENFL	309	Xu, J.	CHED	345
Xie, J.	ENFL	143	Xiong, W.	PHYS	31	Xu, K.	MEDI	41
Xie, L.	CHED	744	Xiong, Z.	PMSE	254	Xu, L.	AGFD	200
Xie, L.	INOR	12	Xiong, Z.	POLY	443	Xu, L.	ENFL	104
Xie, L.	INOR	1177	Xu, B.	COLL	573	Xu, L.	BIOT	81
Xie, L.	MEDI	40	Xu, B.	COLL	112	Xu, L.	PMSE	11
Xie, M.	BIOT	454	Xu, B.	COLL	413	Xu, L.	BIOL	98
Xie, N.	GEOC	76	Xu, B.	ORGN	255	Xu, L.	BIOT	59
Xie, P.	CATL	471	Xu, C.	PHYS	441	Xu, L.	COLL	168
Xie, P.	ENVR	148	Xu, C.	AGFD	75	Xu, M.	GEOC	186
Xie, Q.	AGFD	95	Xu, C.	CELL	200	Xu, M.	COLL	254
Xie, Q.	ENFL	85	Xu, C.	BIOT	16	Xu, M.	COLL	331
Xie, R.	POLY	714	Xu, C.	BIOT	193	Xu, M.	PMSE	545
Xie, S.	ENVR	468	Xu, C.	ENVR	287	Xu, M.	PMSE	564
Xie, S.	CATL	114	Xu, C.	CATL	488	Xu, M.	CATL	391
Xie, S.	CHED	324	Xu, C.	ENFL	53	Xu, M.	CATL	393
Xie, T.	CATL	359	Xu, C.	ENFL	512	Xu, M.	ENFL	131
Xie, X.	ANYL	17	Xu, C.	FLUO	20	Xu, M.	ENFL	303
Xie, X.	AGFD	75	Xu, D.	MEDI	391	Xu, M.	ORGN	51
Xie, X.	CELL	200	Xu, D.	ENFL	520	Xu, M.	COLL	487
Xie, X.	BIOL	315	Xu, D.	INOR	1228	Xu, P.	BIOT	158
Xie, Y.	INOR	662	Xu, D.	CHED	588	Xu, P.	COMP	280
Xie, Y.	ENVR	335	Xu, E.	CHED	1424	Xu, P.	PHYS	465
Xie, Y.	ENVR	386	Xu, F.	PHYS	615	Xu, Q.	ENFL	196
Xie, Y.	ENVR	724	Xu, F.	PMSE	254	Xu, Q.	ENFL	197
Xie, Z.	COLL	481	Xu, F.	CATL	378	Xu, Q.	INOR	622
Xin, H.	CATL	23	Xu, F.	BIOT	149	Xu, Q.	PMSE	537
Xin, H.	CATL	53	Xu, F.	CELL	40	Xu, Q.	ENFL	55
Xin, H.	CATL	251	Xu, F.	CELL	289	Xu, R.	PMSE	286
Xin, H.	COMP	95	Xu, F.	ENFL	19	Xu, R.	ENFL	245
Xin, H.	CATL	180	Xu, H.	CATL	328	Xu, S.	BIOT	271
Xin, H.	COMP	373	Xu, H.	I&EC	136	Xu, S.	BIOT	554
Xin, H.	ENFL	184	Xu, H.	AGFD	200	Xu, S.	ENVR	752
Xin, H.	ENFL	256	Xu, H.	CARB	75	Xu, S.	INOR	1186
Xin, H.	INOR	1240	Xu, H.	CELL	347	Xu, S.	ENVR	472
Xin, X.	CATL	327	Xu, H.	GEOC	161	Xu, S.	MEDI	92
Xin, Y.	FLUO	47	Xu, J.	COLL	307	Xu, S.	MEDI	93
Xin, Z.	PMSE	284	Xu, J.	MEDI	360	Xu, S.	BIOL	124
Xin, Z.	PMSE	532	Xu, J.J.	POLY	211	Xu, S.	BIOL	125
Xin, Z.	PMSE	536	Xu, J.	BIOT	254	Xu, S.	ANYL	462

Xu, S.	MEDI	367	Yacob, S.	I&EC	80	Yamamoto, K.	CELL	42
Xu, T.	ENFL	556	Yacoo, K.E.	CHED	395	Yamamoto, S.	POLY	441
Xu, T.	PMSE	239	Yacoo, K.E.	CHED	448	Yamamoto, S.	MEDI	32
Xu, T.	INOR	1404	Yadab, M.	MEDI	130	Yamamoto, T.	INOR	768
Xu, W.	ENFL	416	Yadav, C.S.	MEDI	106	Yamamoto, T.	MEDI	310
Xu, W.	ENVR	239	Yadav, J.	COLL	510	Yamamoto, T.	PMSE	244
Xu, W.	POLY	647	Yadav, M.P.	CELL	244	Yamamoto, T.	PMSE	303
Xu, W.	POLY	377	Yadav, S.K.	PMSE	312	Yamamoto, T.	PMSE	449
Xu, W.	GEOC	161	Yadav, S.K.	PMSE	444	Yamamoto, T.	PMSE	457
Xu, W.	ENVR	335	Yadav, S.K.	POLY	201	Yamamoto, T.	PMSE	550
Xu, W.	ENVR	490	Yadav, V.	COLL	99	Yamamuro, N.	PHYS	488
Xu, W.	ENVR	492	Yadavalli, N.	COLL	756	Yamamuro, O.	PHYS	288
Xu, W.	ENVR	497	Yadavalli, N.	POLY	61	Yamamuro, O.	PHYS	488
Xu, W.	COLL	172	Yagci, Y.	PMSE	535	Yamanaka, M.	ENFL	41
Xu, X.	COLL	519	Yagci, Y.	POLY	145	Yamasaki, A.	ENVR	150
Xu, X.	COLL	356	Yager, D.	CELL	85	Yamasaki, A.	ENVR	217
Xu, X.	COLL	606	Yager, D.	CELL	86	Yamasaki, A.	ENVR	571
Xu, X.	BIOT	14	Yager, K.	CELL	393	Yamasaki, R.	ORGN	708
Xu, X.	BIOT	136	Yager, K.	COLL	390	Yamasaki, T.	MEDI	133
Xu, X.	BIOT	444	Yaghi, O.M.	INOR	38	Yamashita, T.	MEDI	133
Xu, X.	BIOT	476	Yaghmour, S.	BIOT	109	Yamashita, Y.	ORGN	141
Xu, X.	BIOT	509	Yagi, K.	COMP	428	Yamazaki, S.	PMSE	453
Xu, X.	BIOT	558	Yaguchi, A.	BIOT	240	Yamazaki, S.	MEDI	19
Xu, Y.	ENVR	257	Yaguchi, A.	BIOT	546	Yamazaki, T.	COLL	215
Xu, Y.	POLY	808	Yahaya, N.P.	INOR	158	Yampolskii, Y.P.	PMSE	108
Xu, Y.	CATL	54	Yahya, H.	POLY	22	Yampolskii, Y.P.	POLY	350
Xu, Y.	ENFL	416	Yajin, L.	CATL	268	Yan, B.	GEOC	109
Xu, Y.	GEOC	85	Yajin, L.	ENFL	335	Yan, B.	ENVR	269
Xu, Y.	PMSE	451	Yake, A.	MEDI	299	Yan, B.	ENVR	270
Xu, Y.	ANYL	220	Yakelis, N.A.	CHED	44	Yan, B.	ENVR	271
Xu, Y.	POLY	616	Yakelis, N.A.	CHED	1474	Yan, B.	ENVR	326
Xu, Y.	ENFL	457	Yakelis, N.A.	CHED	1549	Yan, B.	ENVR	331
Xu, Y.	ENVR	568	Yakelis, N.A.	CHED	1590	Yan, B.	ENVR	684
Xu, Y.	BIOL	103	Yakelis, N.A.	CHED	1603	Yan, B.	CATL	131
Xu, Y.	COMP	48	Yalcin, D.	PHYS	67	Yan, B.	CATL	280
Xu, Y.	ORGN	505	Yallop, C.	BIOT	457	Yan, C.	ANYL	222
Xu, Y.	BIOT	68	Yam, C.	POLY	164	Yan, D.	CATL	180
Xu, Y.	PHYS	225	Yam, M.	ENVR	12	Yan, D.	CATL	280
Xu, Z.	CATL	198	Yam, P.	BIOT	109	Yan, E.C.	PHYS	105
Xu, Z.	CATL	218	Yamada, H.	ENFL	367	Yan, G.	ENFL	132
Xu, Z.	PHYS	385	Yamada, H.	PMSE	28	Yan, G.	ENVR	741
Xuan, S.	POLY	277	Yamada, K.	POLY	254	Yan, L.	MEDI	327
Xue, C.	INOR	16	Yamada, K.	ANYL	106	Yan, M.	CELL	79
Xue, C.	INOR	1341	Yamada, T.	COMP	428	Yan, N.	CATL	111
Xue, D.V.	CHED	66	Yamada, T.	ENFL	271	Yan, N.	CELL	229
Xue, D.	INOR	727	Yamada, T.	PHYS	288	Yan, P.	MEDI	134
Xue, F.	BIOL	69	Yamagami, M.	CELL	152	Yan, P.	CATL	198
Xue, F.	MEDI	119	Yamaguchi, A.	PMSE	547	Yan, P.	CATL	269
Xue, F.	MEDI	373	Yamaguchi, K.	PMSE	458	Yan, P.	CATL	472
Xue, F.	MEDI	395	Yamaguchi, M.	CELL	81	Yan, P.	CATL	525
Xue, M.	CATL	154	Yamaguchi, P.	COLL	381	Yan, P.	CATL	531
Xue, Q.	BIOT	229	Yamaguchi, S.	ANYL	421	Yan, P.	MEDI	11
Xue, T.	POLY	71	Yamaguchi, S.	ORGN	731	Yan, S.	ENVR	222
Xue, Y.	PMSE	452	Yamaguchi, S.	COLL	444	Yan, S.	GEOC	65
Xuefei, M.	ANYL	34	Yamaguchi, T.	PHYS	342	Yan, S.	PMSE	454

Yan, S.	I&EC	103	Yang, G.	POLY	456	Yang, M.	INOR	937
Yan, S.	ENVR	46	Yang, G.	POLY	472	Yang, M.	INOR	1076
Yan, S.	MEDI	213	Yang, H.	INOR	1209	Yang, P.	ENFL	298
Yan, V.C.	MEDI	120	Yang, H.	INOR	675	Yang, P.	GEOC	161
