



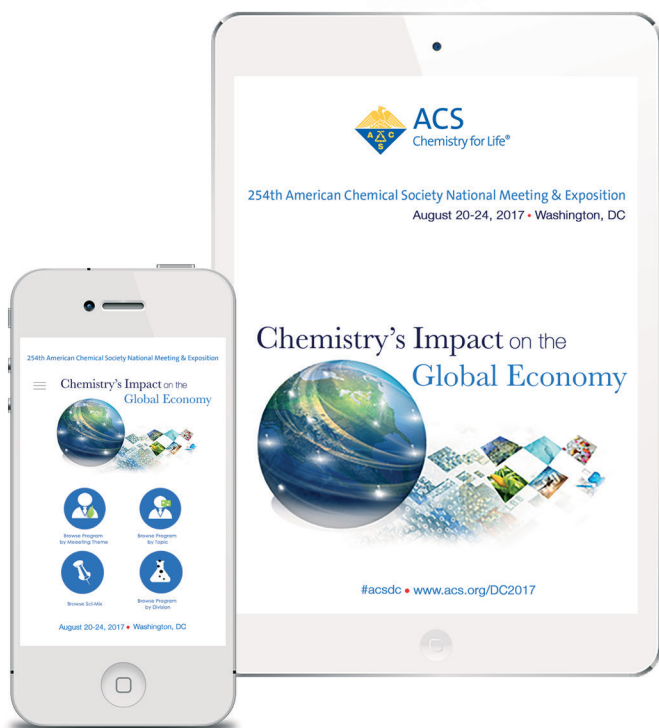
ACS
Chemistry for Life®

254th American Chemical Society National Meeting & Exposition

August 20-24, 2017 • Washington, DC



Chemistry's Impact on the Global Economy



Download the ACS
Washington, DC Mobile App or
access the Digital Meeting Program
www.acs.org/meetingapp



*Online version is also available for internet enabled devices

Satellite Registration Onsite Program Purchase & Pickup

Copies of the Onsite Program Book are available for \$20. Satellite Registration and Onsite Program Purchase/Pick-up locations are at the Marriott Marquis, Meeting Level 1 and Grand Hyatt, Independence Foyer. Credit cards, debit cards and checks will be accepted at these locations.

Prefer a Printed Onsite Program?

Saturday	August 19	3–6 PM
Sunday	August 20	7:30 AM – 7:30 PM
Monday	August 21	7:30 AM – 9 PM
Tuesday	August 22	7:30 AM – 5 PM

(Hours subject to change according to traffic flow)

Registration & Program Purchase & Pickup available at the Walter E. Washington Convention Center during the standard schedule. Credit cards, debit cards, checks and cash accepted.

In support of the ACS's sustainability efforts, we encourage our meeting attendees to download the ACS Washington, DC mobile app or access the ACS Washington, DC Digital Meeting Program with Author Index.

Learn more about the ACS National Meetings Sustainability Efforts at www.acs.org/greenermeetings.com

Please note that if you misplace your purchased Onsite Program, you will be charged \$20 for a replacement.



254th American Chemical Society National Meeting & Exposition

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ACS OPERATIONS OFFICES

- **Grand Hyatt, Tiber Creek A:** 202-637-4768
- **JW Marriott Dirksen Room:** 202-626-2542
- **Marriott Marquis, Supreme Court:** 202-842-1901
- **Renaissance, Meeting Planner Office A:** 202-962-4396
- **The Westin Washington DC City Center:** 202-249-1700, Ext. 5644
- **Walter E. Washington Convention Center, Salons c:** 202-249-4001
- **Washington Marriott @ Metro Center, London I:** 202-661-8929

INFORMATION CONTACTS

- **Attendee Registration, WEW Convention Center, Salons G/H/I:**
202-249-4011
- **Career Fair Welcome Desk, WEW Convention Center, Halls A/B:**
202-249-4016
- **Exhibitor & Recruiter Registration Desk, WEW Convention Center, Salons G/H/I:** 202-249-4013
- **Finance Office, WEW Convention Center, Salon E:** 202-249-4010
- **Host Local Section Booth, WEW Convention Center, Salon B:** 202-249-4018
- **Housing Assistance, WEW Convention Center, Salon B:** 202-249-4012
- **Member Services, WEW Convention Center, Salons G/H/I:** 202-249-4017
- **Press Center, WEW Convention, Room 154A:** 202-249-4007
- **Shuttle Desk, WEW Convention Center, L Street:** 202-249-4019
- **Society Program Office, Marriott Marquis, Capitol:** 202-824-1904
- **Governance Office, Marriott Marquis, Archives:** 202-824-1902

ACS OFFICERS

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American Chemical Society

1155 16th Street, NW, Washington, DC 20036
Tel: 800-227-5558 (US only) or 202-872-4600
Fax: 202-872-4615 Email: help@acs.org Website

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 On-site Meeting Program is published by the American Chemical Society as a service to its 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 254th National Meeting & Exposition, refer to www.acs.org/WDC2017. All Washington, DC photos in this program are courtesy of the Washington Convention Center and Visitors Bureau.



254th American Chemical Society National Meeting & Exposition

August 20-24, 2017 • Washington, DC



Chemistry's Impact on the Global Economy

ACS NO RECORDING POLICY

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.

EMBRACING SUSTAINABILITY PRACTICES

The American Chemical Society continues to be a sustainability leader within the meeting and events community with most recently being the co-winner of the 2016 UFI Sustainable Development Award, 2016 RISE Award finalists, and the 2014 Trade Show Executive's Gold 100 Award as the show with the Most Commendable Green Initiatives. ACS and the Greener Meetings Program have also been showcased in Convene Magazine's August 2015 annual Best in Show issue for the "Best CSR Initiatives" and awarded the 2011 and 2012 PCMA Capital Chapter Green Leader Award.

Efforts of our sustainability practices are briefly noted below. These changes not only support a greener meeting but also improve your meeting experience.

- Condensed Onsite Program book with enhancing the mobile application and digital options
- Decreased print-run of the Onsite Program book due to digital and mobile applications
- Moved to using recycled paper for the Onsite Program Book
- Reformatted National Meeting website based on viewer analytics
- Free WiFi inside public areas at the Convention Center and many contracted hotels
- Established partnership with American Forests to offset carbon missions
- Audited contracted hotels on their sustainability efforts
- Partnered with Convention Center to source local foods for designated events
- Increased usage of digital signage
- Partnered with vendors that engaged in sustainability practices
- Increased attendee engagement through the Greener Meetings Challenge
- Adjusted meeting room temperature to 70° F for energy conservation

Thank you for your support in making ACS a leader in sustainability. Further information can be found at: www.acs.org/greenermeetings. There, you will find the ACS 2016 Sustainability Report including information on how to join the Greener Meetings Pledge.



254th American Chemical Society National Meeting & Exposition

August 20-24, 2017 • Washington, DC



Where to Find/ Meeting Information

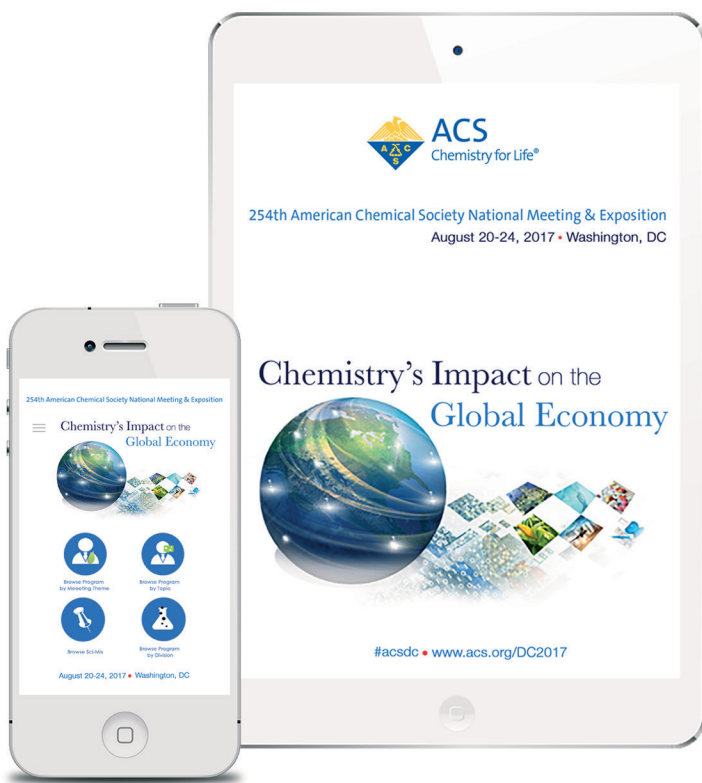
Announcements & Changes
www.acs.org/meetingupdates

Digital Meeting Program

follow us@acsnatlmtg 
tweet using #acsDC

[www.facebook.com/
americanchemicalsociety](http://www.facebook.com/americanchemicalsociety) 

[http://communities.acs.org/
community/science/meetings](http://communities.acs.org/community/science/meetings) 



Download the free mobile app at www.acs.org/meetingapp

Text your question to 754.227.2012
(Standard text rates apply)

Welcome to Washington and the 254th ACS National Meeting

Welcome to Washington, DC, the Nation's capital and the site of the 254th ACS National Meeting. It is my pleasure to join all of you in this bustling metropolis.

"Chemistry's Impact on the Global Economy" will be the theme of this meeting. Twenty-nine technical divisions and five committees are programming, including over 1,035 half-day oral sessions and 146 poster sessions. More than 9,370 papers and 2,720 posters will be presented at the meeting. My Presidential symposia will focus on areas of significant importance: advocacy and communications, the chemistry of our planet, and the safe practice of science.

On Sunday afternoon, in conjunction with the Royal Society of Chemistry, **Science Communications: The Art of Developing a Clear Message** will help members share stories on how to positively and effectively communicate chemistry. It will also include an opportunity for audience members to develop and practice an elevator pitch on their chemical research (Marriott Marquis, Liberty Salon M). All-day on Monday, **Building a Safety Culture Across the Chemistry Enterprise** will feature top-down approaches in the morning session, followed by grassroots efforts in the afternoon (Marriott Marquis, Marquis Salon 1/2). **Understanding the Chemistry of our Planet** will be a highlight symposium all-day Tuesday, showcasing renowned researchers discussing the transforming power of chemistry that is ubiquitous to life on Earth. Scientists will present their innovative research on chemistry's role in our Earth System and the human impacts to the chemistry of our environment (Washington Convention Center, Room 145A). The nine *President Recommended* symposia focus on issues of sustainability, highlighting up-and-coming graduate researchers, and celebrating diverse practitioners of chemistry.



Allison A. Campbell
ACS President

On Monday afternoon, Prashant Jain from the University of Illinois – Urbana Champaign will present the Kavli Foundation Emerging Leader in Chemistry Lecture on **Turning Photons into Chemical Bonds**. Following his presentation, Joanna Aizenberg of Harvard University will give the Fred Kavli Innovations in Chemistry Lecture on **Multifunctionality of liquid-filled nanostructured materials: From encryption to anti-fouling** (Washington Convention Center, Ballroom A&B).

Many education-focused programs for high school teachers, 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 more than 250 companies showcasing services, instruments, books, and lab equipment in more than 300 booths.

My personal thanks go to our hosts at the Chemical Society of Washington, 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.



Allison A. Campbell
ACS President

Welcome Message from Nancy B. Jackson, Washington Thematic Chair

The Fall 2017 ACS National Meeting will be held August 20–24 in our nation’s capital, Washington, DC. The theme is *Chemistry’s Impact on the Global Economy*.

Chemists from around the world were invited to showcase the future of chemistry and its impact on the economy. Included subtopics include energy, chemical waste, feeding the world, vaccination, clean water, environment, global collaboration, and preventing the use of chemicals in war.

Sunday, August 20, the plenary session will inaugurate the meeting theme with an invited lecture from Professor Joe DeSimone of Carbon, Inc., the University of North Carolina at Chapel Hill and North Carolina State University. Prof. DeSimone will discuss an economically competitive advancement in additive manufacturing. There will be a question and comments period immediately following.

On Monday, August 21, the Kavli Foundation Lecture Series will feature the Emerging Leader in Chemistry Lecture by Dr. Prashant K. Jain titled “Turning photons into chemical bonds” and will highlight a bold venture into artificial photosynthesis accomplished through nanostructured catalysts engineered for trapping photons. The Innovations in Chemistry Lecture by Prof. Joanna Aizenberg of Harvard University is titled “Multifunctionality of liquid-filled nanostructured materials: From encryption to anti-fouling” and will highlight two new classes of materials that show the emergence of unprecedented properties and unique behaviors due to the entrapment of a liquid into a structured solid.



Nancy B. Jackson
Thematic Chair

The technical program constructed by ACS Technical Divisions includes many symposia that will touch on *Chemistry’s Impact on the Global Economy*. Divisions and committees with symposia supporting the theme include COLL, CATL, PHYS, ENVR, ENFL, I&EC, CHAS, AGFD, SCHB, YCC, AGRO, CINP, PROF, SOCED and YCC. Washington, DC is an important place to have the Chemistry’s Impact on the Global economy. I hope that you can make it to these important talks.

The program for the meeting and other information is available online at www.acs.org/wdc2017.

I am very grateful to the members of the local section, the program chairs of the divisions and committees listed above, the thematic symposia chairs, and the ACS staff for their essential help in making the theme of this meeting cogent and coordinated. I look forward to meeting you in the District of Columbia!



Nancy B. Jackson
Thematic Chair

**JOIN US FOR THE
ACS BOARD OF DIRECTORS
REGULAR SESSION**



**Sunday, August 20, 2017
Noon - 1:00 p.m.**

Walter E. Washington Convention Center - Ballroom
Doors open at 11:45 a.m.

Sandwiches and soft drinks while supplies last

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Greetings

American Chemical Society 254th National Meeting

August 20, 2017

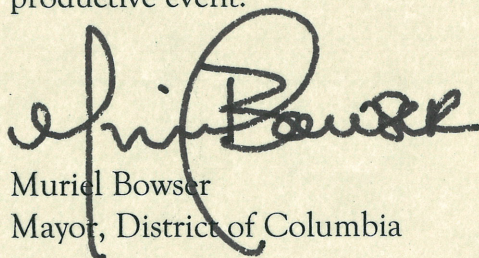


As Mayor of Washington, DC, it is my pleasure to extend greetings to the American Chemical Society (ACS), on the occasion of your 254th National Meeting.

The ACS is the leading source of authoritative scientific information and one of the world's largest scientific societies. Headquartered right here in Washington, the ACS is at the forefront of the evolving worldwide chemical enterprise and the premier professional home for chemists, chemical engineers and related professions around the globe.

This year's theme focuses on "Chemistry's Impact on the Global Economy." I applaud the American Chemical Society for your dynamic and visionary commitment to improving the lives of others through the transforming power of chemistry.

On behalf of the residents of Washington, DC, I wish you a productive event.


Muriel Bowser
Mayor, District of Columbia





ACS
Chemistry for Life®



Chemistry's Impact on the Global Economy

August 20-24, 2017 • Washington, DC



Visit the New ACS Attendee Resource Hub

Located in Salon B

Pick up Eclipse Viewing Glasses and...

- Charge Your Devices
- Learn about New Orleans, site for the
- 2018 ACS Spring National Meeting
- Talk with the Chemistry Society of Washington

- Take our Element Quiz
- Ask ACS membership questions
- Housing Resources
- Meetup with Colleagues

Walter E. Washington Convention Center

Get Help with the ACS National Meeting Mobile App



Allison A. Campbell, Ph.D.
ACS President



PRESIDENTIAL SYMPOSIA AND EVENTS

SATURDAY, AUGUST 19, 2017

12:00 PM - 4:00 PM

Presidential Outreach Event: Exploring Our World Through Chemistry

Cosponsored by CCA
American Chemical Society
1155 16th Street, NW
Washington, DC 20036

SUNDAY, AUGUST 20, 2017

1:00 PM - 4:30 PM

Science Communications: The Art of Developing a Clear Message: A Joint Symposium with the Royal Society of Chemistry

(Cosponsored by BIOL, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, CTA, DAC, I&EC, INOR, ORGN, PROF, SCHB & YCC)
Marriott Marquis Washington, DC; Liberty Salon M

2:00 PM - 5:00 PM

The Road Less Traveled: Career Opportunities in the Government Sector

(Sponsored by YCC and Cosponsored by PRES and PROF)
Marriott Marquis Washington, DC; Union Station

Presidential Workshop: ACS Chemistry on the Hill Advocacy Workshop [INVITATION ONLY]

Walter E. Washington Convention Center, Room 147B

MONDAY, AUGUST 21, 2017

8:30 AM - 4:00 PM

Chemistry in an Evolving Political Climate: Research Priorities and Career Pathways in Public Policy

(Sponsored by YCC and Cosponsored by PRES, BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, I&EC & SCHB)

Marriott Marquis Washington, DC; Chinatown

8:30 AM - 4:30 PM

Building a Safety Culture Across the Chemistry Enterprise

(Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB & YCC)

Marriott Marquis Washington, DC; Marquis Salon 1/2

1:00 PM - 5:00 PM

Working in the Public Sector: Running for Elected Office

(Sponsored by SCHB and Cosponsored by PRES, BIOL, CARB, CCPA, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, ETHX & YCC)
Marriott Marquis Washington, DC; Magnolia

TUESDAY, AUGUST 22, 2017

8:30 AM - 5:00 PM

Understanding the Chemistry of Our Planet

(Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB & YCC, the Chemical Sciences Roundtable [CSR], and the Society for Science at User Research Facilities [SSURF])

Walter E. Washington Convention Center, Room 145A

8:00 AM - 12:00 PM

The World of Funding Opportunities in Chemistry

(Sponsored by the National Science Foundation and Cosponsored by PRES and ACS President-Elect Peter K. Dorhout)

Walter E. Washington Convention Center, Ballroom C

11:30 AM - 3:00 PM

ACS Town Hall: National Academies' Frontiers of Materials Research Decadal Survey

(Sponsored by The National Academies of Sciences, Engineering, and Medicine and Cosponsored by PRES and ACS President-Elect Peter K. Dorhout)

Marriott Marquis Washington, DC; George Washington University Room

OTHER SYMPOSIA RECOMMENDED BY THE ACS PRESIDENT

ACS Pharma Leaders: Working Together to Make a Difference

(Sponsored by MPPG and Cosponsored by PRES)

Walter E. Washington Convention Center, Room 146C

Advancing Graduate Education: Opportunities & Challenges

(Sponsored by CHED and Cosponsored by PRES)

Grand Hyatt Washington, Independence Ballroom C

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

(Sponsored by ENFL and Cosponsored by PRES, ENVR, MPPG, SCHB & WCC)

Walter E. Washington Convention Center, Room 141

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

(Sponsored by CHED and Cosponsored by PRES, ANYL, BIOT, BMGT, CARB, CELL, COLL, GEAB, MEDI, and POLY; Virginia Tech Institute for Critical Technology and Applied Sciences, Department of Chemistry, College of Science, and the Department of Materials Science and Engineering; BASF; and Accounts of Chemical Research, ACS Biomaterials Science & Engineering, ACS Chemical Biology, ACS Infectious Diseases, ACS Macro Letters, ACS Synthetic Biology, Biochemistry, Bioconjugate Chemistry, Biomacromolecules, The Journal of Organic Chemistry, Journal of Medicinal Chemistry, Macromolecules, ACS Central Science, and Acta Biomaterialia)

Grand Hyatt Washington, Independence Ballroom D/E

1:00 PM - 2:30 PM

Federal Funders Town Hall Meeting

(Sponsored by the National Science Foundation and Cosponsored by PRES)

Walter E. Washington Convention Center, Ballroom C

3:00 PM - 5:00 PM

Speed Coaching with Federal Funders

(Sponsored by the National Science Foundation and Cosponsored PRES)

Walter E. Washington Convention Center, Ballroom C

5:30 PM - 7:30 PM

LGBTQ+ Presidential Reception

(Cosponsored by ACS President-Elect Peter K. Dorhout, BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, CMA, COLL, CPRC, CTA, DAC, GEOC, INOR, NOGLSTP, ORGN, PA&PR, PROF, SCC & YCC)

W Hotel, Altitude Room (Roof Level)

A very special thank you to our financial sponsors ACS President-Elect Peter K. Dorhout, CARB, CEI, CEPA, CONC, PA&PR, BIOL, CMA, CPRC & SCC

Earle B. Barnes Award for Leadership in Chemical Research Management Symposium in Honor of Laurie Locascio: Why Not Me? Changing the Face of Leadership in Science

(Sponsored by ANYL and Cosponsored by PRES)

Grand Hyatt Washington, Constitution Ballroom E

Journey to Mars: Materials, Energy & Life Sciences

(Sponsored by POLY and Cosponsored by PRES & MPPG)

Marriott Marquis Washington, DC; Shaw and Independence Salon D/E

Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists

(Sponsored by HIST and Cosponsored by PRES & PROF)

Grand Hyatt Washington, Declaration A/B

Sustaining Water Resources: Environmental and Economic Impact

(Sponsored by MPPG and Cosponsored by PRES, ENVR, GEOC, I&EC)

Walter E. Washington Convention Center, Room 203A/B

Transformative Research & Excellence in Education [TREE] Award Symposium

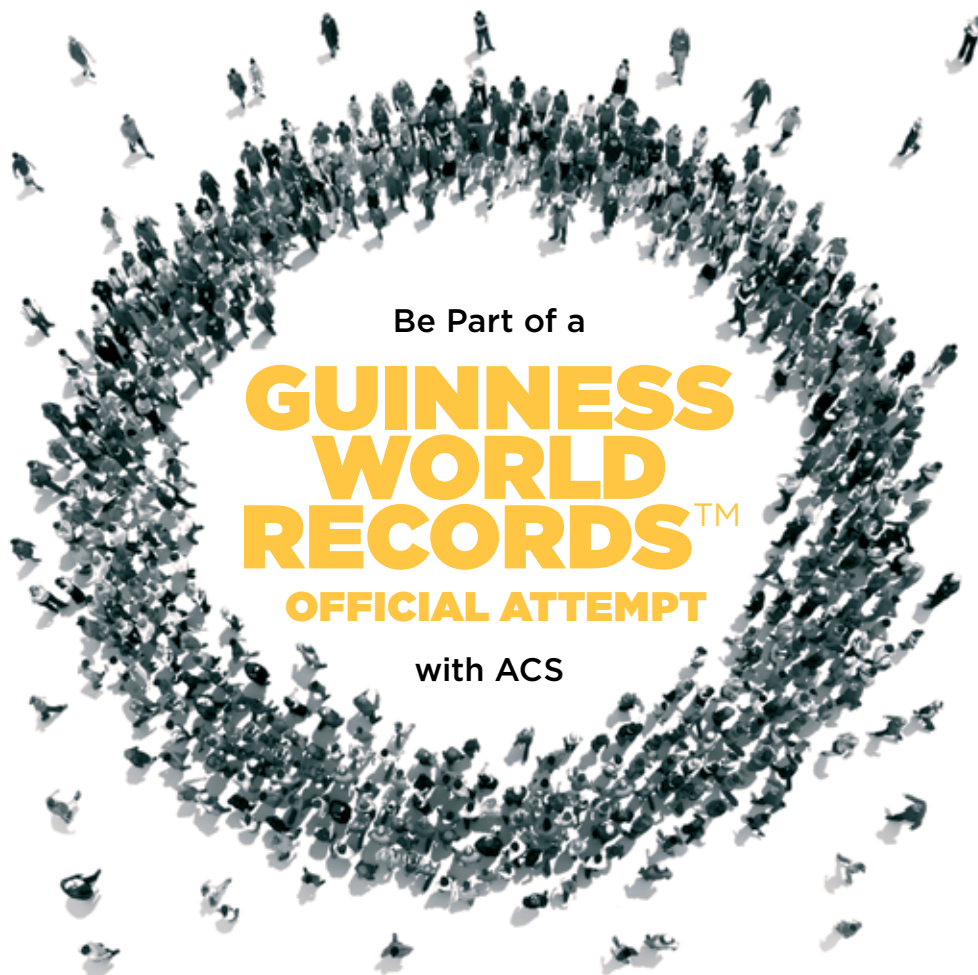
(Sponsored by COMSCI and Cosponsored by PRES, BIOL, COLL, COMP, ENFL, INOR & PHYS)

Walter E. Washington Convention Center, Room 155



**OFFICIAL
ATTEMPT**

#ACSDC



Be Part of a

**GUINNESS
WORLD
RECORDS™**

OFFICIAL ATTEMPT

with ACS

Guinness World Records™ Official Attempt with

Dr. David Sedlak

**“Healthy, Tasty, or Toxic: A Chemist’s View
of Drinking Water”**

10 a.m., Monday, August 21, 2017

Washington Convention Center
Ballroom A/B.

Help ACS break the **Guinness World Records™** title for the world’s Largest chemistry lesson at the 254th ACS National Meeting & Exposition. All you have to do is attend a short lecture by Dr. David Sedlak, Editor-in-Chief of *Environmental Science & Technology* and *Environmental Science & Technology Letters*. All attendees will get a free exclusive t-shirt, but space is limited, so visit the ACS Publications booth to learn more about attending this unique event.

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ACS Publications
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Exposition & Career Fair

Walter E. Washington Convention Center, Expo/A/B,
Sunday, August 20 through Tuesday, August 22
Sunday, 6 to 8:30 PM, Monday and Tuesday, 9AM to 5 PM

- Visit companies that will showcase services, instruments, books, computer hardware, scientific software, and an array of chromatographic, lab, and safety equipment
- Participate in demonstrations and discuss your specific needs and interests
- Join us at the ACS Booth in the middle of the exposition floor where ACS staff units will present the many benefits, services, products, and merchandise offered by ACS
- Visit the revamped ACS Career Fair where you'll meet recruiters from top employers like KAUST, ORAU and many more
- Create an online profile and upload your résumé to our database where recruiters can schedule in-person interviews
- Network with potential employers and drop-off your résumé
- Attend Career Pathways Workshop, and meet with ACS Career Consultants

Attendee Welcome Reception - Sunday, 6:00 - 8:30 PM

Relax and enjoy an Afternoon Break - Monday, 1:00 - 3:00 PM &

Meet the ACS President Elect Candidates Monday; Tuesday, 3:00 - 5:00 PM

Access the Exhibitor Directory at www.acs.org/wdc2017

Poster Sessions

Sunday, Poster Sessions, 6 - 8:00 PM

- Division of Colloid & Surface Chemistry
- Division of Carbohydrate Chemistry
- Division of Small Chemical Businesses

Monday, Poster Session, 2 - 4:00 PM

- Division of Energy and Fuel

August 20-22, 2017

Innovation FAIR @ACS DC2017

254th American Chemical Society National Meeting and Exposition



SHOWCASE YOUR START-UP/VENTURE at the ACS INNOVATION FAIR 2017 in WASHINGTON, DC

WHY

GET unparalleled ACCESS to customers, suppliers and funders. BUILD your sales PIPELINE with CHEMISTRY INDUSTRY PROFESSIONALS via a professional TRADE SHOW BOOTH valued at \$1500, 2 Expo badges & 1 FULL meeting registration!

WHEN

August 20-22, 2017 at the ACS VENDOR EXPOSITION in Small Chemical Businesses Row!

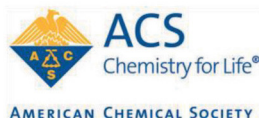
WHO

Ventures and start-ups in the chemical enterprise who have raised under \$2M in funding, have less than 50 employees and have not previously been a vendor at an ACS National Meeting.

HOW

Apply at (add url). Info required: Company name; product/service description; stage of your business; contact information.
Price: FREE to the 1st seven qualified applicants!

SPACE IS LIMITED! ONLY 7 SPONSORED PLACES LEFT!



GENERAL MEETING INFORMATION

YOUR MEETING REGISTRATION entitles you to a range of programming, including scientific sessions, invited symposia, poster sessions, special lectures and events, award presentations, workshops, and the exposition. Interact with chemical scientists from around the world by participating in social events, networking opportunities, exhibitor sessions, and educational activities, with many events offered at no additional charge. Certain workshops, short courses, and ticketed events require a separate entry fee, as indicated in this program.

REGISTRATION

All attendees, including speakers and poster presenters, must register for the meeting to participate in the technical sessions. Sponsored speakers should contact their symposium organizer or division program chair to clarify the terms of their invitation and to determine who will complete the speaker's registration. Attendees must display their badge at all times for admission to all official ACS sessions and events.

Early registration. U.S. residents who register by July 10 will receive their badge credentials by mail before the meeting. International registrants (this includes Canada and Mexico) must pick up their badge credentials at ACS Attendee Registration.

Standard & on-site registration. Attendees who register after July 10 must pick up their badge credentials on-site.

MEETING INFO ON THE WEB

Registration, housing, technical programming, special events, participating exhibitors, and other meeting details are available at www.acs.org/dc2017.

Registration changes. Attendees can modify their existing registration or generate a receipt from the registration website by following the instructions in their confirmation message. Attendees can also contact the ACS National Meeting Registration Center or update their registration on-site at ACS Attendee Registration. Bring your confirmation and/or badge credentials with you to the meeting for faster processing.

Registration methods. All registrants will receive a confirmation via the original method of registration.

Internet. Register online at www.acs.org/dc2017 until Aug. 24. A valid credit card is required to register online, and online registrations are real-time transactions.

Telephone. Call the ACS National Meeting Registration Center at (800) 251-8629 (U.S./Canada only) or (508) 743-0192 (international), Monday through Friday, 9 AM to 5 PM EDT.

Fax/mail. Submit the registration form (page 82) via fax by Aug. 24 at (508) 743-9604, or mail it to ACS Registration, c/o CDS, 107 Waterhouse Rd., Bourne, MA 02532.

On-site. Register during the meeting at ACS Attendee Registration at standard registration rates. ACS Attendee Registration will be open at the Walter E. Washington Convention Center, Salons G/H/I, on Saturday, 3 to 6 PM; Sunday, 7:30 AM to 7:30 PM; Monday, 7:30 AM to 9 PM; Tuesday, 7:30 AM to 5 PM; Wednesday, 7:30 AM to 4 PM; and Thursday, 7:30 AM to 1 PM.

REGISTRATION PAYMENTS. Registration fees can be paid by check, money order, credit card (American Express, Discover, MasterCard, or VISA), or bank wire transfer. Make checks payable in U.S. dollars to the American Chemical Society, and include a completed registration form with each payment. Registration fees should not be combined with any other payment (such as membership dues). Purchase orders and training requests are not accepted. For wire transfer payments, contact the ACS Finance Department at (202) 872-6106 or e-mail bankwires@acs.org. **Registration forms received without payment will not be processed.**

BADGES

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

REGISTRATION CATEGORY	FEE	
	EARLY BY JUN. 29	STANDARD JUN. 30
MEMBERS		
ACS member or society affiliate	\$445	\$535
Emeritus or retired member	225	270
50-year member	No fee	No fee
Unemployed member (Dues waiver required)	No fee	No fee
Precollege teacher	110	110
Graduate student	225	225
Undergraduate	110	110
One-day registrant	225	270
NONMEMBERS		
Chemical scientist	\$780	\$935
Visitor: Nonchemical scientist or chemical technician	445	535
Precollege teacher	110	110
Graduate student	445	445
Undergraduate	225	225
One-day registrant	445	535
Guest of registrant ^a	45	45
EXPOSITION-ONLY VISITORS		
Adult, exposition only	\$60	\$60
Student, exposition only	30	30

^a Registration is restricted to a spouse or family member of registered 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 registering attendee, and the guest registration must be completed and paid by the registering attendee at time of original registration.

REGISTRATION ASSISTANCE. The ACS National Meeting Registration Center will be available from 9 AM to 5 PM EDT by telephone, fax, mail, or e-mail. Service representatives can be reached at (800) 251-8629 (U.S./Canada only) or (508) 743-0192 (international), by fax at (508) 743-9604, by e-mail at acs@xpressreg.net, or by mail at ACS Registration, c/o CDS, 107 Waterhouse Rd., Bourne, MA 02532.

Registration cancellations/refunds. All cancellations and refund requests must be submitted in writing by July 31

to guarantee the registrant a full refund less a \$50 administrative fee. Refund requests made after July 31 will not be honored. Your registration badge credentials and a copy of your registration confirmation must be attached to your request. All refunds will be issued via the original payment method, and refunds will be processed within 30 days after the meeting. Send your request to ACS Registration Cancellation, c/o CDS, 107 Waterhouse Rd., Bourne, MA 02532, or fax it to (508) 743-9604 (save your fax confirmation sheet).

Social event ticket cancellations/refunds. Social event cancellations received by July 31 entitle the registrant to a full refund. Refund requests made after July 31 will not be honored. Event tickets and a copy of your registration confirmation must be attached to your request.

Abstract cancellations/refunds.

Abstract USB flash drives (thumb drives) and their shipping costs are nonrefundable.

MEMBER REGISTRATION. You must enter a valid ACS membership number during registration to register as a member and receive your ACS member discount on registration fees. Your registration options will automatically appear in accordance with your current membership status in the ACS membership database. Your ACS membership number can be found on your ACS membership card or your *Chemical & Engineering News* address label. Address questions about your membership status to ACS Member Services at (800) 333-9511 (U.S./Canada only) or (614) 447-3776 (international) or by e-mail at service@acs.org.

NONMEMBER REGISTRATION. Save money on discounted registration fees by joining ACS. You can join ACS now through the online ACS membership application at www.acs.org/join or by contacting ACS Member Services and then registering for the meeting at your member rate. To receive your meeting discount, you must join the society before you register for the meeting. New memberships or questions about membership status should be handled

through ACS Member Services at (800) 333-9511 (U.S./Canada only) or (614) 447-3776 (international) or by e-mail at service@acs.org.

PRESS/MEDIA REGISTRATION. Registration is complimentary for credentialed members of the news media who are approved by the ACS Office of Communications (restricted to reporters and editors working full-time for print or broadcast news). Press badges may be picked up with valid media credentials from the Press Room at the Walter E. Washington Convention Center. For more information, visit www.acs.org/pressroom.

EXPO-ONLY ADMISSION. All meeting attendees with a valid badge receive complimentary admittance into the exposition as part of their registration. Individuals who want to visit the exposition without registering for the meeting's technical sessions can register for an expo-only adult badge for \$60 or \$30 for students with school identification. Register online or in person at ACS Attendee Registration.

EXHIBITOR REGISTRATION. Exhibitor registration is handled exclusively through ACS National Expositions at www.acs.org/expositions.

CAREER FAIR EMPLOYER REGISTRATION. ACS Career Fair employer registration is handled exclusively through ACS Careers at www.acs.org/careers.

ACCOMMODATIONS

ACS has contracted a wide selection of hotel rooms with competitive rates for the national meeting in Washington, D.C. ConferenceDirect is the official housing services provider. ACS does not endorse booking hotel reservations through any other source. Reserve your hotel room directly through ConferenceDirect by July 24. A listing of official hotels with their guaranteed ACS rates and amenities is on page 68. All attendees who make reservations through ConferenceDirect will receive complimentary internet access in their rooms and are automatically entered in the ACS Housing Drawing (see ad on page 72 for details).

TIPS FOR A SAFE STAY IN WASHINGTON, DC

- Be aware of you surroundings at all times.
- Don't wear your meeting badge outside the convention center or hotels.
- Don't wear fancy jewelry or carry expensive technology in plain sight.
- Carry your briefcase, tote bag, purse, or laptop carrier close to your body.
- Don't leave valuables in your hotel room. Get a hotel safe-deposit box.
- Walk in open and well-lit areas at night.
- Travel in groups. Don't be a loner, particularly in the evening.
- Use common sense. If someone or someplace looks suspicious, report it and/or avoid it.
- If an emergency occurs during a meeting event, refer to detailed instructions placed by ACS staff inside each meeting room to follow in case of emergencies. Report emergencies to the nearest security guard or to any ACS Operations Office during the meeting.
- If an emergency occurs outside an ACS event, contact 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.

Late housing. Some hotels may have rooms available after July 24. A listing of these hotels will be posted on the ACS meeting website at www.acs.org/dc2017.

On-site housing. An on-site housing desk will be available during the meeting in the Attendee Resource Center at the Walter E. Washington Convention Center, Salon B, to assist with last-minute housing changes or needs.

RESERVATION METHODS. All registrants will receive confirmation for reservations made directly through ConferenceDirect. Review this document carefully for accuracy. Each confirmation contains a unique number that is proof of your reservation through ConferenceDirect. We strongly recommend that you bring your confirmation to the meeting. If you

Make the greener meetings Pledge

www.acs.org/greenermeetings

#ACSGreenerMeetings

To be a catalyst for positive change!

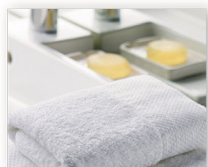
Here's how:

Go to www.acs.org/greenermeetings

Click the "Greener Meetings Pledge" button

(upper right sidebar) Review and pledge to support these 5 simple "green" practices:

1



Take advantage of linen reuse initiatives at your hotel, decline delivery of unread newspapers, and turn off the lights when away from your hotel room.

2



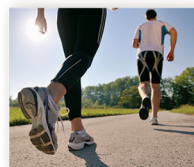
Responsibly dispose of recyclable materials (paper, plastic, glass, aluminum) in the convention center and hotels.

3



Use the meeting mobile app and digital program instead of the printed Onsite Program.

4



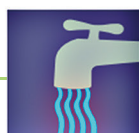
Enjoy the city, burn calories, and reduce your carbon footprint by walking to and from your hotel or using the ACS carbon-offset shuttle service.

5



Bring a reusable water bottle to avoid the cost and waste associated with disposable, petroleum-based plastic water bottles.

#ACSGreenerMeetings



ACS Greener Meetings

Walter E. Washington Convention Center
Grand Lobby Concourse

Sunday 9:00 AM 3:00 PM

Monday 9:00 AM 3:00 PM

SciMix (Halls D/E) 8:00 PM 10:00 PM

Tuesday 9:00 AM 12:00 PM



Share photos and ideas of your sustainable choices with your social networks.



Prizes will be awarded.

www.acs.org/greenermeetings

Email ideas and feedback to GreenerMeetings@acs.org



greener meetings lounge

A place to relax and learn more about ACS Greener Meetings.
Contests and photo opportunities will be available!

In 2016, The American Chemical Society won the 2016 UFI Sustainable Development Award for Best Actions to Engage Participants Around Sustainability. ACS's initiatives include engagement through:

- Social Media Campaign - [#acsgreenermeetings](#)
- Greener Meetings Pledge
- American Forests Carbon Offsetting Program
- Mobile Meeting App
- Hotel Green Grid

Thank you for taking the Greener Meeting Pledge in 2016! Thanks to you, we had a total number of **13,842 attendees** who took steps towards being sustainable during their time in San Diego and Philadelphia last year. In addition, **7,545 trees** were planted through **American Forest** in 2016 to indirectly offset the carbon emissions from our meetings.



Water E. Washington Convention Center, Grand Lobby Concourse

Sunday 9 AM – 3 PM
Monday 9 AM – 3 PM and SciMix (Halls D/E) from 8 PM – 10 PM
Tuesday 9 AM – 12 PM

lose or do not receive your confirmation, you can obtain another copy online or by contacting ConferenceDirect. You will not receive a separate confirmation from the hotel. Published ACS rates apply to hotel stays between Aug. 16 and Aug. 26. To extend your stay beyond these dates, you must reserve additional nights directly through the hotel.

Internet. Reserve online at www.acs.org/dc2017. Online reservations require a valid credit card (American Express, Discover, MasterCard, or VISA), and a confirmation will be sent directly to your e-mail address.

Telephone. Call ConferenceDirect at (844) 293-7040 (U.S./Canada only) or (704) 837-4855 (international), Monday through Friday, 8:30 AM to 9 PM EDT. Telephone reservations require a valid credit card (American Express, Discover, MasterCard, or VISA), and you will receive an acknowledgment by e-mail within 24 hours.