Yan, W.	ENVR	678	Yang, H.	INOR	1380	Yang, P.	GEOC	225
Yan, X.	ENFL	536	Yang, H.	ANYL	276	Yang, P.	GEOC	226
Yan, X.	INOR	1124	Yang, H.	CATL	318	Yang, P.	POLY	347
Yan, X.	ENVR	326	Yang, H.	ENVR	386	Yang, P.	FLUO	67
Yan, Y.	INOR	174	Yang, H.	ENVR	724	Yang, P.	INOR	160
Yan, Y.	ENFL	274	Yang, H.	AGFD	66	Yang, P.	INOR	1295
Yan, Y.	MEDI	134	Yang, H.	AGFD	97	Yang, P.	NUCL	93
Yan, Z.B.	POLY	249	Yang, H.	CELL	357	Yang, Q.	CELL	130
Yan, Z.B.	POLY	527	Yang, H.	CELL	228	Yang, Q.	COLL	519
Yan, Z.	ORGN	487	Yang, J.	ENVR	92	Yang, Q.	COLL	746
Yandian, M.	CHED	1751	Yang, J.	ENVR	721	Yang, Q.	COMP	87
Yanez Heras, J.	ENVR	409	Yang, J.Y.	INOR	7	Yang, Q.	CHED	752
Yanfang, L.	AGFD	64	Yang, J.Y.	INOR	164	Yang, Q.	INOR	433
Yang, A.	CATL	37	Yang, J.Y.	INOR	183	Yang, S.	CHED	1303
Yang, A.	CATL	231	Yang, J.Y.	INOR	436	Yang, S.	CATL	271
Yang, A.	COLL	593	Yang, J.Y.	INOR	666	Yang, S.	CHED	551
Yang, A.	CHED	968	Yang, J.Y.	INOR	1135	Yang, S.	PMSE	213
Yang, B.	AGFD	71	Yang, J.Y.	INOR	1414	Yang, S.	COMP	245
Yang, B.	PHYS	140	Yang, J.C.	COLL	19	Yang, S.	AGFD	34
Yang, B.	INOR	1154	Yang, J.	BIOT	130	Yang, T.	AGFD	16
Yang, B.V.	MEDI	178	Yang, J.	BIOT	311	Yang, T.	AGFD	108
Yang, B.V.	MEDI	202	Yang, J.Y.	BIOT	213	Yang, T.	COLL	281
Yang, B.	ANYL	295	Yang, J.	COLL	538	Yang, T.	COLL	287
Yang, B.	FLUO	55	Yang, J.	BIOT	10	Yang, T.	COLL	719
Yang, C.	CATL	285	Yang, J.	ENVR	491	Yang, T.	COMP	176
Yang, C.	PHYS	414	Yang, J.	MEDI	232	Yang, T.	ORGN	395
Yang, C.	ANYL	279	Yang, J.	ENFL	204	Yang, W.	AGFD	71
Yang, C.	ENFL	327	Yang, J.	ENFL	340	Yang, W.	COMP	36
Yang, C.	INOR	1056	Yang, K.	MEDI	215	Yang, W.	COMP	96
Yang, C.	ENFL	363	Yang, K.	MEDI	216	Yang, W.	COMP	227
Yang, C.	I&EC	93	Yang, K.	CHED	286	Yang, W.	PHYS	8
Yang, C.	CINF	90	Yang, K.	ENFL	145	Yang, W.	PHYS	145
Yang, C.	INOR	1217	Yang, K.R.	COMP	94	Yang, W.	PHYS	272
Yang, D.	I&EC	174	Yang, L.	CELL	80	Yang, W.	PHYS	605
Yang, D.	INOR	552	Yang, L.	CHED	1129	Yang, W.	INOR	380
Yang, D.	ANYL	50	Yang, L.	CHED	1130	Yang, X.	MEDI	92
Yang, D.	PHYS	168	Yang, L.	COLL	556	Yang, X.	MEDI	93
Yang, D.	CELL	293	Yang, L.	BIOL	98	Yang, X.	ENFL	374
Yang, D.	COLL	204	Yang, L.	BIOT	59	Yang, X.	ENFL	536
Yang, D.	CELL	284	Yang, L.	COLL	168	Yang, X.	INOR	1124
Yang, D.	COLL	624	Yang, L.	POLY	465	Yang, X.D.	PHYS	592
Yang, F.	BIOT	208	Yang, L.	MEDI	327	Yang, X.	MEDI	20
Yang, F.	COMP	252	Yang, L.	MEDI	134	Yang, X.	MEDI	91
Yang, F.	PMSE	524	Yang, L.	PMSE	495	Yang, X.	MEDI	176
Yang, F.	PMSE	525	Yang, L.	ENFL	307	Yang, X.	POLY	644
Yang, G.	CELL	168	Yang, L.	INOR	323	Yang, X.	INOR	504
Yang, G.	CELL	391	Yang, M.	INOR	1208	Yang, X.	ANYL	283
Yang, G.	CELL	392	Yang, M.	ENVR	651	Yang, X.	INOR	722
Yang, G.	CELL	400	Yang, M.	MEDI	20	Yang, X.	CELL	196
Yang, G.	ENFL	252	Yang, M.	MEDI	91	Yang, X.	INOR	913
Yang, G.	INOR	387	Yang, M.	PMSE	455	Yang, X.	INOR	357

Yang, Y.	ENVR	771	Yao, H.	CATL	308	Yatvin, J.	COLL	688
Yang, Y.	POLY	280	Yao, H.	BIOL	81	Yau, A.	CINF	110
Yang, Y.	ANYL	118	Yao, J.	BIOL	278	Yau, A.	ENVR	421
Yang, Y.	CELL	73	Yao, L.	ENVR	145	Yau, A.	INOR	80
Yang, Y.	PHYS	605	Yao, N.	PHYS	16	Yau, A.	MEDI	64
Yang, Y.	ORGN	226	Yao, Q.	INOR	1242	Yau, W.	CHED	608
Yang, Y.	PHYS	231	Yao, S.	CATL	131	Yazawa, K.	POLY	66
Yang, Y.W.	CHAS	42	Yao, T.	BIOT	95	Yazaydin, O.	GEOC	237
Yang, Y.	PMSE	274	Yao, W.	INOR	744	Yazaydin, O.	GEOC	238
Yang, Y.	PMSE	456	Yao, W.	INOR	746	Yazaydin, O.	GEOC	264
Yang, Y.	AGFD	200	Yao, W.	INOR	754	Yazdanparast, M.	COLL	137
Yang, Y.	CARB	75	Yao, W.	ORGN	329	Yazdanparast, M.	INOR	820
Yang, Y.	CELL	312	Yao, W.	POLY	598	Ye, C.	INOR	185
Yang, Y.	CELL	347	Yao, W.	ENVR	773	Ye, D.	CELL	180
Yang, Y.	CHED	1272	Yao, X.	COMP	251	Ye, J.	COMP	148
Yang, Y.	CHED	1338	Yao, X.	BIOT	119	Ye, J.	INOR	1166
Yang, Y.	CHED	1342	Yao, Y.	CATL	89	Ye, J.	PHYS	226
Yang, Y.	CHED	1343	Yao, Y.	POLY	320	Ye, L.	CHED	160
Yang, Y.	CATL	472	Yao, Y.	ENVR	379	Ye, L.	CHED	166
Yang, Y.	ENVR	83	Yao, Y.	MEDI	12	Ye, Q.	ORGN	228
Yang, Y.	ENVR	84	Yao, Y.	COLL	135	Ye, R.	GEOC	34
Yang, Y.	ENVR	85	Yao, Z.	CHED	652	Ye, T.	COLL	312
Yang, Y.	ENVR	342	Yao, Z.	BIOL	308	Ye, T.	ENVR	392
Yang, Y.	ENVR	461	Yap, G.P.	INOR	154	Ye, X.	ORGN	303
Yang, Y.	ENVR	723	Yap, G.P.	INOR	209	Ye, X.	COLL	485
Yang, Y.	ENVR	752	Yap, G.P.	INOR	223	Ye, Y.	ENVR	255
Yang, Y.	GEOC	15	Yap, G.P.	INOR	631	Yeager, C.	BIOL	231
Yang, Y.	GEOC	37	Yap, S.	BIOL	104	Yeager, J.	INOR	28
Yang, Y.	GEOC	42	Yapa, A.S.	MEDI	354	Yeagley, A.A.	CHED	1209
Yang, Y.	PMSE	526	Yarberry, F.M.	CHED	17	Yeagley, A.A.	CHED	1210
Yang, Y.	ENFL	163	Yarberry, F.M.	CHED	88	Yeagley, A.A.	CHED	1211
Yang, Y.	ENFL	552	Yarberry, F.M.	CHED	784	Yeagley, A.A.	CINF	79
Yang, Y.	ORGN	454	Yarberry, F.M.	CHED	785	Yeagley, A.A.	ORGN	229
Yang, Y.	ORGN	455	Yarberry, F.M.	CHED	786	Yeamans, C.B.	NUCL	71
Yang, Y.	ENVR	455	Yarberry, F.M.	CHED	1856	Yearty, K.	CHED	107
Yang, Y.	PMSE	9	Yarbrough, B.	INOR	94	Yearty, K.	CHED	109
Yang, Y.	BIOL	206	Yarbrough, J.	CHED	399	Yearty, K.	CHED	125
Yang, Z.	ENVR	218	Yarde, M.	MEDI	36	Yeary, J.	I&EC	167
Yang, Z.	MEDI	20	Yarde, M.	MEDI	109	Yeary, J.	BIOT	191
Yang, Z.	ENVR	741	Yardley, J.	PHYS	266	Yedidi, R.	COMP	17
Yang, Z.	ANYL	378	Yarfi, J.	MEDI	57	Yee, D.	POLY	84
Yang, Z.	ANYL	446	Yarger, J.L.	POLY	727	Yee, J.	BIOT	14
Yang, Z.	PMSE	104	Yarger, J.	CHED	1472	Yee, J.	BIOT	486
Yang, Z.	COLL	290	Yarlagadda, K.	MEDI	68	Yegin, Y.	AGFD	96
Yang, Z.	COMP	291	Yarmush, M.	BIOL	13	Yeh, A.J.	CATL	493