Fax/mail. Fax the ACS Housing Form (page 70 and available online) to (704) 927-1439, or mail it to ConferenceDirect, 5600 Seventy-Seven Center Dr., Suite 240, Charlotte, NC 28217. Checks should be made payable to ACS/ConferenceDirect in the amount of one night's room and tax.

Housing forms will be processed on a first-come, first-served basis and require 10 to 14 days to be confirmed. If your requested hotel is no longer available, we will attempt to honor your indicated preference according to cost and location.

THANK YOU

The society thanks the many volunteers of the Chemical Society of Washington who are contributing to the 254th ACS National Meeting & Exposition by participating as division officers or program chairs, symposium organizers, session or award presiders, oral and poster presenters, short course or workshop instructors, career consultants, and society governance members.

CHECK PAYMENT POLICY. Checks may include the first night's room rate plus tax to hold the reservation or the expected full amount for all rooms for all nights. When sending check(s) for multiple rooms, please list the names and acknowledgment numbers corresponding to each reservation that the check applies to. When paying by check, remember to bring a credit card or cash to the hotel to cover incidental charges to the room(s).

Received by July 14. Make all checks payable to ACS/ConferenceDirect and mail to 5600 Seventy-Seven Center Dr., Suite 240, Charlotte, NC 28217.

July 14 through July 28. Make all checks payable to the hotel, and mail them directly to the hotel where your reservation is being held. Be sure to include "ACS" and your ConferenceDirect acknowledgment number on the check, and attach your acknowledgment/invoice indicating the names corresponding to each reservation. Until the hotel has received your check, make sure you have guaranteed your reservation(s) with a credit card. Please make sure you have sent your check directly to the hotel by July 28 to allow time for processing.

RESERVATIONS, CHANGES & CANCELLATION POLICY. Hotel reservations can be guaranteed by credit card (American Express, Discover, MasterCard, or VISA), check, or money order. Make checks payable in U.S. dollars to ACS/ConferenceDirect, and include a completed ACS Housing Form with each mailed payment. Housing fees should not be combined with any other payment (such as registration or membership dues). Reservations received without payment will not be processed.

Although a valid credit card or check deposit for one night's room and tax is required to confirm a reservation, a payment will not be charged by ConferenceDirect. Hotels may elect to charge a deposit of one night's room and tax to your credit card before your arrival. If paying by credit card, the payment will be reflected on your credit card statement as early as July 25 or soon after. All hotel rooms are subject to 14.5% room and occupancy tax (subject to change without notice).

Reservation modifications and cancellations can be made with the housing bureau through July 24. After this date, you will need to contact your hotel directly to make any new reservations, modifications, or cancellations. Cancellations must be made at least 72 hours before the scheduled date of arrival at the hotel for refund of one night's room and tax deposit.

In addition to this cancellation policy, the housing services provider, ConferenceDirect, will charge a \$25 cancellation fee for any cancellations made on or after July 25. Should you cancel, this charge will appear on your credit card statement as "ConferenceDirect LLC."

ACCOMMODATIONS FOR GUESTS WITH DISABILITIES. If you require special hotel accommodations because of a disability, please indicate your requirements when you make your reservation. Be sure to reconfirm any special room arrangements directly with your hotel after July 25.

SUITES. Send your suite requests by e-mail to acshousing@conferencedirect.com (subject: ACS Suite Request). They will attempt to find you a suite at an official ACS property that fits your needs.

ECONOMICAL ALTERNATIVES. The following hotels are not part of the official ACS housing block but may be of interest to attendees on a restricted budget. Make your reservations directly with these hotels, and ask for the listed ACS rate. Properties are not included on the ACS shuttle route; therefore, daily transportation costs are the responsibility of the attendee.

Holiday Inn Washington D.C.–Central/White House, 1501 Rhode Island Ave. N.W. \$169 per night, single/double occupancy
(202) 483-2000

Hotel RL Washington D.C., 1823 L St. N.W. \$165 per night, single/double occupancy
(202) 223-4320

KEEP YOUR MEETING COSTS AFFORDABLE. Attendee support of the official hotels allows ACS to use meeting space at a discount and to keep registration fees to a minimum. Stay in an official hotel whenever possible, and reserve your hotel room through ConferenceDirect at www.acs.org/dc2017.

ACS GREENER MEETINGS

The ACS Department of Meetings & Expositions Services and the Committee on Meetings & Expositions are committed to greener meetings. For each national meeting, we collaborate with the destination city, the convention center, and our hotel and vendor partners to reduce our environmental footprint and raise the bar for industry sustainability practices.

Interested in learning more about how we're leading the way? Go to www.acs.org/greenermeetings to read about our greener meeting initiatives and access our annual Event Sustainability Report.

Here is how ACS is committed to greener meetings:

- ACS seeks sustainable convention center venues to track energy, waste, and water data for each meeting.
- ACS offsets staff and event emissions in partnership with American Forests (7,545 trees planted in 2016) and shuttle emissions in partnership with Transportation Management Services (TMS) and Carbonfund.org. In 2016, ACS and its partners indirectly offset 3,270 metric tons of CO₂.
- ACS engages hotel partners to survey and collect information on sustainability initiatives and perform on-site walkthroughs of hotel room block properties to encourage hotels to increase and validate sustainability efforts. These sustainability initiatives are provided to meeting attendees through the Hotel Sustainability Green Grid, published on the ACS housing page.
- ACS collaborates with catering partners to bring local, seasonal, and sustainable food items to food and beverage functions during the meeting.

TAKE THE ACS GREENER MEETINGS

PLEGDE. In 2016, 13,842 meeting attendees took the Greener Meetings Pledge. At the 253rd National Meeting & Exposition in San Francisco, 2,897 attendees donated \$1.00 toward American Forests tree planting. Take the Greener Meetings Pledge during registration, and donate to American Forests to offset your emissions!

I pledge to

- Take advantage of linen reuse initiatives at my hotel, turn off the lights when away from my room, and participate in any incentive programs for declining housekeeping service during my stay.
- Responsibly dispose of recyclable materials (paper, plastic, glass, aluminum) in the Walter E. Washington Convention Center and hotels.
- Use the meeting mobile app and digital program instead of the printed on-site program.
- Enjoy the city, burn calories, and reduce my carbon footprint by walking to and from my hotel.
- Use the ACS carbon-offset shuttle service provided by TMS when walking is not an option.
- Bring a reusable water bottle to avoid the cost and waste associated with disposable, petroleum-based plastic water bottles.

Suggestions? Send them to the ACS Committee on Meetings & Expositions at greenermeetings@acs.org.

TRAVEL & TRANSPORTATION

TRANSPORTATION DISCOUNTS. ACS has negotiated special travel discounts with the following partners. To get the best rates and avoid service fees, it is recommended to make reservations online (except for Amtrak).

AIRLINES:

Delta

delta.com/meeting; (800) 328-1111
Discount code: NMPBR

United Airlines

united.com; (800) 426-1122
Discount code: ZXME244449

TRAIN:

Amtrak

(800) 872-7245
Discount code: X91C-958
(phone reservations only)

Car Rental:

AVIS

avis.com; (800) 331-1600
Discount code: B923099

ONSITE PROGRAM BOOK NO LONGER FREE

Copies of the on-site program book will be available for \$10 until July 10 through the online registration process. The standard fee of \$20 will apply after July 10. In response to numerous requests, the author index will be included in the printed program booklet. Satellite registration and on-site program purchase/pickup locations will be located at the Walter E. Washington Convention Center, Salons G/H/I, and at the Marriott Marquis Washington DC. Credit cards, debit cards, and checks will be accepted at these locations. In support of ACS's sustainability efforts, we encourage our meeting attendees to download the ACS Washington mobile application or access the ACS Washington digital meeting program with author index in August. These digital options will provide quick access to the full technical program, along with special features so that you can easily build your schedule.

Hertz

hertz.com; (800) 654-2240

Discount code: 02UZ0016

AIRPORT GROUND TRANSPORTATION.

Ronald Reagan Washington National Airport is located across the Potomac River in Virginia and is the closest airport to D.C. It is accessible via its own Metro stop on the Blue and Yellow Lines. To catch a taxi, look for the official taxi stand outside baggage claim. A ride into downtown D.C. will cost \$15–\$20.

Washington Dulles International Airport is 26 miles from D.C. in suburban Virginia. Taxi stands are located outside the main terminal at Doors 2 and 6. A ride into D.C. will cost \$60–\$68. Washington Flyer also offers a Silver Line Express Bus that stops at the Wiehle-Reston East Metro station about 15 minutes away. Silver Line Express Bus

fare is \$5 one way. Purchase tickets inside the airport at Arrival Door 4. Please visit bit.ly/2s9qhSQ for more information.

Baltimore-Washington International (BWI) Thurgood Marshall Airport is a bit further out, in Baltimore. BWI is accessible via an Amtrak or MARC train route that stops at D.C.'s Union Station. A reserved seat on the train will cost up to \$30. Please visit bit.ly/1GuPKrv for more information.

TRAVELING TO MEETING VENUES.

The Walter E. Washington Convention Center is located at 801 Mt. Vernon Pl. N.W.

Parking. Most hotels have parking facilities, and visitors can find convenient street or garage parking with apps such as ParkWhiz or SpotHero.

Metrorail. The Walter E. Washington Convention Center has a dedicated Metro station serviced by the Yellow and Green Lines. Metro operates from 5 AM to midnight on weekdays and from 7 AM to midnight on weekends.

ACS shuttle. Complimentary shuttle service will be provided between the Walter E. Washington Convention Center and official ACS hotels, with the exception of hotels within walking distance.

ACS MEMBER SERVICES

ACS MEMBER SERVICES. ACS staff can assist you on-site with joining ACS, renewing memberships, adjusting member records, and answering general membership questions. ACS members receive discounted rates when registering for the meeting.

ACS Member Services is located in Salons G/H/I near attendee registration in the Walter E. Washington Convention Center and is open Saturday, Aug. 19, 3 to 6 PM; Sunday, Aug. 20, 7:30 AM to 7:30 PM; Monday, Aug. 21, 7:30 AM to 9 PM; Tuesday, Aug. 22, 7:30 AM to 5 PM; Wednesday, Aug. 23, 7:30 AM to 4 PM; and Thursday, Aug. 24, 7:30 AM to 1 PM.

ONLINE SOCIAL NETWORKING

TOOLS. Start discussions and connect with other attendees at the ACS Net-

work and the ACS Facebook page. Follow ACS national meetings on Twitter. Read, comment on, and share C&EN's coverage of ACS meetings.

ATTENDEE NATIONAL MEETING

E-NEWSLETTER. Receive official updates on ACS national meetings, including locations, registration and accommodation dates, information and discounts, resources, and event details. You can sign up and manage your subscriptions with your free ACS ID. Subscribe at www.emailpref.acs.org.

BUSINESS CENTER. The Capital Business Center, located in the main lobby of the Walter E. Washington Convention Center, offers an array of business services and products tailored to meet your needs. The center ships and receives packages under 150 lb and provides faxing, copying, printing, and notary services as well as computer and internet stations.

MEMBER INSURANCE PROGRAM. Do you need help determining the right amount of financial protection for you and your loved ones? Are you confused about how to plan for your family's financial future? Do you have student debt or a mortgage? Visit the ACS Member Insurance kiosk at the ACS exposition booth 1037 and learn how we can help you protect the elements you've built your life around with plans including Life & Health Insurance, International Term Life, Auto & Homeowners Plus, Disability Income, Long-Term Care, Professional Liability, and more.

If you are a chemistry educator, visit us for a complimentary, 15-minute consultation about Chemical Educators' Legal Liability and learn how this policy provides the unique coverage necessary for you. Schedule your complimentary consultation at haysconsult.setmore.com.

To learn more about the insurance plans available to you, visit www.acs.org/insurance.

ON-SITE MEETING ARRANGEMENTS

ADA-COMPLIANT MEETING. The Walter E. Washington Convention Center provides service ramps to entrances and elevated areas, braille instructions and

directions throughout the building, and pay phones on each level of the facility with a telecommunications device with functions for those with hearing impairments. More information is available at www.acs.org/dc2017.

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 require special accommodations to participate in the meeting, communicate your needs to ACS Meeting Services by e-mail at national-meetings@acs.org, by fax at (202) 872-6128, or by phone at (202) 872-6111 by July 10 to allow enough time to fulfill your request. Keep in mind that ACS may not be able to accommodate last-minute requests.

If you have an emergency or need immediate assistance during the meeting, contact any ACS Operations Office.

ASSISTANCE. Our greeters will be positioned throughout the meeting and can help you navigate the on-site program, find a particular session or room, and answer questions. Lost-and-found items at the convention center should be directed to the ACS Operations Office located in Salon C. Messages left at the ACS Operations Office will be conveyed to attendees via the Meeting Mail system, but ACS cannot accept responsibility for the delivery of any messages, mail, or packages.

ATTENDEE BADGES. Attendees and guests must be registered and display their badges at all times to be admitted to all official ACS sessions and events.

ATTENDEE MESSAGING/MEETING

MAIL. After registering for the meeting, you will be assigned a temporary electronic mailbox to exchange personal messages with other registered attendees via Meeting Mail. Meeting Mail will be available before, during, and after the meeting at www.acs.org/dc2017. Use the Meeting Mail terminals located in the convention center. Telephone messages left at the ACS Information Booths will be conveyed to attendees

GENERAL INFORMATION

via the electronic message center, but the society cannot accept responsibility for the delivery of any messages. No one will be paged in meeting rooms.

AUDIO TAPING, PHOTOGRAPHY & VIDEOTAPING. The use of any device to capture images (e.g., cameras, camera phones) or sound (e.g., tape, digital rebroadcast) of speakers or presentations is strictly prohibited at all ACS meetings and events without express written consent from ACS.

CHILD CARE. Camp ACS will be available to all meeting attendees free of charge from 7 AM to 6 PM on Sunday, Aug. 20, through Thursday, Aug. 24. At Camp ACS, children two (and potty trained) to 16 years of age can participate in age-appropriate activities, including arts and crafts and active games, while you enjoy the meeting. To ensure your child's participation, register online by July 29 at www.acs.org/dc2017. For your child's safety, the location of Camp ACS will not be communicated until your registration is confirmed. On-site registration will be accepted on a space-available basis.

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.

EMERGENCIES DURING ACS MEETING EVENTS. ACS will place detailed instructions inside each meeting room to be used if an emergency occurs during an ACS meeting event. These instructions will revolve around following the established emergency guidelines of the facility where the emergency occurs. Report emergencies to the nearest security guard or to any ACS Operations Office during the meeting. Should a catastrophic event occur, attendees should follow safety and security instructions issued by the facility where they are located at the time of the event.

HOST LOCAL SECTION. ACS gratefully acknowledges the cooperation and assistance of the Chemical Society of Washington and its members in handling local arrangements. Volunteers have planned many interesting activities; the Host Local Section booth will be located in the Walter E. Washington Convention Center L St. South Lobby.

INTERNATIONAL REGISTRANTS. Many international visitors are required to hold a visa before being admitted to the U.S. because of security measures in place at airports and other border crossings. All visa applicants are advised to apply for their visa in their home country as soon as possible. Detailed information for international attendees can be found at www.acs.org/dc2017.

INTERNET & COMPUTER SERVICES. Use our electronic communication services before, during, and after the meeting. Once you get to the meeting, you can access your e-mail and the internet as well as your personal Meeting Mail mailbox from Meeting Mail terminals, which will be located throughout the convention center.

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. No one is authorized to place any promotional items in public meeting space except the ACS Operations Office at a given location. 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.

LUGGAGE & COAT CHECK. A luggage and coat check station will be available during registration hours Sunday

through Thursday at the Walter E. Washington Convention Center, Salons G/H/I. Items left beyond published hours of operation will be turned over to building security at the end of each day.

MEETING OFFICES. The following ACS offices will be located in the convention center:

Attendee Registration: Salons G/H/I

Career Fair: Halls A/B

Exhibitor Registration: Salons G/H/I

Exposition: Halls A/B

Finance Office: Salon E

Host Local Section Center: L St. South Lobby

Member Services: Salons G/H/I

Press Center: Room 154A

Shuttle Desk: L St.

The following offices are located at the identified properties:

Operations Offices: Walter E. Washington Convention Center, Grand Hyatt Washington, JW Marriott Washington DC, Marriott Marquis Washington DC, Washington Marriott at Metro Center, Renaissance Washington DC Downtown, The Westin Washington DC City Center.

Governance Office: Marriott Marquis Washington DC

Society Programs: Marriott Marquis Washington DC

MOTHERS ROOM. For your convenience and privacy, ACS will provide a room for nursing mothers at the convention center. Please see the Operations Office, Salon C, for access to the room.

SMOKING. ACS policy prohibits smoking in all rooms during ACS functions at the convention center and official hotels. Additionally, the convention center and many of the official hotels are designated as smoke-free environments at all times.

OUR VOLUNTEERS AND THEIR MONUMENTAL IMPACT



19th Annual
ChemLuminary
Awards

Tuesday, August 22, 2017
JW Marriott, Washington, D.C.

8pm Poster Session & Reception
Capitol Ballroom

9pm Ceremony
Grand Ballroom

10pm After Party
Capitol Ballroom



ACS
Chemistry for Life®
American Chemical Society

www.acs.org/chemluminary



CHEMISTRY ROCKS! CONCERT

SUNDAY
AUGUST 20TH

Washington Marriott Marquis
Independence Salons D-H

7:30 - 9:00 PM

Featuring live entertainment, refreshments, and gifts to celebrate the 30th anniversary of

NATIONAL CHEMISTRY WEEK



ACS
Chemistry for Life®

**NATIONAL
CHEMISTRY
WEEK**
30 YEARS

254th American Chemical Society National Meeting & Exposition

Free Exhibitor-Sponsored Workshops

Exhibiting companies will host FREE educational sessions for attendees that will:

- Introduce new products and services
- Highlight innovative applications for existing instrumentation
- Build skills with specific tools and techniques

Please visit: www.acs.org/DC2017 to register for exhibitor workshops

Sunday, August 20

Discoveries Using Flow - Drug Development and Beyond

ThalesNano Nanotechnology Inc., 3:30 PM - 6:00 PM
Walter E. Washington Convention Center,
Room 103A

Monday, August 21

Illuminating your Insights with Wiley Spectra Libraries

Wiley, 9:30 AM - 12:00 PM
Walter E. Washington Convention Center, Exhibit Hall B,
Workshop Room 1

30-Minute Workflow Innovations

Agilent Technologies, 9:30 AM - 12:00 PM
Walter E. Washington Convention Center, Exhibit Hall B,
Workshop Room 2

Teaching Laboratory Safety in the Undergraduate Chemistry Curriculum

Flinn Scientific, 9:30 AM - 12:00 PM
Walter E. Washington Convention Center,
Room 103A

Benchtop NMR: Applications in Industry and Academia

Magritek, Inc., 12:30 PM - 3:00 PM
Walter E. Washington Convention Center, Exhibit Hall B,
Workshop Room 2

NMR as a quantitative method and what can NMR do for the chemist?

Bruker, 12:30 PM - 3:00 PM
Walter E. Washington Convention Center,
Room 103A

Tuesday, August 22

Mass Spectrometry for Chemists Direct Analysis of TLC Plates, Solids and Gases

Advion, 9:30 AM - 12:00 PM
Walter E. Washington Convention Center, Exhibit Hall A,
Workshop Room 4

Registration (12:30 – 12:45 PM); Workshop 1(12:45-1:45 PM): Chromatographers, Join the Mass Movement Towards Mass Spectrometry!; Workshop 2 (1:45-2:45 PM): Selecting the Correct Column for Better Chromatography

Thermo Fisher Scientific, 12:30 AM - 3:00 PM
Walter E. Washington Convention Center, Exhibit Hall B, Workshop Room 2

Research in Germany Science Lunch

Research In Germany, 12:30 PM - 3:00PM
Walter E. Washington Convention Center,
Exhibit Hall A, Workshop Room 4

Rapid Materials Identification and Reverse Engineering using Raman Spectroscopy

Bruker, 12:30 PM - 3:00 PM
Walter E. Washington Convention Center, Exhibit Hall B,
Workshop Room 1

Accelerating Organic Synthesis Without Microwaves

Anton Parr, 12:30 PM - 3:00 PM
Walter E. Washington Convention Center,
Room 103A

Wednesday, August 23

Structure-Based Drug Design and Ligand Modification

Chemical Computing Group, 3:30 PM - 6:00 PM
Walter E. Washington Convention Center,
Room 103A

Exposition Highlights

- Meet over 250 exhibitors & recruiters
- Attendee Welcome Reception - Sunday, 6 to 8:30 PM
- Meet the ACS President-Elect Candidates while enjoying an afternoon break - Monday, 1 to 3 PM
- Afternoon Break - Tuesday, 3 to 5 PM

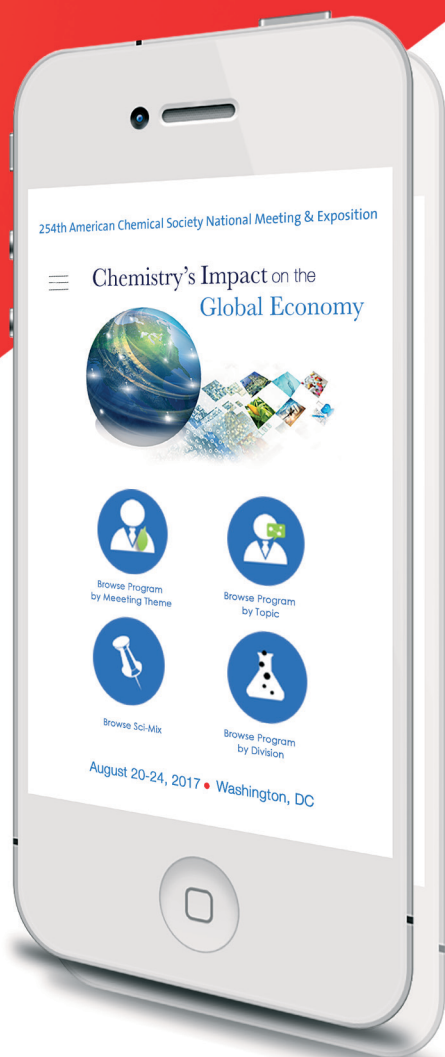
Walter E. Washington Convention Center, Halls A/B, Sunday - 6:00 - 8:30 PM, Monday & Tuesday - 9:00 AM - 5:00 PM

Division Poster Sessions

- **Sunday, Poster Sessions, 6 - 8:30 PM**
Division of Carbohydrate Chemistry
Division of Small Chemical Business
- **Monday, Poster Session, 2 - 4:00 PM**
Division of Energy and Fuels

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Please visit us at the Mobile App Desk if you have questions.

ACS Attendee Resource Nexus, Walter E. Washington Convention Center, Salon B

Saturday 3PM – 6PM

Sunday 8AM – 5PM

Wednesday 8AM – 5 PM

Monday 8AM – 5PM

Tuesday 8AM – 5PM



Google play

Email - mobileapp@services.acs.org

GOVERNANCE & BUSINESS MEETINGS

MANY MEMBERS PARTICIPATE in meetings concerning the business of the Society, technical divisions, and governance committees in conjunction with the meeting. On the following pages you will find a listing of the open meetings scheduled for Washington, D.C. 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 with friends through these volunteer connections. With nearly thirty 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 by email at secretary@acs.org or by phone 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 COUNCIL

ACS COUNCIL. The ACS Council meeting will begin at 8 AM, Wednesday, Aug. 23, at the Marriott Marquis Washington DC Hotel. The meeting will be preceded by a continental breakfast for councilors beginning at 7 AM. Councilors are asked to check in beginning at 7 AM and proceed to the breakfast area, keeping in mind that the meeting starts promptly at 8 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 of the society's operation. Alternate Councilors and division and local section officers are particularly urged to attend.



XXXX. XXXX

GOVERNANCE MEETINGS

For the complete list of committee meetings and agendas, please consult www.acs.org/wdc2017.

BOARD & COUNCIL MEETINGS

ACS Board of Directors. The ACS Board of Directors meeting, open to members who wish to participate, will be held in the Walter E. Washington Convention Center from 11:45 AM to 1 PM on Sunday, Aug. 20.

ACS Council. The ACS Council meeting will begin at 8 AM, Wednesday, Aug. 23, at the Marriott Marquis Washington DC Hotel. The meeting will be preceded by a continental breakfast for councilors beginning at 7 AM. Councilors are asked to check in beginning at 7 AM and proceed to the breakfast area, keeping in mind that the meeting starts promptly at 8 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 of 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, Aug. 22, to councilors who would like to raise issues of concern that affect them and/or their local sections or divisions. For further information, contact Mary Carroll, vice chair of CPC, at cpc@acs.org. For more committee meeting details and agendas, please consult the meeting website at www.acs.org or the on-site program distributed during the meeting.

COUNCILOR CAUCUS MEETINGS

District I Councilor Caucus

Tuesday, Aug. 22, 5:30 – 7:00 PM
Marriott Marquis Washington, DC
Magnolia

District II Councilor Caucus

Sunday, Aug. 19, 6:00 – 7:00 PM
Marriott Marquis Washington, DC
Marquis Ballroom Salon 10

District III Councilor Caucus

Sunday, Aug. 19, 6:00 – 7:00 PM
Marriott Marquis Washington, DC
Marquis Ballroom Salon 12

District IV Councilor Caucus

Sunday, Aug. 19, 6:00 – 7:00 PM
Marriott Marquis Washington, DC
Marquis Ballroom Salon 13

District V Councilor Caucus

Sunday, Aug. 19, 6:00 – 7:00 PM
Marriott Marquis Washington, DC
Marquis Ballroom Salon 14

District VI Councilor Caucus

Sunday, Aug. 19, 6:00 – 7:00 PM
Marriott Marquis Washington, DC
Marquis Ballroom Salon 15

Division Officers/Councilors Caucus

Tuesday, Aug. 22, 4:00 – 6:00 PM
Walter E. Washington Convention
Center 204C

COMMITTEE AGENDA

THE COMMITTEE ON COMMITTEES

has clarified three types of committee meetings:

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.

Executive. Attendance and participation are limited to officially appointed/elected committee members, associates, advisers, consultants, staff liaisons, and the appointed Committee on Committees liaison. Liaisons from other groups and ex officio and elected councilors may attend; participation by

these groups would be at the invitation of the chair. Only committee members can vote.

GOVERNANCE & BUSINESS MEETINGS

Budget & Finance

Joseph A. Heppert, chair; b_feedback@acs.org

Open Session

Saturday, Aug. 19, 8 to 10:30 AM Marriott Marquis Washington DC

1. Report of the Chair
2. Report of the Treasurer & CFO:
 - a. 2017 Probable Financial Performance
3. Reports from the B&F Subcommittees:
 - a. Communications
 - b. Program Funding Requests
 - c. Program Review
 - d. Financial Impacts of Constitution & Bylaw Amendments

Chemical Safety

Elizabeth M. Howson, chair; safety@acs.org

Open Executive Session

Saturday, Aug. 19, 8:15 to 9:45 PM Marriott Marquis Washington DC and

Monday, Aug. 21, 7 to 8:30 AM Marriott Marquis Washington DC

1. Welcome
2. Minutes of April 3, 2017 Meeting
3. Reports of Chair/Staff Liaison
4. Report of Subcommittees and Task Forces:
5. New and Old Business

Chemistry & Public Affairs

Raymond E. Forslund, chair; reforslund@me.com

Open Session

Saturday, Aug. 19, 3 to 4:30 PM Marriott Marquis Washington DC

1. Reports from the Subcommittees:
 - a) Member Advocacy
 - b) Public Policy
 - c) Fellowships
2. Committee Liaison Reports
3. Public Comment
4. Closing Comments

Chemists with Disabilities

John J. Johnston, chair; USDA-FSIS, 2150 Centre Ave., Fort Collins, CO 80526-8116

Open Executive Session

Sunday, Aug. 20, 8:30 AM to 4:30 PM Marriott Marquis Washington DC

1. Welcome
2. Chair Report
 - a. Update of CWD Activities/Events, and Collaborative Opportunities
 - b. Diversity & Inclusion Advisory Group Report
 - c. Minutes from Spring 2017
3. Strategic Planning Group Updates
4. Discussion on Awards and Travel Grants
5. CWD Poster Project
6. ACS Fellows Program
7. CWD Visibility (Social Media)
8. Other Action Items from San Diego Meeting

GOVERNANCE & BUSINESS MEETINGS

9. Staff Report
10. Future Event and Programming Planning
11. Subcommittee Progress Reports
12. Reports of Liaisons to/from other committees
13. Ongoing Business
14. New Business

Committees

Wayne E. Jones Jr., chair; Department of Chemistry, Binghamton University, SUNY, 4400 Vestal Pkwy. East, Binghamton, NY 13902-6000

Open Meeting

Monday, Aug. 21, 1:30 to 2:15 PM Marriott Marquis Washington DC

1. Welcome
2. Minutes of April 3-4, 2017
3. Reports of chair/staff liaison
4. Reports of Subcommittees and Task Forces on:
 - a. Committee System and Structure
 - b. Diversity
 - c. Leadership Development
 - d. Review of the Society Committee Bylaws
5. Topics from floor

Community Activities

Michael B. McGinnis, chair; dean, College of Science & Mathematics, Norwich University, 158 Harmon Dr., Northfield, VT 05663; outreach@acs.org

Closed Executive Session

Sunday, Aug. 20, 10 AM to noon Marriott Marquis Washington DC

1. Welcome
2. Minutes of April 2, 2017
3. Reports of Chair/Staff Liaison
4. Report of Subcommittees and Task Forces:
 - a. Tools and Training
 - b. Volunteer Engagement & Recognition
 - c. Program Development & Promotion
5. Liaison Reports
6. Topics from the Floor

CCA/LSAC Joint Open Session

Tuesday, Aug. 22, 2 to 3:30 PM Marriott Marquis Washington DC

Constitution & Bylaws

James C. Carver, chair; the Carver Law Firm, 451 Florida St., Suite 750, Baton Rouge, LA 70801; bylaws@acs.org

Executive Session

Sunday, Aug. 20, 10 to 11:30 AM and 1:45 to 4:30 PM

Marriott Marquis Washington DC

1. Petition for Election of Committee Chairs
2. Petition on the Composition of Society Committees
3. Model bylaws: minor editorial changes
4. Bulletin 5 status
5. Reports from liaisons and status of unit bylaws
6. Other business

Open Meeting

Sunday, Aug. 20, 1:30 to 1:45 PM Marriott Marquis Washington DC

Open forum to discuss bylaws, petitions, and other issues that may arise

Corporation Associates

Diane Grob Schmidt, chair; d_schmidt@acs.org

Open Meeting

Monday, Aug. 21, 8 AM to noon Marriott Marquis Washington DC

1. Welcome
2. Approval of Minutes from San Francisco, April 3, 2017
3. Chair's Report
4. Reports from Subcommittee Chairs
 - a. Safety
 - b. Strategic Investment and Awards
 - b. Public Policy
 - c. CA Relations
 - d. CA Member Value
5. Staff liaison report
6. New Business

Council Policy

Mary K. Carroll, vice chair; cpc@acs.org

Open Executive Session

Tuesday, Aug. 22, 9:30 AM to noon Marriott Marquis Washington DC

1. Committee and Officer Reports
2. Report of CPC vice-chair
3. Reports of Subcommittees on:
 - a. Petitions, Constitution & Bylaws
 - b. Long-Range Planning
4. Schedule of business sessions, spring 2018
5. Review of Council agenda
6. Open forum 11:30 AM
7. Old and new business

Divisional Activities

Rodney M. Bennett, chair; rodbennett@acs.org

Open Session

Sunday, Aug. 20, 8 AM to noon Marriott Marquis Washington DC

1. Welcome
2. Minutes from 253rd ACS National Meeting in San Francisco, CA
3. DAC Chair's Report
4. Subcommittee Reports
5. Allocation Formula Proposals for Possible 2018 Update

Economic & Professional Affairs

Rick Ewing, chair; ewingwre@comcast.net

Executive Session

Saturday, Aug. 19, 8 AM to 3 PM JW Marriott Washington DC

1. Opening Remarks
2. Subcommittee Meetings
3. Staff/Guest Reports

Open Session

Saturday, Aug. 19, 3 to 5:30 PM JW Marriott Washington DC

1. Subcommittee Reports
 - a. Public Policy
 - b. Events, Volunteers and Employment Services
 - c. Marketing and Research
 - d. Standards and Ethics
2. Reports from Liaisons to and from CEPA
3. Ongoing Business/New Business

Education

Diane Krone, chair; kroned@alumni.stevens.edu

Executive Session

Friday, Aug. 19, 1 to 5:30 PM Marriott Marquis Washington DC

1. K-12 science topics, including ChemCom, ChemMatters, the American Association of Chemistry Teachers, High School Chemistry Clubs, Chemistry Olympiad, Science Coaches, ACS-Hach programs, and teacher professional development
2. College/university topics, including undergraduate programs, graduate and postdoctoral education, Chemistry in Context, faculty development, general chemistry performance expectations, and ChemIDP

Items 1-2 open to all Councilors with prior approval of the Chair

Open Session

Monday, Aug. 21, 3 to 4 PM Marriott Marquis Washington DC

1. Review of Executive Session
2. Items from the floor

Environmental Improvement

Anthony (Tony) Noce, chair; cei@acs.org

Breakfast/Open Session

Monday, Aug. 21, 7:45 to 9 AM Renaissance Washington DC

1. Review of the Saturday-Sunday CEI Executive Session
2. Preview of CEI activities in Washington, DC
3. Preview of 2017 policy statement development (climate, regulatory decision making)
4. Discussion of proposal to rename the committee
5. Open discussion period

Ethics

Keith Vitense, chair; Physical Science Department, Cameron University, 2800 West Gore Blvd., Lawton, OK 73505-6320

Open Executive Session

Sunday, Aug. 20, 9 AM to 4:30 PM Marriott Marquis Washington DC

1. Welcome & Introductions
2. Approval of Minutes from San Francisco Meeting
3. Review of Committee on Ethics Charge
4. Chair/Staff Liaison Reports
5. Liaison Reports
6. Subcommittee Progress Reports
7. Committee Discussion
8. Subcommittee Working Sessions
9. Programming
10. Old Business /New Business/ Action Items
11. Adjourn

International Activities

Ellene Tratras Contis, chair; c/o ACS Office of International Activities, 1155 16th St. N.W., Washington, DC 20036

Open Session

Saturday, Aug. 19, 1 to 3 PM Marriott Marquis Washington DC

1. Welcome
2. Minutes of Spring 2017 IAC Meeting
3. Reports of Chair/Staff Liaison
4. Report of Subcommittees:
 - a. Subcommittee on Africa and the Americas
 - b. Subcommittee on Europe and the Middle East
 - c. Subcommittee on Asia/Pacific Rim
5. New Business

Local Section Activities

Jason Ritchie, chair; Department of Chemistry & Biochemistry, the University of Mississippi, 222 Coulter Hall, University, MS 38677; jritch@olemiss.edu

Open Executive Session

Sunday, Aug. 20, 8 AM to noon Marriott Marquis Washington DC

1. Report of chair, subcommittee chairs, staff liaison
2. Review of petitions for Council consideration
3. Reports of committee liaisons

LSAC/CCA Joint Open Session

Tuesday, Aug. 22, 2 to 3:30 PM Marriott Marquis Washington DC

1. Report from the LSAC and Committee on Community Activities (CCA) Executive Sessions
2. Interactive session: questions, answers, and best practices

Meetings & Expositions

Kevin J. Edgar, chair; M&E@acs.org

Open Meeting

Sunday, Aug. 20, 7:30 to 10 AM Walter E. Washington Convention Center

1. Welcome
2. Minutes from Philadelphia
3. Chair's Report
4. Subcommittee Reports
 - a. Expositions
 - b. Technical Programming
 - c. Regional Meetings

Closed Executive Session

Sunday, Aug. 20, 10 AM to noon

Walter E. Washington Convention Center

1. Operations Subcommittee & Financial Report
2. Staff Liaison Report
3. New Business

Membership Affairs

Margaret J. Schooler, chair; 5 Alexander Ct., Hockessin, DE 19707

Closed Executive Session

Sunday, Aug. 20, 7:15 AM to 3 PM Marriott Marquis Washington DC

1. Welcome
2. Approval of minutes (San Francisco, April 2, 2017)
3. Staff Liaison Report
4. Overview of Strategic Planning Retreat recommendations
5. Subcommittee reports
 - a. Recruitment and Admissions
 - b. Categories and Dues
 - c. Retention, Benefits and Services
6. Other committee business

Open Session

Sunday, Aug. 20, 3 to 4 PM Marriott Marquis Washington DC

Minority Affairs

Madeleine Jacobs, chair; madeleine.s.jacobs@gmail.com

Closed Executive Session

Sunday, Aug. 20, 8 AM to 12:30 PM Marriott Marquis Washington DC

1. Opening Remarks/Chair Report
2. Staff Report
3. Spring Meeting Minutes
4. Subcommittee Meetings

Open Session

Sunday, Aug. 20, 12:30 to 2 PM Marriott Marquis Washington DC

1. Subcommittee Reports
2. Discussions of Petitions
4. Strategic Planning Retreat
5. Open Discussion
6. Adjourn

Nomenclature, Terminology & Symbols

Michael D. Mosher, chair; University of Northern Colorado; michael.mosher@unco.edu

Open Session

Monday, Aug. 21, 2 to 5 PM Marriott Marquis Washington DC

1. Review minutes from 2017 Spring National Meeting
2. Chair/Staff Liaison reports
3. Subcommittee Reports
 - a. Communication/Outreach
 - b. Education
 - c. Liaison
 - d. Long Range Planning
4. IUPAC Reports
5. Braille Chemical Symbols Update
6. New Business

Nominations & Elections

Les W. McQuire, chair; nomelect@acs.org

Open Executive Session

Monday, Aug. 21, 11:30 AM to noon Marriott Marquis Washington DC

1. Report of the Executive Session
2. Vote 2020 Task Force
3. Topics from floor

Patents & Related Matters

Sadiq Shah, chair; sadiq@utpa.edu

Open Session

Saturday, Aug. 19, 9 AM to 4 PM Marriott Marquis Washington DC

1. Legislation & Regulation Subcommittee.
2. Education and Outreach Subcommittee.
3. Awards Subcommittee.
4. Executive Session

Professional Training

Thomas J. Wenzel, chair; Department of Chemistry, Bates College, 2 Andrews Rd., Lewiston, ME 04240; cpt@acs.org

Open Meeting

Sunday, Aug. 20, 4 to 5 PM JW Marriott Washington DC

1. Applying for ACS approval
2. Results of CPT surveys
 - a. online instruction and virtual labs
 - b. international experiences for chemistry majors
3. Annual reports of chemistry degrees
4. Feedback on 2015 ACS Guidelines
5. Topics from floor

Project SEED

Anna G. Cavinato, chair; Department of Chemistry, Eastern Oregon University, 1 University Blvd., LaGrande, OR 97850-2807

Closed Executive Session

Saturday, Aug. 19, 10:30 AM to 5 PM Marriott Marquis Washington DC

1. Subcommittee meetings 10:30 AM - 12:00 Noon
2. Minutes of April 1, 2017
3. Reports of Chair/Staff Liaison
4. Report of Subcommittees:
5. Old and new business

Open Session

Sunday, Aug. 20, 8 to 9 AM Marriott Marquis Washington DC

1. Report from executive session
2. Topics from the floor

Public Relations & Communications

Jennifer Maclachlan, chair; PID Analyzers, 2 Washington Cir., Sandwich, MA 02563; pidgirl@gmail.com

Open Executive Session

Tuesday, Aug. 22, 8 AM to 1 PM Marriott Marquis Washington DC

1. Welcome and Chair's Remarks
2. Presentation on the diversity of ACS committees
3. Approval of Minutes of February 25-26 Meeting
4. Subcommittee Break-Out Session and Reports:
 - a. Awards
 - b. Chemistry Ambassadors
 - c. Local Section and Division Communications Support
 - d. Communications Technology
5. Liaison Reports—CCPA, LSAC, CCA, IAC, DAC
6. Old Business
7. New Business
8. Helen Free Award Address

Publications

Nicole S. Sampson, chair; Department of Chemistry, Stony Brook University, 100 Nicolls Rd., Stony Brook, NY 11794-3400

Closed Executive Session

Friday, Aug. 18, 1 to 4:30 PM Walter E. Washington Convention Center

Open Meeting

Friday, Aug. 18, 4:30 to 5 PM Walter E. Washington Convention Center

1. Updates from ACS Publications Division
2. Open Discussion

Science

Mark C. Cesa, chair; markcesa@comcast.net

Open Session

Saturday, Aug. 19, 8:30 AM to 4:30 PM Marriott Marquis Washington DC

1. Welcome
2. Approval of Minutes
3. Reports of Chair/Staff Liaison
4. Report of Subcommittees:
 - a. Science and Technology,
 - b. Awards,
 - c. Public Policy and Communication
5. Subcommittee Breakouts
6. Subcommittee Reports from Breakouts

Senior Chemists

Thomas R. Beattie, chair; silvercircle@acs.org

Open Executive Session

Monday, Aug. 21, 8 AM to 1 PM Marriott Marquis Washington DC

1. Welcome and Introductions
2. Minutes from July 2017 Meeting
3. Reports of Chair/Staff Liaison
4. Report of Subcommittees:
 - a. Newsletter of Senior Chemists
 - b. Programming for Senior Chemists
 - c. Consulting and Mentoring
 - d. SCC Group on the ACS Network
 - e. ACS Local Section Subcommittee
 - f. Community Education Subcommittee
 - g. ACS Fellows Nomination Subcommittee
 - h. ChemLuminary Awards 2017
5. Senior Chemists Breakfast in Washington, DC
6. Open Discussion/General Information

Technician Affairs

Kara M. Allen, chair; cta@acs.org

Closed Executive Session

Sunday, Aug. 20, 8 AM to 2 PM Marriott Marquis Washington DC

Open Executive Session

Sunday, Aug. 20, 2 to 2:30 PM Marriott Marquis Washington DC

1. Welcome and Introductions
2. Review of San Francisco Minutes, April 2, 2017
3. Reports of Chair/Staff Liaison
4. Report of Subcommittees and Task Forces:
 - a. Professional Development Subcommittee
 - b. Highlight Accomplishments Subcommittee
 - c. Communications Subcommittee
5. Topics from floor/Meeting Feedback/Wrap-up
6. Open Executive Session

Women Chemists

Laura Sremaniak, chair; wcc@acs.org

Executive Session

Saturday, Aug. 19, 8 AM to 5 PM Marriott Marquis Washington DC

6. Welcome
7. Review of Spring Action Items & Minutes
8. Reports of Chair/Staff Liaison
9. Strategic Planning
10. Subcommittee Meetings
11. Reports of Subcommittees and Task Forces:
 - a. Awards & Recognition
 - b. Communications & Technology
 - c. Professional Development
 - d. Programs & Events
12. New Business

Younger Chemists

Natalie A. LaFranzo, chair;
nlafranzo@gmail.com

Closed Session

Saturday, Aug. 19, 8 AM to 3 PM Marriott Marquis Washington DC

1. Welcome
2. Approval of Spring 2017 Minutes
3. Chair Report
4. Staff Report
5. Breakout Sessions

Open Session

Saturday, Aug. 19, 3 to 5 PM Marriott Marquis Washington DC

1. Subcommittee Reports
 - a. Communications
 - b. Governance Interface and Outreach
 - c. Membership Engagement
2. Liaison Reports
3. Petitions (CLOSED)
4. New Business
5. Visitors
6. Adjourn



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DIVISION MEETINGS & SOCIAL EVENTS

Division of Agricultural & Food Chemistry — AGFD

Special Topics Meeting (CLOSED)	Sunday, August 20	12:00 PM - 1:00 PM	Walter E. Washington Convention Center (WEWCC), East Overlook
Poster Session	Sunday, August 20	5:00 PM - 7:00 PM	WEWCC, Hall C
Future Program Meeting	Monday, August 21	12:00 PM - 1:00 PM	WEWCC, West Overlook
Executive Committee Meeting - (CLOSED)	Monday, August 21	5:00 PM - 8:00 PM	WEWCC, West Overlook
Business Meeting	Tuesday, August 22	12:00 PM - 1:00 PM	WEWCC, Room 146 C

Division of Agrochemistry — AGRO

Business Meeting	Sunday, August 20	5:00 PM - 9:00 PM	Renaissance Washington, DC Penn Quarter
Graduate Student Luncheon	Monday, August 21	11:45 AM - 1:00 PM	Renaissance Washington DC, Meeting Room 12
Sterling Hendricks Reception	Tuesday, August 22	1:00 PM - 2:00 PM	Renaissance Washington DC Congressional, Ballroom C
Blues-N-Brews	Tuesday, August 22	5:15 PM - 6:30 PM	Renaissance Washington DC Congressional, Ballroom C
Awards Social	Wednesday, August 23	6:00 PM - 8:00 PM	Renaissance Washington DC, Congressional Ballroom C

Division of Analytic Chemistry — ANYL

Executive Committee Meeting	Sunday, August 20	4:00 PM - 6:00 PM	Grand Hyatt Washington, Renwick Room
Division Reception - (TICKETED EVENT)	Tuesday, August 22	5:00 PM - 7:00 PM	Grand Hyatt Washington, Farragut Square/Lafayette Park Rooms

Division of Biological Chemistry — BIOL

Gordon Hammes Award Lecture Reception	Sunday, August 20	5:45PM - 6:45 PM	WEWCC, Room 145 B
Poster Session	Tuesday, August 22	7:00 PM - 9:00 PM	WEWCC, Hall E

Division of Business Development & Management — BMGT

"Ted"-talk With Bill Carroll Reception	Monday, August 21	6:30 PM - 7:30 PM	Marriott Marquis, Tulip Room
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Division of Chemistry & Law — CHAL

Awards & Networking Lunch - (TICKETED EVENT)	Monday, August 21	12:00 PM - 1:30 PM	Corduroy Restaurant, 1122 9th Street, NW
CHAL Reception	Monday, August 21	6:00 PM - 8:00 PM	Finnegan, LLP, 901 New York Avenue

Division of Chemical Health & Safety — CHAS

Laboratory Waste Management Workshop	Friday, August 18	8:00 AM - 5:00 PM	WEWCC, Rooms 208 A/B
The Laboratory Safety - Advance Concept Workshop	Friday, August 18	8:00 AM - 4:00 PM	WEWCC, Room 209 A
How to be an Effective Chemical Hygiene Officer Workshop	Saturday, August 19	8:00 AM - 5:00 PM	WEWCC, Rooms 208 A/B
Reactive Chemical Management for Laboratories & Pilot Plants Workshop	Saturday, August 19	8:00 AM - 5:00 PM	WEWCC, Room 209 A
Executive Committee Breakfast	Sunday, August 20	8:00 AM - 12:00 PM	WEWCC, Room 146 C

GOVERNANCE & BUSINESS MEETINGS

Division of Chemical Education — CHED

CHED Finance Committee Meeting - (CLOSED)	Friday, August 18	3:00 PM - 6:00 PM	WEWCC, Room 102 B
Exams Institute Board of Trustees	Saturday, August 19	7:30 AM - 12:00 PM	Grand Hyatt Washington, Bulfinch Room
Journal of Chemical Education Board of Publication Meeting	Saturday, August 19	7:30 AM - 12:00 PM	Grand Hyatt Washington, Declaration A
General Chemistry Second Term Exams 2017 - (CLOSED)	Saturday, August 19	8:00 AM - 5:00 PM	Grand Hyatt Washington, Cabin John Room
General Chemistry First Term Exams, 2018 - (CLOSED)	Saturday, August 19	8:00 AM - 5:00 PM	Grand Hyatt Washington, Burnham Room
Diagnostic of Undergraduate Chemical Knowledge (DUCK) 2017 Exams - (CLOSED)	Saturday, August 19	8:00 AM - 5:00 PM	Grand Hyatt Washington, Penn Quarter B
Organic Chemistry Exams 2018 - (CLOSED)	Saturday, August 19	8:00 AM - 5:00 PM	Grand Hyatt Washington, Roosevelt Room
Physical Chemistry Exams 2019 - (CLOSED)	Saturday, August 19	8:00 AM - 5:00 PM	Grand Hyatt Washington, Latrobe Room
General Chemistry Exams 2019 - (CLOSED)	Saturday, August 19	8:00 AM - 5:00 PM	Grand Hyatt Washington, Wilson Room
Biochemistry Exams 2017 - (CLOSED)	Saturday, August 19	8:00 AM - 5:00 PM	Grand Hyatt Washington, Penn Quarter A
Program Committee Meeting	Saturday, August 19	10:30 AM - 12:30 PM	Grand Hyatt Washington, Declaration B
Executive Committee Meeting	Saturday, August 19	1:00 PM - 5:30 PM	Grand Hyatt Washington, Studio I&II
New Member Committee Meeting	Saturday, August 19	2:00 PM - 3:00 PM	Grand Hyatt Washington, Washington Boardroom
International Activities Committee Meeting	Sunday, August 20	8:00 AM - 9:30 AM	Grand Hyatt Washington, Renwick Room
Assessment Workshops I&II, 2017 - (CLOSED)	Sunday, August 20	8:00 AM - 5:00 PM	Grand Hyatt Washington, Banneker Room
General Chemistry First Term Exams, 2018 - (CLOSED)	Sunday, August 20	8:00 AM - 5:00 PM	Grand Hyatt Washington, Burnham Room
Physical Chemistry Exams, 2019 - (CLOSED)	Sunday, August 20	8:00 AM - 5:00 PM	Grand Hyatt Washington, Latrobe Room
Organic Chemistry Exams, 2017 - (CLOSED)	Sunday, August 20	8:00 AM - 5:00 PM	Grand Hyatt Washington, Bulfinch Room
General Chemistry Exams, 2019 - (CLOSED)	Sunday, August 20	8:00 AM - 5:00 PM	Grand Hyatt Washington, Wilson Room
High School/College Interface Luncheon (TICKETED EVENT)	Sunday, August 20	12:00 PM - 1:00 PM	Grand Hyatt Washington, Independence D&E
Regional Meeting Committee	Sunday, August 20	12:00 PM - 2:00 PM	Grand Hyatt Washington, Renwick Room
Long Range Planning Committee	Sunday, August 20	2:30 PM - 4:30 PM	Grand Hyatt Washington, Washington Boardroom
Social Reception	Sunday, August 20	5:30 PM - 7:00 PM	WEWCC, Room 207 A
Assessment Workshops III&IV - (CLOSED)	Monday, August 21	8:00 AM - 5:00 PM	Grand Hyatt Washington, Banneker Room

Division of Chemical Information — CINF

Awards Committee Meeting (CLOSED)	Saturday, August 19	12:30 PM - 2:30 PM	Grand Hyatt Washington, Arlington Room
Education Committee Meeting (CLOSED)	Saturday, August 19	12:30 PM - 2:30 PM	Grand Hyatt Washington, Constitution Ballroom E
Program/Executive Committee Meeting (CLOSED)	Saturday, August 19	12:30 PM - 6:00 PM	Grand Hyatt Washington, Constitution Ballroom B
Chemical Structure Association (CSAT) Meeting (CLOSED)	Saturday, August 19	12:00 PM - 2:00 PM	Grand Hyatt Washington, Franklin Square
Welcome Reception and Poster Session	Sunday, August 20	6:30 PM - 8:30 PM	Grand Hyatt Washington, Farragut Square/Lafayette Park Rooms
Division Luncheon - (TICKETED EVENT)	Tuesday, August 22	12:00 PM - 1:30 PM	Grand Hyatt Washington, Constitution Ballroom B
Herman Skolnik Awards Reception Honoring David Winkler	Tuesday, August 22	6:30 PM - 8:30 PM	Grand Hyatt Independence Ballroom A

Division of Colloid & Surface Chemistry — COLL

Program & Executive Committee Meeting (CLOSED)	Saturday, August 19	4:00 PM - 7:00 PM	WEWCC, Room 102 A
Poster Session/Social Hour	Sunday, August 20	5:30 PM - 8:00 PM	WEWCC, Halls A&B
Division Luncheon (TICKETED)	Tuesday, August 22	12:00 PM - 1:30 PM	Renaissance Washington DC, Mt. Vernon Square A

GOVERNANCE & BUSINESS MEETINGS

Division of Computers in Chemistry — COMP

Programming Executive Committee Meetings	Saturday, August 19	3:00 PM - 6:00 PM	Grand Hyatt Washington, Constitution Ballroom A
Poster Session	Tuesday, August, 22	6:00 PM - 8:00 PM	WEWCC, Hall C

Division of Energy & Fuel — ENFL

Energy and Fuels Program Meeting	Sunday, August 20	1:00 PM - 3:00 PM	WEWCC, Room 160
ENFL Executive Meeting	Sunday, August 20	4:00 PM - 6:00 PM	WEWCC, Room 148
Energy and Fuel Business Meeting & Social w/Posters	Monday, August 21	11:30 AM - 1:00 PM	WEWCC, Ballroom C
ENFL - Dinner (TICKETED)	Tuesday, August 22	6:30 PM - 9:00 PM	Acadiana 901 New York Avenue

Division of Environmental Chemistry — ENVR

Program Planning Committee Meeting	Sunday, August 20	2:00 PM - 3:00 PM	Renaissance Washington DC, Mt. Vernon Square A
Long Range Planning Committee	Sunday, August 20	3:00 PM - 5:00 PM	Renaissance Washington DC, Mt. Vernon Square A
Business Meeting	Sunday, August 20	7:00 PM - 7:30 PM	Renaissance Washington DC, Mt. Vernon Square A
Executive Committee Meeting	Sunday, August 20	7:30 PM - 10:00 PM	Renaissance Washington DC, Mt. Vernon Square A
Funders' Town Hall	Tuesday, August 22	4:40 PM - 5:30 PM	Renaissance Washington DC, Meeting Room 12
Division Reception (TICKETED EVENT)	Tuesday, August 22	6:30 PM - 8:30 PM	Pennsylvania 6 DC, 1350 I Street, NW
Division Dinner	Wednesdy, August 23	7:30 PM - 9:00 PM	Pennsylvania 6 DC, 1350 I Street, NW

Division of Geochemistry — GEOC

Executive Committee Meeting (CLOSED)	Sunday, August 20	6:00 PM - 8:00 PM	Grand Hyatt Washington, Potamac Room
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Division of History of Chemistry — HIST

Business Meeting	Sunday, August 20	1:00 PM - 1:30 PM	Grand Hyatt Washington, Constitution Ballroom C
Executive Committee Meeting (CLOSED)	Sunday, August 20	5:00 PM - 8:00 PM	Grand Hyatt Washington, Lincoln Boardroom
"No Belles" Theatre Performace	Tuesday, August 22	5:00 PM - 7:00 PM	Grand Hyatt Washington, Constitution Ballroom B

Division of Industrial & Engineering Chemitry — I&EC

I&EC Subdivision, Steering & Programming Meeting (CLOSED)	Saturday, August 19	10:00 AM - 3:00 PM	Grand Hyatt Washington, Constitution Ballroom C
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Division of Medicinal Chemistry — MEDI

Executive Committee Meeting (CLOSED)	Sunday, August 20	8:30 AM - 1:00 PM	WEWCC, Room 145 A
Business Meeting	Sunday, August 20	5:30 PM -6:30 PM	WEWCC, Room 145 A
General Poster Session	Sunday, August 20	7:00 PM - 9:00 PM	WEWCC, Hall E
Long Range Planning Committee (CLOSED)	Monday, August 21	5:30 PM - 10:30 PM	WEWCC, Room 145 A
Hall of Fame	Tuesday, August 22	5:30 PM - 7:30 PM	WEWCC, Rooms 150 A/B
MEDI & ORGN General Poster Session	Wednesday, August 23	7:00 PM - 11:00 PM	WEWCC, Hall E

GOVERNANCE & BUSINESS MEETINGS

Division of Organic Chemistry — ORGN

Executive Committee Meeting (CLOSED)	Sunday, August 20	1:00 PM - 6:00 PM	WEWCC, Room 202 B
COPE Award Lunch (CLOSED)	Tuesday, August 22	11:45 AM - 12:55 PM	WEWCC, Rooms 203 A/B

Division of Physical Science — PHYS

Undergraduate Symposium	Sunday, August 20	8:00 AM - 12:00 PM	WEWCC, Room 149 B
Executive Committee Meeting (CLOSED)	Sunday, August 20	4:30 PM - 7:30 PM	WEWCC, East Overlook
Division Poster Session	Wednesday, August 23	6:00 PM - 8:00 PM	WEWCC, Hall D

Division of Polymeric Materials — PMSE

Membership Desk	Sunday, August 20	8:00 AM - 5:00 PM	Marriott Marquis, Liberty Foyer
Executive Committee Meeting (CLOSED)	Sunday, August 20	4:30 PM - 7:30 PM	Marriott Marquis, Shaw/LeDroit Park
Membership Desk	Monday, August 21	8:00 AM - 5:00 PM	Marriott Marquis, Liberty Foyer
Business Meeting and PMSE/POLY Coordination	Monday, August 21	5:00 PM - 6:00 PM	Marriott Marquis, L'Enfant Plaza
Membership Desk	Tuesday, August 22	8:00 AM - 5:00 PM	Marriott Marquis, Liberty Foyer
Membership Desk	Wednesday, August 23	8:00 AM - 5:00 PM	Marriott Marquis, Liberty Foyer
Membership Desk	Thursday, August 24	8:00 AM - 5:00 PM	Marriott Marquis, Liberty Foyer

Division of Polymer Chemistry — POLY

Membership Desk	Sunday, August 20	8:00 AM - 5:00 PM	Marriott Marquis, Marquis Foyer
Board Meeting	Sunday, August 20	12:00 PM - 2:00 PM	Marriott Marquis, Independence Salon E
International Committee Meeting (CLOSED)	Sunday, August 20	2:00 PM - 3:00 PM	Marriott Marquis, Gallaudet U
Workshop Committee (CLOSED)	Sunday, August 20	3:00 PM - 4:00 PM	Marriott Marquis, Gallaudet U
Strategic & Long Range Planning Meeting (CLOSED)	Sunday, August 20	4:00 PM - 5:30 PM	Marriott Marquis, Gallaudet U
Membership Desk	Monday, August 21	8:00 AM - 5:00 PM	Marriott Marquis, Marquis Foyer
Financial/Executive Planning Meeting (CLOSED)	Monday, August 21	12:00 PM - 2:00 PM	Marriott Marquis, Gallery Place
Membership Desk	Tuesday, August 22	8:00 AM - 5:00 PM	Marriott Marquis, Marquis Foyer
POLY/IPEC Meeting (CLOSED)	Tuesday, August 22	9:00 AM - 12:00 PM	Marriott Marquis, Gallery Place
Membership Committee Meeting	Tuesday, August 22	2:00 PM - 3:00 PM	Marriott Marquis, Gallery Place
Programming Coffee Hour	Tuesday, August 22	1:00PM - 2:00 PM	Marriott Marquis, LeDroit Park
Biomacromolecules Meeting on Polymers at the Interface with Biology (CLOSED)	Tuesday, August 22	5:30 PM - 8:00 PM	Marriott Marquis, Tulip Room
Membership Desk	Wednesday, August 23	8:00 AM - 5:00 PM	Marriott Marquis, Marquis Foyer
POLY/PMSE Award Lecture & Reception	Wednesday, August 23	5:30 PM - 8:00 PM	Marriott Marquis, Marquis Salon 6
Membership Desk	Thursday, August 24	8:00 AM - 5:00 PM	Marriott Marquis, Marquis Foyer

Division of Professional Relations — PROF

Executive Committee/Open Meeting	Tuesday, August 22	3:00 PM - 5:00 PM	Grand Hyatt Washington, Roosevelt/Cabin John/Arlington Rooms
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Division of Small Chemical Business — SCHB

Executive Committee	Saturday, August 19	5:00 PM - 10:00 PM	Marriott Marquis, Liberty Salon N
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Division of Chemical Toxicology — TOXI

Executive Committee	Saturday, August 19	6:30 PM - 10:00 PM	Marriott Marquis, Liberty Salon M
General Poster Session Dinner	Tuesday, August 22	6:30 PM - 10:30 PM	WEWCC, Ballroom C

SOCIAL & EDUCATIONAL EVENTS

PRESIDENTIAL EVENTS

ACS PRESIDENT ALLISON A. CAMPBELL welcomes attendees to the 254th ACS National Meeting. The presidential and cosponsored symposia will focus on areas of significant importance: advocacy and communication, the chemistry of our planet, and the safe practice of science.

Under the presidential theme of science advocacy, President Campbell is hosting an invitation-only ACS Chemistry on the Hill Advocacy Workshop on Sunday morning, Aug. 20. The workshop will provide younger chemists with practical advice on engaging with Congress, as well as hands-on training opportunities via interactive role-playing. Later that afternoon, in conjunction with the Royal Society of Chemistry, "Science Communications: The Art of Developing a Clear Message" will help members share stories on how to positively and effectively communicate chemistry. It will also include an opportunity for audience members to develop and practice an elevator pitch on their chemical research. Also on Sunday, "The Road Less Traveled: Career Opportunities in the Government Sector," organized by the Younger Chemists Committee, will provide career advice to those looking to expand outside industrial or academic career pathways.

On Monday, the all-day presidential symposium "Building a Safety Culture across the Chemistry Enterprise" will feature a top-down approach in the morning session, followed by grassroots efforts in the afternoon. On the public policy front, the Division of Small Chemical Businesses is organizing the "Working in the Public Sector: Running for Elected Office" symposium, and the Younger Chemists Committee is hosting a symposium on "Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy."

"Understanding the Chemistry of Our Planet" will be a highlight symposium all day Tuesday, showcasing renowned researchers discussing the transforming power of chemistry that is ubiquitous to life on Earth. Scientists will present their innovative research on chemistry's role in our Earth system and humans' impact to the chemistry of our environment. The National Science Foundation's Division of Chemistry is organizing an all-day event to talk with members, "The World of Funding Opportunities in Chemistry: A Federal Funders Town Hall," and "Speed Coaching with Federal Funders." In the afternoon, the National Academies of Sciences, Engineering & Medicine is hosting a town hall discussion seeking community input for a study on the future of materials research. "Frontiers of Materials Research: A Decadal Survey" will look at defining the frontiers of materials research, ranging from traditional materials science and engineering to condensed-matter physics. Later that evening, the Presidential LGBTQ+ Reception is sure to be a great event with more than 20 committees and divisions cosponsoring.

Nine president-recommended symposia focus on issues of sustainability, highlighting up-and-coming graduate researchers and celebrating diverse practitioners of chemistry. Details of these presidential events and other recommended symposia can be found at www.acs.org/dc2017.

STUDENT & TEACHER ACTIVITIES

Education-focused programs and specialty activities are being held for undergraduate students, graduate students and postdoctoral scholars, and high school teachers. Explore these opportunities in depth at www.acs.org/dc2017.

Undergraduate Program. A vibrant program designed especially for undergraduate students has been planned by the Society Committee on Education's Undergraduate Programs Advisory Board. This educational and career-oriented program includes technical symposia and workshops on essential skills for employment in chemistry and success in graduate school. Eminent scientist

Mostafa El-Sayed from the Georgia Institute of Technology will present "The Many Great Advantages of Gold Photo-Thermal Therapy of Cancer."

Sunday, Aug. 20

Undergraduate Hospitality Center, 8:30 AM to 5 PM

Symposium: Impact of Outreach on the Future of Chemistry (cosponsored by YCC, PROF, and CPRC), 9 to 10:30 AM

Graduate School Reality Check, Part I: Getting In (cosponsored by YCC), 10:30 to 11:45 AM

Graduate School Reality Check, Part II: You're In—Now What? (cosponsored by YCC), 11:45 AM to 1 PM

Networking Basics for Students (cosponsored by YCC and PROF), 1 to 2:30 PM

Undergraduate Research Orals 1:30 to 3:30 PM

Networking Social with Graduate School Recruiters, 2 to 5 PM

ACS on Campus Networking Happy Hour: Make Connections and Advance Your Career (sponsored by ACS on Campus), 5:30 to 8:30 PM

Monday, Aug. 21

Undergraduate Hospitality Center, 8:30 to 10 AM

The Job Hunt: Dos and Don'ts of Applying and Interviewing, 9 to 10:30 AM

Caffeination Station (cosponsored by YCC and PROF), 10:30 to 11:30 AM

Eminent Scientist Lecture & Luncheon with Dr. Mostafa A. El-Sayed, Georgia Institute of Technology (cosponsored by CATL and POLY), noon to 1:30 PM

Undergraduate Research Poster Session (cosponsored by CHED, AGFD, ENVR, INOR, MEDI, PHYS, POLY, GEOC, and BIOT), 2 to 4 PM

Student Speed Networking with Chemistry Professionals, 4 to 5:15 PM

Sci-Mix/Successful Student Chapter Posters, 8 to 10 PM

Graduate & Postdoctoral Scholars program. The Graduate & Postdoctoral Scholars Office, with support from the Graduate Education Advisory Board, provides and promotes programs and resources for graduate students and postdoctoral scholars.

Sunday, Aug. 20

ChemIDP: Planning for Your Career, 11:15 AM to 1 PM

Faculty & Postdoc Afternoon Networking Coffee Break, 4 to 6 PM

Monday, Aug. 21

Student Speed Networking with Chemistry Professionals, 4 to 5:15 PM

Graduate & Postdoctoral Scholars Reception, 7 to 8:30 PM

Academic Employment Initiative (AEI), 8 to 10 PM

For more information about these events and other ACS programs offered to graduate students and postdocs, visit www.acs.org/grad or contact the ACS Graduate & Postdoctoral Scholars Office at graded@acs.org or at (800) 227-5558, ext. 4588.

HIGH SCHOOL CHEMISTRY TEACHER 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. Deborah Blum, the author of "The Poisoner's Handbook," will present after the luncheon.

High school and middle school teachers can register for the program directly through Attendee Registration as a pre-college teacher; the special registration fee includes program materials, lunch, access to the full ACS meeting, and entry to the exposition.

Sunday, Aug. 20

Chemistry Teacher Program, 8:30 AM to 4:30 PM

Monday, Aug. 21

Materials That Impact Our Daily Lives & the Global Economy: Bring Practical Applications into the Chemistry Classroom, 1:30 to 5 PM

For more information, visit www.acs.org/chemistryteacherprogram, or contact the Office of High School Chemistry at education@acs.org or (800) 227-5558 ext. 2105.

TICKETED EVENTS

A variety of social and special events will be held by event organizers during the meeting. Event participation is open to all interested registrants. View an updated listing of social and special events, including event locations, at www.acs.org/dc2017.

The following social events require a ticket, which can be purchased through Attendee Registration. Tickets will remain on sale until the evening before the event, if available. All tickets are sold on a first-come, first-served basis. Cancellations or refund requests must be made by July 31. No tickets will be refunded after that date.

Sunday, Aug. 20

CHED (Division of Chemical Education) High School-College Interface Luncheon/SE-01/\$45

(Ticket included at no charge with high school teacher registration.)

Noon to 1 PM, Grand Hyatt Washington, Independence D/E

IAC (Committee on International Activities) Networking Globally: Diplomacy & Science/SE-02/no charge

4 to 5:30 PM, Marriott Marquis Washington DC

IAC International Welcome Reception/SE-03/no charge

(International registrants only.)

5:30 to 7:30 PM, Marriott Marquis Washington DC, Independence D-H

Heroes of Chemistry Awards/SE-14/\$130

(Black tie event.)

6:30 to 10 PM, JW Marriott Washington DC, Grand Ballroom

Monday, Aug. 21

YCC (Younger Chemists Committee) Member Insurance 5K Fun Run/SE-04/\$30 (regular)/SE-05/\$15 (student)

6:45 to 8 AM, Walter E. Washington Convention Center

WCC (Women Chemists Committee) Women in the Chemical Enterprise Breakfast/SE-06/\$40 (regular)/SE-07/\$20 (student)

7:30 to 9 AM, Marriott Marquis Washington DC, Independence E

ACS Women Chemists of Color Networking Event/SE-08/no charge

10 to 11:30 AM, Marriott Marquis Washington DC, Scarlet Oak

Committee on Minority Affairs Luncheon/SE-09/\$50 (regular)/SE-10/\$25 (student)

11:30 AM to 1:30 PM, Marriott Marquis Washington DC, Independence A-D

CHAL (Chemistry & the Law Division) Award & Networking Lunch/SE-11/\$40

Noon to 1:30 PM, Acadiana, 901 New York Avenue, N.W.

Undergraduate Eminent Scientist Lecture & Luncheon/SE-12/\$35

(Ticket included at no charge with undergraduate registration.)

Noon to 1:30 PM, Grand Hyatt Washington, Independence Ballroom A

CACS (Chinese-American Chemical Society) Dinner/SE-13/\$40

6:30 to 9:30 PM, Tony Cheng's Seafood Restaurant, 619 H St. N.W.

YCC Finding Balance between Work & Life Mixer for Younger Chemists/SE-16/no charge

7 to 8 PM, Baby Wale, 1124 9th St. N.W.

ACS Graduate & Postdoctoral Scholars Reception/SE-15/no charge

(All graduate students should receive a ticket with registration. Postdocs are invited to attend.)

7 to 8:30 PM, Walter E. Washington Convention Center, Ballroom C

Tuesday, Aug. 22

**Senior Chemists Committee
Breakfast/SE-17/\$20**

7:30 to 9:30 AM, Marriott Marquis
Washington DC, Independence E–H

C&EN Master Class with Phil Baran & IKA

10:00 to 1:00 PM, Washington Con-
vention Center, Ballroom A/B

**CINF (Chemical Information Division)
Luncheon/SE-18/\$30**

Noon to 1:30 PM, Grand Hyatt Washing-
ton, Constitution Ballroom B

**COLL (Division of Colloid & Surface
Chemistry) Luncheon/SE-19/\$45**

Noon to 1:30 PM, Renaissance Washing-
ton DC Downtown, Mt. Vernon Square A

**WCC Luncheon/SE-20/\$50
(regular)/SE-21/\$25 (student)**

Noon to 1:30 PM, Marriott Marquis
Washington DC, Independence E–H

**ANYL (Division of Analytical
Chemistry) Reception/SE-22/\$25
(regular)/SE-23/\$5 (student)**

5 to 7 PM, Grand Hyatt Washington,
Lafayette Park

**ENVR (Division of Environmental
Chemistry) Reception/SE-25/\$20**

6:30 to 8:30 PM, Pennsylvania 6, 1350
I St. N.W.

**ENFL (Division of Energy & Fuels)
Awards Dinner/SE-24/\$60**

6:30 to 9 PM, Acadiana, 901 New York
Ave. N.W.

**Journey to Mars Reception/\$60
(member)/\$110 (nonmember)/\$10
(student)**

6:30 to 10:30 PM, National Air & Space
Museum

ENVR Dinner/SE-26/\$60

7:30 to 9 PM, Pennsylvania 6, 1350 I
St. N.W.

WORKSHOPS

The following workshops require a separate registration process and/or entry fee to participate in the event, as indicated in this listing. Participation is open to all interested registrants.

Division of Chemical Health & Safety (CHAS)-sponsored workshop fees (unless otherwise indicated). CHAS member: full registration \$375/early registration \$300; non-CHAS member: full registration \$425/early registration \$350. Early registration ends June 26. K–12 science teachers who are American Association of Chemistry Teacher members: \$99. Need-based scholarships are available for K–12 science teachers; contact scholarships@labsafetyinstitute.org.

Registration is required for all CHAS workshops. Register online at dchas.org/workshop-registration-page.

Laboratory Safety: Advanced Concepts. Friday, Aug. 18, 8 AM to 5 PM. Walter E. Washington Convention Center. The Laboratory Safety Institute will present a new course that is designed to meet the needs of scientists and science educators wanting to learn more about laboratory safety. Laboratory Safety: Beyond the Fundamentals continues where LSI's introductory course (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. The workshop will have extensive opportunity for questions with follow-up by phone and e-mail. This includes a one-hour conference call to help with implementation of course concepts.

Course participants are encouraged to submit in advance five questions or topics they wish to be sure are covered in the course: jim@labsafetyinstitute.org.

Laboratory Waste Management. Friday, Aug. 18, 8 AM to 5 PM. Walter E. Washington Convention Center. CHAS offers the Laboratory Waste Management workshop to assist participants with the various regulatory requirements that apply to laboratories that 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 and reclamation techniques, economical handling of wastes, and liability issues. The workshop will have extensive opportunity for questions with follow-up by phone and e-mail.

Cannabis Extraction. Saturday, Aug. 19, 8 AM to noon. Walter E. Washington Convention Center. CHAS and CANN (Cannabis Chemistry Subdivision) present a Cannabis Extraction workshop, which is a comprehensive review of current methodologies and best practices in the extraction and processing of cannabis. Participants will learn the latest developments in extraction technologies, how to comply with regulations, and how to operate safely. The workshop will have extensive opportunity for questions with follow-up by phone and e-mail.

Cannabis Analysis. Saturday, Aug. 19, 1:30 to 5 PM. Walter E. Washington Convention Center. CHAS and CANN present a Cannabis Analysis workshop, which is a comprehensive review of current testing requirements, methodologies, and best practices in the analysis of cannabis and cannabis-infused products. Participants will learn how to overcome testing challenges, how to comply with standards, and how to operate safely. The workshop will have extensive opportunity for questions with follow-up by phone and email.

Reactive Chemical Management for Laboratories & Pilot Plants. Saturday, Aug. 19, 8 AM to 5 PM. Walter E. Washington Convention Center. 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 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.

How to Be a More Effective Chemical Hygiene Officer. Saturday, Aug. 19, 8 AM to 5 PM. Walter E. Washington Convention Center. CHAS offers the How to Be a More Effective Chemical Hygiene Officer (CHO) workshop to provide participants with a detailed

254th American Chemical Society National Meeting & Exposition

August 20-24, 2017 • Washington, DC



Chemistry's Impact on the Global Economy

Thematic Program Chair organized by Nancy B. Jackson,
Retired, Sandia National Laboratories

Plenary Session

Sunday, August 20, 2017 3:00 – 6:00 PM
Walter E. Convention Center, Ballroom A&B

Moderated by Thomas M. Connelly, Jr.,
Executive Director and CEO of the American Chemical Society



Nancy B. Jackson



Dr. Chuck Kahle

Dr. Chuck Kahle is the former Chief Technology Officer and Vice President of coatings research and development for PPG Industries. His responsibility included product development globally, administration of a \$500 million annual R&D budget and delivery of products that drove profitable growth from laboratories in the Americas, Europe, and Asia.

Chemistry's Impact on the Global Economy

Chemistry contributes to many sectors of the global economy - agriculture, pharma, commodity chemicals, basic materials and energy, to name a few. Dr. Kahle will examine the key dimensions of the industrial chemistry enterprise, and its trajectory, in the US, and beyond. Factors that are determining the growth rate of the enterprise will be explored, such as the rate of technology innovation, and the increasing emphasis on mergers and acquisitions within the industry. Emphasis will be given to the role of innovation in the enterprise, including ideas on how to accelerate the rate of chemistry innovation and how to improve success rates for innovations through stronger business cases and better market insights.



Prof. Joseph DeSimone

University of North Carolina at Chapel Hill

Digital Light Synthesis to Drive Additive Manufacturing: Convergence of Hardware, Software and Molecular Science

Joseph M. DeSimone is the Chancellor's Eminent Professor of Chemistry at the University of North Carolina at Chapel Hill, and William R. Kenan, Jr. Distinguished Professor of Chemical Engineering at North Carolina State University and of Chemistry at UNC

This lecture will describe a new advance in additive manufacturing, referred to as Digital Light Synthesis, which is rapid, uses materials that have the requisite properties to yield final parts, and is economically competitive. Our approach promises to advance the industry beyond basic prototyping, which is what 3D printing has primarily been limited to, to truly enable 3D manufacturing.

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 CHO or an “old” one, you will find something to put to real use in this fast-paced presentation. The workshop will have extensive opportunity for questions with follow-up by phone and e-mail.

Using ACS Resources to Teach Lab Safety. Saturday, Aug. 19, Walter E. Washington Convention Center. Over the past few years, ACS has released several important new resources and updated others to support teaching laboratory safety at a variety of academic levels, from secondary school to undergraduate and research settings. They are built around the RAMP paradigm supported by the ACS Committee on Professional Training guidelines.

This two-part workshop will discuss how ACS publications can be used to support chemical safety education and a promote a proactive safety culture in these settings. Each module, which has separate but complementary content, can be taken individually for an early registration price of \$175 (\$99 for AACT members), or both can be taken for \$350 (\$198 for AACT members).

Part 1: ACS Safety Tools for Secondary School and Undergraduate Labs. 8 AM to noon. This module will use a variety of tools available from ACS to cover topics such as recognizing hazards, assessing basic risks, understanding the Globally Harmonized System of Classification and Labeling, selecting personal protective equipment, engineering controls, and safely managing and storing chemicals and chemical waste. The information presented in this module is appropriate for secondary school teachers (including those who are preservice) as well as undergraduate faculty.

Part 2: ACS Safety Tools for Chemistry Majors and Research Laboratories. 1:30 to 5 PM. In 2016, ACS released an updated web version of its “Identifying and Evaluating Hazards in Research Laboratories”

document. The methods outlined in this document are designed to address operations in research laboratory settings, which are less defined and more changeable than those in teaching settings. The workshop focuses on the Job Hazard Analysis and Control Banding tools, which are appropriate for most laboratory research at the undergraduate level. Examples of Lessons Learned programs in the research setting will also be reviewed.

Career Launch & Acceleration for Postdoctoral Associates/COACH-the-COACHes Training. Saturday, Aug. 19, 8 AM to 5 PM. Renaissance Washington DC Downtown. Sponsored by COACH. Learn how to assimilate fundamentals of responsible negotiation and communication skills. Attendees will examine the Best Alternative to a Negotiated Agreement (BATNA) concept as a tool to prepare and build confidence and will learn communication styles that are effective for women, how to project confidence, and how to use powerful rather than weak words. Discussions will focus on making the best impression in the job interview process, succeeding in the negotiating stage, and securing an academic appointment that will position you for career success. This workshop will be held concurrently with the COACH-the-COACHes workshop. Preregister at coach.uoregon.edu. Registration is free; travel assistance is available. For more information, contact Priscilla Lewis at coach@uoregon.edu or (541) 346-0116.

COACHing Strong Women in Negotiation and Leadership. Saturday, Aug. 19, 8 AM to 5 PM. Renaissance Washington DC Downtown. Build understanding of mutual-interest-based negotiations and problem solving, useful skills in both individual and leadership contexts. The content will focus on understanding the other parties’ interests as well as negotiating for what you need to be successful. Skills taught include how to enhance personal presence with verbal and nonverbal use, how to develop options that enhance the chance of reaching an agreement, and how to lead groups using these skills. Participants will evaluate their personal conflict-resolution styles using case studies. The cases reinforce the

use of effective negotiating styles and help define patterns of negotiations when choice and stress are factors. Development of supporting data, options, and packaging solutions are examined relative to the case studies.



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 abound at the ACS national meeting in Washington, D.C., for career development. 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 Walter E. Washington Convention Center and speak to a personal career consultant or get a professional head shot taken. In short, whatever your career goals, the ACS

Career Navigator is here to help you achieve and exceed them. We'll see you in Washington, D.C.