Yankley, A.	CHED	911	Yarnall, Y.	PHYS	314	Yeh, D.	ENFL	303
Yanney, M.	CHED	1467	Yarnell, J.E.	INOR	1076	Yeh, K.	COLL	643
Yanney, M.	CHED	1470	Yarulina, I.	CATL	135	Yeh, N.	ENFL	109
Yanney, M.	CHED	1471	Yasaka, Y.	CELL	81	Yeliseev, A.	COLL	403
Yano, T.	MEDI	157	Yashiro, H.	MEDI	133	Yen, A.	ENFL	144
Yanumula, A.	CHED	578	Yasui, N.	FLUO	48	Yen, E.M.	CHED	141
Yao, C.	ORGN	32	Yasukawa, T.	ANYL	99	Yen, E.M.	INOR	962
Yao, C.	CELL	426	Yasuoka, J.	BIOT	313	Yen, E.M.	INOR	1002
Yao, H.	ENVR	247	Yates, E.A.	CHED	566	Yen, E.M.	INOR	1003
Yao, H.	ANYL	428	Yates, K.	CHED	983	Yen, E.M.	INOR	1004

Yen, H.	PMSE	324	Yildirim, S.S.	BIOT	364	Yoo, S.	POLY	667
Yen, T.	ENFL	388	Yildirim, S.S.	BIOT	557	Yoo, S.	BIOL	62
Yen, W.	INOR	314	Yin, D.	PMSE	537	Yoo, Y.	INOR	1395
Yennawar, N.	BIOL	18	Yin, H.H.	BIOL	150	Yoo, Y.	POLY	756
Yeo, S.	ENVR	665	Yin, H.	ENVR	144	Yoon, A.	CHED	1592
Yeow, N.	COLL	704	Yin, H.	POLY	777	Yoon, C.	ENFL	198
Yerabolu, R.	ORGN	12	Yin, J.	ENFL	55	Yoon, J.	ANYL	361
Yermala, D.	MEDI	67	Yin, J.	ENVR	626	Yoon, M.	PHYS	382
Yesko, B.	CHED	1881	Yin, J.	ANYL	279	Yoon, M.	ENVR	360
Yestrebnsky, C.	CHED	1953	Yin, J.	PHYS	428	Yoon, S.	BIOT	45
Yestrebnsky, C.	ENVR	540	Yin, Q.	CATL	295	Yoon, S.	BIOT	114
Yestrebnsky, C.	ENVR	548	Yin, Q.	CATL	405	Yoon, S.	BIOT	387
Yestrebnsky, C.	ENVR	596	Yin, X.	PMSE	234	Yoon, S.	ENVR	665
Yestrebnsky, C.	ENVR	605	Yin, X.	ENVR	740	Yoon, S.	INOR	728
Yestrebnsky, C.	ENVR	607	Yin, X.	CATL	539	Yoon, S.	INOR	1181
Yethiraj, A.	ENFL	489	Yin, Y.	CATL	427	Yoon, T.P.	ORGN	299
Yeung, C.	ORGN	618	Yin, Y.	ENVR	405	Yoon, T.P.	WCC	13
Yeung, C.	MEDI	117	Yin, Z.	COLL	611	Yoon, Y.	INOR	1171
Yeung, K.	CATL	243	Ying, H.	GEOC	243	York, A.W.	BIOL	39
Yeung, K.	CATL	306	Ying, S.	GEOC	13	York, D.M.	BIOL	22
Yeung, K.	CATL	322	Ying, S.	GEOC	244	York, D.M.	BIOL	23
Yeung, K.	COLL	613	Yingling, Y.G.	CELL	250	York, D.M.	BIOL	24
Yeung, K.	ENVR	691	Yingling, Y.G.	CELL	357	York, D.M.	BIOL	203
Yeung, K.	I&EC	112	Yip, C.M.	CHED	566	York, D.M.	CHED	127
Yeung, K.	I&EC	143	Yip, C.T.	MEDI	295	York, D.M.	CHED	2015
Yeung, K.	INOR	339	Yip, H.	MEDI	6	York, D.M.	COMP	35
Yeung, K.	INOR	353	Yiu, A.	CHED	1794	York, D.M.	COMP	205
Yeung, K.	INOR	724	Yiu, A.	CHED	1795	York, D.M.	COMP	215
Yeung, K.	INOR	725	Yocca, K.	POLY	150	York, D.M.	COMP	228
Yeung, K.	INOR	726	Yochelis, S.	PHYS	487	York, D.M.	COMP	244
Yeung, K.	INOR	1233	Yoder, R.J.	CHED	846	York, D.M.	COMP	322
Yeung, M.T.	INOR	763	Yoder, R.J.	CHED	848	York, D.M.	COMP	378
Yeung, M.T.	INOR	771	Yoho, J.N.	ANYL	104	York, I.	CHED	1867
Yeung, W.	BIOL	290	Yoho, J.N.	COLL	231	York, J.T.	INOR	1102
Yeung, Y.	ORGN	277	Yokoi, T.	CATL	10	York, M.	CHED	500
Yezer, B.	POLY	647	Yokoi, T.	CATL	317	York, S.E.	POLY	127
Yezerets, A.	I&EC	54	Yokoi, T.	CATL	329	Yoshida, H.	ENVR	150
Yezierski, E.J.	CHED	148	Yokota, H.	ANYL	370	Yoshida, K.	PMSE	457
Yezierski, E.J.	CHED	201	Yokota, N.	POLY	424	Yoshida, M.	MEDI	379
Yezierski, E.J.	CHED	212	Yokota, S.	CELL	342	Yoshida, N.	COMP	222
Yezierski, E.J.	CHED	801	Yokoyama, K.	CHED	1292	Yoshida, N.	COMP	234
Yezierski, E.J.	CHED	828	Yokoyama, K.	COLL	189	Yoshida, N.	COMP	242
Yi, C.	ORGN	653	Yokoyama, W.H.	AGFD	170	Yoshida, R.	PMSE	28
Yi, C.	COLL	759	Yokozawa, T.	PMSE	245	Yoshida, R.	PMSE	451
Yi, L.	BIOT	180	Yokus, M.	ANYL	281	Yoshikawa, K.	INOR	1131
Yi, S.	MEDI	176	Yonamine, Y.	ANYL	403	Yoshikuni, Y.	BIOT	238
Yi, S.	ENVR	453	Yonezawa, S.	MEDI	310	Yoshimatsu, K.	BIOT	231
Yi, S.	ENVR	713	Yong, P.K.	CHED	1836	Yoshimatsu, K.	CARB	67
Yi, S.	ENVR	762	Yongky, A.	BIOT	254	Yoshimizu, H.	POLY	607
Yiacoumi, S.	GEOC	69	Yongky, A.	BIOT	487	Yoshimoto, K.	ANYL	95
Yiamsawas, D.	CELL	286	Yonishi, S.	ORGN	141	Yoshimoto, K.	ANYL	99
Yigzaw, Y.	BIOT	305	Yoo, B.	ANYL	256	Yoshimoto, K.	BIOT	414
Yigzaw, Y.	BIOT	311	Yoo, C.	CELL	218	Yoshimoto, K.	BIOT	432
Yik, B.J.	INOR	1142	Yoo, H.	ENFL	419	Yoshimoto, K.	ENFL	343
Yik, E.	CATL	223	Yoo, J.	CELL	226	Yoshimoto, Y.	ORGN	731

Yoshimura, A.	ORGN	663	Young, K.	CHED	1052	Yu, F.	CATL	337
Yoshimura, A.	ORGN	664	Young, K.	POLY	206	Yu, F.	CHED	1024
Yoshimura, K.	BIOT	313	Young, L.S.	CHED	1929	Yu, G.	ENVR	757
Yoshimura, M.	ORGN	410	Young, M.	PROF	46	Yu, G.	ENVR	773
Yoshimura, Y.	PMSE	75	Young, M.	ENFL	466	Yu, G.	ENFL	127
Yoshinaga, A.	CELL	152	Young, M.	ORGN	595	Yu, H.	CELL	174
Yoshinaka, Y.	POLY	760	Young, M.C.	CHED	1152	Yu, H.	COMP	186
Yoshino, N.	CHED	848	Young, M.C.	INOR	391	Yu, H.	COMP	414
Yoshioka, H.	PMSE	458	Young, M.	CHED	1571	Yu, H.S.	COMP	89
Yoshioka, J.	ANYL	99	Young, P.	MEDI	308	Yu, H.S.	COMP	103
Yoshitomi, T.	ANYL	95	Young, P.G.	CHED	274	Yu, H.S.	COMP	278
Yoshitomi, T.	ANYL	99	Young, R.	ENVR	219	Yu, H.S.	COMP	379
Yoshitomi, T.	BIOT	432	Young, R.	ORGN	310	Yu, H.S.	COMP	416
Yoshitomi, T.	ENFL	343	Young, R.	PHYS	122	Yu, H.	COMP	211
Yoshizaki, T.	PMSE	199	Young, T.	ENVR	50	Yu, H.	COMP	376
Yoshizawa, M.	INOR	643	Young, T.D.	COLL	293	Yu, I.F.	INOR	315
You, B.	POLY	806	Young, T.M.	ENVR	415	Yu, J.	BIOL	110
You, D.	INOR	1209	Young, T.	COLL	565	Yu, J.	MEDI	354
You, F.	I&EC	72	Young, V.G.	INOR	235	Yu, J.	PROF	32
You, F.	I&EC	74	Young, V.G.	INOR	475	Yu, K.	ENVR	453
You, L.	COLL	476	Young, W.B.	MEDI	265	Yu, K.	PHYS	398
You, M.	ANYL	423	Young, W.	POLY	497	Yu, L.	INOR	1231
You, W.	ANYL	339	Youngblood, J.P.	PMSE	510	Yu, L.L.	AGFD	64
You, W.	ORGN	168	Youngblood, J.P.	PMSE	580	Yu, L.	AGFD	64
You, Y.	ENFL	401	Youngblood, J.P.	POLY	756	Yu, L.	PHYS	181
You, Y.	ENVR	83	Youngblood, J.P.	PROF	27	Yu, M.	BIOT	108
You, Y.	ENVR	59	Youngen, R.	CINF	109	Yu, M.	BIOT	483
You, Y.	ENVR	594	Younger, L.	CHED	33	Yu, M.	CHED	902
Youdong, C.	INOR	717	Younger, L.	PHYS	544	Yu, M.J.	MEDI	90
Youker, A.	INOR	207	Yount, J.R.	ANYL	116	Yu, M.	INOR	62
Youmans, M.	CHED	1832	Yount, J.R.	ANYL	148	Yu, M.	COLL	38
Youn, G.	CHED	1753	Yourdkhani, M.	POLY	183	Yu, M.	INOR	176
Youn, S.	ENVR	65	Youshaw, C.R.	CHED	1477	Yu, M.	ENVR	473
Younes, A.	NUCL	3	Yousuf, S.	ORGN	409	Yu, M.	CHED	499
Younes, A.	NUCL	42	Yozzo, R.	CHED	1881	Yu, M.	CHED	502
Younes, A.	NUCL	54	Yruegas, S.	INOR	1335	Yu, M.	CHED	503
Younes, A.	NUCL	63	Yruegas, S.	INOR	325	Yu, M.	CHED	739
Young, A.P.	POLY	249	Ysseldyke, J.	ANYL	119	Yu, P.	COMP	245
Young, A.P.	POLY	527	Yu, A.	CHED	1663	Yu, P.	ORGN	111
Young, A.	MEDI	384	Yu, B.	MEDI	295	Yu, P.	ENVR	78
Young, A.T.	ANYL	21	Yu, B.	MEDI	322	Yu, S.	PHYS	160
Young, A.T.	POLY	257	Yu, C.	MEDI	203	Yu, S.	COLL	506
Young, B.	BIOL	274	Yu, C.	ENFL	370	Yu, S.	CELL	16
Young, C.	BIOT	401	Yu, C.	CELL	157	Yu, S.	COLL	484
Young, C.	I&EC	46	Yu, C.	ENFL	521	Yu, S.	INOR	384
Young, C.A.	CHED	1628	Yu, C.	ENVR	560	Yu, S.	INOR	1183
Young, C.A.	CHED	1890	Yu, C.	PHYS	60	Yu, T.	COMP	409
Young, D.W.	ORGN	340	Yu, D.	ENFL	48	Yu, T.	NUCL	99
Young, D.W.	ORGN	439	Yu, D.	PHYS	115	Yu, T.	COLL	295
Young, D.W.	ORGN	671	Yu, D.	PMSE	286	Yu, T.	COLL	11
Young, D.	ANYL	152	Yu, D.	PMSE	160	Yu, T.	COLL	18
Young, H.A.	CHED	1380	Yu, E.	CHED	1423	Yu, T.	COLL	564
Young, J.B.	CHED	1776	Yu, E.	BIOT	3	Yu, T.	ENVR	718
Young, K.	CHED	176	Yu, F.	CATL	316	Yu, T.	PMSE	317
Young, K.	CHED	1038	Yu, F.	CATL	335	Yu, T.	PMSE	321

Yu, T.	POLY	277	Yuan, S.	INOR	743	Yunker, P.J.	POLY	617
Yu, V.	PHYS	382	Yuan, S.	BIOT	545	Yunqin, M.	ENVR	386
Yu, V.	PHYS	414	Yuan, S.	ENVR	220	Yurasits, T.	CHED	416
Yu, V.W.	PHYS	381	Yuan, T.	POLY	354	Yurum, A.	ENVR	640
Yu, W.	ENFL	320	Yuan, T.	POLY	668	Yurum, Y.	ENVR	640
Yu, W.	MEDI	187	Yuan, T.	CATL	339	Yusbarina, Y.	ENVR	699
Yu, W.	COLL	216	Yuan, W.	ENVR	724	Yusubov, M.	ORGN	664
Yu, W.	COLL	303	Yuan, X.	INOR	1050	Yusuf, R.	COMP	18
Yu, W.	INOR	371	Yuan, X.	GEOC	91	Yusup, S.	ENFL	66
Yu, W.	INOR	782	Yuan, Y.	MEDI	191	Yuying, H.	ENFL	453
Yu, X.	COLL	693	Yuan, Y.	COMP	38	Zaabout, A.	CATL	439
Yu, X.	INOR	1367	Yuan, Y.	BIOT	155	Zaba, T.	COLL	480
Yu, X.	POLY	580	Yuan, Y.	CHED	1186	Zachara, J.	GEOC	68
Yu, Y.	BIOL	101	Yuan, Z.	MEDI	176	Zacharia, N.	PMSE	2
Yu, Y.	BIOT	503	Yuan, Z.	POLY	403	Zacharia, N.	POLY	123
Yu, Y.	COLL	546	Yuan, Z.	ENVR	724	Zacharia, N.	POLY	311
Yu, Y.	COLL	549	Yuba, E.	PMSE	547	Zacher, A.H.	CATL	228
Yu, Y.	COLL	605	Yuba, E.	POLY	441	Zacher, A.H.	CATL	392
Yu, Y.	COLL	549	Yuba, E.	POLY	442	Zack, L.N.	PHYS	629
Yu, Y.	ENVR	353	Yuba, E.	POLY	444	Zadrozny, J.M.	PHYS	60
Yu, Y.	ENVR	712	Yuba, E.	POLY	446	Zaera, F.	CATL	201
Yu, Y.	CATL	158	Yuba, E.	POLY	447	Zaera, F.	COLL	72
Yu, Y.	PHYS	58	Yuba, E.	POLY	448	Zaffagni, M.	MEDI	320
Yu, Y.	COLL	121	Yuba, E.	POLY	460	Zahed, M.S.	PHYS	495
Yu, Y.	POLY	616	Yubuchi, S.	ENFL	472	Zaheer, M.	CATL	524
Yu, Y.	PHYS	545	Yucel, M.	INOR	46	Zaheer, S.	CHED	1074
Yu, Y.	MEDI	257	Yudin, A.K.	MEDI	291	Zahn, J.L.	INOR	410
Yu, Y.	ENFL	536	Yue, Y.	INOR	1421	Zahn, N.M.	MEDI	113
Yu, Y.	INOR	1124	Yue, Y.	ENFL	122	Zahra, H.	CELL	264
Yu, Z.	ORGN	12	Yue, Y.	PHYS	78	Zaidani, M.	CATL	140
Yu, Z.	ORGN	386	Yuen, A.K.	INOR	962	Zaidi, S.	ENFL	544
Yu, Z.	PMSE	102	Yuen, A.K.	INOR	1002	Zaikova, T.	ENVR	88
Yu, Z.	PMSE	103	Yuen, A.K.	INOR	1003	Zainab, S.	MEDI	110
Yu, Z.	ENFL	48	Yuen, A.K.	INOR	1004	Zajac, C.	CHED	2158
Yuan, B.	AGFD	231	Yuen, P.K.	CHED	141	Zajickova, Z.	CHED	522
Yuan, C.	PMSE	558	Yuen, P.K.	INOR	962	Zak, K.M.	MEDI	276
Yuan, C.	ENVR	183	Yuen, P.K.	INOR	1002	Zak, M.	COMP	16
Yuan, D.	ENFL	296	Yuen, P.K.	INOR	1003	Zak, M.	MEDI	7
Yuan, G.	ENFL	538	Yuen, P.K.	INOR	1004	Zakharchenko, A.	COLL	756
Yuan, G.	COLL	487	Yufit, D.S.	COLL	340	Zakharchenko, A.	POLY	260
Yuan, J.	CELL	218	Yuguchi, Y.	CELL	42	Zakharian, M.	BIOT	502
Yuan, K.	INOR	552	Yui, H.	BIOT	414	Zakharov, A.	ENVR	420
Yuan, K.	GEOC	86	Yui, N.	COLL	705	Zakharov, B.	AGFD	123
Yuan, L.	COLL	480	Yui, T.	CELL	47	Zakharov, B.	BIOT	423
Yuan, L.	PHYS	246	Yumin, L.	INOR	408	Zakharov, L.N.	CHED	1533
Yuan, L.	PHYS	391	Yun, B.	INOR	348	Zakharov, R.	CINF	10
Yuan, P.	ENVR	3	Yun, B.	INOR	821	Zakharov, R.	CINF	41
Yuan, S.	COLL	379	Yun, D.	INOR	938	Zakharov, R.	CINF	99
Yuan, S.	POLY	331	Yun, J.	ENVR	440	Zakharov, R.	CINF	112
Yuan, S.	POLY	534	Yun, W.	ANYL	218	Zakharov, R.	COMP	27
Yuan, S.	POLY	535	Yun, Y.	CATL	202	Zakharov, R.	COMP	110
Yuan, S.	ENFL	361	Yung, L.	BIOT	170	Zakia, S.	BIOL	86
Yuan, S.	INOR	102	Yung, M.	CATL	441	Zakutansky, P.	CHED	1820
Yuan, S.	INOR	712	Yung, Y.	PHYS	631	Zakutayev, A.	INOR	1156
Yuan, S.	INOR	722	Yunisi, R.	CATL	368	Zaleski, C.M.	CHED	1131

Zaleski, C.M.	CHED	1132	Zatorski, J.	CHED	276	Zeng, H.	CHED	315
Zaleski, C.M.	CHED	1226	Zavabeti, A.	INOR	1317	Zeng, L.	INOR	1226
Zall, C.	INOR	866	Zavadil, K.R.	ENFL	50	Zeng, M.	PMSE	537
Zambito, J.E.	CHED	1231	Zavadil, K.R.	PMSE	240	Zeng, Q.	ENVR	58
Zambito, J.E.	CHED	1840	Zavaleta, B.	CHED	354	Zeng, S.	PMSE	537
Zambito, J.E.	MEDI	371	Zavarin, M.	NUCL	49	Zeng, T.	ENVR	182
Zamborini, F.P.	ANYL	142	Zavattieri, P.	PMSE	510	Zeng, T.	ENVR	486
Zamborini, F.P.	ANYL	175	Zaveri, N.T.	MEDI	266	Zeng, T.	ENVR	547