ACS CAREER FAIR

Job seekers, are you looking to jump-start your 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–Wednesday, Aug. 20–23, 9 AM to 5 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 résumé, 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
- Résumé reviews
- One-on-one career consulting
- Interview practice and skills building
- More than 30 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 consults can help you strengthen your résumé, improve your interviewing skills, and design a job search or comprehensive professional growth strategy. Please

bring a copy of your résumé or CV to all appointments. All one-on-one on-site career consulting sessions will take place in the Résumé Review/Mock Interview area in the ACS Career Fair. Sign-up begins at 9 AM on Sunday, Aug. 20, on a first-come, first-served basis.

Career and professional development workshops. Our career-related workshops on varying topics will help you with everything from improving your résumé to optimizing job performance to acing an interview. Workshop times are subject to change. Please consult the online workshop schedule at www.acs.org/careers for locations.

Sunday, Aug. 20

New Technologies to Find Jobs and Manage Your Career, 9:30 to 11 AM

ChemIDP: Planning for Your Career, 11:15 AM to 1 PM

Careers in Industrial Chemistry: Identifying Your Role in the Industrial Value Chain, 1 to 3 PM

Setting Yourself Up for Success in an Interview, 1 to 3 PM

Finding Yourself: Identifying a Career That Matches Your Strengths and Values, 1 to 4 PM

Making the Most of Your Interview: Outshine the Competition, 3:30 to 5:30 PM

Résumé Development: Marketing Your Brand for an Industrial Chemistry Position, 3:30 to 5:30 PM

Networking: How to Get Started, 4:30 to 5:30 PM

Monday, Aug. 21

Finding Your Market, Defining Your Business, 8 to 10 AM

The Higher-Ed Landscape, 8 to 10 AM

Opportunities for Chemists in the Federal Government, 8 to 10 AM

Higher Ed: Presenting Yourself, 10:30 AM to 12:30 PM

How to Find and Apply for a Chemistry Position in the Federal Government, 10:30 AM to 12:30 PM

Your Sales, Marketing & Financing Plan, 10:30 AM to 12:30 PM

Careers in Industrial Chemistry: Identifying Your Role in the Industrial Value Chain, 1 to 3 PM

Setting Yourself Up for Success in an Interview, 1 to 3 PM

Finding Yourself: Identifying a Career That Matches Your Strengths and Values, 1 to 4 PM

Making the Most of Your Interview: Outshine the Competition, 3:30 to 5:30 PM

Résumé Development: Marketing Your Brand for an Industrial Chemistry Position, 3:30 to 5:30 PM

Networking: How to Get Started, 4:30 to 5:30 PM

Tuesday, Aug. 22

Careers in Industrial Chemistry: Identifying Your Role in the Industrial Value Chain, 8 to 10 AM

Setting Yourself Up for Success in an Interview, 8 to 10 AM

Finding Yourself: Identifying a Career That Matches Your Strengths and Values, 8 to 11 AM

Making the Most of Your Interview: Outshine the Competition, 10:30 AM to 12:30 PM

Networking: How to Get Started, 11:30 AM to 12:30 PM

Résumé Development: Marketing Your Brand for an Industrial Chemistry Position, 10:30 AM to 12:30 PM

The Higher-Ed Landscape, 1 to 3 PM

Opportunities for Chemists in the Federal Government, 1 to 3 PM

Foreign National Scientist Obtaining a Job in the U.S., 1:30 to 3 PM

Writing Excellent Proposals, 3:30 to 5 PM

How to Find and Apply for a Chemistry Position in the Federal Government, 3:30 to 5:30 PM

Higher Ed: Presenting Yourself, 3:30 to 5:30 PM

Wednesday, Aug. 23

Careers in Industrial Chemistry: Identifying Your Role in the Industrial Value Chain, 8 to 10 AM

Setting Yourself Up for Success in an Interview, 8 to 10 AM

Finding Yourself: Identifying a Career That Matches Your Strengths and Values, 8 to 11 AM

Making the Most of Your Interview: Outshine the Competition, 10:30 AM to 12:30 PM

Résumé Development: Marketing Your Brand for an Industrial Chemistry Position, 10:30 AM to 12:30 PM

Networking: How to Get Started, 11:30 AM to 12:30

Employers: Find the talent you need at the ACS Career Fair. Leading employers around the world trust and depend on ACS to provide them with the talent they need to innovate and excel. At our last event, approximately 1,000 global job seekers—from recent grads to seasoned professionals—met with recruiters seeking to fill positions in all facets of chemistry, pharmaceuticals, and biotechnology.

The ACS Careers Jobs Database can help manage your employer account, post jobs, search for qualified candidates, and schedule career fair interviews. Moreover, participating in the ACS Career Fair enables you to accomplish the following:

- Connect with top talent via on-site interviews.
- Screen candidates, and make appointments in advance.
- Find the personnel your company needs to thrive, from entry- to executive-level positions.
- Meet qualified candidates informally via networking forums.
- Extend your presence for 30 days after the career fair via the ACS jobs database.

Looking for a more traditional career fair experience? Employers can purchase booth space inside the exposition hall, enabling your company to maximize its ability to showcase products and services and connect with job seekers. Employers can sign up for the ACS Career Fair Recruiters Row package online at www.acs.org/careers.

Employers will receive an e-mail confirmation and must visit the ACS Career Fair Information Booth to pick up their blue badge. For more information, please visit www.acs.org/careerfair. You can also contact Heather McNeill at by phone (202) 452-8918 or by e-mail at h_mcnNeill@acs.org.

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. A course fee and registration separate from the national meeting are required. For more information on ACS Short Courses, to obtain pricing details, or to view a full course catalog, visit www.proed.acs.org. If you have questions, call (202) 872-4508, fax (202) 872-6336, or e-mail proed@acs.org.

ANALYTICAL

Essentials of Modern HPLC/UHPLC 1: Fundamentals & Applications, Aug. 19

Analysis & Interpretation of Mass Spectral Data, Aug. 19–20

Essentials of Modern HPLC/UHPLC 2: Practice, Operation, Troubleshooting & Method Development, Aug. 20

1-D & 2-D NMR Spectroscopy: Structure Determination of Small-Molecule Organic Compounds, Aug. 22–23

BIOLOGICAL/PHARMACEUTICAL/MEDICINAL CHEMISTRY

Application of Pharmacokinetics & Safety Pharmacology for Chemists in Drug Development, Aug. 19–20

COMPUTERS/STATISTICS/ENGINEERING

Chemical Engineering for Chemists, Aug. 19–20

Experimental Design for Productivity and Quality in Research & Development, Aug. 19–21

ORGANIC/PHYSICAL CHEMISTRY

1-D & 2-D NMR Spectroscopy: Structure Determination of Small-Molecule Organic Compounds, Aug. 22–23

Dispersions in Liquids: Suspensions, Emulsions & Foams, Aug. 21–22

Organic Synthesis: Methods & Strategies for the 21st-Century Chemist, Aug. 19–20

POLYMER CHEMISTRY

Polymeric Coatings, Aug. 19–20

Polymer Science & Technology, Aug. 19–20

PROFESSIONAL DEVELOPMENT

Effective Technical Writing, Aug. 19–20

Project Management for Technical Professionals, Aug. 19–20

Write Your Own Patent Applications, Aug. 20

Chemistry for Nonchemists: The Basics, Language & Function of Chemistry, Aug. 22–23

REGULATORY/ENVIRONMENTAL

Quality Management of the Laboratory, Aug. 20

Intellectual Property Strategies for Technical Professionals, Aug. 20

Methods Development, Validation Procedures & Regulatory Compliance Issues, Aug. 19–20

Write Your Own Patent Applications, Aug. 20

Highlights of FDA and Other cGMP Regulations, Aug. 21

2017 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 refundable deposit of \$50 each (refunded after attendance) for ACS members and \$300 each for nonmembers. Register for these courses when you register for

the meeting. For more information and full course descriptions, visit www.acs.org/leadershipdevelopment.

Collaborating across boundaries.

Sunday, Aug. 20, 1 to 5 PM. Do you work with people from other departments or from other countries? As the world becomes more complex, the ability to reach across boundaries to work on projects and share information is critical to organizational success. It's a matter not just of communication but also of genuine collaboration—working in partnership to achieve common goals, create innovative solutions, and share expertise. Learn strategies and tools to be more effective in leading collaborative efforts, and gain practical skills that you can apply immediately in the lab, at school, in the office, or at ACS.

Leading change. Monday, Aug. 21, 8 AM to 12 PM. If you are involved in shifting team priorities, changing the direction of a project, or reconfiguring teams, understanding how people react to change and how to help yourself and others effectively deal with the changes is a key to increasing your professional success. This four-hour course provides you with a stepwise process to lead change and guide others more effectively through the change process.

Strategic planning. Monday, Aug. 21, 1 to 5 PM. Gain understanding of the structure and contents of a strategic plan as well as the impact that strategy has on your work and an organization's success. You will learn how to become a “partner in planning” with other leaders as you develop a plan for your unit that aligns with the executive-level strategic goals.

Fostering innovation. Tuesday, Aug. 22, 8 AM to noon. Keeping pace in an environment of constant change requires innovation. Whether you are part of a nonprofit, business, or academic environment, the ability to contribute to the creation of new ideas, new processes, and new approaches is a key to success. Coming up with new ideas is challenging, and few of us have

the tools and skills to do this effectively. This course will teach a proven, systematic process to generate ideas. You will learn your innovation style and how to stimulate innovative thinking among team members and colleagues.

Leading without authority. Tuesday, Aug. 22, 1 to 5 PM. Whether in a lab, in the office, in the classroom, or on a volunteer committee, you will likely find yourself leading others without formal or “positional” authority and need to be able to influence them to accomplish the project. This four-hour, interactive workshop provides practical tools to help you gain cooperation and engage others in accomplishing the project and team goals.

EXPOSITION

SEE WHAT'S NEW INSIDE THE EXPOSITION. Visit the ACS National Exposition at the Walter E. Washington Convention Center, Halls A & B, from Sunday, Aug. 20, through Tuesday, Aug. 22. The show hours will be Sunday, 6 to 8:30 PM, and Monday and Tuesday, 9 AM to 5 PM.

Companies will showcase services, instruments, books, computer hardware, scientific software, and an array of chromatographic, lab, and safety equipment. Technical personnel will be available to give demonstrations, answer questions, and discuss your specific needs and interests. Join us at the ACS booth in the middle of the exposition floor, where ACS staff units will present the many benefits, services, products, and merchandise offered by ACS.

Visit the revamped ACS Career Fair inside the Exposition where you'll meet recruiters from top employers. Create an online profile and upload your résumé to our database, where recruiters can schedule in-person interviews with you. While at the career fair, network with potential employers and drop off your résumé, attend Career Pathways workshops, and meet with ACS career consultants.

Online exposition. The online exposition is a component within the exhibitor directory that enables attendees to view videos, press releases, brochures, and flyers of participating exhibitors. Access the online exposition at www.acs.org/dc2017 to learn more about exhibiting companies and to download product information.

Free exhibitor workshops. Exhibitors will host free workshops on the exposition floor and in private rooms inside the convention center. These workshops will introduce new products and services, build skills with specific tools and techniques, and highlight innovative applications that may improve your productivity. Exhibitor workshop registration will be available at www.acs.org/dc2017 on June 16.

Special events. Join us for several ACS division poster sessions on the expo floor. Don't forget to visit us on Sunday from 6 to 8:30 PM for the Attendee Welcome Reception. Have an afternoon break while meeting the ACS president-elect candidates inside the exposition on Monday from 1 to 3 PM. Take another afternoon break on Tuesday from 3 to 5 PM and visit the exhibitors before the exposition closes.

Internet & technology. Use free internet access and leave messages for one another at the Meeting Mail terminals located throughout the meeting and inside the exposition. Also enjoy free Wi-Fi service at the convention center.

Admission requirements & expo-only registration. 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 convention center.

SPEAKER INSTRUCTIONS



NO RECORDING PLEASE.

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 the express written consent from the ACS. All speakers must register and pay the appropriate registration fee to present and attend during the meeting. Invited speakers should contact their symposium organizer or division program chair to clarify terms of their invitation.

POSTER SESSION GUIDELINES

- All materials must be confined to:
 - Convention Center: 4' high by 8' wide display board
 - Hotels: 4' high by 6' wide display board
- Authors must mount their poster during the one hour before the scheduled session start.
- Poster numbers supplied by ACS will be in the upper corner of each poster board. This number corresponds with the number assigned to each poster in the technical program.
- Pushpins will be available at the poster session.
- Authors must remain with their posters for the duration of their scheduled session, as indicated in the technical program.
- All posters must remain up until the session ends; they must be removed within one hour. *ACS cannot assume responsibility for materials beyond these time limits.*

SCI-MIX POSTER SESSION GUIDELINES

Sci-Mix presenters may begin poster setup at 7:15 PM. Each presenter may be accompanied by one assistant only, and both people are required to arrive together when entering the hall. After exiting, presenters will not be permitted to reenter the hall until the session begins at 8 PM.

ORAL PRESENTATION GUIDELINES

ACS PROVISIONS

Each technical session meeting room will be equipped with the following:

- LCD projector

- Screen (16:9 screens)
- lighted podium
- podium microphone or lapel microphone
- laser pointer

LAPTOP CONNECTIVITY INFORMATION

ACS will provide a “Standard HDMI Cable” in all meeting rooms. **Therefore, it is imperative for speakers to supply their own Mac or windows-based laptop computer's dongle/adaptor to connect to the “Standard HDMI Cable”.** If unsure of the correct adaptor, the laptop connectivity specifications can be found on the computer manufacturer's website.

Mac laptops will need a “dongle” to connect to the HDMI cable. From the Apple Website – the type of dongle/adaptor required to connect to our HDMI cable:

- **MacBook Air** - *HDMI audio and video output using third-party Mini Display-Port to HDMI Adapter (sold separately)*
- **MacBook** - *HDMI video output using USB-C Digital AV Multiport Adapter (sold separately)*
- **MacBook PRO** – Thunderbolt 3 digital video output; Native DisplayPort output over USB-C; HDMI and Thunderbolt 2 output supported using adapters (sold separately)

The most popular windows-based laptops (not exclusively limited to these models) **without** an HDMI connection port are listed below. An adaptor will be required to connect these computers to the HDMI cable:

HP LAPTOPS:

EliteBook Folio G1 Notebook
 EliteBook 745 G4 Notebook
 EliteBook 840 G3 Notebook
 EliteBook 820 G3 Notebook
 EliteBook 850 G3 Notebook
 EliteBook 850 G4 Notebook
 Chromebook 13 G1
 Probook 650 G2 Notebook
 Spectre 13 – v151nr

MICROSOFT LAPTOPS:

Surface Pro 4
 Surface Pro
 Surface Book
 Surface Laptop

DELL LAPTOPS:

XPS 2 in 1 Touch Screen
 Inspiron 4K HD Touch Screen
 Inspiron Touch Screen AMD A8-Series
 Inspiron Intel Core i5

SAMSUNG LAPTOPS:

Galaxy
 Pro Touch Screen Chromebook
 Chromebook Plus Touch Screen

LENOVO LAPTOPS:

Yoga 720 i5
 Yoga 900s
 Yoga 910 Intel Core i7
 Some of the ThinkPad Laptops
 Miix 510
 IdeaPad 100

ACER LAPTOPS:

Aspire R
 Switch Alpha 12
 Swift 7

ALIENWARE LAPTOPS

Alienware R3
 Alienware R2

ASUS LAPTOP:

Touch Screen Laptops
 Not all Zenbooks
 Flip C302CA
 ROG

CYBERTRON LAPTOPS:

Titan
 Tesseract

Projection Presentation Technology is the audio visual provider and they will have technicians available to assist speakers with connecting their adaptors to the HDMI cable. However, due to the increasing number of different windows-based laptop and Mac laptop adaptors required, Projection may not be able to accommodate last minute adaptor requests on site.

SPEAKER READY ROOMS

As a presenter, you may use the speaker ready rooms to preview your presentation and ensure capability with the LCD projectors. We strongly recommend that all presenters come to the speaker ready room the day before their presentation. The hours of operation are 3–5 PM Saturday and 7 AM–6 PM Sunday through Thursday.

ABSTRACTS & PREPRINTS

ONLINE TECHNICAL PROGRAM. The online technical program for the 254th ACS National Meeting is now available at www.acs.org/WDC17. You can search by divisions or committees, symposia, speakers, or keywords from abstracts as well as presidential events and the multidisciplinary them of “Chemistry’s Impact on a Global Economy.”

ABSTRACTS (USB FLASH DRIVE).

Abstracts of all scientific sessions at the meeting can be purchased in USB flash drive (thumb drive) format

through ACS Attendee Registration either online before July 10 or on-site in Washington, DC from August 20 -24. The ACS member fee is \$65 each; the non-member fee is \$90 each. Attendees can pick up their abstracts on-site at ACS Attendee Registration at the Walter E. Washington Convention Center. You can have a USB flash drive shipped to you if you place your order before July 10, pay an \$8.00 postage fee per item, and provide a valid street address within the U.S. If you are not attending the meeting, you can purchase abstracts only from the ACS

Office of Society Services, 1155 16th St. N.W., Washington, D.C. 20036; 800-227-5558. Abstracts USB flash drives and their shipping costs are nonrefundable.

GRAPHICAL ABSTRACTS. Graphical abstracts from the polymer chemistry division may be ordered directly from the division. You can purchase them by emailing Kathy Mitchern (Kathy@vt.edu) or inquiring about these products at the hospitality table from the division near their meeting rooms.



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254th American Chemical Society National Meeting & Exposition

August 20-24, 2017 • Washington, DC



Chemistry's Impact on the Global Economy



Kavli Foundation Lecture Series

The Kavli Foundation Lecture Series promotes groundbreaking discovery and public understanding of the world's mounting challenges and how chemistry can provide solutions.

The Kavli Foundation Emerging Leader in Chemistry Lecture



Walter E. Washington Convention Center, Ballroom A&B
Monday, August 21, 2017

4:00 – 5:15 PM

Dr. Prashant K. Jain, Assistant Professor,

*Department of Chemistry and the Materials Research Laboratory
at the University of Illinois - Urbana Champaign*

Turning photons into chemical bonds

The Fred Kavli Innovations in Chemistry Lecture



Walter E. Washington Convention Center, Ballroom A&B
Monday, August 21, 2017

5:15 – 6:30 PM

Prof. Joanna Aizenberg, Professor of Materials Science,

*Amy Smith-Beryson Professor of Materials Science, Professor of
Chemistry and Chemical Biology and co-Director of the Kavli
Institute of Bionano Science and Technology at Harvard University*

*Multifunctionality of liquid-filled nanostructured materials: From encryption
to anti-fouling*



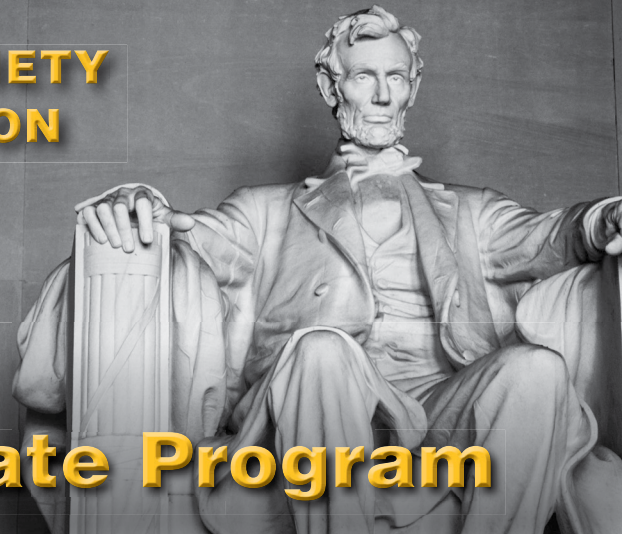
254TH AMERICAN CHEMICAL SOCIETY NATIONAL MEETING & EXPOSITION



**August 20-24, 2017
Washington, DC**

acs.org/DC2017

Undergraduate Program



SUNDAY, AUGUST 20, 2017

MONDAY, AUGUST 21, 2017

Hospitality Center

8:30 a.m. – 5:00 p.m.
Independence Ballroom A, Grand Hyatt Washington

Symposium: Making an Impact on Public Perceptions of Chemistry through Outreach

9:00 – 10:40 a.m.
Constitution Ballroom B, Grand Hyatt Washington
Cosponsored by YCC, CPCR, & PROF

Grad School Reality Check, Part 1: Getting In

10:30 – 11:45 a.m.
Farragut Square/Lafayette Park, Grand Hyatt Washington
Cosponsored by YCC

Grad School Reality Check Part 2: You're in, Now What?

11:45 a.m. – 1:00 p.m.
Farragut Square/Lafayette Park, Grand Hyatt Washington
Cosponsored by YCC

Networking Basics for Students

1:00 – 2:30 p.m.
Farragut Square/Lafayette Park, Grand Hyatt Washington
Cosponsored by PROF and YCC

Undergraduate Research Orals

1:30 – 3:30 p.m.
Independence Ballroom B, Grand Hyatt Washington

Networking Social with Grad School Recruiters

2:00 – 5:00 p.m.
Hall C, Walter. E. Washington Convention Center

ACS on Campus Networking Happy Hour: Make Connections and Advance your Career

5:30 – 8:30 p.m.
Busboys and Poets, 1025 5th St., NW, Washington, DC 20001
Sponsored by ACS on Campus

Hospitality Center

8:30 – 10:00 a.m.
Independence Ballroom A, Grand Hyatt Washington

The Job Hunt: Do's and Don'ts of Applying and Interviewing

9:00 – 10:30 a.m.
Farragut Square/Lafayette Park, Grand Hyatt Washington

Caffeination Station

10:30 – 11:30 a.m.
Independence Ballroom A, Grand Hyatt Washington
Cosponsored by YCC & PROF

Eminent Scientist Luncheon and Lecture, featuring Dr. Mostafa A. El-Sayed, Georgia Institute of Technology, *The Many Great Advantages of Gold Photothermal Therapy of Cancer*

12:00 – 1:30 p.m.
Independence Ballroom A, Grand Hyatt Washington
Cosponsored by CATL and POLY

Undergraduate Research Poster Session

2:00 – 4:00 p.m.
Hall D, Walter. E. Washington Convention Center

Student Speed Networking with Chemistry Professionals

4:00 – 5:15 p.m.
Hall C, Walter. E. Washington Convention Center

The Fred Kavli Foundation Innovation in Chemistry Lecture

5:15 – 6:30 p.m.
Ballroom D/E, Walter. E. Washington Convention Center

Sci-Mix/Successful Student Chapters

8:00 – 10:00 p.m.
Hall D/E, Walter. E. Washington Convention Center



All events are sponsored or cosponsored by the Society Committee on Education Undergraduate Programs Advisory Board.

CHAIR:

Michael R. Adams,
Xavier University of
Louisiana, New Orleans

PROGRAM CHAIR:

Amina K. El-Ashmawy,
Collin College, McKinney, TX





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Chemistry's Impact on the Global Economy

August 20-24, 2017 • Washington, DC

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Pick up Eclipse Viewing Glasses and...

- Charge Your Devices
- Learn about New Orleans, site for the
- 2018 ACS Spring National Meeting
- Talk with the Chemistry Society of Washington

- Take our Element Quiz
- Ask ACS membership questions
- Housing Resources
- Meetup with Colleagues

Walter E. Washington Convention Center

Get Help with the ACS National Meeting Mobile App

TECHNICAL PROGRAM SUMMARY

Presidential Events

PRES

A. Campbell, Program Chair

Marriott Marquis Washington, DC/ Walter E. Washington Convention Center	S	M	Tu	W	Th
Science Communications: The Art of Developing a Clear Message **	P				
Building a Safety Culture across the Chemistry Enterprise **		D			
Understanding the Chemistry of Our Planet **			D		
Advancing Graduate Education: Opportunities & Challenges * (CHED)	D				
The Road Less Traveled: Career Opportunities in the Government Sector * (YCC)	P				
Sustaining Water Resources: Environmental & Economic Impact * (MPPG)		A			
Biomass to Fuels & Chemicals: Research, Innovation & Commercialization * (ENFL)		D	D		
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy * (YCC)		D			
Working in the Public Sector: Running for Elected Office * (SCHB)	P				
ACS Pharma Leaders: Working Together to Make a Difference * (MPPG)	P				
Transformative Research & Excellence in Education Award * (COMSCI)	P				
Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists * (HIST)			D		
GSSPC: Standing on the Shoulders of Giants—Developing Chemistries for Improved Global Health *(CHED)			D		
Journey to Mars: Materials, Energy & Life Sciences * (POLY)			DE	D	
Earle B. Barnes Award for Leadership in Chemical Research Management: Symposium in Honor of Laurie E. Locascio * (ANYL)			P		

Multidisciplinary Program Planning Group (continued)

MPPG

N. Jackson, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
Sustaining Water Resources: Environmental & Economic Impact **		A			
2017 C&EN Talented 12 **		A			
The Fred Kavli Innovations in Chemistry Lecture		P			
The Kavli Foundation Emerging Leader in Chemistry Lecture		P			
ACS Pharma Leaders: Working Together to Make a Difference **		P			
Nano Commercialization: Views from the Front		P			
ChemRxiv: Publishing in the Age of Preprint Servers: A Joint CSR-ACS Symposium			A		
Merck Research Award Symposium * (WCC)	A				
Biomass to Fuels & Chemicals: Research, Innovation & Commercialization * (ENFL)		D	D		
Journey to Mars: Materials, Energy & Life Sciences * (POLY)			DE	D	
Monitoring Water Quality & Infrastructure to Prevent Future Flints * (ENVR)			P	E	
Economic Impact of Environmental Health Research: A Case Study of the NIEHS Superfund Research Program * (ENVR)				DE	

Academic Employment Initiative

A E I

C. Kuniyoshi, N. Bakowski, Program Chairs

Walter E. Washington Convention Center	S	M	Tu	W	Th
Academic Employment Initiative		E			

Multidisciplinary Program Planning Group

MPPG

N. Jackson, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
Chemistry's Impact on the Global Economy Plenary Session	P				

*Cospponsored symposium with primary organizer shown in parentheses; located with primary organizer.

**Primary organizer of a cosponsored symposium.

CIGE: Chemistry's Impact on the Global Economy

A = AM AE = AM/EVE D = AM/PM DE = AM/PM/EVE

E = EVE P = PM PE = PM/EVE

PROGRAM SUMMARY

Division of Agricultural & Food Chemistry

AGFD

B. Guthrie, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
From Fermentation to Fume Hood: The Chemistry of Wine <i>CIGF</i>	D	A			
Food Additives & Packaging	D	D			
Link between Dietary Inputs, Stressors & the Gut Microbiome: Military Perspective	D				
Entrepreneurs in the Agriculture & Food Industries **	P				
General Posters	E				
Food Safety & Labeling: Food & Flavor Regulations, Progress & Challenges in the Pursuit to Serve the Consumer **		D	D		
Impact of Carbonyl & Glycative Stress on Diabetic & Aging-Related Diseases **		D			
General Papers		P			D
Sci-Mix		E			
Journal of Agricultural & Food Chemistry Best Paper Award & Young Scientist Award Symposium **			A		
Advancing Analytical Methods in Food Forensics & Authentication **			D	D	
Advances in Flavor Analysis **			D		
AGFD Award Symposium in Honor of Ronald E. Wrolstad			P		
Food-Borne Toxicants: Formation, Analysis & Toxicology <i>CIGF</i>				D	A
Natural Alternatives to Artificial Food Additives				D	
Nanoscale Sensing in Foods & Other Complex Media **					D
Analysis of Nutrients & Bioactive Compounds in Foods & Dietary Supplements: Methodologies & Challenges for Databases					P
Green Polymer Chemistry: Biobased Materials & Biocatalysis * (POLY)	D	D	D	D	D
Recent Advances towards the Bioeconomy * (CELL)	D				
Preparing for Employment in a Global Workforce * (IAC)	P				
Undergraduate Research Posters * (CHED)		P			
Biological Targets of Botanical Supplements * (TOXI)		P			

Division of Agrochemicals

AGRO

S. Jackson, Program Chair

Renaissance Washington, DC Downtown	S	M	Tu	W	Th
Advances in Residue Analytical Methods: Innovation, Current Status & Future Prospects **	A				
Mechanistic Modeling & Effectiveness of Buffer Strips for Pesticide Regulatory Frameworks	A				
Risk Assessment & Beyond: Innovative Approaches to Meet FIFRA & ESA Consultation Needs	A				
Roles of Natural Products for Biorational Pesticides in Agriculture	D	A			
Environmental Fate, Transport & Modeling of Agriculturally Related Chemicals **	P	A			
Pesticides, Pollinator Health & Agricultural Sustainability	P	A			
Veterinary Drugs: Research, Residues & Regulations	P	A			
Agrochemical Formulations **	P				
Managing Pesticide Use & Use Data		D	A		
Advances in Insecticide Mode of Action, Chemistry & Resistance		P	D		
Atmospheric Fate & Transport of Agricultural Emissions **		P	D		
2,4-D Human Exposure Data: Lessons from Decades of Study **		P			
Fate & Metabolism of Agrochemicals: Early Career Scientist		P			
Sci-Mix		E			
Application of Spatial Technologies to Advance Exposure Modeling & Risk Assessments **			A		
Sterling Hendricks Memorial Lecture Award			A		
Pesticide Registration, Monitoring & Enforcement			D		
Advanced Techniques for Isolation, Identification & Quantitation of Ag-Pharma-Relevant Compounds from Biological Samples			P		
Tiered Testing for Pollinator Protection: Experiences in Design, Implementation & Interpretation			P		

PROGRAM SUMMARY

Division of Agrochemicals (continued)

AGRO

S. Jackson, Program Chair

Renaissance Washington, DC Downtown	S	M	Tu	W	Th
Emerging Mass Spectrometry Trends in Support of Agricultural Research & Development				A	
Analytical, Environmental & Regulatory Challenges with Legalized Cannabis **				A	
Biorational Control of Medical & Veterinary Pests				D	D
AGRO Memorial Symposium: Remembering Bob Krieger & Richard Allen				D	
Developing Pesticide Environmental Risk Assessment Approaches **				D	
Communicating Pesticide Science to the Public <i>CIGE</i>				P	D
Advances in Analysis of Agriculturally Important Chemicals				P	
Environmental Fate of Agrochemicals				P	
Good Laboratory Practices for the Agrochemical Professional **				P	
Pesticide Use & Regulatory Issues				P	
Assessing Human & Ecosystem Health Risks of Agrochemicals				P	
Discoveries in the Chemistry of Pest Control				P	
Pollinators, Pesticides & Risk Assessment				P	
Species Habitat Determination & Chemical Exposure Routes & Timing					A
Synthesis & Chemistry of Agrochemicals **					D
Current Regulatory & Scientific Landscape of Mixture Toxicity & Risk Assessment					P
Ecological & Human Health Impacts of Emerging Environmental Contaminants * (ENVR)	D	A			E
Measurements & Methods in Environmental Nanotechnology * (ENVR)		D			E
<i>Journal of Agricultural & Food Chemistry</i> Best Paper Award & Young Scientist Award Symposium * (AGFD)			A		
Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation * (ENVR)				DE	A
Advances in Environmental Analytical Methods for EPA Compliance Reporting & Exposure Risk Assessment * (ENVR)				E	A

Division of Agrochemicals (continued)

AGRO

S. Jackson, Program Chair

Renaissance Washington, DC Downtown	S	M	Tu	W	Th
Nanoscale Sensing in Foods & Other Complex Media * (AGFD)					D

Division of Analytical Chemistry

ANYL

K. Phimney, L. Baker, Program Chairs

Grand Hyatt Washington	S	M	Tu	W	Th
Advances in Spectroscopy Applied to Biological & Materials Chemistry	A				
Analytical Toxicology in the 21st Century **	A				
Pigments, Coatings & Paper	A				
Nanotechnology & Single-Cell Analysis in Biology & Medicine **	D	D			
New Approaches to Teaching: Strategies, Instrumentation, Standards **	D				
Analytical Chemistry in the Context of Cultural Heritage **	P	D			
Bispecific Antibody Therapeutics	P				
Oxidative Stress & Antioxidants: Measurement Tools & Analytical Challenges **	P				
Analytical Techniques Used to Address FDA Regulatory Questions & Challenges	E	D	D		
Analytical Division Poster Session	E				
Advances in Electrochemistry		D			
Self-Assembly & Noncovalent Interactions: The Fundamental Science of Supramolecular Materials **		D			
Sci-Mix		E			
ANYL Division Award Symposium			A		
Characterization of Macromolecules & Nanoparticles by Hyphenated Separation Approaches			A		

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CIGE: Chemistry's Impact on the Global Economy
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PROGRAM SUMMARY

**Division of Analytical Chemistry
(continued)**

ANYL

K. Phinney, L. Baker, Program Chairs

Grand Hyatt Washington	S	M	Tu	W	Th
Developments in ICP/MS: Advancing Environmental & Clinical Analyses			D		
Nanotechnology: Fabrication, Applications & Impact			D		
Advances in Multidimensional Separations			P		
Earle B. Barnes Award for Leadership in Chemical Research Management: Symposium in Honor of Laurie E. Locascio **			P		
Advances in Analytical Forensic Chemistry & Toxicology **				A	
Decentralized Medicine: Diagnostics in the 21st Century				A	
Graduate Fellows Symposium				A	
Instrumentation & Methods to Characterize Nanomaterials Critical to the Global Economy				D	
Nanopores, Nanopipettes & Nanocapillaries as Tools for Analytical Chemistry				D	
Label-Free Assay of Oncogenic Biomolecules (mRNA, microRNA, Aptamers & Proteins)			P	D	
Advances in Separations				P	
Chemical Tools to Quantify the Tumor Microenvironment				P	
Advances in Nanosensors & Terahertz: Current Applications & Future Direction for the 21st Century					A
New Separation Technologies That Advance & Support Bioanalyses					A
Recent Advances in Stationary Phase Design in Liquid Chromatography					A
Advances & Applications of Imaging Mass Spectrometry					P
Advances in Mass Spectrometry					P
Measurements & Methods in Environmental Nanotechnology * (ENVR)		D		E	
Undergraduate Research Posters * (CHED)		P			
Trace Organic Contaminants (TrOCs) in Aquatic Systems: Advancements in Monitoring & Remediation * (ENVR)			A	E	
Advancing Analytical Methods in Food Forensics & Authentication * (AGFD)			D	D	

**Division of Analytical Chemistry
(continued)**

ANYL

K. Phinney, L. Baker, Program Chairs

Grand Hyatt Washington	S	M	Tu	W	Th
GSSPC: Standing on the Shoulders of Giants—Developing Chemistries for Improved Global Health * (CHED)			D		
Advances in Flavor Analysis * (AGFD)			D		
Journey to Mars: Materials, Energy & Life Sciences * (POLY)			DE	D	
Advanced Mass Spectrometric Techniques in Toxicology * (TOXI)				P	
Chemistry in the Age of Cheap Computing * (CHED)					A
Nanoscale Sensing in Foods & Other Complex Media * (AGFD)					D

Division of Biochemical Technology

BIOT

M. O'Malley, V. Roy, Program Chairs

Located with Primary Sponsor	S	M	Tu	W	Th
Recombinant Type Materials * (PMSE)		D	D		
Undergraduate Research Posters * (CHED)		P			

Division of Biological Chemistry

BIOL

L. Hedstrom, S. Kelley, Program Chairs

Walter E. Washington Convention Center	S	M	Tu	W	Th
Repligen Award for the Chemistry of Biological Processes	A				
Gordon Hammes Award Lecture	P				
Mitochondrial Chemical Biology	P				
Eli Lilly Award in Biological Chemistry		A			
Early-Career Investigators in Biological Chemistry **		P	P		
Midcareer Investigators in Biological Chemistry		P		A	
Sci-Mix		E			
Pfizer Award in Enzyme Chemistry			A		
Graduate Student & Postdoctoral Fellow Symposium **			P	P	D

PROGRAM SUMMARY

Division of Biological Chemistry (continued)

B I O L

L. Hedstrom, S. Kelley, Program Chairs

Walter E. Washington Convention Center	S	M	Tu	W	Th
Current Topics in Biochemistry			E		
ACS Infectious Diseases Young Investigators Award Symposium **				A	
Chemical Biology of Infectious Disease				P	
Merck Research Award Symposium * (WCC)	A				
Experimental & Computational Advances in Understanding Enzyme Specificity & Promiscuity * (PHYS)	D	D	P	A	
Nanotechnology & Single-Cell Analysis in Biology & Medicine * (ANYL)	D	D			
Science Communications: The Art of Developing a Clear Message * (PRES)	P				
Many Colors of Copper * (INOR)		D	DE	D	
Impact of Carbonyl & Glycative Stress on Diabetic & Aging-Related Diseases * (AGFD)		D			
Building a Safety Culture across the Chemistry Enterprise * (PRES)		D			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy * (YCC)		D			
Undergraduate Research Posters * (CHED)		P			
Transformative Research & Excellence in Education Award * (COMSCI)		P			
Trace Organic Contaminants (TrOCs) in Aquatic Systems: Advancements in Monitoring & Remediation * (ENVR)			A	E	
Informatics & Chemical Biology: Identifying Targets & Biological Pathways * (CINF)			A		
Cross-Link DNA Repair * (TOXI)			A		
Understanding the Chemistry of Our Planet * (PRES)			D		
Memorial Symposium Honoring Justine Roth: Oxygen & Isotope Effects in Mechanisms, from Enzymes to Small Molecules * (INOR)			P		
Impact of Materials, Surface Chemistry & Modifications on Biofilm Formation in Environmental Remediation & Engineering Applications * (ENVR)				DE	D

Division of Business Development & Management

B M G T

J. Cohen, Program Chair

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Chemical Angel Network: Chemists Investing in Chemical Companies **	P				
Fostering a Quality Culture in Research & Development **				A	
Biomass to Fuels & Chemicals: Research, Innovation & Commercialization * (ENFL)		D	D		
Building a Safety Culture across the Chemistry Enterprise * (PRES)		D			
How to Get Your First Industrial Job * (YCC)			A		
GSSPC: Standing on the Shoulders of Giants—Developing Chemistries for Improved Global Health * (CHED)			D		
Understanding the Chemistry of Our Planet * (PRES)			D		
Journey to Mars: Materials, Energy & Life Sciences * (POLY)			DE	D	

Division of Carbohydrate Chemistry

C A R B

N. Snyder, Program Chair

Grand Hyatt Washington	S	M	Tu	W	Th
Glycomimetics as Antibiotic-Sparing Therapeutics for Infectious Disease **	D				
Carbohydrate-Based Vaccines & Adjuvants **	D				
General Posters	E				
Derek Horton Award in Industrial Carbohydrate Chemistry		A			
Frontiers in Carbohydrate Synthesis **		P			
Sci-Mix		E			
Advances in Glycan Structure & Dynamics **			D	D	
Recent Advances towards the Bioeconomy * (CELL)	D				

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Division of Carbohydrate Chemistry (continued)

CARB

N. Snyder, Program Chair

Grand Hyatt Washington	S	M	Tu	W	Th
Science Communications: The Art of Developing a Clear Message * (PRES)	P				
Sustainable Design of Polymers from Xylochemicals * (CELL)		A			
Building a Safety Culture across the Chemistry Enterprise * (PRES)		D			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy * (YCC)		D			
Understanding the Chemistry of Our Planet * (PRES)			D		

Division of Catalysis Science & Technology

CATL

K. Ramasamy, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
Catalytic Transformation of Renewable Plant Biomass to Enhance Global Economy ** CIGE	D	A			A
Mixed-Metal-Oxide Catalysis	D	A			
Cooperative Catalysis at Surfaces & Interfaces: Impact on Chemistry & Energy Frontiers ** CIGE	D	D	A		
Metal-Support Interactions in Catalysis: Modeling, Characterization & Design	D	D	A		
Advanced Electrocatalysis for Energy Conversion & Storage CIGE	D	D			
Catalysis at the Subnanometer Scale	D				
2017 ACS Catalysis Lectureship for the Advancement of Catalytic Science		A			
Emerging Catalytic Processes for Methane Conversion ** CIGE		P	A		
Advances in Computational Catalysis CIGE		P	D	D	
2016 ACS Catalysis Lectureship for the Advancement of Catalytic Science: Honoring Matthias Beller		P			
Sci-Mix		E			
Multimodal Characterization of Functional Energy Materials **			D	D	
New Paradigm for Catalyst Design: From Enzymatic Function to Functional Mimics CIGE			D	D	