Zamborini, F.P.	ANYL	181	Zawodzinski, T.	ENFL	177	Zeng, Y.	PMSE	594
Zamborini, F.P.	CATL	532	Zawodzinski, T.	ENFL	549	Zeng, Z.	MEDI	175
Zambrano, D.	ENFL	389	Zaworotko, M.J.	INOR	430	Zengeler, K.	BIOL	228
Zambrzycki, S.	ANYL	377	Zayas, A.	INOR	583	Zengeler, K.	MEDI	168
Zamkov, M.	COLL	42	Zayas, B.	CHED	1262	Zeno, E.	CELL	377
Zamkov, M.	COLL	269	Zayats, S.	PMSE	295	Zeno, W.	BIOT	436
Zamora, R.	CELL	389	Zbieg, J.	ORGN	301	Zeno, W.	COLL	636
Zamule, S.	CHED	961	Zbieg, J.	ORGN	538	Zentz, S.	CHED	410
Zamule, S.	CHED	965	Zdilla, M.	CHED	343	Zepeda, E.	INOR	263
Zamule, S.	CHED	989	Zdilla, M.	INOR	375	Zepp, R.G.	ENVR	21
Zanca, B.A.	ANYL	148	Zdilla, M.	INOR	850	Zerbinatti, C.	MEDI	191
Zander, Z.	CATL	401	Zdilla, M.	INOR	986	Zetter, B.R.	MEDI	320
Zander, Z.	COLL	311	Zdilla, M.	INOR	1026	Zetterlund, P.B.	POLY	168
Zandi, T.	BIOL	238	Zdilla, M.	INOR	1062	Zeumer, R.	ANYL	235
Zandiatashbar, A.	PMSE	589	Zdilla, M.	INOR	1063	Zewail-Foote, M.	CHED	583
Zanelotti, C.	ENFL	48	Zdilla, M.	INOR	1123	Zgid, D.	PHYS	84
Zanelotti, C.	PHYS	115	Zdilla, M.	INOR	1385	Zhai, L.	CHED	1
Zang, B.	BIOT	437	Zdrali, E.	PHYS	335	Zhai, L.	PMSE	492
Zang, L.	BIOT	29	Zecca, H.	CHED	1180	Zhai, Y.	ENFL	377
Zang, Q.	ENVR	418	Zeevaart, J.G.	CELL	242	Zhan, B.	I&EC	92
Zang, Y.	COLL	343	Zeglis, B.	FLUO	62	Zhan, C.	ENFL	103
Zangi, M.	ORGN	689	Zeglis, B.	FLUO	75	Zhan, S.	CATL	59
Zankel, A.	CELL	75	Zeglis, B.	NUCL	53	Zhan, S.	ENVR	209
Zankel, A.	CELL	336	Zehacker, A.	PHYS	51	Zhan, X.	CHED	587
Zanni, M.T.	PHYS	75	Zeier, W.	ENFL	468	Zhanaidarova, A.	INOR	328
Zanzucchi, A.	CHED	162	Zeier, W.	INOR	1232	Zhang, J.	COLL	430
Zapata, J.	CHED	506	Zeitler, A.	AGFD	123	Zhang, A.	POLY	774
Zapata, J.	INOR	365	Zeldes, B.M.	BIOT	221	Zhang, A.	BIOT	397
Zaragoza, J.	INOR	635	Zelenay, P.	ENFL	321	Zhang, A.	ENFL	249
Zare, M.	COLL	700	Zeller, M.	INOR	86	Zhang, A.	ENFL	299
Zare, R.N.	ENFL	414	Zeller, M.	INOR	959	Zhang, A.	ENFL	301
Zare, R.N.	PHYS	227	Zeller, M.	INOR	1294	Zhang, B.	ENVR	37
Zarei, A.	ENFL	60	Zeller, W.	AGFD	203	Zhang, B.	ENVR	308
Zarganes-Tzitzikas, T.	MEDI	276	Zeller, W.	AGFD	219	Zhang, B.	CHAS	3
Zarganes-Tzitzikas, T.	MEDI	348	Zellner, N.	CHED	1736	Zhang, B.	CATL	325
Zargar, A.	ENFL	404	Zemb, T.	COLL	456	Zhang, B.	ENVR	455
Zaric, S.D.	INOR	925	Zembol, N.	CHED	1894	Zhang, B.	INOR	1088
Zarin, B.	POLY	151	Zemke, J.	CHED	1330	Zhang, B.	POLY	223
Zarket, B.	COLL	706	Zenasni, O.	COLL	202	Zhang, B.	CHED	1479
Zaro, B.	BIOL	109	Zenasni, O.	COLL	288	Zhang, B.	ORGN	112
Zarraga, I.	BIOT	51	Zenasni, O.	COLL	295	Zhang, B.	PHYS	424
Zarrinmayeh, H.	MEDI	60	Zenesini, A.	PHYS	17	Zhang, B.S.	BIOL	308
Zarrinmayeh, H.	MEDI	132	Zeng, A.	CHED	1571	Zhang, B.	INOR	440
Zars, E.	ENVR	759	Zeng, B.	PHYS	653	Zhang, B.	INOR	991
Zars, E.	ORGN	499	Zeng, D.	BIOL	154	Zhang, C.	I&EC	96
Zarudnaya, M.	COMP	208	Zeng, F.	POLY	647	Zhang, C.	COLL	304
Zarzycki, P.	ENVR	53	Zeng, H.	PHYS	293	Zhang, C.	MEDI	160

Zhang, C.	MEDI	203	Zhang, G.	PMSE	561	Zhang, K.	PMSE	186
Zhang, C.	INOR	641	Zhang, G.	POLY	403	Zhang, K.	PMSE	231
Zhang, C.	CATL	353	Zhang, G.	I&EC	60	Zhang, K.	CATL	63
Zhang, C.	CATL	552	Zhang, H.	PMSE	241	Zhang, K.	COLL	213
Zhang, C.	POLY	774	Zhang, H.	INOR	407	Zhang, K.	COLL	462
Zhang, C.	ANYL	108	Zhang, H.	ENVR	85	Zhang, K.	PMSE	95
Zhang, C.	ENVR	327	Zhang, H.	POLY	747	Zhang, K.	PMSE	543
Zhang, C.	COLL	587	Zhang, H.	COLL	149	Zhang, K.	POLY	112
Zhang, C.	PHYS	653	Zhang, H.	COLL	346	Zhang, K.	POLY	255
Zhang, C.	CATL	544	Zhang, H.	PMSE	102	Zhang, L.	PMSE	551
Zhang, C.	ANYL	35	Zhang, H.	I&EC	11	Zhang, L.	BIOT	42
Zhang, C.	ANYL	122	Zhang, H.	AGFD	36	Zhang, L.	ENFL	537
Zhang, C.	ORGN	81	Zhang, H.	COLL	734	Zhang, L.	ORGN	13
Zhang, C.	PMSE	455	Zhang, H.	COLL	35	Zhang, L.	COLL	437
Zhang, D.	COLL	329	Zhang, H.	COLL	40	Zhang, L.	MEDI	134
Zhang, D.	COLL	658	Zhang, H.	COLL	225	Zhang, L.	INOR	1266
Zhang, D.	ORGN	290	Zhang, H.	COLL	294	Zhang, L.	ENFL	60
Zhang, D.	ENFL	2	Zhang, H.	ENFL	85	Zhang, L.	ANYL	263
Zhang, D.	ENFL	239	Zhang, H.	POLY	311	Zhang, L.	ENFL	314
Zhang, D.Y.	PHYS	347	Zhang, H.	CATL	186	Zhang, L.	INOR	712
Zhang, D.	COLL	11	Zhang, H.	PHYS	299	Zhang, L.	MEDI	134
Zhang, D.	COLL	18	Zhang, H.	PHYS	394	Zhang, L.	CATL	180
Zhang, D.	COLL	564	Zhang, H.	POLY	278	Zhang, L.	GEOC	53
Zhang, D.	ENVR	718	Zhang, H.J.	GEOC	179	Zhang, L.	GEOC	256
Zhang, D.	PMSE	317	Zhang, H.	MEDI	112	Zhang, L.	CARB	87
Zhang, D.	PMSE	321	Zhang, J.	ORGN	494	Zhang, L.	CELL	180
Zhang, D.	POLY	277	Zhang, J.T.	PHYS	58	Zhang, L.	CELL	188
Zhang, D.	POLY	294	Zhang, J.	INOR	890	Zhang, L.	ENVR	55
Zhang, D.	POLY	355	Zhang, J.	INOR	891	Zhang, L.	BIOT	508
Zhang, D.	ANYL	435	Zhang, J.	MEDI	218	Zhang, L.	AGFD	45
Zhang, D.	ANYL	436	Zhang, J.	CHED	2169	Zhang, L.	ANYL	458
Zhang, D.	ANYL	437	Zhang, J.	CINF	4	Zhang, L.	PMSE	49
Zhang, D.	ANYL	438	Zhang, J.	CINF	19	Zhang, L.	PMSE	104
Zhang, D.	ANYL	463	Zhang, J.	CINF	21	Zhang, L.	CATL	504
Zhang, D.	COLL	698	Zhang, J.	INOR	734	Zhang, L.	PHYS	399
Zhang, D.	COLL	766	Zhang, J.	PMSE	600	Zhang, L.	COLL	664
Zhang, D.	COLL	779	Zhang, J.	BIOL	206	Zhang, L.	ENFL	377
Zhang, D.	BIOL	229	Zhang, J.	ORGN	311	Zhang, M.	BIOL	115
Zhang, D.	PHYS	145	Zhang, J.	MEDI	134	Zhang, M.	ENVR	129
Zhang, D.	PHYS	605	Zhang, J.	INOR	678	Zhang, M.	ORGN	324
Zhang, D.	INOR	378	Zhang, J.	ENFL	232	Zhang, M.	ENVR	85
Zhang, F.	CATL	413	Zhang, J.	ENFL	364	Zhang, M.	ANYL	336