Division of Catalysis Science & Technology (continued)

CATL

K. Ramasamy, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
Vehicle Emission Control Catalysis: New Era, New Challenges & New Solutions ** CIGE			P	D	
Nanoporous Materials for Catalysis in Global Economy CIGE			P	D	
Advances in Carbon Dioxide Utilization **			P	D	
General Catalysis			E		A
Energy & Fuels Storch Award in Fuel Science: Symposium in Honor of Umit S. Ozkan * (ENFL)	D	D			
Electrochemical Technologies for Water Purification * (ENVR)	D			E	
Environmental Applications of Liquid-Phase Catalysis for Green Chemical Processes of Renewable Materials * (ENVR)	P	A		E	
Nano-Enabled Water Treatment Technologies: Applications & Implications * (ENVR)		P	D	E	
Heterogeneous Catalysis for Environmental & Energy Applications * (ENVR)		P		E	
Eminent Scientist Lecture * (SOCED)		P			
Intellectual Property Considerations When Entering into a Joint Venture * (CHAL)		P			
Green Chemistry & the Environment * (ENVR)				DE	

Division of Cellulose & Renewable Materials

CELL

M. Roman, Program Chair

Grand Hyatt Washington	S	M	Tu	W	Th
Recent Advances towards the Bioeconomy **	D				
General Posters	E				
Sustainable Design of Polymers from Xylochemicals **		A			
Sci-Mix		E			
Green Polymer Chemistry: Biobased Materials & Biocatalysis * (POLY)	D	D	D	D	D

**Division of Cellulose & Renewable Materials
(continued)**

CELL

M. Roman, Program Chair

Grand Hyatt Washington	S	M	Tu	W	Th
Carbohydrate-Based Vaccines & Adjuvants * (CARB)	D				
Science Communications: The Art of Developing a Clear Message * (PRES)	P				
Building a Safety Culture across the Chemistry Enterprise * (PRES)		D			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy * (YCC)		D			
Frontiers in Carbohydrate Synthesis * (CARB)		P			
Advances in Glycan Structure & Dynamics * (CARB)			D	D	
GSSPC: Standing on the Shoulders of Giants—Developing Chemistries for Improved Global Health * (CHED)			D		
Understanding the Chemistry of Our Planet * (PRES)			D		
Green Polymer Chemistry: Biobased Materials & Biocatalysis * (POLY)			E		
Advances in Lignin: Chemicals, Polymers & Materials * (POLY)					A

Division of Chemical Education

CHED

D. Wicht, B. Rios McKee, I. Levy, Program Chairs

Grand Hyatt Washington	S	M	Tu	W	Th
Research in Chemistry Education	A				
Advancing Graduate Education: Opportunities & Challenges **	D				
High School Program **	D				
Undergraduate Research Papers **	P				
General Posters	E				
General Papers		A		D	
Putting CER into Practice: Using Chemistry Education Research to Inform Teaching Strategies		D			

**Division of Chemical Education
(continued)**

CHED

D. Wicht, B. Rios McKee, I. Levy, Program Chairs

Grand Hyatt Washington	S	M	Tu	W	Th
Using Computational Methods to Teach Chemical Principles		D			
Engaging Undergraduates with Raman Spectroscopy		P			
Materials That Impact Our Daily Lives & the Global Economy: Bring Practical Applications into the Chemistry Classroom **		P			
Undergraduate Research Posters **		P			
Successful Student Chapters		E			
Sci-Mix		E			
Increasing Retention of Underrepresented Students in Chemistry **			A		
Innovations in Undergraduate Biochemistry Education			A		
GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health **			D		
Advances in E-Learning			P		
Metacognition in Chemistry Education: Connecting Research & Practice **			P		
Green Chemistry: Theory & Practice **				A	
Integration of STEM & the Liberal Arts				A	
Games & Active Learning Techniques to Help Students Understand Chemistry				P	
Process-Oriented Guided Inquiry Learning (POGIL)				P	
Assessment Instruments for the ACS-Accredited Degree Program					A
Chemistry in the Age of Cheap Computing **					A
Citizens First! **					A

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PROGRAM SUMMARY

Division of Chemical Education (continued) **CHED**

D. Wicht, B. Rios McKee, I. Levy, Program Chairs

Grand Hyatt Washington	S	M	Tu	W	Th
New Approaches to Teaching: Strategies, Instrumentation, Standards* (ANYL)	D				
The Nons: Non-Tenure-Track Faculty in a Changing Academic Landscape* (WCC)	P				
Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Postdocs* (CINF)		D			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy* (YCC)		D			
Chemistry & Culture: How Native American Chemists Impact Their Community* (CMA)		P			
Fostering a Quality Culture in Research & Development* (BMGT)				A	

Division of Chemical Health & Safety **CHAS**

D. Decker, J. Pickel, F. Wood-Black, Program Chairs

Walter E. Washington Convention Center	S	M	Tu	W	Th
Soft Skills in Training & Interactions**	P				
Division of Chemical Health & Safety Awards**	P				
Cannabis Processing: Innovations & Legal Protections**		P			
Sci-Mix		E			
Chemophobia: Communicating Chemistry**			A		
Building a Safety Culture across the Chemical Enterprise* (PRES)			P	A	
Emerging Trends in Research Operations**				D	
Building a Safety Culture across the Chemistry Enterprise**		D			
Analytical, Environmental & Regulatory Challenges with Legalized Cannabis* (AGRO)				A	

Division of Chemical Information **CINF**

E. Alvaro, Program Chair

Washington Marriott at Metro Center	S	M	Tu	W	Th
Open Structures: Current Issues & Future Plans	D				
What Do Synthetic Chemists Want from Their Reaction Systems? **	D				
CINF Scholarships for Scientific Excellence: Student Poster Competition	E				
Government(-Funded) Chemical Databases & Open Chemistry		D		D	
Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Postdocs** <i>CIGE</i>		D			
Sci-Mix		E			
Informatics & Chemical Biology: Identifying Targets & Biological Pathways**			A		
Markush 360: Current & Future of Generic Structures in Chemical Patent Creation, Search & Analysis			A		
Herman Skolnik Award Symposium			P		
Why Open Data? Effective Use Cases & Exemplars for Open Data & Citizen Science			P		
Drug Discovery: Cheminformatic Approaches**				D	
General Papers					A
Science Communications: The Art of Developing a Clear Message* (PRES)	P				
Building a Safety Culture across the Chemistry Enterprise* (PRES)		D			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy* (YCC)		D			
<i>Journal of Agricultural & Food Chemistry</i> Best Paper Award & Young Scientist Award Symposium* (AGFD)			A		
Understanding the Chemistry of Our Planet* (PRES)			D		
Drug Design* (COMP)				D	A

PROGRAM SUMMARY

Division of Chemical Toxicology

TOXI

T. Spratt, Program Chair

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Chemical Research in Toxicology Young Investigators Award	A				
Founders' Award	P				
TOXI Young Investigators**		A			
Biological Targets of Botanical Supplements**		P			
Sci-Mix		E			
Cross-Link DNA Repair**			A		
Toxicological Considerations in Antibody-Drug Conjugate Design & Development**			P		
General Posters			E		
Keynote Lecture			E		
General Papers				A	
Advanced Mass Spectrometric Techniques in Toxicology**				P	
Analytical Toxicology in the 21st Century* (ANYL)	A				
Advances in Analytical Forensic Chemistry & Toxicology* (ANYL)				A	

Division of Chemistry & the Law

CHAL

K. Bianco, J. Kennedy, Program Chairs

Walter E. Washington Convention Center	S	M	Tu	W	Th
Strengthening Your Patent Rights in Light of Recent Federal Circuit Court Decisions	P				
Recent Developments Regarding Post-Grant Challenges at the U.S. Patent & Trademark Office		A			
Intellectual Property Considerations When Entering into a Joint Venture**		P			
Sci-Mix		E			
Patent Specification Requirements: What's in Common & What's Different in the U.S., Europe & Southeastern Asia? **			A		
Beyond the Bench: Careers in Intellectual Property**			P		
The Many Faces of CHAL: Where Chemistry Meets the Law				D	

Division of Chemistry & the Law (continued)

CHAL

K. Bianco, J. Kennedy, Program Chairs

Walter E. Washington Convention Center	S	M	Tu	W	Th
Ecological & Human Health Impacts of Emerging Environmental Contaminants* (ENVR)	D	A		E	
Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation* (ENVR)				DE	A
Advances in Environmental Analytical Methods for EPA Compliance Reporting & Exposure Risk Assessment* (ENVR)				E	A

Division of Colloid & Surface Chemistry

COLL

R. Nagarajan, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
Responsive, Programmable Assembly of Active Colloids for Functional Materials <i>CIGE</i>	D	A	A	A	
Basic Research in Colloids, Surfactants & Nanomaterials <i>CIGE</i>	D	D	A	D	A
Colloidal Metal & Semiconductor Nanostructures: Theory, Synthesis & Application <i>CIGE</i>	D	D	A	D	
Emulsions, Foams & Dispersions: Symposium in Honor of Dominique Langevin at 70 <i>CIGE</i>	D	D			
Self-Assembly of Synthetic & Biological Surfactants: Translating Fundamentals to Applications <i>CIGE</i>	D	D			
Nanotheranostics for Cancer Applications	D				
Noble-Metal Nanoparticles for Bioimaging, Sensing & Actuation <i>CIGE</i>	D				
Fundamental Research in Colloids, Surfaces & Nanomaterials <i>CIGE</i>	E				
Targeted Nanosystems for Therapeutic Applications: New Concepts, Dynamic Properties, Efficiency & Toxicity		D	A	D	A

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PROGRAM SUMMARY

Division of Colloid & Surface Chemistry (continued)

COLL

R. Nagarajan, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
Photoresponsive Nanoparticles: From Fundamentals of Excitation to Applications		D	A	D	A
Sci-Mix		E			
<i>In Situ</i> Investigation of Energy Systems Using Ambient-Pressure X-Ray Photoelectron Spectroscopy			A	D	A
Bioconjugate Chemistry Lecturer Award Symposium			A		
Langmuir Lectures, <i>Nano Letters</i> Award Lecture, <i>ACS Materials & Interfaces</i> Award Lecture			P		
Frontier of the Interface of Materials & Biology: Click Chemistry Approaches to Bio-Inspired Materials <i>CIG</i>				D	A
Multimodal Imaging with Colloids				D	A
Nanotechnology & Single-Cell Analysis in Biology & Medicine* (ANYL)	D	D			
Oxidative Stress & Antioxidants: Measurement Tools & Analytical Challenges* (ANYL)	P				
Science Communications: The Art of Developing a Clear Message* (PRES)	P				
Self-Assembly & Noncovalent Interactions: The Fundamental Science of Supramolecular Materials* (ANYL)		D			
Building a Safety Culture across the Chemistry Enterprise* (PRES)		D			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy* (YCC)		D			
Transformative Research & Excellence in Education Award* (COMSCI)		P			
GSSPC: Standing on the Shoulders of Giants—Developing Chemistries for Improved Global Health* (CHED)			D		
Understanding the Chemistry of Our Planet* (PRES)			D		
Journey to Mars: Materials, Energy & Life Sciences* (POLY)			DE	D	
Nanoscale Sensing in Foods & Other Complex Media* (AGFD)					D

Division of Computers in Chemistry

COMP

H. Woodcock, J. Shen, M. Feig, Program Chairs

Washington Marriott at Metro Center	S	M	Tu	W	Th
ACS COMP Symposium in Honor of Peter Pulay**	D	A			
Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms**	D	D	D		
Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding**	D	D	D		
Computational Studies of Water	D				
Modeling & Measuring Protein-Ligand Kinetics & Residence Times		D	A		
Emerging Technologies in Computational Chemistry		P			
Sci-Mix		E			
New Directions in Conformational Sampling Methods			A		
Material Science			P	D	A
Quantum Mechanics			P	D	A
Computational Studies of Membranes & Membrane-Bound Systems**			P	D	
Chemical Computing Group Graduate Student Travel Awards			E		
Poster Session			E		
NVIDIA GPU Award			E		
OpenEye Outstanding Junior Faculty Award			E		
Wiley Computers in Chemistry Outstanding Postdoc Award			E		
Drug Design**				D	A
Molecular Mechanics**				D	A
Merck Research Award Symposium* (WCC)	A				
Electronic Structure Methods for Complex Chemical Systems* (PHYS)	D	D	D		
Experimental & Computational Advances in Understanding Enzyme Specificity & Promiscuity* (PHYS)	D	D	P	A	
What Do Synthetic Chemists Want from Their Reaction Systems?* (CINF)	D				
Undergraduate Research Posters* (CHED)		P			
Transformative Research & Excellence in Education Award* (COMSCI)		P			

PROGRAM SUMMARY

Division of Computers in Chemistry (continued)

COMP

H. Woodcock, J. Shen, M. Feig, Program Chairs

Washington Marriott at Metro Center	S	M	Tu	W	Th
Drug Discovery: Cheminformatic Approaches * (CINF)				D	

Division of Energy & Fuels

ENFL

D. Heldebrant, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
Energy & Fuels Joint Award for Excellence in Publication	A				
Solar Energy & Solar Cells	D	A			
Advanced Nanomaterials Catalysts for Sustainable Energy & Fuels	D	D	D		
Carbon Management: Advances in Carbon Efficiency, Capture, Conversion, Utilization & Storage	D	D			
Energy & Fuels Storch Award in Fuel Science: Symposium in Honor of Umit S. Ozkan ** CIGE	D	D			
Ammonia Economy**	D				
Innovative Chemistry & Materials for Electrochemical Energy Storage	P	D	D	D	A
Biomass to Fuels & Chemicals: Research, Innovation & Commercialization **		D	D		
Advances in Chemistry of Energy & Fuels		P	D	D	A
Two-Dimensional Materials for Energy & Fuels		P	D	D	A
Sci-Mix		E			
Innovative Chemistry & Electrocatalysis for Low-Carbon Energy & Fuels: Discovery to Application			D	D	
Advanced Chemical Technology for Oil & Gas Exploration & Production				D	A
5th International Symposium on Mesoporous Zeolites**				D	
Catalytic Transformation of Renewable Plant Biomass to Enhance Global Economy * (CATL)	D	A			A
Cooperative Catalysis at Surfaces & Interfaces: Impact on Chemistry & Energy Frontiers * (CATL)	D	D	A		

Division of Energy & Fuels (continued)

ENFL

D. Heldebrant, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
Recent Advances towards the Bioeconomy * (CELL)	D				
Environmental Applications of Liquid-Phase Catalysis for Green Chemical Processes of Renewable Materials * (ENVR)	P	A		E	
Emerging Catalytic Processes for Methane Conversion * (CATL)		P	A		
Transformative Research & Excellence in Education Award * (COMSCI)		P			
Intellectual Property Considerations When Entering into a Joint Venture * (CHAL)		P			
Multimodal Characterization of Functional Energy Materials * (CATL)			D	D	
Vehicle Emission Control Catalysis: New Era, New Challenges & New Solutions * (CATL)			P	D	
Advances in Carbon Dioxide Utilization * (CATL)			P	D	

Division of Environmental Chemistry

ENVR

J. Goldfarb, Program Chair

Renaissance Washington, DC Downtown	S	M	Tu	W	Th
Environmental, Social & Economic Impacts of Aged/Transformed Nanomaterial-Enabled Consumer Products	A			E	
Ecological & Human Health Impacts of Emerging Environmental Contaminants**	D	A		E	
Iron & Manganese Oxides: Their Formation, Structure, Reactivity & Applications	D	A		E	
Electrochemical Technologies for Water Purification**	D			E	
Surface Chemistry of Biochar & Its Applications in Environmental & Related Systems	D			E	

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CIGE: Chemistry's Impact on the Global Economy
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Division of Environmental Chemistry (continued)

ENVR

J. Goldfarb, Program Chair

Renaissance Washington, DC DOWNTOWN	S	M	Tu	W	Th
Environmental Applications of Liquid-Phase Catalysis for Green Chemical Processes of Renewable Materials**	P	A		E	
Advances in Chemical Oxidation for Water & Wastewater Treatment Systems			D		E
Measurements & Methods in Environmental Nanotechnology**			D		E
Nano-Enabled Water Treatment Technologies: Applications & Implications**		P	D		E
Advances & Challenges in Separation & Mixing of Salts for the Sustainable Production of Food, Energy & Water			P		E
Heterogeneous Catalysis for Environmental & Energy Applications**			P		E
Sci-Mix		E			
Science & Perception of Climate Change**				A	E
Trace Organic Contaminants (TrOCs) in Aquatic Systems: Advancements in Monitoring & Remediation**				A	E
Multiphase Environmental Chemistry of Aerosols				D	DE D
Advances & Challenges at the Food-Energy-Water Nexus**				D	E
Fate, Transport & Remediation of Radionuclides in the Environment				P	E
Monitoring Water Quality & Infrastructure to Prevent Future Flints**				P	E
C. Ellen Gonter Environmental Graduate Student Award				P	
Environmental Justice: The Role & Impact of Diversity on Environmental Stewardship**					A
<i>CIGE</i>					
Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation**					DE A
Impact of Materials, Surface Chemistry & Modifications on Biofilm Formation in Environmental Remediation & Engineering Applications**					DE D
Economic Impact of Environmental Health Research: A Case Study of the NIEHS Superfund Research Program**					DE

Division of Environmental Chemistry (continued)

ENVR

J. Goldfarb, Program Chair

Renaissance Washington, DC DOWNTOWN	S	M	Tu	W	Th
Green Chemistry & the Environment**					DE
Advances in Environmental Analytical Methods for EPA Compliance Reporting & Exposure Risk Assessment**					E A
General Posters					E
Advances in Residue Analytical Methods: Innovation, Current Status & Future Prospects* (AGRO)	A				
Recent Advances towards the Bioeconomy* (CELL)		D			
Environmental Fate, Transport & Modeling of Agriculturally Related Chemicals* (AGRO)		P	A		
Agrochemical Formulations* (AGRO)	P				
Sustaining Water Resources: Environmental & Economic Impact* (MPPG)		A			
Biomass to Fuels & Chemicals: Research, Innovation & Commercialization* (ENFL)		D	D		
Atmospheric Fate & Transport of Agricultural Emissions* (AGRO)		P	D		
Undergraduate Research Posters* (CHED)		P			
2,4-D Human Exposure Data: Lessons from Decades of Study* (AGRO)		P			
Application of Spatial Technologies to Advance Exposure Modeling & Risk Assessments* (AGRO)				A	
Journey to Mars: Materials, Energy & Life Sciences* (POLY)				DE	D
Vehicle Emission Control Catalysis: New Era, New Challenges & New Solutions* (CATL)				P	D
Advances in Carbon Dioxide Utilization* (CATL)				P	D
Green Chemistry: Theory & Practice*(CHED)					A
Developing Pesticide Environmental Risk Assessment Approaches* (AGRO)					D
Good Laboratory Practices for the Agrochemical Professional* (AGRO)					P
Nanoscale Sensing in Foods & Other Complex Media* (AGFD)					D

PROGRAM SUMMARY

Division of Fluorine Chemistry

FLUO

N. Vasdev, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Journey to Mars: Materials, Energy & Life Sciences* (POLY)			DE	D	

Division of Geochemistry

GEOC

W. Burgos, Program Chair

Grand Hyatt Washington	S	M	Tu	W	Th
Engineered Nanomaterials in the Environment: Fate, Behavior & Effects	P				
Water Chemistry Associated with Energy Production & Extraction		A			
Sci-Mix		E			
General Geochemistry			AE		
Sustaining Water Resources: Environmental & Economic Impact* (MPPG)		A			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy* (YCC)		D			
Understanding the Chemistry of Our Planet* (PRES)			D		

Division of the History of Chemistry

HIST

S. Rasmussen, Program Chair

Grand Hyatt Washington	S	M	Tu	W	Th
HIST Tutorial & General Papers	P	P			
History as Outreach: Celebrating the ACS Landmarks Program's 25th Anniversary		A			
Sci-Mix		E			
Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists**			D		
Analytical Chemistry in the Context of Cultural Heritage* (ANYL)	P	D			

Division of Industrial & Engineering Chemistry

I & EC

C. Abney, Program Chair

Grand Hyatt Washington	S	M	Tu	W	Th
Structural & Supramolecular Aspects of Metal Ion Separations**	P	D			
Sci-Mix		E			
General Papers			D	A	
General Posters			E		
Ammonia Economy* (ENFL)	D				
Science Communications: The Art of Developing a Clear Message* (PRES)	P				
Sustaining Water Resources: Environmental & Economic Impact* (MPPG)		A			
Building a Safety Culture across the Chemistry Enterprise* (PRES)		D			
Understanding the Chemistry of Our Planet* (PRES)			D		
5th International Symposium on Mesoporous Zeolites* (ENFL)				D	

Division of Inorganic Chemistry

INOR

N. Radu, S. Koch, Program Chairs

Renaissance Washington, DC Downtown	S	M	Tu	W	Th
Organometallic Chemistry	AE	AE	D	A	
Chemistry of Materials	AE	PE	A	A	
Environmental & Energy-Related Inorganic Chemistry	AE				A
Personal & Global Energy Conversion in Chemistry & Biology	D	D			
Electronic Structure Contributions to Function: From Metals in Biology to Materials Science	DE	A			
Fundamental Aspects of Metal Organic Framework Catalysis	DE	D	D		
Inorganic Nanoscience Award	P				

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PROGRAM SUMMARY

Division of Inorganic Chemistry (continued)

I N O R

N. Radu, S. Koch, Program Chairs

Renaissance Washington, DC Downtown	S	M	Tu	W	Th
Organometallics Distinguished Author Symposium in Honor of Alexander Miller	P				
Triplet Excited State in Inorganic Chemistry	PE	D			
Center for Enabling New Technologies through Catalysis: Transforming Catalysis through Collaboration	E	D	DE		
Coordination Chemistry	E	D	PE		D
Bioinorganic Chemistry	E		A	A	A
Inorganic Catalysts	E			A	P
Inorganic Spectroscopy	E			A	
Inorganic Chemistry Lectureship		A			
Many Colors of Copper **		D	DE	D	
Inorganic Young Investigator Awards		P			
Sci-Mix		E			
Chemistry of Materials Lectureship & Best Paper Award			A		
Electrochemistry			AE		
Memorial Symposium Honoring Justine Roth: Oxygen & Isotope Effects in Mechanisms, from Enzymes to Small Molecules **			P		
Lanthanide & Actinide Chemistry			PE	P	
Main Group Chemistry			E	D	
Nanoscience			E	P	A
Solid-State Inorganic Chemistry			E		
What Do Synthetic Chemists Want from Their Reaction Systems? * (CINF)	D				
Science Communications: The Art of Developing a Clear Message * (PRES)	P				
Materials Science in Nuclear Waste Disposal * (NUCL)		D	A		
Building a Safety Culture across the Chemistry Enterprise * (PRES)		D			
Undergraduate Research Posters * (CHED)		P			
Transformative Research & Excellence in Education Award * (COMSCI)		P			
Understanding the Chemistry of Our Planet * (PRES)			D		

Division of Inorganic Chemistry (continued)

I N O R

N. Radu, S. Koch, Program Chairs

Renaissance Washington, DC Downtown	S	M	Tu	W	Th
Nonconventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications * (POLY)			DE	D	A
Chemistry Past Curium * (NUCL)			P	D	
Nanoscale Sensing in Foods & Other Complex Media * (AGFD)					D

Division of Medicinal Chemistry

M E D I

A. Stamford, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
Treatment of Chronic Neuropathic Pain	A				
General Orals	D		P	P	
Biophysical Methods in Drug Discovery	P				
General Posters	E			E	
Insights on Medicinal Chemistry from Hardcore Practitioners		A			
Addiction: The Unmet Medical Need of the 21st Century		A			
Encoded Technologies for Lead Generation, Successes & Challenges		P			
Off Targets No More: CYP450 Enzymes as Drug Discovery Targets		P			
Sci-Mix		E			
Award Symposium			A		
Recent Advances in the Treatment of HIV-1 Infection & Approaches to a Cure			A		
Recent Advancements & Therapeutic Opportunities in Muscarinic Receptors			P		
Unusual Protein-Ligand Interactions in the Design of Novel Pharmaceuticals				A	
First-Time Disclosure of Clinical Candidates					D
Merck Research Award Symposium * (WCC)	A				
What Do Synthetic Chemists Want from Their Reaction Systems? * (CINF)	D				
Glycomimetics as Antibiotic-Sparing Therapeutics for Infectious Disease * (CARB)	D				

PROGRAM SUMMARY

Division of Medicinal Chemistry (continued)

MEDI

A. Stamford, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
Undergraduate Research Posters* (CHED)		P			
Informatics & Chemical Biology: Identifying Targets & Biological Pathways* (CINF)			A		
Innovations in Health Care in the Global Economy* (SCHB)			D		
Toxicological Considerations in Antibody-Drug Conjugate Design & Development* (TOXI)			P		

Division of Nuclear Chemistry & Technology

NUCL

J. Terry, Program Chair

Grand Hyatt Washington	S	M	Tu	W	Th
General Topics in Radiochemistry	D				
Materials Science in Nuclear Waste Disposal**		D	A		
Chemistry Past Curium**			P	D	
Nuclear Forensics				E	D
Structural & Supramolecular Aspects of Metal Ion Separations* (I&EC)	P	D			

Division of Organic Chemistry

ORGN

R. Broene, S. Silverman, Program Chairs

Walter E. Washington Convention Center	S	M	Tu	W	Th
Flow Chemistry & Continuous Processes	A		E		
Catalysis & Computation	A				
Biologically Related Molecules & Processes	D	A	E		
New Reactions & Methodology	D	D	D	E	
Heterocycles & Aromatics	D			E	
Young Investigator Symposium	D				
JOC OL Lectureship	P				
Small Splash, Big Waves: Research at Primarily Undergraduate Institutions	P				
Physical Organic Chemistry: Calculations, Mechanisms, Photochemistry & High-Energy Species	E	D			

Division of Organic Chemistry (continued)

ORGN

R. Broene, S. Silverman, Program Chairs

Walter E. Washington Convention Center	S	M	Tu	W	Th
Asymmetric Reactions & Syntheses	E	P	D	A	
Peptides, Proteins & Amino Acids	E		A		
Metal-Mediated Reactions & Syntheses	E		P	A	
CH Activation	E			P	A
Organometallics Distinguished Author Award		A			
Modern Chemistry of the Amide Bond		A			
Robert Burns Woodward Centennial Symposium		D			
Cross-Electrophile Coupling		P			
Tetrahedron Prize for Creativity in Organic Chemistry Symposium		P			
Sci-Mix		E			
Process Chemistry: New Developments in Pharmaceutical Process Development (IV)				A	
Arthur C. Cope Award Symposium				D	
Young Academic Investigator Symposium				D	
Using Organic Chemistry to Illuminate Biological Systems				P	
Molecular Recognition & Self-Assembly				E	D
Materials, Devices & Switches				E	P
Chemistry of Fullerenes, Carbon Nanotubes & Graphene				E	
Nanomaterials				E	
Alfred Bader Award in Bioinorganic or Bioorganic Chemistry: Symposium in Honor of Kim D. Janda					A
Technical Achievements in Organic Chemistry					D
From Bioinspired to Biocompatible Material Design for Organic Electronics					D
Total Synthesis of Complex Molecules					PE
Photoredox Chemistry					E

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PROGRAM SUMMARY

**Division of Organic Chemistry
(continued)**

ORGN

R. Broene, S. Silverman, Program Chairs

Walter E. Washington Convention Center	S	M	Tu	W	Th
Chemistry of Fullerenes, Carbon Nanotubes, Nanomaterials & Graphene					A
Merck Research Award Symposium * (WCC)	A				
What Do Synthetic Chemists Want from Their Reaction Systems? * (CINF)	D				
Science Communications: The Art of Developing a Clear Message * (PRES)	P				
Building a Safety Culture across the Chemistry Enterprise * (PRES)		D			
Understanding the Chemistry of Our Planet * (PRES)			D		
Synthesis & Chemistry of Agrochemicals * (AGRO)					D

Division of Physical Chemistry

PHYS

J. Shea, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
Spectroscopic & Computational Insights into Solid-Liquid Interfaces for Energy Conversion <i>CIGE</i>	D	D	A	A	
Molecules in Space: Linking the Interstellar Medium to (Exo)Planets	D	D	D	D	A
Theoretical Models of Chemical Bonding & Reactivity Spanning the Periodic Table: A Symposium in Honor of Roald Hoffmann <i>CIGE</i>	D	D	D	D	A
Electronic Structure Methods for Complex Chemical Systems**	D	D	D		
Experimental & Computational Advances in Understanding Enzyme Specificity & Promiscuity**	D	D	P	A	
PHYS Awards Symposium	D	D		P	D
Liquid Theory: Symposium in Honor of Ben Widom <i>CIGE</i>	D	D			
Sci-Mix		E			
Physical Chemistry Research at Undergraduate Institutions			D	D	A
Gaseous Ion Chemistry & Surface Reactions <i>CIGE</i>			D	D	A

**Division of Physical Chemistry
(continued)**

PHYS

G. Engel, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
Membrane Proteins: Structure, Activity & Drug Development			D	D	D
PHYS Poster Session				E	
ACS COMP Symposium in Honor of Peter Pulay * (COMP)	D	A			
Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms * (COMP)	D	D	D		
Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding * (COMP)	D	D	D		
Nanotechnology & Single-Cell Analysis in Biology & Medicine * (ANYL)	D	D			
Transformative Research & Excellence in Education Award * (COMSCI)		P			
Computational Studies of Membranes & Membrane-Bound Systems * (COMP)			P	D	
Molecular Mechanics * (COMP)				D	A

Division of Polymer Chemistry

POLY

T. White, C. Lipscomb, T. Epps, Program Chairs

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Mark Young Scholar Award in Honor of Garret Miyake	A				
Federally Funded Research	D	A			
Green Polymer Chemistry: Biobased Materials & Biocatalysis **	D	D	DE	D	D
8th Symposium on Controlled Radical Polymerization	D	D	DE	D	A
Metallo-Supramolecular & Metal-Containing Polymers**	D	D	DE	D	
Advances in Wettability & Adhesion	D	D	E		
Polymer Mechanochemistry**	D	D	E		
Materials at the Food-Energy-Water Nexus: Polymers for Soils to Sensors	D		E		
Charles Overberger Award	P				
Young Industrial Polymer Science Award in Honor of Jamie Garcia		A			

PROGRAM SUMMARY

Division of Polymer Chemistry (continued)

POLY

T. White, C. Lipscomb, T. Epps, Program Chairs

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Biomacromolecules-Macromolecules Young Investigator Award		A			
General Topics: New Synthesis & Characterization of Polymers		P	DE	D	D
Plastic Packaging Science: Reducing Food Waste to Improving Recyclability		P			
Macromolecules: The Next 50 Years		P			
Sci-Mix		E			
DSM Science & Technology Award			A		
Polymers at the Interface with Biology			D		
Nonconventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications **			DE	D	A
Journey to Mars: Materials, Energy & Life Sciences **			DE	D	
Mark Scholars Award in Honor of Christopher Bowman		P			
Shape-Shifting Polymeric Systems **			E	D	D
Mark Senior Scholar Award in Honor of James Hedrick				A	
Herman F. Mark Award in Honor of Edward Samulski				P	
POLY/PMSE Plenary				E	
Henkel Award for Outstanding Graduate Research in Polymer Chemistry **					A
Advances in Lignin: Chemicals, Polymers & Materials **					A
Polyphosphazenes in Biomedicine, Engineering & Pioneering Synthesis * (PMSE)	D	A			
Sustainable Design of Polymers from Xylochemicals * (CELL)		A			
Materials That Impact Our Daily Lives & the Global Economy: Bring Practical Applications into the Chemistry Classroom * (CHED)		P			
Undergraduate Research Posters * (CHED)		P			
Eminent Scientist Lecture * (SOCED)		P			
GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health * (CHED)			D		
Joint PMSE/POLY Poster Session * (PMSE)			E		

Division of Polymer Chemistry (continued)

POLY

T. White, C. Lipscomb, T. Epps, Program Chairs

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Polymers for Aerospace Applications: Celebrating the Lifetime Contributions of Charles Lee * (PMSE)				D	

Division of Polymeric Materials: Science & Engineering

PMSE

*C. Snyder, B. Olsen, X. Jia, M. Becker, A. Norman,
Program Chairs*

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Eastman Chemical Student Award in Applied Polymer Science	A				
Polyphosphazenes in Biomedicine, Engineering & Pioneering Synthesis **	D	A			
Gels & Other Soft Amorphous Solids	D	D	D	A	
Synthesis, Self-Assembly & Applications of Peptides & Polypeptides	D	D	D	A	
Dynamic Chemistry in Polymer Materials	D	D	D	D	
Simulations of Polymeric Materials: Molecular- to Macroscale	D	D			
Materials for Patterning in Two & Three Dimensions	D	P			
1-D Nanomaterials: Synthesis, Assembly, Properties & Applications	D				
Journal of Polymer Science Award: Symposium in Honor of Luis Campos	P				
Recombinant Type Materials **		D	D		
Roy W. Tess Award: Symposium in Honor of Stuart Croll		D			
Sci-Mix		E			
Biomaterials Science & Translational Medicine			D	D	
Polyelectrolyte Coacervates, Precipitates & Multilayers			D	D	
Memorial Symposium in Honor of Les Sperling			D		

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PROGRAM SUMMARY

Division of Polymeric Materials: Science & Engineering (continued) PMSE

*C. Snyder, B. Olsen, X. Jia, M. Becker, A. Norman,
Program Chairs*

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Joint PMSE/POLY Poster Session**			E		
General Papers/New Concepts in Polymeric Materials				D	A
Polymers for Aerospace Applications: Celebrating the Lifetime Contributions of Charles Lee**				D	
Merck Research Award Symposium* (WCC)	A				
Metallo-Supramolecular & Metal-Containing Polymers* (POLY)	D	D	DE	D	
Polymer Mechanochemistry* (POLY)	D	D	E		
Sustainable Design of Polymers from Xylochemicals* (CELL)		A			
Materials That Impact Our Daily Lives & the Global Economy: Bring Practical Applications into the Chemistry Classroom* (CHED)		P			
Undergraduate Research Posters* (CHED)		P			
Nonconventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications* (POLY)			DE	D	A
Journey to Mars: Materials, Energy & Life Sciences* (POLY)			DE	D	
Shape-Shifting Polymeric Systems* (POLY)			E	D	D
Henkel Award for Outstanding Graduate Research in Polymer Chemistry* (POLY)					A

Division of Professional Relations PROF

R. Libby, Program Chair

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Ten Years & Counting: PROF's Professional Subdivisions**		A			
How Volunteering with ACS Can Boost Your Professional Development Skills**		P			
Investing in the Future: Mentoring Underrepresented Students in Chemistry			A		
<small>CIGE</small>					
Chemists of Courage			P		

Division of Professional Relations (continued) PROF

R. Libby, Program Chair

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Merck Research Award Symposium* (WCC)	A				
Space Chemistry: How It Helps Space Exploration* (YCC)	A				
Making an Impact on Public Perceptions of Chemistry through Outreach* (SOCED)	A				
Preparing for Employment in a Global Workforce* (IAC)	P				
The Road Less Traveled: Career Opportunities in the Government Sector* (YCC)	P				
The Nons: Non-Tenure-Track Faculty in a Changing Academic Landscape* (WCC)	P				
Science Communications: The Art of Developing a Clear Message* (PRES)	P				
Chemical Angel Network: Chemists Investing in Chemical Companies* (BMGT)	P				
Chemical Entrepreneurs' Impact on the Global Economy* (SCHB)	E				
Social Media for Science Advocacy in Public Policy* (SCHB)		A			
Biomass to Fuels & Chemicals: Research, Innovation & Commercialization* (ENFL)		D	D		
Food Safety & Labeling: Food & Flavor Regulations, Progress & Challenges in the Pursuit to Serve the Consumer* (AGFD)		D	D		
Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Postdocs* (CINF)		D			
Building a Safety Culture across the Chemistry Enterprise* (PRES)		D			
Early-Career Investigators in Biological Chemistry* (BIOL)		P	P		
Chemistry & Culture: How Native American Chemists Impact Their Community* (CMA)		P			
How to Get Your First Industrial Job* (YCC)			A		
<i>Journal of Agricultural & Food Chemistry</i> Best Paper Award & Young Scientist Award Symposium* (AGFD)			A		

PROGRAM SUMMARY

**Division of Professional Relations
(continued)**

PROF

R. Libby, Program Chair

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists* (HIST)			D		
Innovations in Health Care in the Global Economy* (SCHB)			D		
Building a Safety Culture across the Chemical Enterprise* (CHAS)			P	A	
Graduate Student & Postdoctoral Fellow Symposium* (BIOL)			P	P	D
The European Research Council's Funding Opportunities to Make Scientists' Dreams Come True* (YCC)			P		
Beyond the Bench: Careers in Intellectual Property* (CHAL)			P		
ACS Infectious Diseases Young Investigators Award Symposium* (BIOL)				A	
Fostering a Quality Culture in Research & Development* (BMGT)				A	

Rubber Division

RUBB

W. M. Stahl, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Materials That Impact Our Daily Lives & the Global Economy: Bring Practical Applications into the Chemistry Classroom* (CHED)		P			

Division of Small Chemical Businesses

SCHB

J. Sabol, Program Chair

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Chemical Intellectual Property Protection & Enforcement in the Global Economy** CIGE	P				
Chemical Entrepreneurs' Impact on the Global Economy** CIGE	E				
Social Media for Science Advocacy in Public Policy** CIGE		A			

Division of Small Chemical Businesses (continued)

SCHB

J. Sabol, Program Chair

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Working in the Public Sector: Running for Elected Office**		P			
Sci-Mix		E			
Innovations in Health Care in the Global Economy** CIGE			D		
Cannabis in the Global Economy CIGE				P	
Entrepreneurs in the Agriculture & Food Industries* (AGFD)	P				
Science Communications: The Art of Developing a Clear Message* (PRES)	P				
Chemical Angel Network: Chemists Investing in Chemical Companies* (BMGT)	P				
Biomass to Fuels & Chemicals: Research, Innovation & Commercialization* (ENFL)		D	D		
Building a Safety Culture across the Chemistry Enterprise* (PRES)		D			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy* (YCC)		D			
Intellectual Property Considerations When Entering into a Joint Venture* (CHAL)		P			
Patent Specification Requirements: What's in Common & What's Different in the U.S., Europe & Southeastern Asia?* (CHAL)				A	
Understanding the Chemistry of Our Planet* (PRES)				D	
Journey to Mars: Materials, Energy & Life Sciences* (POLY)				DE	D
Beyond the Bench: Careers in Intellectual Property* (CHAL)				P	
Fostering a Quality Culture in Research & Development* (BMGT)					A

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PROGRAM SUMMARY

Committee on Chemical Safety

C C S

E. Howson, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Soft Skills in Training & Interactions * (CHAS)	P				
Division of Chemical Health & Safety Awards * (CHAS)	P				
Building a Safety Culture across the Chemistry Enterprise * (PRES)		D			
Cannabis Processing: Innovations & Legal Protections * (CHAS)		P			
Chemophobia: Communicating Chemistry * (CHAS)			A		
Building a Safety Culture across the Chemical Enterprise * (CHAS)			P	A	
Emerging Trends in Research Operations * (CHAS)				D	