Zhang, F.	ENFL	345	Zhang, J.	COLL	304	Zhang, M.	INOR	496
Zhang, F.	CELL	121	Zhang, J.	PMSE	522	Zhang, M.	INOR	1199
Zhang, F.	INOR	668	Zhang, J.	ENFL	363	Zhang, M.	PHYS	540
Zhang, F.	CATL	234	Zhang, J.	ENFL	210	Zhang, M.	COLL	119
Zhang, F.	AGFD	138	Zhang, J.	CATL	61	Zhang, M.	COMP	252
Zhang, G.	COLL	588	Zhang, K.	BIOT	279	Zhang, M.	MEDI	134
Zhang, G.	ANYL	378	Zhang, K.	BIOT	281	Zhang, M.	ENVR	4
Zhang, G.	INOR	500	Zhang, K.	CELL	52	Zhang, M.	ENVR	251
Zhang, G.	ENVR	247	Zhang, K.	CELL	192	Zhang, N.	BIOT	429
Zhang, G.	ANYL	245	Zhang, K.	COLL	218	Zhang, P.	ORGN	203
Zhang, G.	ANYL	345	Zhang, K.	PMSE	16	Zhang, P.	POLY	361
Zhang, G.	POLY	74	Zhang, K.	ENFL	357	Zhang, P.	POLY	738
Zhang, G.	INOR	484	Zhang, K.	ENFL	358	Zhang, P.	CHED	1300

Zhang, P.	ENFL	361	Zhang, T.	PHYS	424	Zhang, X.	POLY	36
Zhang, P.	ENVR	748	Zhang, T.	ENVR	11	Zhang, X.	POLY	425
Zhang, P.	PHYS	140	Zhang, T.	ENVR	204	Zhang, X.	INOR	831
Zhang, P.	PHYS	437	Zhang, T.	ENVR	453	Zhang, X.	BIOL	228
Zhang, P.	CATL	535	Zhang, T.	INOR	54	Zhang, X.	INOR	566
Zhang, P.	INOR	1404	Zhang, V.	CHED	1839	Zhang, X.	PMSE	242
Zhang, Q.	BIOL	28	Zhang, W.	CHED	2079	Zhang, X.	CATL	53
Zhang, Q.	CHED	111	Zhang, W.	COLL	442	Zhang, X.	CATL	499
Zhang, Q.	ENFL	373	Zhang, W.	ENVR	264	Zhang, X.	CELL	289
Zhang, Q.	ENFL	508	Zhang, W.	ENVR	430	Zhang, X.	ENFL	272
Zhang, Q.	INOR	1423	Zhang, W.	PROF	33	Zhang, X.	POLY	741
Zhang, Q.	ENVR	514	Zhang, W.	COLL	595	Zhang, X.	CATL	539
Zhang, Q.	CATL	114	Zhang, W.	ENFL	511	Zhang, X.	PMSE	483
Zhang, Q.	ENFL	85	Zhang, W.	ANYL	17	Zhang, Y.	CATL	254
Zhang, Q.	I&EC	10	Zhang, W.	ENVR	262	Zhang, Y.	ANYL	450
Zhang, Q.	COMP	355	Zhang, W.	ENVR	285	Zhang, Y.	CELL	346
Zhang, Q.	ENVR	327	Zhang, W.	COLL	778	Zhang, Y.	MEDI	152
Zhang, Q.	ANYL	196	Zhang, W.	ENVR	128	Zhang, Y.	ORGN	477
Zhang, R.	INOR	846	Zhang, W.	ENVR	160	Zhang, Y.	PHYS	170
Zhang, R.	POLY	601	Zhang, W.	ENVR	247	Zhang, Y.	PHYS	399
Zhang, R.F.	MEDI	35	Zhang, W.	ENVR	398	Zhang, Y.	MEDI	367
Zhang, R.F.	MEDI	202	Zhang, W.	CATL	180	Zhang, Y.	PMSE	55
Zhang, R.	PMSE	536	Zhang, W.	ENFL	187	Zhang, Y.	POLY	326
Zhang, R.	POLY	70	Zhang, W.	PMSE	544	Zhang, Y.	ANYL	449
Zhang, R.	COLL	606	Zhang, X.	COLL	9	Zhang, Y.	BIOT	208
Zhang, S.	CATL	308	Zhang, X.	COLL	307	Zhang, Y.	COMP	252
Zhang, S.	MEDI	49	Zhang, X.	ENVR	655	Zhang, Y.	PMSE	524
Zhang, S.	INOR	713	Zhang, X.	MEDI	360	Zhang, Y.	PMSE	525
Zhang, S.	PHYS	556	Zhang, X.	PROF	2	Zhang, Y.	COLL	169
Zhang, S.	ENVR	108	Zhang, X.	PHYS	588	Zhang, Y.	CELL	88
Zhang, S.	CATL	58	Zhang, X.	ORGN	195	Zhang, Y.	COLL	306
Zhang, S.	INOR	76	Zhang, X.	ENVR	338	Zhang, Y.	BIOT	149
Zhang, S.	COLL	436	Zhang, X.	CATL	545	Zhang, Y.	ENVR	270
Zhang, S.	COLL	439	Zhang, X.	ENFL	143	Zhang, Y.	ORGN	430
Zhang, S.	PMSE	289	Zhang, X.	ENFL	513	Zhang, Y.	ORGN	434
Zhang, S.	ENFL	50	Zhang, X.	ENFL	532	Zhang, Y.	ORGN	436
Zhang, S.	ORGN	154	Zhang, X.	ENFL	538	Zhang, Y.	ORGN	557
Zhang, S.	COLL	11	Zhang, X.	COMP	123	Zhang, Y.	ANYL	388
Zhang, S.	ENVR	718	Zhang, X.	MEDI	49	Zhang, Y.	ANYL	196
Zhang, S.	POLY	645	Zhang, X.	ENFL	346	Zhang, Y.	INOR	722
Zhang, S.	POLY	516	Zhang, X.	MEDI	2	Zhang, Y.	MEDI	6
Zhang, S.	POLY	545	Zhang, X.	BIOT	156	Zhang, Y.	ENFL	520
Zhang, S.	POLY	715	Zhang, X.	BIOT	261	Zhang, Y.	ENVR	757
Zhang, S.	CATL	378	Zhang, X.	PHYS	482	Zhang, Y.	INOR	67
Zhang, T.	ENFL	19	Zhang, X.	CATL	269	Zhang, Y.	INOR	481
Zhang, T.	CATL	371	Zhang, X.	CATL	525	Zhang, Y.	ORGN	73
Zhang, T.	ENFL	74	Zhang, X.	PMSE	473	Zhang, Y.	INOR	903
Zhang, T.	ENVR	305	Zhang, X.	CELL	319	Zhang, Y.	INOR	909
Zhang, T.	MEDI	19	Zhang, X.	BIOL	132	Zhang, Y.	CATL	545
Zhang, T.	PMSE	176	Zhang, X.	ORGN	384	Zhang, Y.	BIOL	206
Zhang, T.	POLY	615	Zhang, X.	ENVR	57	Zhang, Y.	POLY	251
Zhang, T.	COLL	731	Zhang, X.	ENVR	63	Zhang, Y.	ANYL	360
Zhang, T.	POLY	292	Zhang, X.	AGFD	31	Zhang, Y.	ANYL	362
Zhang, T.	POLY	365	Zhang, X.	BIOL	305	Zhang, Y.	ANYL	426
Zhang, T.	POLY	497	Zhang, X.	INOR	734	Zhang, Y.	CHED	1111

Zhang, Y.	COMP	295	Zhao, B.	PMSE	361	Zhao, Q.	MEDI	367
Zhang, Y.	PMSE	256	Zhao, B.	BIOL	185	Zhao, Q.	CATL	353
Zhang, Y.	ORGN	197	Zhao, C.	CELL	223	Zhao, Q.	MEDI	199
Zhang, Y.	AGFD	206	Zhao, C.	CATL	54	Zhao, Q.J.	ENVR	421
Zhang, Y.	PHYS	214	Zhao, C.	COLL	519	Zhao, R.	ENFL	3
Zhang, Y.	CHED	706	Zhao, C.	COLL	746	Zhao, R.	MEDI	297
Zhang, Y.	COLL	759	Zhao, D.	INOR	717	Zhao, S.	COLL	50
Zhang, Y.	COLL	18	Zhao, D.	INOR	723	Zhao, S.	POLY	502
Zhang, Y.	COLL	674	Zhao, D.	INOR	1329	Zhao, S.	PMSE	591
Zhang, Y.	COLL	729	Zhao, D.	AGFD	137	Zhao, S.	ENFL	307
Zhang, Y.	POLY	277	Zhao, D.	BIOT	30	Zhao, S.	GEOC	183
Zhang, Y.	POLY	294	Zhao, E.W.	CATL	519	Zhao, S.	INOR	459
Zhang, Y.	CHED	1498	Zhao, G.	COLL	711	Zhao, S.	MEDI	75
Zhang, Y.	AGFD	138	Zhao, G.	CATL	327	Zhao, T.	CELL	71
Zhang, Y.	BIOT	121	Zhao, G.	CATL	328	Zhao, W.	ORGN	137
Zhang, Y.	BIOT	177	Zhao, G.	CATL	339	Zhao, W.	ANYL	167
Zhang, Y.	ENFL	158	Zhao, G.	CATL	475	Zhao, W.	ENVR	377
Zhang, Y.	ENFL	159	Zhao, G.	ENFL	542	Zhao, W.	ENVR	646
Zhang, Y.	ENFL	162	Zhao, G.	PHYS	36	Zhao, W.	MPPG	16
Zhang, Y.	ENFL	462	Zhao, G.	COMP	16	Zhao, W.	ORGN	282
Zhang, Y.	BIOL	51	Zhao, H.	PHYS	12	Zhao, W.	ORGN	379
Zhang, Z.	CATL	44	Zhao, H.	INOR	1117	Zhao, W.	PMSE	255
Zhang, Z.	CATL	198	Zhao, H.	ENVR	496	Zhao, W.	POLY	348
Zhang, Z.	CATL	269	Zhao, H.	ENFL	408	Zhao, W.	POLY	498
Zhang, Z.	ENFL	484	Zhao, H.	CELL	318	Zhao, X.	CATL	437
Zhang, Z.	CELL	198	Zhao, H.	BIOT	75	Zhao, X.	ENFL	135
Zhang, Z.	PHYS	128	Zhao, H.	BIOT	224	Zhao, X.	CATL	343
Zhang, Z.	PMSE	599	Zhao, J.	BIOT	487	Zhao, X.	PMSE	600
Zhang, Z.	ANYL	399	Zhao, J.	INOR	1050	Zhao, X.	PHYS	277
Zhang, Z.	PMSE	34	Zhao, J.	ENFL	436	Zhao, X.	ENVR	210
Zhang, Z.	BIOL	118	Zhao, J.	POLY	33	Zhao, X.	ORGN	80
Zhang, Z.	ORGN	583	Zhao, J.	COLL	351	Zhao, X.	INOR	390
Zhang, Z.	PMSE	149	Zhao, J.	PMSE	563	Zhao, X.	INOR	510
Zhang, Z.	ENFL	50	Zhao, J.	ENVR	26	Zhao, X.	POLY	274
Zhang, Z.	BIOT	51	Zhao, J.	ENVR	29	Zhao, Y.	PHYS	246
Zhang, Z.	INOR	11	Zhao, K.	ORGN	422	Zhao, Y.	POLY	422
Zhang, Z.	INOR	739	Zhao, K.	ENVR	621	Zhao, Y.	PMSE	459
Zhang, Z.	INOR	1092	Zhao, L.	BIOT	548	Zhao, Y.	PHYS	560
Zhang, Z.	ENFL	406	Zhao, L.	BIOT	15	Zhao, Y.	ENVR	63
Zhang, Z.	BIOL	268	Zhao, L.	CATL	553	Zhao, Y.	ENVR	721
Zhang, Z.	BIOT	89	Zhao, L.	GEOC	111	Zhao, Y.	ENFL	19
Zhang, Z.	ORGN	12	Zhao, L.	COLL	245	Zhao, Y.	ENVR	508
Zhang, Z.	ORGN	732	Zhao, L.	PMSE	446	Zhao, Y.	PMSE	600
Zhang, Z.	CATL	218	Zhao, M.	PHYS	620	Zhao, Y.	ORGN	240
Zhang, Z.	CATL	427	Zhao, M.	CELL	4	Zhao, Y.	CATL	280
Zhang, Z.	CATL	472	Zhao, M.	ENFL	133	Zhao, Y.	ENFL	69
Zhang, Z.	CATL	525	Zhao, N.	ENFL	346	Zhao, Y.	BIOT	180
Zhang, Z.	CATL	531	Zhao, N.	ENFL	347	Zhao, Y.	ENFL	120
Zhang Newby, B.M.	PMSE	323	Zhao, N.	ENFL	357	Zhao, Z.	CHED	655
Zhao, A.	ENVR	721	Zhao, P.	ORGN	139	Zhao, Z.	POLY	143
Zhao, B.	BIOL	154	Zhao, P.	ORGN	597	Zhao, Z.	CATL	488
Zhao, B.	ANYL	423	Zhao, P.	INOR	419	Zhao, Z.	ENFL	512
Zhao, B.	CATL	269	Zhao, Q.	GEOC	36	Zhao, Z.	ENVR	555
Zhao, B.	ANYL	131	Zhao, Q.	GEOC	42	Zhao, Z.	ENVR	620
Zhao, B.	BIOL	28	Zhao, Q.	MEDI	109	Zhao, Z.	ENVR	621

Zhao, Z.	ENVR	622	Zheng, Z.	COMP	231	Zhou, H.	INOR	1234
Zhao, Z.	BIOL	98	Zheng, Z.	CHED	1290	Zhou, H.	INOR	1389
Zhao, Z.	CATL	343	Zheng, Z.	INOR	831	Zhou, H.	INOR	1418
Zhao, Z.	ENVR	449	Zheng, Z.	INOR	1331	Zhou, H.	ENVR	269
Zhdankin, V.V.	ORGN	663	Zhengang, M.	POLY	34	Zhou, H.	ENVR	684
Zhdankin, V.V.	ORGN	664	Zhengang, M.	POLY	88	Zhou, H.	ENVR	46
Zhdanov, D.	PHYS	301	Zherebker, A.Y.	CINF	105	Zhou, J.	INOR	688
Zhekova, H.	BIOL	173	Zhernenkov, M.	COLL	22	Zhou, J.	PHYS	390
Zhen, Z.	COLL	778	Zhernenkov, M.	COLL	641	Zhou, J.	COLL	266
Zheng, C.	CELL	414	Zhernov, Y.V.	CINF	105	Zhou, J.	ENVR	740
Zheng, F.	AGFD	135	Zhi, B.	ENVR	242	Zhou, J.	ENVR	455
Zheng, F.	AGFD	138	Zhi, F.	ENFL	53	Zhou, J.	CELL	175
Zheng, H.	INOR	1404	Zho, B.	MEDI	70	Zhou, L.	ENFL	244
Zheng, H.	AGFD	35	Zho, C.	PHYS	602	Zhou, L.	ENVR	80
Zheng, J.	CHED	1840	Zhong, C.	ANYL	315	Zhou, L.	ENVR	82
Zheng, J.	CATL	194	Zhong, C.	ENFL	527	Zhou, L.	ENVR	560
Zheng, J.	BIOT	208	Zhong, D.	ANYL	47	Zhou, L.	ENVR	712
Zheng, J.	COLL	38	Zhong, H.	ENFL	351	Zhou, M.	PHYS	246
Zheng, J.	COMP	252	Zhong, H.	ENFL	197	Zhou, M.	INOR	45
Zheng, J.	INOR	176	Zhong, L.	ENFL	293	Zhou, M.	MEDI	176
Zheng, J.	PMSE	524	Zhong, M.	PMSE	21	Zhou, N.	PMSE	149
Zheng, J.	PMSE	525	Zhong, M.	PMSE	391	Zhou, P.	ENVR	74
Zheng, J.	ENFL	467	Zhong, M.	POLY	287	Zhou, P.	AGFD	143
Zheng, J.	PMSE	344	Zhong, M.	POLY	633	Zhou, Q.	ENVR	210
Zheng, J.	ANYL	245	Zhong, Q.	MEDI	160	Zhou, Q.	ENVR	685
Zheng, L.	COMP	36	Zhong, W.	INOR	1059	Zhou, S.	COLL	778
Zheng, L.	COMP	227	Zhong, X.	ENFL	398	Zhou, S.	AGFD	60
Zheng, M.	INOR	695	Zhong, X.	PHYS	383	Zhou, S.	ANYL	193
Zheng, N.	BIOL	11	Zhou, B.	ENFL	1	Zhou, W.	ENFL	205
Zheng, P.	CATL	488	Zhou, B.	ENVR	506	Zhou, W.	ENFL	434
Zheng, P.	CATL	553	Zhou, B.	POLY	705	Zhou, W.	I&EC	10
Zheng, P.	ENFL	512	Zhou, C.	PMSE	284	Zhou, W.	INOR	433
Zheng, Q.	MEDI	60	Zhou, C.	PMSE	536	Zhou, W.	CHED	1290
Zheng, Q.	MEDI	132	Zhou, C.	CHED	1307	Zhou, W.	COLL	595
Zheng, Q.	CATL	239	Zhou, C.	ENVR	367	Zhou, W.	POLY	535
Zheng, Q.	COLL	687	Zhou, D.	ENFL	55	Zhou, X.	ORGN	484
Zheng, R.	ENFL	319	Zhou, E.	BIOL	156	Zhou, X.	I&EC	26
Zheng, R.	ENVR	756	Zhou, E.C.	BIOL	229	Zhou, X.	ENVR	140
Zheng, S.	BIOL	162	Zhou, E.C.	BIOL	250	Zhou, X.	ENVR	272
Zheng, S.	ENVR	501	Zhou, F.	ENFL	324	Zhou, X.	BIOL	204
Zheng, S.	ENVR	57	Zhou, H.	MEDI	283	Zhou, X.	BIOL	277
Zheng, S.	ENVR	61	Zhou, H.	ENFL	2	Zhou, X.	BIOL	312
Zheng, T.	COLL	88	Zhou, H.	ENFL	239	Zhou, X.	PMSE	49
Zheng, W.	ENVR	151	Zhou, H.	PHYS	567	Zhou, X.	I&EC	169
Zheng, W.	I&EC	120	Zhou, H.	ENFL	73	Zhou, Y.	COMP	212
Zheng, X.	BIOT	18	Zhou, H.	ENFL	348	Zhou, Y.	PHYS	174
Zheng, X.	BIOT	122	Zhou, H.	ENFL	352	Zhou, Y.	COLL	135
Zheng, Y.	CATL	293	Zhou, H.	ENFL	361	Zhou, Y.	ANYL	122
Zheng, Y.	POLY	808	Zhou, H.	INOR	102	Zhou, Y.	ENVR	745
Zheng, Y.	INOR	831	Zhou, H.	INOR	712	Zhou, Y.	ENFL	99
Zheng, Y.	CHED	1852	Zhou, H.	INOR	722	Zhou, Y.	COLL	656
Zheng, Y.	ORGN	334	Zhou, H.	INOR	731	Zhou, Y.	COLL	683
Zheng, Y.	CHED	1186	Zhou, H.	INOR	735	Zhou, Y.	POLY	300
Zheng, Y.	MEDI	322	Zhou, H.	INOR	743	Zhou, Y.	ORGN	38
Zheng, Y.	CELL	208	Zhou, H.	INOR	752	Zhou, Y.	BIOT	332

Zhou, Y.	COLL	310	Zhu, M.	GEOC	161	Zi, Y.	ANYL	411
Zhou, Z.	GEOC	12	Zhu, M.	GEOC	181	Ziadkhanpour, K.	MEDI	213
Zhou, Z.	PMSE	122	Zhu, M.	GEOC	225	Zick, M.E.	INOR	308
Zhou, Z.	ENFL	414	Zhu, M.	GEOC	226	Zid, B.	CHED	715
Zhu, L.	ENVR	432	Zhu, M.J.	BIOL	80	Ziebarth, M.	CATL	223
Zhu, B.	ENVR	716	Zhu, M.	BIOT	137	Ziebro, J.K.	CHED	546
Zhu, C.	CELL	6	Zhu, M.	BIOT	283	Ziegler, C.J.	CHED	1074
Zhu, C.	COLL	414	Zhu, M.	CATL	5	Ziegler, C.J.	INOR	963
Zhu, C.	CHED	1350	Zhu, M.	CATL	36	Ziegler, J.	CHED	26
Zhu, C.	ORGN	373	Zhu, P.	INOR	786	Zieglowski, M.	CELL	114