Committee on Chemistry & Public Affairs

C C P A

R. Forslund, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Social Media for Science Advocacy in Public Policy * (SCHB)		A			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy * (YCC)		D			
Working in the Public Sector: Running for Elected Office * (SCHB)		P			

Committee on Chemists with Disabilities

C W D

L. Hoffman, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Ten Years & Counting: PROF's Professional Subdivisions * (PROF)		A			

Committee on Divisional Activities

D A C

R. Bennett, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Science Communications: The Art of Developing a Clear Message * (PRES)	P				
Building a Safety Culture across the Chemistry Enterprise * (PRES)		D			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy * (YCC)		D			
Understanding the Chemistry of Our Planet * (PRES)			D		

Committee on Economic & Professional Affairs

C E P A

R. Ewing, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Science Communications: The Art of Developing a Clear Message * (PRES)	P				
Building a Safety Culture across the Chemistry Enterprise * (PRES)		D			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy * (YCC)		D			
Understanding the Chemistry of Our Planet * (PRES)			D		

Committee on Environmental Improvement

C E I

C. Middlecamp, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Electrochemical Technologies for Water Purification * (ENVR)	D			E	
Science Communications: The Art of Developing a Clear Message * (PRES)	P				
Biomass to Fuels & Chemicals: Research, Innovation & Commercialization * (ENFL)		D	D		
Building a Safety Culture across the Chemistry Enterprise * (PRES)		D			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy * (YCC)		D			
Undergraduate Research Posters * (CHED)		P			

Committee on Environmental Improvement (continued)

C E I

C. Middlecamp, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Science & Perception of Climate Change * (ENVR)			A	E	
Advances & Challenges at the Food-Energy-Water Nexus * (ENVR)			D	E	
Understanding the Chemistry of Our Planet * (PRES)			D		
Monitoring Water Quality & Infrastructure to Prevent Future Flints * (ENVR)			P	E	
Green Chemistry: Theory & Practice * (CHED)				A	
Environmental Justice: The Role & Impact of Diversity on Environmental Stewardship * (ENVR)				A	
Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation * (ENVR)				DE	A
Green Chemistry & the Environment * (ENVR)				DE	
Citizens First! * (CHED)					A

Committee on Ethics

ETHX

K. Vitense, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Building a Safety Culture across the Chemistry Enterprise * (PRES)		D			

International Activities Committee

I A C

E. Tratras Contis, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Marriott Marquis Washington, DC					
Preparing for Employment in a Global Workforce ** <i>CIGE</i>	P				
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy * (YCC)		D			

Committee on Minority Affairs

C M A

J. Sarquis, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Marriott Marquis Washington, DC					
Chemistry & Culture: How Native American Chemists Impact Their Community **		P			
Environmental Justice: The Role & Impact of Diversity on Environmental Stewardship * (ENVR)				A	

Committee on Patents & Related Matters

CPRM

S. Shah, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Chemical Intellectual Property Protection & Enforcement in the Global Economy * (SCHB)	P				

Committee on Professional Training

C P T

T. Wenzel, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
The Nons: Non-Tenure-Track Faculty in a Changing Academic Landscape * (WCC)	P				

Committee on Public Relations & Communications

CPRC

J. Maclachlan, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Marriott Marquis Washington, DC					
Making an Impact on Public Perceptions of Chemistry through Outreach * (SOCED)	A				
Science Communications: The Art of Developing a Clear Message * (PRES)	P				
Social Media For Science Advocacy in Public Policy * (SCHB)		A			

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

**Primary organizer of a cosponsored symposium.

CIGE: Chemistry's Impact on the Global Economy
 A = AM AE = AM/EVE D = AM/PM DE = AM/PM/EVE
 E = EVE P = PM PE = PM/EVE

PROGRAM SUMMARY

Committee on Public Relations & Communications (continued)

C P R C

J. Maclachlan, Program Chair

Marriott Marquis Washington, DC	S	M	Tu	W	Th
2017 C&EN Talented 12* (MPPG)		A			
Building a Safety Culture across the Chemistry Enterprise* (PRES)		D			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy* (YCC)		D			
Working in the Public Sector: Running for Elected Office* (SCHB)		P			
Understanding the Chemistry of Our Planet* (PRES)			D		

Society Committee on Education

S O C E D

A. El-Ashmawy, Program Chair

Grand Hyatt Washington	S	M	Tu	W	Th
Making an Impact on Public Perceptions of Chemistry through Outreach** <i>CIGE</i>	A				
Eminent Scientist Lecture**		P			
High School Program* (CHED)	D				
Undergraduate Research Papers* (CHED)	P				
The Nons: Non-Tenure-Track Faculty in a Changing Academic Landscape* (WCC)	P				
Undergraduate Research Posters* (CHED)		P			

Committee on Science

C O M S C I

M. Cesa, Program Chair

Walter E. Washington Convention Center	S	M	Tu	W	Th
Transformative Research & Excellence in Education Award**		P			
Sustaining Water Resources: Environmental & Economic Impact* (MPPG)		A			
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy* (YCC)		D			

Women Chemists Committee

W C C

R. Cole, Program Chair

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Merck Research Award Symposium**	A				
The Nons: Non-Tenure-Track Faculty in a Changing Academic Landscape**	P				
Ten Years & Counting: PROF's Professional Subdivisions* (PROF)		A			
Biomass to Fuels & Chemicals: Research, Innovation & Commercialization* (ENFL)		D	D		
How to Get Your First Industrial Job* (YCC)			A		
Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists* (HIST)			D		

Committee on Technician Affairs

C T A

C. Libby, Program Chair

Located with Primary Sponsor	S	M	Tu	W	Th
Science Communications: The Art of Developing a Clear Message* (PRES)	P				
Building a Safety Culture across the Chemistry Enterprise* (PRES)		D			

Younger Chemists Committee

Y C C

D. Williams, Program Chair

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Space Chemistry: How It Helps Space Exploration**	A				
The Road Less Traveled: Career Opportunities in the Government Sector**	P				
Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy** <i>CIGE</i>		D			
How to Get Your First Industrial Job**			A		

PROGRAM SUMMARY

Younger Chemists Committee (continued)

Y C C

D. Williams, Program Chair

Marriott Marquis Washington, DC	S	M	Tu	W	Th
The European Research Council's Funding Opportunities to Make Scientists' Dreams Come True** <i>CIGE</i>			P		
Making an Impact on Public Perceptions of Chemistry through Outreach* (SOCED)	A				
Science Communications: The Art of Developing a Clear Message* (PRES)	P				
TOXI Young Investigators* (TOXI)		A			
Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Postdocs* (CINF)		D			
Building a Safety Culture across the Chemistry Enterprise* (PRES)		D			
How Volunteering with the ACS Can Boost Your Professional Development Skills* (PROF)		P			

Younger Chemists Committee (continued)

Y C C

D. Williams, Program Chair

Marriott Marquis Washington, DC	S	M	Tu	W	Th
Understanding the Chemistry of Our Planet* (PRES)			D		
Journey to Mars: Materials, Energy & Life Sciences* (POLY)			DE	D	
Beyond the Bench: Careers in Intellectual Property* (CHAL)			P		

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

**Primary organizer of a cosponsored symposium.

CIGE: Chemistry's Impact on the Global Economy

A = AM AE = AM/EVE P = PM D = AM/PM

E = EVE DE = AM/PM/EVE PE = PM/EVE



254th American Chemical Society National Meeting & Exposition

August 20-24, 2017 • Washington, DC



Chemistry's Impact on the Global Economy

SYMPOSIA RECOMMENDED BY THE ACS PRESIDENT

ACS Pharma Leaders: Working Together to Make a Difference

(Sponsored by MPPG and Cosponsored by PRES)

Advancing Graduate Education: Opportunities & Challenges

(Sponsored by CHED and Cosponsored by PRES)

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

(Sponsored by ENFL and Cosponsored by PRES, ENVN, MPPG, SCHB & WCC)

Earle B. Barnes Award for Leadership in Chemical Research Management Symposium in Honor of Laurie Locascio: Why Not Me? Changing the Face of Leadership in Science

(Sponsored by ANYL and Cosponsored by PRES)

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

(Sponsored by CHED and Cosponsored by PRES, ANYL, BIOT, BMGT, CARB, CELL, COLL, GEAB, MEDI, and POLY; Virginia Tech Institute for Critical Technology and Applied Sciences, Department of Chemistry, College of Science, and the Department of Materials Science and Engineering; BASF; and Accounts of Chemical Research, ACS Biomaterials Science & Engineering, ACS Chemical Biology, ACS Infectious Diseases, ACS Macro Letters, ACS Synthetic Biology, Biochemistry, Bioconjugate Chemistry, Biomacromolecules, The Journal of Organic Chemistry, Journal of Medicinal Chemistry, Macromolecules, ACS Central Science, and Acta Biomaterialia)

Journey to Mars: Materials, Energy & Life Sciences

(Sponsored by POLY and Cosponsored by PRES & MPPG)

Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists

(Sponsored by HIST and Cosponsored by PRES & PROF)

Sustaining Water Resources: Environmental and Economic Impact

(Sponsored by MPPG and Cosponsored by PRES, ENVN, GEOC & I&EC)

Transformative Research & Excellence in Education [TREE] Award Symposium

(Sponsored by COMSCI and Cosponsored by PRES, BIOL, COLL, COMP, ENFL, INOR & PHYS)

How to Read the Technical Program

1.
Search for
the Division—
listed in
alphabetical
order

ANYL
**Division of Analytical
Chemistry**
K. Phinney and L. Baker, Program Chairs

Note:
*Times represent
the start of oral
presentations and
numbers represent
poster numbers.*

3.
Locate
the
session
name

SUNDAY MORNING

2.
Locate
the day

4.
Locate
the time or
poster #

Section A
Grand Hyatt Washington
Constitution E

5.
Locate
the venue
and room for
each session

**Nanotechnology & Single Cell
Analysis in Biology & Medicine**
Cosponsored by BIOL, COLL and PHYS
X. N. Xu, Organizer, Presiding

8:30 ANYL 1. Nanowire-enabled bio-
electronics. C.M. Lieber, A. Zhang, J.
Lee, S. You, Y. Zhao, R. McGillicuddy

FULL TECHNICAL PROGRAM

TWENTY-SEVEN OF THE SOCIETY'S technical divisions and five committees are hosting original technical programming during the meeting. More than 9,000 papers have been accepted for this meeting.

Each organizing group's programming is detailed on the following pages. Nearly 4,000 chemical professionals and students are expected to attend the ever-popular Sci-Mix Interdivisional Poster Session & Mixer on Monday,

August 21, from 8:00 to 10:00 PM at Walter E. Washington Convention Center, Halls D/E. More than 800 noteworthy poster presentations, networking with colleagues, and light refreshments make up this enjoyable event.

Organizing Group	Acronym	Page
PRESIDENTIAL & CROSS-DIVISION PROGRAMMING		
Presidential Events	PRES	TECH-72
Multidisciplinary Program Planning Group	MPPG	TECH-73
Academic Employment Initiative	AEI	TECH-74

DIVISION PROGRAMMING

Agricultural & Food Chemistry	AGFD	TECH-75
Agrochemicals	AGRO	TECH-81
Analytical Chemistry	ANYL	TECH-90
Biochemical Technology	BIOT	TECH-99
Biological Chemistry	BIOL	TECH-99
Business Development and Management	BMGT	TECH-103
Carbohydrate Chemistry	CARB	TECH-104
Catalysis Science and Technology	CATL	TECH-106
Cellulose and Renewable Materials	CELL	TECH-116
Chemical Education	CHED	TECH-118
Chemical Health & Safety	CHAS	TECH-126
Chemical Information	CINF	TECH-127
Chemical Toxicology	TOXI	TECH-130
Chemistry and the Law	CHAL	TECH-132
Colloid and Surface Chemistry	COLL	TECH-133
Computers in Chemistry	COMP	TECH-145
Energy and Fuels	ENFL	TECH-153
Environmental Chemistry	ENVR	TECH-163
Fluorine Chemistry	FLUO	TECH-175
Geochemistry	GEOC	TECH-176
History of Chemistry	HIST	TECH-177
Industrial and Engineering Chemistry	I&EC	TECH-177
Inorganic Chemistry	INOR	TECH-179
Medicinal Chemistry	MEDI	TECH-197

Organizing Group	Acronym	Page
Nuclear Chemistry and Technology	NUCL	TECH-204
Organic Chemistry	ORGN	TECH-206
Physical Chemistry	PHYS	TECH-219
Polymer Chemistry	POLY	TECH-230
Polymeric Materials Science and Engineering	PMSE	TECH-245
Professional Relations	PROF	TECH-258
Rubber	RUBB	TECH-260
Small Chemical Businesses	SCHB	TECH-260

COMMITTEE PROGRAMMING (In order of appearance)

Committee on Chemical Safety	CCS	TECH-261
Committee on Chemical Safety	CCPA	TECH-262
Chemists with Disabilities	CWD	TECH-262
Committee on Divisional Activities	DAC	TECH-262
Committee on Economic and Professional Affairs	CEPA	TECH-262
Committee on Environmental Improvement	CEI	TECH-262
Committee on Ethics	ETHX	TECH-263
International Activities Committee	IAC	TECH-263
Committee on Minority Affairs	CMA	TECH-264
Committee on Patents & Related Matters	CPRM	TECH-264
Committee on Professional Training	CPT	TECH-264
Committee on Public Relations & Communications	CPRC	TECH-264
Committee on Science	COMSCI	TECH-264
Committee on Technician Affairs	CTA	TECH-265
Society Committee on Education	SOCED	TECH-265
Women Chemists Committee	WCC	TECH-265
Younger Chemists Committee	YCC	TECH-266

PRES

Presidential Events

A. Campbell, Program Chair

SUNDAY MORNING

Advancing Graduate Education: Opportunities & Challenges

Sponsored by CHED, Cosponsored by PRES

SUNDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Liberty Ballroom Salon M

Science Communications: The Art of Developing a Clear Message

Cosponsored by BIOL, CARB, CEI, CELL, CEPA, CINP, COLL, CPRC, CTA, DAC, I&EC, INOR, ORGN, PROF, SCHB and YCC

Financially supported by Royal Society of Chemistry

S. Morrissey, M. Saffell, Organizers

J. L. MacLachlan, Presiding

1:15 Introductory Remarks.

1:25 PRES 1. Secrets of the great science communicators: The Grady-Stack Award for Interpreting Chemistry for the Public Award Address. T. Hager

2:10 PRES 2. Positive chemistry communication. J. Holman, S. Morrissey

2:50 PRES 3. Essentials for an elevator pitch that introduces your science to everyone. N. Milanovich

3:20 PRES 4. Science communication practicum. A. Campbell, S. Morrissey

The Road Less Traveled: Career Opportunities in the Government Sector

Sponsored by YCC, Cosponsored by PRES and PROF

Advancing Graduate Education: Opportunities & Challenges

Sponsored by CHED, Cosponsored by PRES

MONDAY MORNING

Section A

Marriott Marquis Washington, DC
Marquis Ballroom Salons 1/2

Building a Safety Culture Across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINP, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

A. Campbell, Organizer

8:30 Introductory Remarks.

8:40 PRES 5. The Chemical Safety Board: Safety is good business and good policy. V. Sutherland

9:10 PRES 6. Safety goggles aren't just for nerds. T.F. George

9:40 PRES 7. Changing the federal oversight model of Department of Energy National Laboratories. J. McBrearty

10:10 PRES 8. Are you prepared for a journey? K.B. Jeskie

10:40 Panel Discussion.

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED, CINP, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

Sustaining Water Resources: Environmental & Economic Impact

Sponsored by MPPG, Cosponsored by COMSCI, ENVR, GEOC, I&EC and PRES

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Sponsored by ENFL, Cosponsored by BMGT, CEI, ENVR, MPPG, PRES, PROF, SCHB and WCC

Current State & Future Path

Sponsored by ENFL, Cosponsored by BMGT, CEI, ENVR, MPPG, PRES, PROF, SCHB and WCC

MONDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Marquis Ballroom Salons 1/2

Building a Safety Culture Across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINP, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

A. Campbell, Organizer

1:00 Introductory Remarks.

1:10 PRES 12. Improving safety in the chemical enterprise through transparent sharing of best safety practices: The Dow Laboratory Safety Academy delivers safety information to all. M.E. Jones, L. Seilor

1:40 PRES 13. Back to [safety] basics at Northwestern. M. Blayney

2:10 PRES 10. Building a safety mindset: An undergraduate's perspective on chemical safety in academia. N.K. Fredstrom

2:40 PRES 11. Implementation of enhanced science classroom safety standards and chemical hygiene plans at the high school level. B.J. Kennedy

3:10 PRES 9. VPP-past successes and future challenges. D. Kalinowski

3:40 PRES 14. The Joint Safety Team: A researcher-led initiative for improving academic safety culture. C. Gee

4:10 Panel Discussion.

Working in the Public Sector: Running for Elected Office

Sponsored by SCHB, Cosponsored by CCPA, CPRC and PRES

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED, CINP, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

Transformative Research & Excellence in Education Award

Sponsored by COMSCI, Cosponsored by BIOL, COLL, COMP, ENFL, INOR, PHYS and PRES

ACS Pharma Leaders: Working Together to Make a Difference

Sponsored by MPPG, Cosponsored by PRES

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Sponsored by ENFL, Cosponsored by BMGT, CEI, ENVR, MPPG, PRES, PROF, SCHB and WCC

Challenges & Opportunities

Sponsored by ENFL, Cosponsored by BMGT, CEI, ENVR, MPPG, PRES, PROF, SCHB and WCC

TUESDAY MORNING

Section A

Walter E. Washington Convention Center
Room 145A

Understanding the Chemistry of Our Planet

Chemistry's Role in our Earth System

Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINP, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

A. Campbell, Organizer

8:30 Introductory Remarks.

8:45 PRES 15. Bold sustainability as breakthrough opportunity. A. Steffan

9:15 PRES 16. Molecular clues to past climates. K. Freeman

9:45 PRES 17. Organic aerosol in a changing world. C. Heald

10:15 PRES 18. Land-atmosphere interactions, and the long term impacts of climate change. L. R. Leung

10:45 PRES 19. Soil microbial ecology, ecosystem science and global biogeochemistry. B. Hungate

Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists

Sponsored by HIST, Cosponsored by PRES, PROF and WCC

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

Sponsored by CHED, Cosponsored by ANYL, BMGT, CELL, COLL, POLY and PRES

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

From Research to Scale-Up

Sponsored by ENFL, Cosponsored by BMGT, CEI, ENVR, MPPG, PRES, PROF, SCHB and WCC

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

TUESDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Room 145A

Understanding the Chemistry of Our Planet

Human Impacts to our Planet

Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINP, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

A. Campbell, Organizer

1:30 Introductory Remarks.

1:45 PRES 20. Plastics in the ocean: Are there solutions to this global environmental problem? R. Thompson

2:15 PRES 21. Soil carbon dynamics and the global climate change. R. Lal

2:45 PRES 22. Understanding biosphere-atmosphere chemical exchange in a changing world. A. Guenther

3:15 PRES 23. Learning from a large anthropogenic perturbation: A case study of coupled chemistry and microbiology following the Deepwater Horizon oil spill in the Gulf of Mexico. S. Joye

3:45 PRES 24. Rebuilding planetary balance by improving the chemistry of life processes. R. Ferrieri

4:15 PRES 25. Biogeochemical Transformations at Interfaces: The Role of Chemistry in Predicting the Fate of Trace Metals and Contaminants in Environmental Systems. E.M. Pierce

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

Sponsored by CHED, Cosponsored by ANYL, BMGT, CELL, COLL, POLY and PRES

Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists

Sponsored by HIST, Cosponsored by PRES, PROF and WCC

Earle B. Barnes Award for Leadership in Chemical Research Management: Symposium in honor of Laurie E. Locascio

Why Not Me? Changing the Face of Leadership in Science

Sponsored by ANYL, Cosponsored by PRES

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Innovating in Biomass Conversion: Factors for Success

Sponsored by ENFL, Cosponsored by BMGT, CEI, ENVR, MPPG, PRES, PROF, SCHB and WCC

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

TUESDAY EVENING

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

WEDNESDAY MORNING**Journey to Mars: Materials, Energy & Life Sciences**

Sponsored by POLY, Cosponsored by ANYL‡, BMGT‡, COLL‡, ENVR‡, FLUO‡, PMSE‡, PRES, SCHB‡ and YCC‡

WEDNESDAY AFTERNOON**Journey to Mars: Materials, Energy & Life Sciences**

Sponsored by POLY, Cosponsored by ANYL‡, BMGT‡, COLL‡, ENVR‡, FLUO‡, PMSE‡, PRES, SCHB‡ and YCC‡

MPPG**Multidisciplinary Program Planning Group**

N. Jackson, Program Chair

SUNDAY MORNING**Merck Research Award Symposium**

Sponsored by WCC, Cosponsored by BIOL, COMP, MEDI, MPPG, ORGN, PMSE and PROF

SUNDAY AFTERNOON**Section A**

Walter E. Washington Convention Center Ballrooms A/B

Chemistry's Impact on the Global Economy Plenary Session

N. B. Jackson, Organizer, Presiding

T. Connelly, Presiding

3:00 MPPG 1. Chemistry's Impact on the Global Economy. C. Kahle

3:50 Q&A.

4:00 MPPG 2. Digital light synthesis to drive additive manufacturing: Convergence of hardware, software and molecular science. J.M. DeSimone

4:50 Q&A.

5:00 Discussion.

MONDAY MORNING**Section A**

Walter E. Washington Convention Center Rooms 203A/B

Sustaining Water Resources: Environmental & Economic Impact

Cosponsored by COMSCI‡, ENVR, GEOC, I&EC and PRES

H. L. Taft, Organizer, Presiding

8:30 Introductory Remarks. H. Taft.

8:40 MPPG 3. Thirst for power: Energy, water and human survival. M.E. Webber, F.T. Davidson

9:10 MPPG 4. Energy-water nexus at DOE. D. Bauer

9:40 MPPG 5. California water resiliency in an energy constrained and uncertain climate future. S. Hubbard, P.S. Nico, A. Jones, C. Varadharajan, R. Kostecki, R. Ramesh

10:10 Intermission.

10:25 MPPG 6. Comprehensive approach to water challenges: The case of Israel. N. Barak

11:10 MPPG 7. Overcoming implementation barriers for nanotechnology in drinking water treatment. P.K. Westerhoff

11:40 MPPG 8. Need for remediating water and the role of ion-selective polymers. S. Alexandratos

12:10 Concluding Remarks.

Section B

Walter E. Washington Convention Center Room 146C

2017 C&EN Talented 12

Cosponsored by CPRC

B. Campos Seijo, L. Jarvis, L. K. Wolf, Organizers, Presiding

8:00 MPPG 9. 2017 C&EN Talented 12. L.K. Wolf

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization**Current State & Future Path**

Sponsored by ENFL, Cosponsored by BMGT‡, CEI‡, ENVR, MPPG, PRES, PROF‡, SCHB and WCC

MONDAY AFTERNOON**Section A**

Walter E. Washington Convention Center Rooms 203A/B

Nano Commercialization: Views from the Front

P. Alivisatos, L. E. Fernandez, P. S. Weiss, Organizers, Presiding

1:30 Introductory Remarks.

1:40 MPPG 10. The roles of nanoscience and nanotechnology in identifying opportunities for major advances, intellectual property, and entrepreneurship across fields. P.S. Weiss

2:10 MPPG 11. Entrepreneurship in the field of nanoscience and nanotechnology. P. Alivisatos

2:40 MPPG 12. Commercializing technologies from the Halas laboratory and elsewhere. N.J. Halas

3:10 MPPG 13. Exploring the path from lab to fab. C.G. Willson

Section B

Walter E. Washington Convention Center Room 146C

ACS Pharma Leaders: Working Together to Make a Difference

Cosponsored by PRES

C. Peishoff, W. B. Young, Organizers

P.R. Kym, Organizer, Presiding

1:00 MPPG 14. ACS Pharma Leaders: Working together to make a difference. P.R. Kym, C. Peishoff, W.B. Young

1:20 MPPG 15. Building block forum: A cost-effective business model to enhance access to diverse monomers and templates. R.D. Connell, M.T. Clark, C. Davie, D. Finsinger, D. McLeod, L. Meerpoel, A. Vasudevan, M. Willis

1:45 MPPG 16. Collaborations in chemistry: More informative science through better tool compounds. A. Vasudevan, K.B. Goodman, B. Sherborne

2:10 MPPG 17. Pre-competitive collaborations and co-operation for computer aided drug design. J.M. Jansen, D.A. Loughney, E.S. Manas, V. Shanmugasundaram, B. Sherborne

2:35 MPPG 18. Pre-competitive collaborations and co-operation for structural biology. S. Williams, L. Shewchuk, P. Charbonneau, P. Orth

3:00 MPPG 19. Partnering with pharma to impact neglected diseases around the world. P. Warner

3:30 MPPG 20. Case study: Pharma assisted drug discovery and development for neglected diseases. D. Kempf

Section C

Walter E. Washington Convention Center Ballrooms A/B

The Kavli Foundation Emerging Leader in Chemistry Lecture

A. Campbell, Organizer, Presiding

4:00 Introductory Remarks.

4:05 MPPG 22. Turning photons into chemical bonds. P.K. Jain

4:55 Q&A.

Section C

Walter E. Washington Convention Center Ballrooms A/B

The Fred Kavli Innovations in Chemistry Lecture

A. Campbell, Organizer, Presiding

5:15 Introductory Remarks.

5:20 MPPG 21. Multifunctionality of liquid-filled nanostructured materials: From encryption to anti-fouling. J. Aizenberg

6:10 Q&A.

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization**Challenges & Opportunities**

Sponsored by ENFL, Cosponsored by BMGT‡, CEI‡, ENVR, MPPG, PRES, PROF‡, SCHB and WCC

TUESDAY MORNING**Section A**

Walter E. Washington Convention Center Room 147B

ChemRxiv: Publishing in the Age of Preprint Servers. A Joint CSR-ACS Symposium

D. G. Blackmond, A. Sberegaeva, Organizers

M. M. Kirchhoff, Organizer, Presiding

T. Fryberger, Presiding

8:00 MPPG 23. ChemRxiv: The chemistry community's preprint server. J. Milne, D.P. Henderson

8:30 MPPG 25. Perspectives from arXiv, bioRxiv, engrXiv and funders of research: Panel discussion. A. Aspuru-Guzik, S. Schmid, D. Berg, N. Thakur, C. Strasser

9:30 MPPG 24. Perspectives from journal editors: Panel discussion. P.S. Weiss, A.B. McCoy, L.L. Kiessling

10:30 MPPG 26. Perspectives from academia: Panel discussion. A. Aspuru-Guzik, A.M. Spokoyne, M.R. Shirts, D.G. Blackmond

11:30 Discussion.

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization**From Research to Scale-Up**

Sponsored by ENFL, Cosponsored by BMGT‡, CEI‡, ENVR, MPPG, PRES, PROF‡, SCHB and WCC

TUESDAY AFTERNOON**Biomass to Fuels & Chemicals: Research, Innovation & Commercialization****Innovating in Biomass Conversion: Factors for Success**

Sponsored by ENFL, Cosponsored by BMGT‡, CEI‡, ENVR, MPPG, PRES, PROF‡, SCHB and WCC

Monitoring Water Quality & Infrastructure to Prevent Future Flints

Sponsored by ENVR, Cosponsored by CEI and MPPG

TUESDAY EVENING**Journey to Mars: Materials, Energy & Life Sciences**

Sponsored by POLY, Cosponsored by MPPG

WEDNESDAY MORNING**Economic Impact of Environmental Health Research: A Case Study of the NIEHS Superfund Research Program**

Sponsored by ENVR, Cosponsored by MPPG

WEDNESDAY AFTERNOON**Economic Impact of Environmental Health Research: A Case Study of the NIEHS Superfund Research Program**

Sponsored by ENVR, Cosponsored by MPPG

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WEDNESDAY EVENING

Economic Impact of Environmental Health Research: A Case Study of the NIEHS Superfund Research Program

Sponsored by ENVR, Cosponsored by MPPG

Monitoring Water Quality & Infrastructure to Prevent Future Flints

Sponsored by ENVR, Cosponsored by CEI and MPPG

AEI

Academic Employment Initiative

C. Kuniyoshi and N. Bakowski, Program Chairs

MONDAY EVENING

Section A

Walter E. Washington Convention Center Halls D/E

Academic Employment Initiative

C. Kuniyoshi, Organizer

8:00 - 10:00

- AEI 1.** Identification of antimicrobial peptide from soy protein. N. Xiang, Y. Lyu, X. Zhu, A. Bhunia, G. Narsimhan
- AEI 2.** Fluorescamine-based screening of protein-protein interfaces. J. Ashby
- AEI 3.** Label-free optical biomolecular sensing using single wall carbon nanotubes. J. Dong
- AEI 4.** Effect of solution viscosity on multi-electron transfer from repeated collisions of a single Ag nanoparticle on a Au electrode. D.A. Robinson, Y. Liu, M.A. Edwards, H.S. White
- AEI 5.** Designing food analysis experiments for the promotion of critical thinking in the instrumental analysis laboratory. O. Sathoud, K.S. Booksh, J.L. Hilsenbeck-Fajardo, D. Kraiter, C. Maunz
- AEI 6.** Novel characterization of block copolymer and biopolymer matrices using fluorescence microscopy methods. K. Tran Ba
- AEI 7.** Microfluidic magnetic bead ELISA streamlined with pneumatic valves. Y. Yang, Y. Zeng
- AEI 8.** Developing new tools for the study of O-GlcNAc transferase in disease. S.E. Martin, D.Y. Duveau, J. Janetzko, Z.W. Tan, F.A. Moss, H. Itkonen, P. Sliz, M.B. Lazarus, C.J. Thomas, S. Walker
- AEI 9.** MAMBA: Hydrogen bond organized beta-strand peptidomimetics. J.W. Meisel, A. Hamilton
- AEI 10.** Incorporation of synthetic, toe-hold based gene circuits for the development of electrochemical sensors for rapid disease diagnostics. S.J. Smith, S.O. Kelley
- AEI 11.** Molecular Yoga: The juxtaposition of rational design and synthetic molecular evolution to create new, useful molecules. G. Wiedman
- AEI 12.** Derivatization of halopyridines for covalent enzyme inhibition. A. Tuley, J. Swartzel, S. Patel, S. Sadrameli, W. Fast
- AEI 13.** Rationally designed nanoscale catalysts for green transformations to form commodity chemicals. H.A. Al-Zubaidi, S.O. Obare
- AEI 14.** Sulfur interactions with bimetallic Pd/Pt catalysts. M.S. Wilburn, W.S. Epling
- AEI 15.** Maleic acid and aluminum chloride catalyzed conversion of glucose to 5-(Hydroxymethyl) furfural and levulinic acid in aqueous media. X. Zhang
- AEI 16.** Metal organic framework-modified graphene-based catalyst for oxygen reduction reaction. S. Zhuang, B. Nunna, E. Lee
- AEI 17.** Using LEGOs to help students understand kinetics and equilibrium concepts. J. Xian, D.B. King
- AEI 18.** Nanoscale engineering for fundamental biophysical studies and biomedical applications. S. De Silva Indrasekara
- AEI 19.** Potential of mean force for insertion of antimicrobial peptide melittin into a pore in mixed DOPC/DOPE lipid bilayer by molecular dynamics simulation. Y. Lyu, N. Xiang, X. Zhu, G. Narsimhan
- AEI 20.** Withdrawn.
- AEI 21.** Photoinduced single nanocrystal study of hybrid semiconducting nanomaterials. P.K. Routh
- AEI 22.** Metal nanoparticle decorated meso-graphene oxide composites as theranostics. S. Sharma, L. Chen, V.H. Pham, J.H. Dickerson, M.A. Barish, R. Tannenbaum
- AEI 23.** Design of crystalline heterosurfaces for direct nucleation of active pharmaceutical ingredients. T.K. Wijethunga, J. Stojakovic, F. Baftizadeh, A.S. Myerson, B.L. Trout
- AEI 24.** Developing and applying computational approaches in early-stage drug discovery. T.E. Balius
- AEI 25.** Power of exact using conditions to develop density functionals. D.S. Ranasinghe, J.T. Margraf, R.J. Bartlett
- AEI 26.** Deep learning vs Zika virus: At the crossroads of computational chemistry, systems biology, data mining and computer science. N. Sizochenko
- AEI 27.** Pushing nonlinear spectroscopy to its limit: Theoretical upper bounds for second harmonic generation in molecules and materials. L. Tan, A.M. Rappe
- AEI 28.** Computational study of ketoheptylperoxy radical atmospheric decomposition and combustion. A.C. Davis
- AEI 29.** Microbial effect of iron from hematin into seawater mediated via anthraquinone-2,7-disulfonate. A. Aneksampant
- AEI 30.** Predicting solvent-water partitioning of charged organic species using quantum-chemically estimated Abraham pp-LFER solute parameters. C. Davis, D.M. Di Toro
- AEI 31.** Elucidating mechanisms of toxicity of nanoparticles exposed to various environmental factors. N.M. Dissanayake, S.O. Obare
- AEI 32.** Preparation of chloraminated concentrated drinking water for disinfection by-product mixtures research. A.R. Kennicutt, P. Rossman, J.G. Pressman, D. Wahman
- AEI 33.** Investigating sources, fates, and biological effects of emerging organic contaminants using innovative passive monitoring tools and integrative measures of toxicity. C.A. McDonough, C.P. Higgins, R. Lohmann
- AEI 34.** Coupled microbial electrolysis cell-forward osmosis system for sustainable wastewater treatment and resource recovery. M. Qin, Z. He
- AEI 35.** Removal of trace organic contaminants and estrogenic activity in six full-scale integrated fixed-film activated sludge (IFAS) wastewater treatment plants. M. Shreve, R. Brennan
- AEI 36.** Quantitative SERS enabled by surface plasmon enhanced elastic scattering. H. Wei, W. Leng, P.J. Vikesland
- AEI 37.** Water-solute permselectivity limits of biomimetic desalination membranes. J.R. Werber, M. Elimelech
- AEI 38.** Alkylation of benzene with ethylene in the presence of zeolite catalyst: Mathematical modelling of reactor. E. Khlebnikova, E. Ivashkina, I. Dolganova, I. Dolganov, S. Koshkin
- AEI 39.** Hydroxylamine oxidoreductase activities and bacterial ammonia oxidation pathways. J.D. Caranto
- AEI 40.** Diiron complexes with new proton-relay ligand platforms. M.R. Carlson, T.W. Chapp, R. Gilbert-Wilson, J. Mitra, T.B. Rauchfuss
- AEI 41.** Planar chiral, redox active and strongly Lewis acidic organoboranes and organoalanes: Isolation, structural characterization and diverse catalysis. J. Chen, F. Jaekle, E.Y. Chen, J.R. Norton
- AEI 42.** The secondary building unit as metallo-ligand: Structural and mechanistic insight into catalysis at metal-organic framework nodes. R. Comito
- AEI 43.** Low temperature growth of ZrSe₂/HfSe₂ thin film and nanostructured core metal chalcogenide MnSb₂Se₄. H. Djieutedjeu, B.S. Guiton, M. Thomas, Y. Lei
- AEI 44.** Withdrawn.
- AEI 45.** Unprecedented chromium-ligand multiple bonding and oxidative group transfer reactions supported by a macrocyclic N-heterocyclic tetracarbene. G. Elpitiya, D.M. Jenkins, B. Malbrecht
- AEI 46.** Gold (I) sulfide nanostructures obtained via cation exchange of copper sulfides. E.A. Hernandez-Pagan, J. Macdonald
- AEI 47.** Withdrawn.
- AEI 48.** Rhodium-cyanine fluorescent probes for detection and signaling of mismatches in DNA. A. Nano, J.K. Barton
- AEI 49.** Nanomaterial synthesis using atomic layer deposition. S. Patwardhan, G.C. Schatz
- AEI 50.** Synthesis and characterization of homoleptic copper (I) thiolate complexes. J.K. Pratt, P.P. Power
- AEI 51.** Withdrawn.
- AEI 52.** Sequential chemistry study of well-isolated and characterized quantum dots using batch and continuous flow platforms. Y. Shen
- AEI 53.** Molecular to mesoscale: Identifying atomic-level structural features of nanocrystalline manganese oxides critical to understanding electrochemistry. P. Smith, A.C. Marschlok, K.J. Takeuchi, E.S. Takeuchi
- AEI 54.** DNA damage recognition mediated by repair proteins carrying [4Fe4S] clusters and understanding proton-coupled electron transfer processes using a lipid-modified electrochemical platform. E. Tse, A. Gewirth, T.B. Rauchfuss, J.K. Barton
- AEI 55.** High-valent organometallic nickel complexes mediated C-H bond activation and bond formation reactions. W. Zhou
- AEI 56.** From high valent iron nitrides to catalytically relevant low valent homoleptic iron alkyl complexes. S.B. Munoz, M.L. Neidig, J.M. Smith
- AEI 57.** Cancer immunotherapy, cell imaging and drug delivery from self-assembled structure. J. Lee
- AEI 58.** Development of azole antifungal analogues to treat Hedgehog dependent cancers. K.A. Teske, J.R. Pace, A.M. DeBerardinis, M.K. Hadden
- AEI 59.** Imparting intrinsic fluorescence as an approach towards rapid inhibitor screening and mechanistic evaluation of tuberculosis shikimate kinase. R. Fuanta, D.C. Goodwin
- AEI 60.** Towards a modular approach to Eumelanin oligomer synthesis. A.H. Aebly, J. Levy, B. Steger, J.M. Belitsky
- AEI 61.** Exploring the scope of Lewis acid-catalyzed triplet energy transfer: [2+2] photocycloaddition and beyond. M.E. Daub, H. Keita, E. Sherbrook, T.P. Yoon
- AEI 62.** Design, synthesis, and evaluation of N-phosphonacetyl-L-aspartate derivatives as putative human ATCase inhibitors. M. Doud, C. Wolf, K. Ponsart
- AEI 63.** Dual-light control of nanomachines that integrate motor and modulator subunits. J.T. Foy, Q. Li, A. Goujon, J. Collard, G. Fuks, E. Moulin, O. Schiffrman, D. Dattlier, D. Funeriu, N. Giuseppone
- AEI 64.** Synthesis and characterization of functionalized heterocyclic compounds: 1,10-phenanthrolines and oxazoles. S. Jianrattanasawat, D.L. Sellers, E. Schoffers
- AEI 65.** Water-soluble cavitands: Applications in anion recognition and protein inhibition. J.H. Jordan, C.L. Gibb, B.C. Gibb
- AEI 66.** Synthesis of skeleton of bromophycolide A and D asymmetric homocrotylation of aldehydes rapid total synthesis of ciprofloxacin hydrochloride in continuous flow. H. Lin
- AEI 67.** Toward the origin of small chemical shift differences in diastereotopic X-CH₂D groups. O. Ogbas, S. Elliott, D. Kolin, L.J. Brown, S. Cevallos, M. Levitt, D.J. O'Leary

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

AGFD

Division of
Agricultural & Food
ChemistryB. Guthrie, *Program Chair*

OTHER SYMPOSIA OF INTEREST:

**Analytical Techniques Used to Address
FDA Regulatory Questions &
Challenges** (see ANYL, Sun, Mon, Tue)**Advances in Analytical Forensic
Chemistry & Toxicology** (see ANYL, Wed)**Oxidative Stress & Antioxidants:
Measurement Tools & Analytical
Challenges** (see ANYL, Sun)**Informatics & Chemical Biology:
Identifying Targets & Biological
Pathways** (see CINF, Tue)**Chemophobia: Communicating
Chemistry** (see CHAS, Tue)**Advanced Techniques for Isolation,
Identification & Quantitation of Ag/
Pharma Relevant Compounds from
Biological Samples** (see AGRO, Tue)

SOCIAL EVENTS:

AGFD Awards Banquet, 5:30 PM: Tue**Poster Session & Reception**, 5:00 PM: Sun

BUSINESS MEETINGS:

**AGFD Special Topics Meeting
(closed)**, 12:00 PM: Sun**Future Programs Meeting**, 12:00 PM: Mon**Executive Committee Meeting**,
5:00 PM: Mon**Business Meeting**, 12:00 PM: Tue

SUNDAY MORNING

Section A

Walter E. Washington Convention Center
Room 144BFrom Fermentation to Fume
Hood: The Chemistry of Wine*Financially supported by E&J Gallo,
Constellation Brands, Agilent Technologies*D. L. Capone, *Organizer*G. L. Sacks, *Organizer, Presiding***8:30 AGFD 1.** Characterising the chemical
and sensory properties of Australian
rosé wines. J. Wang, D.L. Capone, J.M.
Gambetta, K.L. Wilkinson, D.W. Jeffery**8:55 AGFD 2.** Relating chemical
measurements of wine to olfacto-
ry perceptions. T.E. Acree**9:20 AGFD 3.** Investigations of aroma
compounds and sensory profiles affected
by the addition of grape leaves or
stalks in a red wine fermentation. D.L.
Capone, A. Barker, W. Pearson, L. Francis**9:45 AGFD 4.** Aromatic complexity of two
premium wines revealed by gas chroma-
tography combined to olfactometry
and mass spectrometry. S. Carlin, R.
Magri, C. Lotti, U. Vrhovsek, F. Mattivi**10:10** Intermission.**10:30 AGFD 5.** Aroma-migration during
the bottling of wine - combining a
sensory and analytical approach.
U. Fischer, J. Vestner, H. Schmar, M. Mathes**AEI 68.** Unprecedented reversible
Buchner ring expansions by photo-
chemically accessible triplet reactivity
from a singlet DAC. T.A. Perera**AEI 69.** Total synthesis of citreoviranol.
R. Quach, D.P. Furkert, M. Brimble**AEI 70.** Introducing undergradu-
ate researchers to organic elec-
tronics. J.A. Schneider**AEI 71.** 1-Hydrosilatrane: A chiral Lewis
base activated reducing agent for
the asymmetric reduction of prochi-
ral ketones to alcohols. S. Varjosaari,
V. Skrypaj, T.M. Gilbert, M.J. Adler**AEI 72.** Withdrawn.**AEI 73.** Withdrawn.**AEI 74.** Computing nuclear quantum
effects with the nuclear electronic
orbital approach. K. Brorsen**AEI 75.** Revealing the dynamics that control
protein and biomolecule activity using
FTIR and ultrafast 2DIR spectros-
copy in combination with molecular
dynamics simulations. S.C. Edington**AEI 76.** Wide-field super-resolution
infrared microscopy for aquatic
pollutant examination. B. Jones**AEI 77.** Photochemical dynamics
for intramolecular singlet fission in
covalently-bound pentacene dimers.
Z. Lin, H. Iwasaki, T.A. Van Voorhis**AEI 78.** Crystal orientation dependence of
heterogeneous nucleation at the Cu-Pb
solid-liquid interface. P. Palafox, B. Laird**AEI 79.** Withdrawn.**AEI 80.** Revealing the excitonic and
structural properties of light-harvesting
molecular assemblies through electron-
ic-vibrational spectroscopy. C.C. Rich**AEI 81.** Leveraging a computational
chemistry app-store for both teaching
and researching chemistry. R. Richard**AEI 82.** Engineering the molecular
interactions for biomedical applica-
tions. H. Acar, M.V. Tirrell**AEI 83.** Synthetic polymers with uncon-
ventional architectures for energy
storage. P. Cao, A.P. Sokolov, T. Saito**AEI 84.** Self-softening shape memory
polymers as a substrate for bio-
electronic devices. M. Ecker**AEI 85.** Withdrawn.**AEI 86.** Harnessing the power
of post-translational modifica-
tions for materials science and
engineering. D. Mozhdchi**AEI 87.** Withdrawn.**AEI 88.** Complex fluids and anisotro-
pic liquids for intelligent molecular
engineering and material design:
Structure-rheology-property
relationships. M.S. Sadati**AEI 89.** Withdrawn.**AEI 90.** Programming self-assem-
bly and function at multiple scales
with nucleic acids. J. Vierende**AEI 91.** Three-dimensional responsive soft
micro/nano-structures for biomedical and
electronic applications. W. Xu, D.H. Gracias**10:55 AGFD 6.** Development of carotenoids
and C₁₃-norisoprenoids in *Vitis vinifera*
L. Cv. Pinot noir grapes. F. Yuan, M.C. Qian**11:20 AGFD 7.** Assessing smoke taint
risk based on the composition of
smoke exposed grape berries and
the resulting wines. T.S. Collins

Section B

Walter E. Washington Convention Center
Room 144C

Food Additives & Packaging

Emerging Trends in Food
Ingredient ChemistryD. L. Doell, R. Shah, *Organizers*L. T. Cureton, V. Komolprasert, *Organizers,
Presiding***8:00** Introductory Remarks.**8:05 AGFD 8.** Stability of fish oil in
cross-linked alginate microcap-
sules prepared by spray-drying.
S.A. Strobel, B.M. Arbaugh, K.A.
Hudhall, H.B. Scher, N. Nitin, T. Jeoh**8:30 AGFD 9.** Bioparticle-Based pesticide
degradation using enzyme immobiliza-
tion. P. Pourtaheri, A. Shakeel, Z. Davis, S.
Zomorodi, J. Frank, M. Kester, S. Moshasha**8:55 AGFD 10.** Hydrogenation of
soybean oil without trans-fatty acids
using high voltage atmospheric cold
plasma (HVACP). K. Keener, X. Yezpe**9:20 AGFD 11.** Spectroscopic portable
devices and chemometric analysis for
table-top sweetener quantitation. B.J. Yakes**9:45** Intermission.**10:00 AGFD 12.** MCPD- and glycidyl-esters
in palm oil: Mechanisms of formation
and opportunities for effective mitiga-
tion. B.D. Craft, F. Destallats, K. Nagy**10:25 AGFD 13.** Acrylamide in food:
Formation, analysis and expo-
sure assessment. L. Jackson**10:50 AGFD 14.** Assessment of dietary
exposure to 4-methylimidazole (4-MEI)
for the U.S. population based on
quantitative data from foods containing
caramel color. D. Folmer, D.L. Doell,
H. Lee, G.O. Noonan, S.E. Carberry**11:15 AGFD 15.** Optimization in the pro-
duction of caramel colors. C. Llewellyn**11:40** Concluding Remarks.

Section C

Walter E. Washington Convention Center
Room 149ALink between Dietary Inputs,
Stressors & the Gut Microbiome:
Military PerspectiveJ. Karl, J. W. Soares, *Organizers*S. Arcidiacono, K. Racicot, *Presiding***8:30** Introductory Remarks.**8:35 AGFD 16.** Military-relevant stressors,
diet, and the gut microbiome. J. Karl**9:10 AGFD 17.** Microbial endocrinology
as a mechanism governing the interplay
between diet, stress and the microbiome
on host health and behavior. M. Lyte**9:55** Intermission.**10:15 AGFD 18.** Bacterial metabo-
lism of carbohydrates, dietary fiber
and gut health. B. Hamaker**11:00 AGFD 19.** Grape proanthocyanidin-
induced bloom of gut microbe
Akkermansia muciniphila precedes intes-
tinal gene expression changes associated
with metabolic resilience. L. Zhang, R.N.
Carmody, H. Kalariya, K. Moskal, P. Kuhn,
P.J. Turnbaugh, I. Raskin, D. Roopchand**11:35 AGFD 20.** Influence of prebi-
otic fibers on gut microbiome and
implications for mineral absorption and
bone health. M. de Souza, L. Spence, K.
Karnik, K. Canene-Adams, C.M. WeaverRecent Advances towards
the Bioeconomy*Sponsored by CELL, Cosponsored by
AGFD, CARB, ENFL and ENVR*Green Polymer Chemistry: Biobased
Materials & BiocatalysisBiobased Materials:
Industrial Perspectives*Sponsored by POLY, Cosponsored
by AGFD, CELL and PMSE*

SUNDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Room 144BFrom Fermentation to Fume
Hood: The Chemistry of WinePolyphenolics & Wine
Macromolecules*Financially supported by E&J Gallo,
Constellation Brands, Agilent Technologies*G. L. Sacks, *Organizer*D. L. Capone, *Organizer, Presiding***1:30 AGFD 21.** Tannin reacts with SO₂
during aging, yielding newly discovered
flavan-3-ol sulfonates in wine. A.L.
Waterhouse, L. Ma, B. Addison, A.A. Watrelot**1:55 AGFD 22.** Mechanism of anthocyanin
extraction during red wine fermentation.
A. Oberholster, C. Medina Plaza, J. Beaver,
L.A. Lerno, R. Ponangi, T. Blair, D.E. Block**2:20 AGFD 23.** High resolution mass
spectrometry approaches to charac-
terize wine polyphenols. V. Cheynier**2:45 AGFD 24.** Cap on red wine macro-
molecules? Updates on how winemak-
ing interventions influence tannin and
polysaccharide composition in Shiraz
wines. K. Bindon, S. Kassara, C. Curtin, S.
Li, J. Hixson, B. Teng, K. Wilkinson, P. Smith**3:10** Intermission.

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3:30 AGFD 25. Structural studies on three *Vitis vinifera* thaumatin-like proteins and their hazing potential in white wines. **M. Marangon**, S.C. Van Sluyter, E.J. Waters, R.I. Menz

3:55 AGFD 26. Soluble cell wall polysaccharides and their relationship with wine mouthfeel and taste. **H. Chong**, M.T. Cleary, N. Dokoozlian, C. Ford, G. Fincher

4:20 AGFD 27. Integrated approach to managing alcohol levels in wine while maintaining quality and style. **R. Ristic**, O. Schelezki, A. Hranilovic, S. Li, D. Pham, D. Wollan, K. Bindon, P. Boss, V. Stockdale, D.W. Jeffery, V. Jiranek, K. Wilkinson

Section B

Walter E. Washington Convention Center Room 144C

Food Additives & Packaging

Analytical Challenges in Food Chemistry

D. L. Doell, R. Shah, *Organizers*

L. T. Cureton, V. Komolprasert, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 AGFD 28. Determination of seven certified color additives in food products marketed in the United States. **E. Miranda-Bermudez**, B. Petigara Harp

1:30 AGFD 29. Development of a specification method to determine unreacted raw materials, products of side reactions, and subsidiary colors in color additives using high-performance liquid chromatography. **C. Tatebe**, H. Kubota, A. Tada, K. Sato

1:55 AGFD 30. Determination of color adulteration of green table olives by copper salts. **B. Petigara Harp**, P. Delmonte, P. Gray, P.F. Scholl, T. Todorov

2:20 AGFD 31. Arsenic speciation method development for various food matrices. **K. Laurvick**

2:45 Intermission.

3:00 AGFD 32. Novel method for the simultaneous determination of 14 sweeteners of regulatory interest using UHPLC-MS/MS. **R. Shah**

3:25 AGFD 33. Method development and validation for the composition of galactooligosaccharides. **L. Chen**, L. Liu, K. Laurvick, W. Wang

3:50 AGFD 34. Development and validation of an LC-MS/MS method for the determination of sulfite in food and beverages. **K. Carlos**, L. DeJager

4:15 AGFD 35. Development of a HPLC/PDA method for quantitative analysis of food components without the need for analytical standards. **Y. Nishizaki**, N. Sugimoto, K. Sato

4:40 Concluding Remarks.

Section C

Walter E. Washington Convention Center Room 149A

Link between Dietary Inputs, Stressors & the Gut Microbiome: Military Perspective

S. Arcidiacono, K. Racicot, *Organizers*

J. Karl, J. W. Soares, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 AGFD 36. *In vitro* fermentation to understand healthy and stressed gut microbiome metabolism. **S. Arcidiacono**, L. Doherty, I. Pantoja-Feliciano, K. Kensil, K. Racicot, J.W. Soares

2:10 AGFD 37. Human gut microbiota modulation by prebiotics. **G. Gibson**

2:55 Intermission.

3:15 AGFD 38. The effect of sleep on the host metabolome. **F. Vargas**, C. Depner, A.G. Peña, R. Knight, K. Wright, P.C. Dorrestein

3:50 AGFD 39. FitBiotics: Understanding elite microbiomes for performance and recovery applications. **J. Scheiman**

4:25 Concluding Remarks.

Section D

Walter E. Washington Convention Center Room 149B

Entrepreneurs in the Agriculture & Food Industries

Cosponsored by SCHB†

K. Goodner, J. E. Sabol, *Organizers, Presiding*

1:30 Introductory Remarks.

1:45 AGFD 40. Withdrawn.

2:15 AGFD 41. Inventor or entrepreneur... Did you know there was a difference? **K.M. Bazemore**, R.A. Bazemore

2:45 AGFD 42. Gallery of rogues: How I found myself as a part of craft distilling's vanguard. **M. Strickland**

3:15 AGFD 43. Grow your own - for fun and profit. **J. Sabol**

3:45 AGFD 44. Chickpea Institute: Engaging stakeholders in the agriculture and food industries. **J. Sum**

4:15 Panel Discussion.

Recent Advances towards the Bioeconomy

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

Preparing for Employment in a Global Workforce

Sponsored by IAC, Cosponsored by AGFD and PROF

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Developments in Biocatalysts

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

SUNDAY EVENING

Section A

Walter E. Washington Convention Center Hall C

General Posters

B. D. Guthrie, *Organizer*

5:00 - 7:00

AGFD 45. Spectroscopic and time-dependent density functional theory investigation of the photophysical properties of zeaxerone and its analogs. **M. Appell**, W. Bosma

AGFD 46. Evaluation of antioxidant and anticancer activities of *Psidium guajava* component kameferol. **J. Su**, H. Hu, P. Wu

AGFD 47. Isoquercitrin induced metabolism disorders in cancer cells by activating the AMP-activated protein kinase pathway. **J. Su**, P. Wu, R. Zhang

AGFD 48. Study on the antioxidant, bacteriostatic and antitumor activities of chili seed oil. **Y. Wang**, B. Liu, X. Wen, M. Li, K. Wang, Y. Ni

AGFD 49. Measuring the value of prebiotic fibers on gut health via innovative gut model. **S.E. Butler**, M. de Souza, A. Hoffman, L. Spence, K. Karnik, K. Canene-Adams, M. Marzotari

AGFD 50. Modeling the human gut microbiome through *in vitro* fermentation. **L. Doherty**, I. Pantoja-Feliciano, S. Arcidiacono, K. Kensil, K. Racicot, J. Soares

AGFD 51. Validation of size exclusion separation following *in-vitro* digestion to simulate absorption. **K.R. Conca**, K. Kensil

AGFD 52. Inhibitory effect of adlay oil nanoemulsion on melanin production in B16F10 melanoma cells and zebrafish. **H. Yin Ting**, Y. Ting

AGFD 53. Non-thermal plasma enhanced germination and higher gamma-aminobutyric acid (GABA) concentration in brown rice. **P. Chou**, S. Shen, J. Wu, K. Cheng, Y. Ting

AGFD 54. Nano-delivery system for bioactive ingredients using different methods: Structure and release behaviors. **S. Wenbei**

AGFD 55. Evaluation of estrogenic activity of the novel bisphenol-A alternative, four bisguaiacol-F compounds. **Y. Peng**, C. Wu, K. Reno, M. Guo

AGFD 56. Sample preparation and analysis of di- and tetra-brominated C₁₈ triacylglycerides (TAG-Br₂ and TAG-Br₄) in various rat tissues. **K. Woodling**, G. Gamboa da Costa

AGFD 57. Metabolomic analysis of commercial cranberry supplements. **J. Turbitt**, C.C. Neto, K. Colson

AGFD 58. Mechanistic analysis of arylalkylamine *N*-acyltransferases in *Tribolium castaneum*: A possible target to control crop destruction caused by the red flour beetle. **B. O'Flynn**, D.J. Merkler

AGFD 59. Metabolomic analysis and variation in phytochemical composition among North American cranberry cultivars. **L. Xue**, A. Milstead, K. Colson, C.C. Neto

AGFD 60. Comparison of dissipation ratio between metconazole and myclobutanil in dropwort. **S. Hong**, J. Hwang, S. Lee, S. Kwak, M. Kang, J. Kang, J. Ryu, K. Kyung, J. Kim

AGFD 61. Characterisation of bioactive grape and wine metabolites through a combined organic, analytical and computational approach. **S. Tan**, D. Barker, B. Fedrizzi

AGFD 62. Withdrawn.

AGFD 63. Assessing the stability of lutein in model food systems supplemented with spinach powder. **K. Kensil**, K.R. Conca

AGFD 64. Comparative metabolite profiling of *Solanum lycopersicum* leaves exposed to herbivore damage and the phytohormone jasmonic acid. **M. Cohen**, J. Smith, A.E. Witter

AGFD 65. Utilization of crop residue processing factor compilations for human safety assessment residue data strategy development. **C.K. Kingston**

AGFD 66. Further characterization of IBU calculators using additional OG worts. **N.O. Flynn**, J. Weibbaum

AGFD 67. Formation of savory flavors through reaction flavor system in the enzymatic hydrolysate of soy sauce residue and defatted soybean. **Y. Cha**, W. Wang

AGFD 68. Laboratory kitchen sink: Determining appropriate internal standards for HS-SPME-GC-MS volatile profiling in plant mapping populations using *post hoc* evaluations. **E.A. Burzynski**, B.I. Reisch, G.L. Sacks

AGFD 69. Production of seasoning flavors in the hydrolysate of soy sauce residue using reaction flavor technology. **Y. Cha**, W. Wang

AGFD 70. Atmospheric cold plasma causing chemical and physical changes on ginseng surface increasing yield of ginsenosides extraction. **R. Wang**, Y. Ting

AGFD 71. Cold Plasma pretreatment modified the chemical properties of grape surface: Enhancing the drying rate and final raisin quality. **C. Huang**, J. Wu, Y. Ting

AGFD 72. Protein-based food models developed to assess formulations for losses in amino acids due to protein crosslinking during storage. **K.R. Conca**, K. Kensil

AGFD 73. Increasing the solubility of meat and bone meal protein for potential flocculant applications. **R.M. Marsico**

AGFD 74. Mechanistic studies of protein tyrosine kinase activation by heavy metal ions. **Y. Ahmadi Beni**, S. Guha

AGFD 75. Separation of iron from egg yolk by aqueous extraction of phosphitin or ethylenediaminetetraacetic acid (EDTA) treatment. **J. Ren**, J. Wu

AGFD 76. Risk assessment of food additives and packaging. **H.E. Dover**, M.P. Holsapple, S.E. Selke

AGFD 77. Analysis of flame retardants: A survey of food contact materials. **R. Paseiro Cerrato**, L.K. Ackerman, L. DeJager, T. Begley

AGFD 78. Effects of high pressure processing on chemical migration in PET. **Y.S. Song**, J.L. Koontz, Y. Zhou, K. Pillai, J. Ding

AGFD 79. Fatty acids contents and expanded uncertainty of infant formulas by gas chromatography. **D. Seo**, J. Hwang, S. Kim, B. Kim, J. Lee

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

AGFD **80.** Contents of macro- and micro-minerals in infant formulas by ICP-OES and ICP-MS. D. Seo, J. Hwang, S. Kim, J. Park, H. Lee, B. Kim, J. Lee

AGFD **81.** LC-MS analysis of antioxidant polymer additives exposed to low dose gamma irradiation. M.D. Celiz, K.M. Morehouse, L. Dejager, T. Begley

AGFD **82.** Acidity adjustments, tartrate formation, and oxidative stability of wines treated with cation exchange resins. V. Laurie, F. Ponce, C. Adiazola, Y. Mirabal-Gallardo

AGFD **83.** Preparation of amorphous starch using ultra high pressure and ethanol process and observation of internal structure. J. Lee, B. Kim, M. Baik

AGFD **84.** Converting used tea leaf into active antimicrobial films using electrospinning method. R. Peng, Y. Ting

AGFD **85.** Investigation of antibiotic susceptibility, class 1 integron and biofilm formation ability on *Salmonella* spp., *Escherichia coli* and *Staphylococcus aureus* from various foods in South China. J. Su, W. Wang, H. Hu

AGFD **86.** Use of chemical ontology in the evaluation of food ingredients and packaging at the FDA. D.M. Schmit, T. Page

AGFD **87.** US FDA's food additive knowledgebase and cheminformatics platform: Chemical evaluation and risk estimation system. P. Volarath, L. Holt, T. Deng, M. Garg, D. Mehta, K. Arvidson

AGFD **88.** Using sniff olfactometry to measure olfactory latency. C. Albietz, T.E. Acree

AGFD **89.** Using sniff olfactometry to study Sauvignon Blanc odorant interactions. X. Zheng, C. Maxe, T.E. Acree

AGFD **90.** Eriocitrin attenuates high-fat diet induced disturbances in C57BL/6J mice. P.S. Ferreira, M. Nery, J.A. Manthey, T.B. Cesar

MONDAY MORNING

Section A

Walter E. Washington Convention Center Room 149A

From Fermentation to Fume Hood: The Chemistry of Wine

Authentication, Omics Approach & Sulfur-Compounds

Financially supported by E&J Gallo, Constellation Brands, Agilent Technologies

G. L. Sacks, *Organizer*

D. L. Capone, *Organizer, Presiding*

8:30 AGFD 91. Metabolomics tools for the analysis of non-volatile polyphenols in grapes, wine and humans. M. Herderich, V. Hysenaj, J. Fernandes, C. Stockley, N. Lloyd

8:55 AGFD 92. Chemo-diversity in monoterpene enantiomers from Riesling wines from different regions and wine styles. M. Song, M.C. Qian, C. Fuentes, E. Tomasino

9:20 AGFD 93. Regional chemical characteristics of Sangiovese wines from Italy and California. V. Canuti, S. Frost, L.A. Lerno, J. Zweigenbaum, S.E. Ebeler

9:45 AGFD 94. Global lipidomics profiling of grapes identifies lipidomics signatures discriminating between grape genotypes. V. Shulaev, K. Zaman, M. Ghaste, G. Chitarrini, S. Grando, M. Stefanini, U. Vrhovsek, F. Mattivi

10:10 Intermission.

10:30 AGFD 95. Varietal thiols origins in wine: A review on their liberation mechanisms from the precursors present in grapes and musts. R. Schneider

10:55 AGFD 96. Rethinking re-stinking: A critical evaluation of hypotheses for formation of sulfurous off aromas during wine storage. G.L. Sacks, G. Kreitman, R. Elias, D.W. Jeffery

11:20 AGFD 97. Potential strategies for preventing copper mediated reductive aroma in post-bottle wines. L. Vernarelli, G. Kreitman, R. Elias

Section B

Walter E. Washington Convention Center Room 149B

Food Additives & Packaging Global Challenges to Regulating Food Packaging

L. T. Cureton, D. L. Doell, R. Shah, *Organizers*

V. Komolprasert, *Organizer, Presiding*

L. Cureton, *Presiding*

8:00 Introductory Remarks.

8:05 AGFD 98. Comparison of the major regulatory systems for food contact materials. D. Hill

8:30 AGFD 99. Unpacking food packaging controversies. E. Greenberg

8:55 AGFD 100. Are the color additives in your inks or coatings in compliance with food contact regulations? N.H. Mady

9:20 AGFD 101. Use of recycled plastics for food packaging in Thailand. C. Pattanakul

9:45 AGFD 102. Safer food packaging: What we have learned and where we have come. M. Cheeseman

10:10 Intermission.

10:25 AGFD 103. Using analytical tools to assess compliance with the purity requirements in global food-contact regulations. P.N. Coneski

10:50 AGFD 104. Using national biomonitoring data to understand the contribution of dietary sources to human exposures of phthalates, bisphenol A, and polyfluoroalkyl substances. A.R. Zota

11:15 AGFD 105. Estimation of partition coefficients between polyolefins and water, and food simulants using the vapor pressure index method. L.L. Baner, O. Pringer

11:35 AGFD 106. Performance evaluation for the analytical methods of metals in food contact materials. Y. Abe, M. Mutsuga, K. Sato

11:55 Concluding Remarks.

Section C

Walter E. Washington Convention Center Room 144C

Food Safety & Labeling: Food & Flavor Regulations, Progress & Challenges in the Pursuit to Serve the Consumer

Food & Flavor Regulations, Accurate Labeling

Cosponsored by PROF

O. Burleson, M. Guentert, L. Jackson, *Organizers*

D. K. Weerasinghe, *Organizer, Presiding*

C. Frey, *Presiding*

8:30 Introductory Remarks.

8:45 AGFD 107. New nutrition facts panel. K. Wingfield

9:15 AGFD 108. Total and individual sugar content of top contributors of commercially processed foods with added sugars in the U.S. Y. Li, J. Ahuja

9:45 AGFD 109. FDA's added sugars labeling regulation – the not so sweet treat. B. Silverglade

10:15 Intermission.

10:30 AGFD 110. P-GMO and organic food effects on animal metabolic health. F.M. Assadi-Porter, E. Selen-Alpergin, W. Porter

11:00 AGFD 111. How the food chemicals codex evolves to ensure the safety of the food supply. C. Frey

11:30 AGFD 112. What's natural and clean label? D.K. Weerasinghe

Section D

Walter E. Washington Convention Center Room 144B

Impact of Carbonyl & Glycative Stress on Diabetic & Aging Related Diseases

Cosponsored by BIOL

C. Ho, S. Sang, *Organizers*

L. Lv, *Presiding*

8:30 Introductory Remarks.

8:35 AGFD 113. Reactive carbonyl species from the oxidation of omega-3 and omega-6 fatty acids and method for their intervention. C. Ho, Y. Wang

9:00 AGFD 114. Phenolic-type reactive carbonyl scavengers as inhibitors against the formation of advanced glycation end products (AGEs) and AGEs-induced endothelial cell apoptosis and inflammation. M. Wang, Q. Zhou

9:25 AGFD 115. Essential structural requirements and additive effects for dietary polyphenols to scavenge methylglyoxal. Y. Zhu, Q. Huang, P. Wang, L. Lv, S. Sang

9:50 AGFD 116. Influence of quercetin and its methylglyoxal adducts on the formation of α -dicarbonyl compounds in lysine and glucose model system. L. Lv

10:15 Intermission.

10:30 AGFD 117. Withdrawn.

10:55 AGFD 118. Studies on inhibition mechanism of advanced glycation end products by resveratrol in intermediate moisture protein-Sugar Foods. Z. Sheng, B. Ai, L. Zheng, X. Zheng, F. Tang, Z. Xu

11:20 AGFD 119. Trapping of acrolein by dietary flavonoids. Q. Huang, Y. Zhu, P. Wang, S. Zhang, L. Lv, S. Sang

11:45 Concluding Remarks.

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Chemical Catalytic Routes to Biobased Materials

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

MONDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 149A

General Papers

B. D. Guthrie, *Organizer*

H. Ma, *Presiding*

1:30 Introductory Remarks.

1:35 AGFD 120. High yield/quality of net proteins, lipids, and antioxidants extracted through fractionation/one step chemical method. T. Chavez-Gil

1:55 AGFD 121. Withdrawn.

2:15 AGFD 122. Concurrent production of plant protein- and carbohydrate-enriched fractions by a dry triboelectrification-based approach. S. Tabtabaei, A.R. Rajabzadeh, R.L. Legge

2:35 AGFD 123. Withdrawn.

2:55 Intermission.

3:15 AGFD 124. Extracellular substances from biofilms produced in pure and mixed culture under conditions mimetic food processing. L. Deschenes, N. Guertin, T. Ellis, T. Savard, M. Elliot, C. Lapointe, D. Chabot

3:35 AGFD 125. Effect of pressure and temperature on the stability of ascorbic acid in citrus fruit juices. M.C. Azih

3:55 AGFD 126. Studies on the oxidative stability of cashew nut (*Anacardium occidentale*) oil. M.C. Azih

4:15 AGFD 127. Comparison of analytical methods for protein level determination in foods. M.C. Azih

4:35 AGFD 128. Mathematical model of methanethiol generation and degradation in anaerobic chemostats. D. Zhang, Z. Wang

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Section B

Walter E. Washington Convention Center
Room 149B

Food Additives & Packaging**Emerging Trends in Food Packaging**

L. T. Cureton, D. L. Doell, R. Shah, *Organizers*

V. Komolprasert, *Organizer, Presiding*

L. Cureton, *Presiding*

1:00 Introductory Remarks.

1:05 **AGFD 129.** Overview of beverage packaging innovations enabled by effective regulatory clearances. S.L. Mosley, J.C. Huang

1:30 **AGFD 130.** Developing active surfaces through the implementation of nanotechnology. M. Rubino

1:55 **AGFD 131.** Active packaging using regenerated cellulose and hydroxypropyl amylopectin for fresh food products. V. Finkenstadt, J. Xu

2:20 **AGFD 132.** Halloysite nanotube/polyethylene nanocomposites as multifunctional active food packaging materials. C. Tas, B. Alkan, M. Baysal, F.C. Cebececi, S. Unal, Y.Z. Menciloglu, H. Unal

2:45 Intermission.

3:00 **AGFD 133.** Direct chemical characterization of retail food packaging & prints. L.K. Ackerman, K. Bentayeb, M. Lago

3:25 **AGFD 134.** Oxygen and moisture barrier from polyelectrolyte-based nanocoatings on polymeric packaging film. J.C. Grunlan

3:50 **AGFD 135.** High-resolution mass spectrometry as a sophisticated technique for screening non-intentionally added substances (NIAS) eluted from polyethylene terephthalate bottle. A. Yamamoto, T. Murakami, E. Kishi, M. Shizuma, A. Ozaki

4:15 **AGFD 136.** Reactive extrusion of polylactic acid/cellulose nanocomposite films: Crystallization and thermo-mechanical studies. V. Katiyar

4:35 **AGFD 137.** Influence of ligand chemistry on antimicrobial synergy of solid support bound metal chelators against acidophilic thermophilic bacteria. J. Herskovitz, R.W. Worobo, J.M. Goddard

4:55 Concluding Remarks.

Section C

Walter E. Washington Convention Center
Room 144C

Food Safety & Labeling: Food & Flavor Regulations, Progress & Challenges in the Pursuit to Serve the Consumer**Food & Flavor Regulations, Accurate Labeling**

Cosponsored by PROF

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

‡Cooperative Cosponsorship

O. Burlison, L. Jackson, D. K. Weerasinghe, *Organizers*

M. Guentert, *Organizer, Presiding*

C. Harman, *Presiding*

1:00 Introductory Remarks.

1:10 **AGFD 138.** Flavors with modifying properties (FMP). M.A. Guentert

1:40 **AGFD 139.** FEMA Expert Panel safety evaluation of flavorings with modifying properties-focus on sensory testing approaches. C. Harman

2:10 **AGFD 140.** US regulatory authority to use flavor ingredients – flavor and food labeling implications. J. Drake

2:40 Intermission.

2:55 **AGFD 141.** Recent advances in the authenticity control of natural flavor ingredients. M. Stuert, J. Kiefl, T. Geißler, K. Geißler, J.P. Ley, G.E. Krammer

3:25 **AGFD 142.** Identifying the mislabeling of natural food products with carbon-14 testing. F. Goren, J. Garside

Section D

Walter E. Washington Convention Center
Room 144B

Impact of Carbonyl & Glycative Stress on Diabetic & Aging Related Diseases

Cosponsored by BIOL

C. Ho, L. Lv, *Organizers*

S. Sang, *Presiding*

1:30 Introductory Remarks.

1:35 **AGFD 143.** Dietary genistein ameliorates high-fat plus methylglyoxal-induced advanced glycation end products formation in mice. Y. Zhao, P. Wang, S. Sang

2:00 **AGFD 144.** Analysis of glyoxal-induced DNA and protein damage in blood of diabetic patients by mass spectrometry. H.C. Chen

2:25 **AGFD 145.** Transketolase suppresses glycolaldehyde/glyoxal mediated formation of advanced glycation endproducts. M.A. Glomb, A. Klaus, C. Henning

2:50 **AGFD 146.** Targeted profiling: Quantitative analysis of multiple reactive carbonyl species in biological samples. P. Wang, S. Sang

3:15 Intermission.

3:30 **AGFD 147.** Inhibitory effect of black tea theaflavins on advanced glycation end product formation in the fructose-induced protein system. Y. Wang, T. Hsiao, S. Li, M. Pan, C. Ho, C.Y. Lo

3:55 **AGFD 148.** Tetrahydroisoquinoline derivatives by reaction of dopamine with methylglyoxal: Potential neurotoxins associated with Parkinson's disease. W. Wu, Y. Zhao, C. Ho, S. Sang

4:20 **AGFD 149.** Neuroprotective effects of anthocyanin-enriched extracts of common edible berries are mediated by their antioxidant and carbonyl trapping capacities. H. Ma, S. Johnson, N. DaSilva, W. Liu, S.M. Meschwitz, J. Dain, N.P. Seeram

4:45 Concluding Remarks.

Biological Targets of Botanical Supplements

Sponsored by TOXI, Cosponsored by AGFD

Green Polymer Chemistry: Biobased Materials & Biocatalysis**New Reaction Strategies & Materials**

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

Undergraduate Research Posters**Agricultural & Food Chemistry**

Sponsored by CHED, Cosponsored by AGFD and SOCED

MONDAY EVENING**Section A**

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

B. D. Guthrie, *Organizer*

8:00 - 10:00

49, 55-59, 66, 68, 73, 78, 86-88, 104, 118. See previous listings.

182, 204, 208, 231, 236, 251, 273-276. See subsequent listings.

TUESDAY MORNING**Section A**

Walter E. Washington Convention Center
Room 144B

Journal of Agricultural & Food Chemistry Best Paper Award & Young Scientist Award Symposium

Cosponsored by AGRO, CLINF and PROF

K. D. Deibler, *Organizer, Presiding*

8:00 Introductory Remarks.

8:10 **AGFD 150.** Carbonyl-trapping ability of phenolic compounds: An additional protective role of phenolic compounds against the broadcasting of the lipid oxidative damage in foods. R. Zamora, F.J. Hidalgo

8:50 Intermission.

9:05 **AGFD 151.** Developing novel chemical imaging approaches in agriculture using mass spectrometry. S. Annangudi, J.R. Gilbert, S. Wilson

9:35 **AGFD 152.** Controlling physical properties of β -lactoglobulin microgels to enhance emulsion stabilization. O.G. Jones

10:05 **AGFD 153.** Desired flavor-active and undesired food-borne toxicants in our food: How food chemists can help to produce healthier foods with good sensory attributes. M. Granvogl

10:35 Intermission.

10:50 **AGFD 154.** Dietary intake of oxidized lipids exacerbates colon inflammation and colon cancer through activation of Toll-like receptor 4 (TLR4). G. Zhang

11:20 **AGFD 155.** Construction of the next generation platforms to monitor food contamination and food fraud. X. Lu

Section B

Walter E. Washington Convention Center
Room 149A

Advancing Analytical Methods in Food Forensics & Authentication

Cosponsored by ANYL

L. Jackson, A. E. Mitchell, L. L. Yu, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 **AGFD 156.** Frontiers in food forensics and authentication. A.E. Mitchell

9:05 **AGFD 157.** Food defense: Defining food system disruptions. A. Kircher

9:35 **AGFD 158.** Spectroscopy based methods for detection of food adulteration. X. Lu, B. Rasco

10:05 **AGFD 159.** Non-targeted methods for characterization of foods and botanicals. J. Harnly

10:35 Intermission.

10:50 **AGFD 160.** Standardization of non-targeted methods for food adulteration prevention. Z. Xie, J. Moore

11:20 **AGFD 161.** Fingerprinting and metabolomics applications in food/botanical authentication and quality evaluation. J. Sun, P. Chen

11:50 **AGFD 162.** HPLC fingerprinting for authentication of *Berberis* species. N. Kaushik, D. Bharadwaj

Section C

Walter E. Washington Convention Center
Room 144C

Food Safety & Labeling: Food & Flavor Regulations, Progress & Challenges in the Pursuit to Serve the Consumer**Food Safety, Food Processing, Validation of Labeling**

Cosponsored by PROF

O. Burlison, M. Guentert, D. K. Weerasinghe, *Organizers*

L. Jackson, *Organizer, Presiding*

J. Canavan, *Presiding*

8:30 Introductory Remarks.

8:40 **AGFD 163.** Ohmic heating and its advantages for clean labeling. S. Sastry, T. Pyatkovskyy, C. Samaranyake

9:10 **AGFD 164.** Limited survey of dark chocolate and bakery products for undeclared milk. B. Bedford, Y. Yu, X. Wang, L. Jackson

9:40 **AGFD 165.** Applications of isothermal calorimetry for food safety. L. Wadso

10:10 Intermission.

10:25 **AGFD 166.** FSMA and the current good manufacturing practice, hazard analysis, and risk-based preventive controls for human food rule. L. Hsu

10:55 **AGFD 167.** FSIS food regulatory and labeling overview. J. Canavan

Section D

Walter E. Washington Convention Center
Room 149B

Advances in Flavor Analysis

Cosponsored by ANYL

M. C. Qian, C. T. Shao, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 **AGFD 168.** From chemosensory codes to unified flavor quantitation. T. Hofmann, A. Dunkel

8:55 **AGFD 169.** Using data tools and data visualization to interpret multifactorial flavour datasets. A.J. Taylor, D.S. Mottram

9:15 AGFD 170. Efficient aroma analysis through non-targeted pre-screening followed by detailed analysis using on-line MS and GC-EI/APCI-MS. **J. Hatakeyama, A.J. Taylor**

9:35 AGFD 171. Rapid, sensitive, and spatially resolved measurements of trace volatiles using sorbent meshes and high-resolution ambient ionization mass spectrometry. **G.L. Sacks, J.A. Jastrzembki, M.Y. Bee**

9:55 AGFD 172. Targeting taste-active peptides in foods by new approaches in peptidome analysis. **K. Sebald, A. Dunkel, T. Hofmann**

10:15 Intermission.

10:30 AGFD 173. Streamlined approach for the determination of aroma components of aged liquors. **W. Zhu, K.R. Cadwallader**

10:50 AGFD 174. Determination of chlorophenols in starch and starch based snacks by solid phase microextraction with in situ derivatization and gas chromatography coupled to tandem mass spectrometry. **C.T. Shao, V.A. Elder**

11:10 AGFD 175. Sensomics approach applied to flavor and taste studies in yellow tamarillo (*Solanum betaceum*) fruit. **J. García-Chacón, L. Prieto, C. Osorio Roa**

11:30 AGFD 176. Analysis of organic volatile aroma compounds in douzhi and tentative characterization of the key odorants by odor activity value. **Y. Liu, J. Huang, Y. Zhang, Z. Miao**

11:50 Concluding Remarks.

Sterling Hendricks Memorial Lecture Award

Sponsored by AGFD, Cosponsored by AGFD†

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Green Biocatalytic Transformations

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

TUESDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 144B

AGFD Award Symposium in honor of Dr. Ronald E. Wrolstad

N. P. Seeram, Organizer, Presiding

1:30 Introductory Remarks.

1:35 AGFD 177. Colorful world of anthocyanins: Learning from nature. **M. Giusti**

2:10 AGFD 178. pH-Differential method applied to the color assessment of anthocyanin-rich extracts and microencapsulates from *Pourouma cecropifolia* Mart. fruit. **J. Barrios, A. Morales, C. Osorio Roa**

2:45 AGFD 179. Authentication of food ingredients by vibrational spectroscopy: Moving out of the lab. **L. Rodríguez-Saona**

3:20 Intermission.

3:35 AGFD 180. Understanding anthocyanin: Researcher and educator **Dr. Ron Wrolstad. J. Lee**

4:10 AGFD 181. Rewards of anthocyanin research. **R. Wrolstad**

4:45 Concluding Remarks.