Zhu, D.	ENVR	286	Zhu, R.	ENVR	122	Ziels, R.	GEOC	137
Zhu, D.	ENVR	430	Zhu, S.	I&EC	68	Ziemba, C.	PMSE	191
Zhu, D.	ENVR	493	Zhu, T.	ENFL	421	Ziemer, N.	ORGN	170
Zhu, D.	ENVR	501	Zhu, T.	PHYS	246	Ziemer, N.	PROF	48
Zhu, F.	INOR	387	Zhu, W.	ENFL	436	Ziller, J.W.	INOR	1140
Zhu, G.	I&EC	157	Zhu, X.	ENVR	108	Ziller, J.W.	INOR	1147
Zhu, G.	COLL	742	Zhu, X.	MEDI	28	Zilles, J.	ENVR	390
Zhu, H.	CATL	41	Zhu, X.	AGFD	15	Zimmerman, G.H.	CHED	1688
Zhu, H.	ORGN	12	Zhu, X.	PHYS	378	Zimmerman, J.R.	ORGN	702
Zhu, H.	ENVR	326	Zhu, X.	BIOT	5	Zimmerman, M.	POLY	317
Zhu, H.	CHED	1788	Zhu, X.	ANYL	307	Zimmerman, P.M.	CARB	88
Zhu, H.	I&EC	12	Zhu, X.	INOR	1371	Zimmerman, P.M.	CATL	167
Zhu, H.	CELL	80	Zhu, X.	PHYS	127	Zimmerman, P.M.	COMP	304
Zhu, H.	ENFL	356	Zhu, X.	PHYS	244	Zimmerman, P.M.	ORGN	241
Zhu, H.	INOR	1266	Zhu, X.	PHYS	248	Zimmerman, P.M.	PHYS	133
Zhu, H.	COLL	416	Zhu, X.	PHYS	264	Zimmerman, P.M.	PMSE	85
Zhu, J.	COLL	611	Zhu, X.	PHYS	378	Zimmerman, P.M.	MEDI	305
Zhu, J.	BIOL	270	Zhu, X.	PHYS	383	Zimmerman, S.C.	COLL	169
Zhu, J.	ANYL	39	Zhu, X.	ENVR	55	Zimmerman, T.	ORGN	295
Zhu, J.	CHED	358	Zhu, X.	CHED	1369	Zimmermann, I.	ORGN	295
Zhu, J.	CATL	232	Zhu, X.	POLY	638	Zimmermann, R.	ENVR	753
Zhu, J.	BIOL	140	Zhu, X.	POLY	638	Zimmermann, T.	CELL	72
Zhu, J.	INOR	3	Zhu, X.	ENFL	120	Zimmermann, T.	CELL	314
Zhu, J.	AGFD	69	Zhu, X.	PMSE	149	Zimudzi, T.J.	PMSE	33
Zhu, J.	MEDI	38	Zhu, X.	ENFL	360	Zinga, S.	PHYS	134
Zhu, J.	POLY	12	Zhu, Y.	ENFL	127	Zingales, S.	POLY	126
Zhu, J.X.	POLY	12	Zhu, Y.	CATL	444	Zingales, S.	POLY	438
Zhu, J.X.	POLY	466	Zhu, Y.	PHYS	159	Zink, J.I.	INOR	907
Zhu, J.	COLL	782	Zhu, Y.	ENFL	238	Zinn, T.	COLL	23
Zhu, J.	PMSE	503	Zhu, Y.	ENFL	351	Zinn, T.	COLL	659
Zhu, J.	INOR	355	Zhu, Z.	PHYS	425	Zinna, J.	ANYL	176
Zhu, J.	CELL	93	Zhu, Z.	MEDI	25	Zinzula, L.	COMP	356
Zhu, J.	CELL	287	Zhu, Z.	MEDI	378	Zirbes, M.	CELL	328
Zhu, K.	CELL	180	Zhu, Z.	CARB	45	Zirbs, R.	COLL	93
Zhu, L.	MEDI	270	Zhuang, Q.	CHED	1651	Zirbs, R.	PHYS	659
Zhu, L.	POLY	38	Zhuang, Q.	MEDI	62	Zito, P.	AGFD	158
Zhu, L.	POLY	67	Zhuang, Q.	ORGN	223	Zito, P.	ENVR	475
Zhu, L.	CATL	366	Zhuang, W.	ANYL	245	Zitzmann, J.	BIOT	552
Zhu, L.	CHED	1935	Zhuang, W.	ENVR	713	Ziurys, L.M.	PHYS	587
Zhu, L.	CHED	1967	Zhuang, X.	COLL	726	Ziurys, L.M.	PHYS	629
Zhu, L.	ENVR	20	Zhuang, X.	BIOT	222	Ziurys, L.M.	PHYS	630
Zhu, L.	ENVR	208	Zhuang, Z.	INOR	573	Zlomie, T.	CHED	736
Zhu, L.	ENFL	50	Zhukhovitskiy, A.V.	POLY	268	Zlotkowski, K.	MEDI	11
Zhu, L.	COLL	246	Zhukovskiy, M.	INOR	796	Zoeller, T.	CINF	34
Zhu, M.	PMSE	258	Zhumekenov, A.	ANYL	279	Zoh, K.	ENVR	499
Zhu, M.	GEOC	159	Zhuo, Y.	INOR	773	Zoh, K.	ENVR	600

Zojer, E.	COLL	478	Zrada, M.	MEDI	69	Zwijenburg, M.A.	ENFL	490
Zok, F.	PMSE	556	Zrimsek, A.	PHYS	301	Zwijenburg, M.A.	PMSE	31
Zok, F.	POLY	217	Zubarev, D.	COMP	26	Zwirschmayr, N.	CELL	46
Zoll, A.J.	INOR	387	Zubarev, D.Y.	ORGN	239	Zwolak, M.	COMP	331
Zöllner, M.S.	COLL	345	Zubatiuk, T.	PHYS	421	Zydlowski, B.	ENFL	184
Zollo, V.	INOR	1306	Zubatyuk, R.	COMP	114	Zydlowski, B.	I&EC	175
Zolnierczuk, P.	COLL	335	Zubris, D.L.	INOR	852	Zydney, A.L.	BIOT	34
Zolotarskaya, O.Y.	POLY	174	Zuchero, M.A.	INOR	27	Zydney, A.L.	BIOT	446
Zolyomi, R.	BIOT	186	Zuckerbraun, B.	MEDI	240	Zydney, A.L.	PMSE	194
Zones, S.I.	CATL	62	Zuckerman, D.M.	COMP	76	Zygdlo, J.	CELL	126
Zones, S.I.	CATL	221	Zuckerman, H.	HIST	37	Zylstra, A.	ORGN	476
Zones, S.I.	CATL	383	Zuckermann, R.N.	PMSE	159	Zysman-Colman, E.	INOR	1044
Zones, S.I.	CATL	491	Zucolotto, V.	PMSE	265			
Zones, S.I.	CATL	493	Zuczek, J.	COLL	783			
Zong, J.	POLY	344	Zuehlsdorff, T.	COMP	71			
Zong, M.	AGFD	233	Zuercher, B.	MEDI	402			
Zongo, L.	CELL	89	Zuhl, A.	MEDI	321			
Zonta, C.	INOR	1383	Zuilhof, H.	COLL	384			
Zontone, F.	ENFL	446	Zuilhof, H.	COLL	687			
Zoppe, J.O.	CELL	419	Zuilhof, H.	COLL	773			
Zoppi, L.	COLL	374	Zukas, W.	ENVR	650			
Zoppi, L.	PHYS	327	Zuluaga Gallego, R.	CELL	343			
Zora, M.	ORGN	631	Zumrut, H.	BIOL	176			
Zorba, V.	ANYL	233	Zumstein, M.	POLY	261			
Zorba, V.	ANYL	277	Zuniga, J.	INOR	418			
Zoric, M.	ENFL	304	Zuniga, J.	INOR	809			
Zorn, R.	PMSE	94	Zuniga, J.	INOR	837			
Zornjak, J.	COLL	224	Zuo, J.	MEDI	204			
Zotos, E.	CHED	34	Zuo, K.	PMSE	469			
Zou, F.	CELL	354	Zuo, R.	AGFD	60			
Zou, H.	COLL	606	Zuo, R.	ANYL	193			
Zou, H.	MEDI	22	Zuo, T.	COLL	170			
Zou, J.	POLY	82	Zuo, X.	ENVR	26			
Zou, J.	CATL	456	Zuo, X.	GEOC	278			
Zou, J.	CATL	512	Zuo, Y.	BIOL	73			
Zou, J.	CATL	545	Zuo, Y.	AGFD	60			
Zou, J.	ENFL	143	Zuo, Y.	ANYL	193			
Zou, J.	ENFL	532	Zuo, Y.	ENVR	525			
Zou, J.	ENFL	538	Zuo, Y.	ENVR	528			
Zou, R.	ENFL	165	Zuo, Z.	CATL	249			
Zou, R.	ENFL	359	Zuozuo, W.	CATL	313			
Zou, S.	CATL	510	Zur, A.A.	MEDI	315			
Zou, X.	ENFL	503	Zurek, E.	ANYL	165			
Zou, X.	POLY	601	Zurek, E.	CATL	419			
Zou, Y.	AGFD	58	Zussblatt, N.P.	CATL	369			
Zouabi, R.	CHED	1809	Zustiak, M.	BIOT	13			
Zouabi, R.	CHED	1810	Zvonkina, I.	PMSE	565			
Zouabi, R.	CHED	1811	Zweerink, D.	CHED	879			
Zouboulis, A.	ENVR	95	Zweigenbaum, J.	ENVR	472			
Zougheib, N.	CATL	402	Zweigenbaum, J.	ENVR	732			
Zoumpouli, G.	ENVR	764	Zweigenbaum, J.	ENVR	735			
Zourna, K.	BIOT	449	Zwiener, C.	ENVR	409			
Zovinka, E.P.	CHED	1835	Zwiener, C.	ENVR	736			
Zovinka, E.P.	CHED	2046	Zwier, M.C.	PHYS	570			
Zozulya, S.	MEDI	124	Zwier, T.S.	YCC	19			

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