Section B

Walter E. Washington Convention Center Room 149A

Advancing Analytical Methods in Food Forensics & Authentication

Cosponsored by ANYL

L. Jackson, A. E. Mitchell, L. L. Yu, Organizers, Presiding

1:00 AGFD 182. Manuka honey authentication via fingerprinting and statistics. **N. Beilich, K. Speer**

1:30 AGFD 183. Novel approaches in high-resolution UHPLC-MS based metabolomics for analysis of food authenticity. **A. Dunkel, T. Hofmann**

2:00 AGFD 184. Non-targeted fingerprints for detecting milk quality and safety. **W. Lu, B. Gao, L. Du, L.L. Yu**

2:30 AGFD 185. Application of a novel FT-NIR and PLS1 methodology to the rapid prediction of authenticity of extra virgin olive oil products. **M.M. Mossoba**

3:00 Intermission.

3:15 AGFD 186. SPME-GC-ToF-MS techniques applied to identifying potential product taints. **M.J. Morello**

3:45 AGFD 187. Food forensics investigation combining microscopy and spectroscopy. **J. Dong, V. St.Jeor, A. Lape, T. Lindgren**

4:15 AGFD 188. Selected food forensic techniques to evaluate food authenticity and adulteration. **S.D. Bhandari, M. Germani, Z. Xie**

Section C

Walter E. Washington Convention Center Room 144C

Food Safety & Labeling: Food & Flavor Regulations, Progress & Challenges in the Pursuit to Serve the Consumer

Food Safety, Food Processing, Validation of Labeling

Cosponsored by PROF

M. Guentert, L. Jackson, D. K. Weerasinghe, Organizers

O. Bursleson, Organizer, Presiding

I. Labuda, Presiding

1:00 Introductory Remarks.

1:10 AGFD 189. Food safety interventions research at the eastern regional research center: Innovative sanitizers, natural antimicrobials and nonthermal processing technologies. **J.B. Gurtler, B.A. Niemira**

1:40 AGFD 190. Pesticide detection in organic and non-organic foods and flavors. **I. Labuda, X. Zhang, L. Heller**

2:10 AGFD 191. Mitigation of food fraud using the USP Food Fraud Mitigation Guidance and Food Fraud Database 2.0. **J. Balson**

2:40 Intermission.

2:55 AGFD 192. Reasons for proper labeling to promote the safety of thermally processed fluid products. **J. Miles**

3:25 AGFD 193. Traceability and authenticity in food products: Contribution of NMR for intramolecular isotope measurements. **G. Remaud, V. Silvestre, R.J. Robins, S. Akoka**

3:55 Concluding Remarks.

Section D

Walter E. Washington Convention Center Room 149B

Advances in Flavor Analysis

Cosponsored by ANYL

M. C. Qian, C. T. Shao, Organizers, Presiding

1:30 Introductory Remarks.

1:35 AGFD 194. Application of gas chromatography: Vacuum ultraviolet spectroscopy to flavor and fragrance analysis. **K. Schug, I.C. Santos, C. Qiu, J. Schenk, M. Bernart, J. Smuts**

1:55 AGFD 195. Two-dimensional GC-MS/olfactometry to study chiral terpene alcohol aroma contribution and stability. **M.C. Qian, F. He, Y.L. Qian**

2:15 AGFD 196. Quantitation of potent polyfunctional thiols and their enantiomers in wine using HPLC-MS/MS after derivatization. **D.L. Capone, L. Chen, L. Francis, D.W. Jeffery**

2:35 AGFD 197. Characterization of volatile sulfur compounds in different flavor types of Chinese liquor by gas chromatography-pulsed flame photometric detection. **S. Chen, S. Sha, Y. Xu**

2:55 Intermission.

3:10 AGFD 198. Applying fuzzy-set logic analysis to relationships between flavor chemistry and sensory perception: A case of red fruit aromas in wine. **E. Tomasino, A. Tomasino**

3:30 AGFD 199. Elucidation of off-flavors in canola and olive oils. **M. Granvogl, K. Matheis, P.H. Schieberle, A. Neugebauer**

3:50 AGFD 200. Novel flavor ingredient discovery by cutting edge instrumental analysis and sensory evaluation. **X. Du**

4:10 AGFD 201. Characterization of the key aroma compounds in Chinese high-grade green tea beverage (*Camellia Sinensis*) and studies on changes in tea leaves induced by the traditional manufacturing. **M. Flaig, P.H. Schieberle**

4:30 AGFD 202. Optimization of reaction flavor for sweet-brown top-notes. **L. Paravisini, D.G. Peterson**

4:50 Concluding Remarks.

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Polysaccharide-Based Materials

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

TUESDAY EVENING

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

WEDNESDAY MORNING

Section A

Walter E. Washington Convention Center Room 144B

Food-Borne Toxicants: Formation, Analysis & Toxicology

M. Granvogl, S. MacMahon, Organizers, Presiding

8:30 Introductory Remarks.

8:35 AGFD 203. Mitigation of the formation of acrylamide in foods – what has been achieved? **D.S. Mottram, N. Halford, S.J. Powers, A. Curtis**

9:05 AGFD 204. Acrylamide levels in chips made from vegetables other than potatoes. **S. Elmore, F. Xu, M. Oruna-Concha**

9:35 AGFD 205. Reducing the acrylamide-forming potential of wheat, rye and potato: Variety selection, genetic improvement and crop management. **N. Halford, S. Raffan, T. Curtis**

10:05 Intermission.

10:25 AGFD 206. Withdrawn.

10:55 AGFD 207. Analysis and occurrence of MCPD and glycidyl esters in infant formula and other complex food matrices. **J. Leigh, S. MacMahon**

11:25 Concluding Remarks.

Section B

Walter E. Washington Convention Center Room 144C

Advancing Analytical Methods in Food Forensics & Authentication

Cosponsored by ANYL

L. Jackson, Organizer

A. E. Mitchell, L. L. Yu, Organizers, Presiding

8:30 AGFD 208. Tracing quinone reactions in wine using C-13 labeling and QToF MS. **L. Ma, A.L. Waterhouse, C. Bueschl, R. Schuhmacher**

9:00 AGFD 209. Elemental profiling to establish authenticity of grapes and wines. **C. Tanabe, J. Godshaw, R. Boulton, S.E. Ebeler, H. Hopfer, J. Nelson**

9:30 AGFD 210. No standards? No problem! A standard-less isotope dilution speciation method to quantify adulteration of green table olives with copper compounds. **P.J. Gray, T. Todorov, B. Petigara Harp, P. Delmonte, P.F. Scholl**

10:00 Intermission.

10:15 AGFD 211. Forensic DNA-based species identification tools for hazards assessment, investigation of seafood-related illness, and detection of seafood fraud. **J. Deeds**

10:45 AGFD 212. Identification of strain specific bacterial proteins and protein toxins by top-down and bottom-up mass spectrometry. **M. McFarland, S. Chen, D. Andrzejewski, S. Tallent, T.R. Croley**

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11:15 AGFD 213. Effects of adulteration technique on the NIR detection of melamine in milk powder. **P.F. Scholl**, M. Bergana, B.J. Yakes, Z. Xie, S. Zbylut, G. Downey, M.M. Mossoba, J.E. Jablonski, S. Karunathilaka, L.K. Ackerman, R.L. Magaletta, S. Holroyd, M. Buehler, J. Qin, W. Hurst, J. LaPointe, D. Roberts, C. Zrybko, A. Mackey, J. Holton, G. Israelson, A. Payne, B. Gao, M. Kim, K. Chao, J. Moore

Section C

Walter E. Washington Convention Center Room 149A

Natural Alternatives to Artificial Food Additives

K. R. Cadwallader, F. Shahidi, *Organizers, Presiding*

8:30 AGFD 214. Flavors and flavorings in a clean label environment. **K.R. Cadwallader**

9:00 AGFD 215. Clean label antioxidants in food application. **F. Shahidi**

9:30 AGFD 216. Converting phyto-compounds to multifunctional food ingredients. **R.T. Toledo**

10:00 Intermission.

10:15 AGFD 217. Chemistry and challenges in using natural sourced colors exempt from FDA certification. **M. Goldschmidt**

10:45 AGFD 218. Carotenoids and natural and functional food colorants. **K. Miyashita**

11:15 AGFD 219. Stabilization of anthocyanins with food pigment potential and their insulin sensitizing effect in adipocytes under inflammatory status. **E. Demejia, D. Luna-Vital**

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Biobased Thermosetting Resins

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

WEDNESDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 144B

Food-Borne Toxicants: Formation, Analysis & Toxicology

M. Granvogl, S. MacMahon, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 AGFD 220. Lipid hydroperoxides and the either promoting or inhibitory role of phenolic compounds in 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine (PhIP) formation. **F.J. Hidalgo, R. Zamora**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

2:05 AGFD 221. Simultaneous formation of undesired food-borne toxicants and desired aroma-active compounds. **M. Granvogl**

2:35 Intermission.

2:55 AGFD 222. Alleviation chronic cadmium stress toxicity in albino rats using some domestic plants. **E. Shaker, S. Mnaa**

3:25 AGFD 223. Analysis of arsenolipids in seafood. **S. Conklin, M.M. Wollé**

3:55 Concluding Remarks.

Section B

Walter E. Washington Convention Center Room 144C

Advancing Analytical Methods in Food Forensics & Authentication

Cosponsored by ANYL

L. Jackson, *Organizer*

A. E. Mitchell, L. L. Yu, *Organizers, Presiding*

1:30 AGFD 224. Detecting and distinguishing among covalent and non-covalent differences in proteins: Shiga toxins and prions. **C.J. Silva, M.L. Erickson-Beltran**

2:00 AGFD 225. Use of a novel xMAP food allergen detection assay to detect food allergens. **E.A. Garber**

2:30 AGFD 226. Presence of undeclared allergens in food: A multi-allergen approach by mass spectrometry. **C.H. Parker**

3:00 Intermission.

3:15 AGFD 227. Development and validation of a hepatotoxicity prediction model using cultured clone-9 cells. **L. Jie, W. Lu, X. Sun, C. Zou, L.L. Yu**

3:45 AGFD 228. Novel tool for *in vitro* toxicity screening of foods using biosensor-expressing human kidney cells. **M. Mossoba, S. Vohra, E. Bigley III, Z. Keltner, P. Wiesenfeld**

4:15 AGFD 229. Withdrawn.

4:45 Concluding Remarks.

Section C

Walter E. Washington Convention Center Room 149A

Natural Alternatives to Artificial Food Additives

K. R. Cadwallader, F. Shahidi, *Organizers, Presiding*

1:00 AGFD 230. Antimicrobial activity of sophorolipids against food-borne pathogenic bacteria. **X. Fan, X. Zhang, R. Ashby, D. Solaiman**

1:30 AGFD 231. 3,6-Anhydro-L-galactose as a new natural anticariogenic sugar. **E. Yun, A. Lee, K. Kim**

2:00 Intermission.

2:15 AGFD 232. Formation and mass spectrometric identification of acetaldehyde-catalyzed condensation of red radish (*Raphanus sativus*) anthocyanins and catechin. **N.B. Stebbins, L. Howard, R. Prior, C. Brownmiller**

2:45 AGFD 233. Oxidative stability of fish oil-in-water emulsions stabilized by protein-polysaccharide complexes. **M. Krempel, K. Griffin, H. Khouryieh**

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Plant Oils & Ferulate-Based Materials

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

THURSDAY MORNING

Section A

Walter E. Washington Convention Center Room 144B

Food-Borne Toxicants: Formation, Analysis & Toxicology

M. Granvogl, S. MacMahon, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 AGFD 234. Fit-for-Purpose methods for mycotoxin analysis using LC-MS. **K. Zhang**

9:05 AGFD 235. Thermal reactions and the formation of degradation products of T2 and HT2 toxin during processing of oats. **H. Schmidt, M. Schulz, S. Becker, B. Cramer, H. Humpf**

9:35 Intermission.

9:55 AGFD 236. Development of a single kernel assay for aflatoxin contamination in maize. **D.L. Sparks, A.E. Brown, C.X. Reid, X. Shan**

10:25 AGFD 237. Identification and determination of potential migrants in food contact materials. **R. Paseiro Cerrato, L.K. Ackerman, L. Dejager, T. Begley**

10:55 Concluding Remarks.

Section B

Walter E. Washington Convention Center Room 144C

General Papers

B. D. Guthrie, *Organizer*

H. Ma, *Presiding*

8:30 Introductory Remarks.

8:35 AGFD 238. Cabbage inhibits nitrate reduction in other vegetables. **J. Huang**

8:55 AGFD 239. Cholesterol-lowering activity of short-chain fatty acids in hypercholesterolemia hamsters. **Y. Zhao, Z. Chen**

9:15 AGFD 240. Cholesterol analogs with a branched side chain but not a straight chain possess a cholesterol-lowering activity. **H. Zhu, Z. Chen**

9:35 AGFD 241. Flame retardant 2,2',4,4'-Tetrabromodiphenyl ether enhances the expression of corticotropin-releasing hormone in the placental cell model JEG-3. **Y. Tan**

9:55 AGFD 242. Resveratrol and piceatannol inhibit alpha-glucosidase in mice. **A.J. Zhang, A.M. Rimando, C.S. Mizuno, S. Mathews**

10:15 Intermission.

10:35 AGFD 243. Oral delivery of phytochemicals by edible nano-encapsulation vehicles. **J. Xiao**

10:55 AGFD 244. Identification of Interleukin 8-reducing lead compounds based on SAR studies on food-derived dihydrochalcones and related compounds in human gingival fibroblasts. **K. Schueller, J. Hans, S. Pfeiffer, J. Walker, J.P. Ley, V. Somoza**

11:15 AGFD 245. Identification of amino acid structural determinants for activating mechanisms of gastric acid secretion. **V. Stoeger, K. Liszt, B. Lieder, M. Zopun, M. Wendelin, J. Hans, J.P. Ley, G.E. Krammer, V. Somoza**

11:35 AGFD 246. Structural determinants of fatty acid uptake inhibition in differentiated Caco-2 cells. **B. Lieder, J. Hans, K. Geissler, F. Hentschel, J.P. Ley**

11:55 AGFD 247. Withdrawn.

Section C

Walter E. Washington Convention Center Room 149A

Nanoscale Sensing in Foods & Other Complex Media

Cosponsored by AGRO, ANYL, COLL, ENVR and INOR

T. V. Duncan, B. Park, Y. Wang, *Organizers*

R. G. Weiner, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 AGFD 248. *In Situ* and real-time monitoring of pesticide translocation and persistence in tomato plants by surface enhanced Raman spectroscopy. **T. Yang, L. He**

9:00 AGFD 249. Surface plasmon resonance imaging for label-free detection of foodborne pathogens and toxins. **J. Chen, B. Park**

9:25 AGFD 250. Improving the robustness of plasmonic nanoparticles for sensing in complex media. **A.J. Haes**

9:50 AGFD 251. Nanomaterials-based biosensor system for rapid detection of *Salmonella* Typhimurium in poultry supply chains. **Y. Li, J. Lin, J. Wang, M. Liao**

10:15 Intermission.

10:30 AGFD 252. Applications of near infrared fluorescent single walled carbon nanotube sensors to food and agriculture security. **M. Strano**

10:55 AGFD 253. Active botulinum neurotoxin serotypes A and B detection and differentiation by FRET-based sensor. **Y. Wang, H.C. Fry, I. Medintz, G.E. Skinner, K.M. Schill, T.V. Duncan**

11:20 AGFD 254. Bionanotechnology: Sensing from simple solutions to complex outcomes for food safety. **S. Neethirajan, X. Weng, S. Ahmed, J. Jang**

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Therapeutics & Opto-Electronics

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

THURSDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 144B

Analysis of Nutrients & Bioactive Compounds in Foods & Dietary Supplements: Methodologies & Challenges for Databases

S. Savarala, *Organizers*

P. Pehrsson, X.Wu *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 AGFD 255. Analytical methods and data for the USDA food composition databases, and process for evaluating laboratory data quality. P. Pehrsson

1:55 AGFD 256. New developments in the analyses of bioactive compounds in foods for developing special interest databases. X. Wu, D. Haytowitz, P. Pehrsson

2:15 AGFD 257. Challenges in research on phytochemicals: Avoiding some potential pitfalls. B.C. Sorkin, D.C. Hopp

2:35 Intermission.

2:50 AGFD 258. Analytically based estimates of ingredient content in dietary supplements: Dietary Supplement Ingredient Database, release 4. K. Andrews

3:10 AGFD 259. Botanical initiative for the Dietary Supplement Ingredient Database (DSID): Interlaboratory trial to assess methods for catechins in green tea dietary supplements. S. Savarala

3:30 AGFD 260. NIST Tools for analysis of foods & dietary supplements: Ensuring quality in nutrient databases. M.M. Phillips, C. Rimmer, L. Wood

Section B

Walter E. Washington Convention Center Room 144C

General Papers

B. D. Guthrie, *Organizer*

H. Ma, *Presiding*

1:30 Introductory Remarks.

1:35 AGFD 261. Study starch content and a variety of physical characteristics of rice (*Oryza sativa* L.). K.A. Omer

1:55 AGFD 262. Novel swollenin from *Talaromyces leycettanus* JCM12802 with broad substrate specificity and synergistic action with a cellulase on avicel degradation. Y. Wang, F. Zheng, T. Tu, H. Luo

2:15 AGFD 263. Isomelezitose production from sucrose via glucan-sucrases. G.L. Cote, C.D. Skory

2:35 AGFD 264. Sensory and chemical characterization of Cabernet Sauvignon wines from Chinese Loess Plateau. K. Tang, Y. Ma, Y. Xu

2:55 AGFD 265. Effect of mixing intensity on hydrolysis of rice straw and its consequence on methane production in anaerobic digestion. M. Kim, B. Kim, Y. Choi, K. Nam

3:15 Intermission.

3:35 AGFD 266. Effect of caffeine concentration on the break-down of starch into sugars by α -amylase. N. Rajan, S. Koellner, V.T. Calabrese, A. Khan

3:55 AGFD 267. Tuning of complex natural products' properties used in flavors and fragrances by enzymatic treatment. H. Bouges, S. Antoniotti

4:15 AGFD 268. Probing the role of cation- π interaction in the thermotolerance and catalytic performance of endo-polygalacturonases. T. Tu, Y. Li, Y. Wang, B. Yao, H. Luo

4:35 AGFD 269. Development of a green alternative procedure for simultaneous separation and quantification of phytochemicals. Y. Yang, S. Hong, D. Wei, P. Lin, M. Wei

4:55 AGFD 270. Ultra-sensitive enzyme immunoassays for the determination of imidacloprid using phage-displayed peptide. Y. Ding, X. Hua

5:15 Concluding Remarks.

Section C

Walter E. Washington Convention Center Room 149A

Nanoscale Sensing in Foods & Other Complex Media

Cosponsored by ANYL, COLL, ENVR and INOR

T. V. Duncan, B. Park, R. G. Weiner, *Organizers*

Y. Wang, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 AGFD 271. Three dimensional plasmonic hot spot for label-free sensing of food toxin. P.C. Ray, S.J. Jones, A. Pramanik

2:00 AGFD 272. Real-time detection of heavy metals and bacteria in water using a graphene-based field-effect transistor sensing platform. J. Chen

2:25 AGFD 273. DNAzyme- and DNA aptamer-based nanosensors for on-site and real-time detection in food safety and quality. Y. Lu, J. Zhang, T. Lan

2:50 AGFD 274. Easy-to-use, portable and inexpensive nano-engineered sensors for assessing food quality and safety. E. Andreescu, A. Othman, K. Kirk, F. Mustafa

3:15 Intermission.

3:30 AGFD 275. Exploiting bio-magnetic properties for a simple and rapid label-free extraction and concentration of pathogens from complex matrices. E.C. Alcocija

3:55 AGFD 276. Withdrawn.

4:20 AGFD 277. Electrochemical conversion of magnetic nanoparticles with multiple interfacial effects for biosensing of avian influenza virus. Y. Fu, Q. Zhang, L. Li, Q. Xie, S. Yao, Y. Li

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Applications of Biobased Materials

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

AGRO

Division of Agrochemicals

S. Jackson, *Program Chair*

SOCIAL EVENTS:

Social Hour, 6:00 PM: Wed

Sterling Hendricks Reception, 1:00 PM: Tue

CEI Open Breakfast Meeting (Cosponsored with AGRO/ENVR), 7:45 AM: Mon

Graduate Student Luncheon, 11:45 AM: Mon

Blues-N-Brews, 5:15 PM: Tue

BUSINESS MEETINGS:

Business Meeting, 5:00 PM: Sun

SUNDAY MORNING

Section A

Renaissance Washington, DC Downtown Mount Vernon Square B

Roles of Natural Products for Biochemical Pesticides in Agriculture

J. J. Beck, C. Rering, *Organizers*

S. O. Duke, *Organizer, Presiding*

8:25 Introductory Remarks.

8:30 AGRO 1. Role of the IR-4 Project in the regulatory approval of biopesticides for use in specialty crop protection. J. Baron, M.P. Braverman, D. Kunkel

8:55 AGRO 2. Encapsulation of essential oils into nanoparticles to be used as environmentally-friendly alternative pesticides. S. Kim

9:20 AGRO 3. Uptake and translocation of tritium labeled thymol in citrus plants. C. Wong, J.R. Coats, V.C. Albright

9:45 AGRO 4. Interaction of silver nano particles embedded in *Ocimum tenuiflorum* phytols against *Xanthomonas* species. M. Bapat

10:10 Intermission.

10:30 AGRO 5. Endophytes as source of natural pesticide. N. Kaushik

10:55 AGRO 6. Can resistance inducers and plant growth regulators be used to control phytoplasma diseases? A case study of woody plants. W. Schweigkofler

11:20 AGRO 7. Fencicamid: A natural product-based active ingredient for disease control. K.G. Meyer, J. Owen, C. Yao, K. Myung, G. Kemmitt, A. Leader, D. Young, N. Wang, P. Johnson

11:45 Concluding Remarks.

Section B

Renaissance Washington, DC Downtown Meeting Room 2

Mechanistic Modeling & Effectiveness of Buffer Strips for Pesticide Regulatory Frameworks

D. R. Jones, O. Perez-Ovilla, *Organizers, Presiding*

8:25 Introductory Remarks.

8:30 AGRO 8. Use of buffers and vegetated filter strips in risk management of pesticides. R.D. Jones

8:55 AGRO 9. Effect of the formulation of vegetative filter strips pesticide residue degradation on environmental exposure assessments. A.M. Ritter, R. Munoz-Carpena, G. Fox, O. Perez-Ovilla, I. Rodea-Palomares

9:20 AGRO 10. Experimental testing of a new algorithm for analysis of vegetative filter strips with shallow water table effects. G. Fox, R. Munoz-Carpena, R. Purvis

9:45 Intermission.

10:05 AGRO 11. Variability in buffer effectiveness based on VFSSMOD simulations in a probabilistic exposure assessment. M. Winchell, L. Padilla, Z. Tang, M. Whitfield Aslund

10:30 AGRO 12. Meta-regression model for predicting pesticide removal efficacy of buffer strips. H. Chen, M. Grieneisen, M. Zhang

10:55 AGRO 13. Vegetated ditches as a best management practice to filter pesticides, sediment, and other constituents from agricultural and urban runoff water. W.M. Williams, J. Trask, D. Denton

11:20 AGRO 14. Evaluation and modeling of pesticides removal efficacy in golf courses. O. Perez-Ovilla, R. Munoz-Carpena, P. Rice, L.L. McConnell, T. Xu

11:45 AGRO 15. Mechanistic modeling of the influence of a shallow water table on surface low, sediment and pesticide transport through vegetative filter strips. R. Munoz-Carpena, C. Lauvernet, N. Carluer, G. Fox

12:10 Concluding Remarks.

Section C

Renaissance Washington, DC Downtown Meeting Rooms 13/14

Risk Assessment & Beyond: Innovative Approaches to Meet FIFRA & ESA Consultation Needs

D. D. Campbell, J. Crossland, G. Hall, L. Honey, *Organizers*

B. McGaughey, *Organizer, Presiding*

C. Rossmelst, *Presiding*

8:25 Introductory Remarks.

8:30 AGRO 16. Reducing pesticide exposure to threatened and endangered species. C. Tortorici

8:55 AGRO 17. Addressing highly specialized FIFRA uses in the endangered species act consultation process: Necessity is the mother of invention. C. Layne

9:20 AGRO 18. Piloting a net-conservation benefit approach for pesticide registrations under the Endangered Species Act. D.D. Campbell

9:45 AGRO 19. Decision framework for assessing pesticide effects to endangered species through mitigation actions. N. Gard, C. Menzie, N.J. Snyder, M. Kern, A.C. Barefoot

10:10 Intermission.

10:30 AGRO 20. Mitigation and the ESA pesticide national consultation process. P. Ashfield, K. Bissell, L. Laniawe, A. Raabe

10:55 AGRO 21. Making better environmental impact decisions using Virginia's Natural Heritage Data Explorer. J. Bulluck

11:20 AGRO 22. National invasive species management: Protecting ESA listed species in infested ecosystems. J. Crossland

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11:45 AGRO 23. Facilitating voluntary conservation on private lands: Partnerships and Endangered Species Act predictability. **M.R. Martin**, D. Flynn, G. Hall, R. Gooch, J. Fritscher

12:10 Concluding Remarks.

Section D

Renaissance Washington, DC Downtown Meeting Room 15

Advances in Residue Analytical Methods: Innovation, Current Status & Future Prospects

Cosponsored by ENVR

Financially supported by Golden Pacific Laboratories

S. Perez, E. A. Schoenau, *Organizers*

T. Geng, R. Hill, M. Saha, *Organizers, Presiding*

X. Zhou, *Presiding*

8:25 Introductory Remarks.

8:30 AGRO 24. Proof of concept: Cost savings start with method design not development. **E.A. Schoenau**

8:55 AGRO 25. Adapting LC-MS/MS methodology for soy allergen determination using different mass spectrometers and other variables. **L. Sheng**

9:20 AGRO 26. Endogenous soybean allergen levels are less affected by transgenesis than by traditional breeding. **R. Herman**, B.J. Fast, R. Hill

9:45 AGRO 27. QuEChERS-based approach to FDA Pesticide Analytical Manual (PAM) to fulfill the EPA requirement for Office of Prevention, Pesticides and Toxic Substances Residue Chemistry Test Guidelines OPPTS 860.1360. **S. Perez**, R. Perez, N. Tarkalanov, Y. Park, J. Adams

10:10 Intermission.

10:30 AGRO 28. Benefits of using radio-labeled test materials for developing residue analytical methods. **P. Cassidy**

10:55 AGRO 29. Residue analysis of bee-related matrices: Challenges and techniques. **R.S. Andrews**, R.F. Gooding, J.E. Jones

11:20 AGRO 30. Improvements to high-throughput determination of neonicotinoid insecticides including differential ion mobility spectrometry (DMS) in various pollinator matrices. **J. Warnick**

11:45 Discussion.

Ecological & Human Health Impacts of Emerging Environmental Contaminants

Sponsored by ENVR, Cosponsored by AGRO and CHAL

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

SUNDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown Mount Vernon Square B

Roles of Natural Products for Bioinert Pesticides in Agriculture

J. J. Beck, S. O. Duke, C. Rering, *Organizers*

C. Rering, *Presiding*

1:25 Introductory Remarks.

1:30 AGRO 31. New opportunities for controlling parasitic weeds with chemistry from antagonistic plants. **T. Hooper**, Z.R. Khan, C. Midega, J.A. Pickett

1:55 AGRO 32. Probing the mode of action of the phytotoxin t-chalcone with RNAseq. **S.O. Duke**, C. Diaz-Tielas, E. Grana, A. Sanchez-Moreiras, M.J. Reigosa, Z. Pan

2:20 AGRO 33. Metabolites produced by foliar pathogens for buffelgrass biocontrol in the Sonoran Desert. **M. Masi**, S.E. Meyer, S. Clement, M. Cristofaro, A. Cimmino, A. Evidente

2:45 Intermission.

3:05 AGRO 34. Secondary metabolites from plant pathogenic fungi as potential herbicides. **K.M. Meepagala**, B.M. Clausen, R.D. Johnson, S.O. Duke

3:30 AGRO 35. Insect antifeedant activity and preparation of dihydrobenzofurans from *Cyperus* spp. **M. Morimoto**

3:55 AGRO 36. Host plant-based semiochemicals for attracting the leaf-footed bug, an insect pest of California agriculture commodities. **J.J. Beck**, J.N. Chuong, W. Gee, L.W. Cheng

4:20 Concluding Remarks.

Section B

Renaissance Washington, DC Downtown Meeting Room 2

Environmental Fate, Transport & Modeling of Agriculturally-Related Chemicals

Cosponsored by ENVR

M. Barrett, J. Gan, S. H. Jackson, M. T. Shamim, T. Xu, *Organizers*

L. Padilla, Z. Tang, *Organizers, Presiding*

1:25 Introductory Remarks.

1:30 AGRO 37. Fate of organophosphate pesticides in wetlands receiving agricultural drainage. **C. Sahin**, M. Karpuzc

1:55 AGRO 38. Improving the exposure assessment of plant protection products in chronic chironomid toxicity tests by determining depth-related sediment and pore-water concentrations. **P. Dalkmann**, A. Dorn, K. Hammel, D. Faber, E. Hellpointner

2:20 Intermission.

2:40 AGRO 39. Reliable estimation of abiotic hydrolysis formation and decline parameters across pH and temperature for pesticide risk assessment. **S. Wente**, K. Pluntke

3:05 AGRO 40. Validation of a high throughput screening assay for the determination of pesticide soil adsorption. **K. Lynn**, C. Brown, H. Wang, M. Hastings, B. Zercher, R. Gantzer, R. Rasoulpour

3:30 AGRO 41. Case-study to evaluate the representativeness of public groundwater monitoring data to assess the potential for leaching to groundwater. **V. Houck**, T.L. Negley, A. Newcombe, R. Morris

3:55 AGRO 42. Identification of dominant factors influencing PRZM5 refined leaching predictions. **J. Stryker**, L. Padilla, N. Peranginangin, X. Hu, M. Winchell

4:20 Concluding Remarks.

4:45 Discussion.

3:30 AGRO 41. Case-study to evaluate the representativeness of public groundwater monitoring data to assess the potential for leaching to groundwater. **V. Houck**, T.L. Negley, A. Newcombe, R. Morris

3:55 AGRO 42. Identification of dominant factors influencing PRZM5 refined leaching predictions. **J. Stryker**, L. Padilla, N. Peranginangin, X. Hu, M. Winchell

4:20 Concluding Remarks.

Section C

Renaissance Washington, DC Downtown Meeting Rooms 13/14

Veterinary Drugs: Research, Residues & Regulations

Residues Analysis

Financially supported by Bryant Christie

S. J. Lehotay, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 AGRO 43. Rapid, simple, and effective cleanup of bovine liver samples prior to UPLC-MS/MS multiresidue veterinary drugs analysis. **M.S. Young**, K. Tran

1:30 AGRO 44. Ion mobility-mass spectrometry as an innovative strategy to investigate the steroids profile (NIA Finalist). **M. Hernández-Mesa**, A. Escourrou, F. Monteau, G. Dervilly-Pinel, B. Le Bizec

1:55 AGRO 45. Improving the throughput of drug residue analysis using vibrational shaking technology. **M. Danaher**

2:20 AGRO 46. Brazil food control challenges II – avermectin residues crisis in Brazil: A reliable method for the simultaneous detection of 5 avermectins in bovine muscle using LC-MS/MS with electrospray ionization. **A.M. Montes Nino**, R.H. Granja

2:45 Intermission.

3:05 AGRO 47. Orbitrap or Time-of-flight? **A. Kaufmann**

3:30 AGRO 48. Application of a screening method for drug residues in fish, shrimp, and eel using liquid chromatography high resolution mass spectrometry. **S. Turnipseed**, J. Storey, I. Wu, W. Andersen, J. Lohne

3:55 AGRO 49. Development of a simple and rapid extraction method for the determination of resorcylic acid lactones, stilbenes and trenbolone in liver tissues with enzymatic digestion. **C. Akre**, B. Shurmer, T. Chambers

4:20 AGRO 50. Analytical challenges and developments for methods required to support regulatory requirements. **P. Martos**, C. Wroblewski

4:45 Concluding Remarks.

Section D

Renaissance Washington, DC Downtown Meeting Room 15

Agrochemical Formulations

Cosponsored by ENVR†

R. Acosta Amado, M. Meredith, S. Pilotok, S. Sumulong, R. Totten, *Organizers*

H. Adusumilli, L. Ritter, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 AGRO 51. Development of environmentally benign agricultural adjuvants at Evonik. **R. Stiltoner**, J.A. Heuser, C.A. Poffenberger, R. Haensel, A. Singer

1:30 AGRO 52. Assessing the potential impact of a tall oil based surfactant blend on estrogenic, androgenic and aromatase endpoints in a fish endocrine screening assay. **S.L. Levine**

1:55 AGRO 53. Role of a multiactive bio-organic substance on protection and yield of rice crop in southern India. **S. Pathare**, M. Bapat

2:20 AGRO 54. Toxicology data supporting inert tolerance exemptions: Approaches to testing surfactants appropriately to inform human health risk assessment. **D. Saltmires**

2:45 Intermission.

3:05 AGRO 55. Regulatory perspectives on surfactant analytical methods. **R. Hill**, H. Adusumilli

3:30 AGRO 56. Novel nanostructured pesticide delivery technology to enhance leaf/cuticle penetration and to decrease environmental loading. **E. Manek**, R.V. Jones, F. Darvas

3:55 AGRO 57. Structured surfactants as rheology modifiers for electrolyte systems. **K. Buchek**, E. Shaw, E. Weber

4:20 AGRO 58. Building sustainability into the development of floriypraxifen-benzyl herbicide formulations. **D.G. Wujek**, J. Atkinson, D. Grandcolas, D. Hopkins

4:45 Concluding Remarks.

Section E

Renaissance Washington, DC Downtown Meeting Room 16

Pesticides, Pollinator Health & Agricultural Sustainability

M. Fekken, T. Steeger, *Organizers*

J. R. Purdy, J. M. Van Emon, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 AGRO 59. Honey bee colony-level food requirements and supplemental feeding: A review in support of dietary exposure assessment. **J.R. Purdy**, S. Rodney

1:30 AGRO 60. Honey bee nectar foragers feeding themselves and the colony: A review in support of dietary exposure assessment. **S. Rodney**, J.R. Purdy

1:55 AGRO 61. Workshop on pesticide exposure assessment paradigm for non-Apis bees. **R. Singh**, S. Hinarejos

2:20 AGRO 62. Guttation water as a potential pesticide exposure route to honey bees: A review of recent literature. **A. Schmolke**, B. Kearns, B. O'Neill

2:45 Intermission.

3:05 AGRO 63. Measured pesticide levels in nectar and pollen: The real news about dietary exposure of honey bees. **V.J. Kramer**

3:30 AGRO 64. Measuring and mitigating abrasion of treated corn seed coatings as a route of insecticide exposure for honey bees. **R. Johnson**, D. Sponsler, C. Lin

3:55 AGRO 65. Characterizing chronic toxicity to honey bee colonies with a colony feeding study design. **A. Olmstead**

4:20 AGRO 66. Imidacloprid: A case study in the application of a regulatory framework in assessing pesticide risks to bees. **J. Housenger**, K. Sappington

4:45 Discussion.

†Cooperative Cosponsorship

Ecological & Human Health Impacts of Emerging Environmental Contaminants

Sponsored by ENVR, Cosponsored by AGRO and CHAL

MONDAY MORNING

Section A

Renaissance Washington, DC Downtown Mount Vernon Square B

Roles of Natural Products for Biorational Pesticides in Agriculture

S. O. Duke, C. Rering, *Organizers*

J. J. Beck, *Organizer, Presiding*

8:25 Introductory Remarks.

8:30 AGRO 67. Host plant and microbial volatiles as powerful new tools to manage tortricid pests of horticultural crops. **A. Knight**

8:55 AGRO 68. Do volatiles produced by nectar-dwelling microbes affect honey bee preferences? (NIA Finalist). **C. Rering, J.J. Beck, R. Vannette**

9:20 AGRO 69. Attraction of sterile male Mediterranean fruit flies, *Ceratitis capitata* (Diptera: Tephritidae), to tea tree oil. **N. Tabanca, J. Niogret, N.D. Epsky**

9:45 AGRO 70. Understanding interactions between *Drosophila suzukii* and it yeast microbes: Implications for larval fitness and development. **M. Lewis, K. Hamby**

10:10 Intermission.

10:30 AGRO 71. Semiochemicals as biorational tools in the management of root knot nematodes. **B. Torto**

10:55 AGRO 72. Kairomonal approach to monitor the population of the cocoa pod borer, *Conopomorpha cramerella* (Lepidoptera: Gracillariidae), a major pest of cocoa in Asia. **J. Niogret, H. Alborn, N. Tabanca, K. Ingram, S. Lambert, P.E. Kendra, N.D. Epsky**

11:20 AGRO 73. Method to improve the detection of volatile compounds in insects using headspace solid-Phase microextraction (HS-SPME). **J. Chen**

11:45 AGRO 74. Conflicting data on the value of sesquiterpene lactones for defense against sunflower insect pests. **J. Prasifka**

12:10 Concluding Remarks.

Section B

Renaissance Washington, DC Downtown Meeting Room 2

Environmental Fate, Transport & Modeling of Agriculturally-Related Chemicals

Cosponsored by ENVR

M. Barrett, J. Gan, S. H. Jackson, M. T. Shamim, T. Xu, *Organizers*

L. Padilla, Z. Tang, *Organizers, Presiding*

8:25 Introductory Remarks.

8:30 AGRO 75. Revisions to PRZM5.0 runoff methods and erosion algorithms to reflect current rainfall intensity patterns. **T.L. Estes, K.L. Armbrust**

8:55 AGRO 76. Field study to determine runoff and deposition of an herbicide in pasture conditions. **L. Carver, J. Trask, N.J. Snyder, C. Mucha Hirata, A.C. Barefoot**

9:20 AGRO 77. Tracer studies in headwater watersheds in the Midwestern U.S. to characterize stream flow dynamics. **G. Goodwin, D. Perkins, M. Cox, L. Carver, J. Trask, S.M. Chen**

9:45 AGRO 78. Nitrate fluxes are strongly correlated with fluxes of the metolachlor metabolite, MESA. **C.P. Rice, G. McCarty, C.J. Hapeman**

10:10 Intermission.

10:30 AGRO 79. Withdrawn.

10:55 AGRO 80. Long-term trends in pesticide concentrations and loads in Lake Erie tributaries. **S. Biswas, L. Johnson, A.R. Roerdink, K. Krieger, J. Kramer, E. Ewing**

11:20 AGRO 81. Application of the SWAT model and high-resolution monitoring data for the identification of herbicide source areas in a high agricultural intensity catchment. **H. Rathjens, M. Winchell, R. Sur, D. Baets, F. Krebs, D. Lembrich**

11:45 AGRO 82. High tier spray drift evaluation for ground applications. **Z. Tang, T. Xu, K. Qin, P.N. Coody**

12:10 Concluding Remarks.

Section C

Renaissance Washington, DC Downtown Meeting Rooms 13/14

Veterinary Drugs: Research, Residues & Regulations

Regulatory & Antimicrobial Resistance Matters

Financially supported by Bryant Christie

S. J. Lehotay, *Organizer, Presiding*

8:25 Introductory Remarks.

8:30 AGRO 83. Unique watershed-level assessments for a veterinary medicinal product (Revalor-XR) containing trenbolone acetate and 17 β -estradiol. **Q. Ma, J. Staveley, J. Ma, C. Celly, G. Scheef**

8:55 AGRO 84. Developments in EU legislation: Validation and new food and animal health regulations. **S. Sterk, M.H. Blokland, B.J. Berendsen, L.A. van Ginkel**

9:20 AGRO 85. USDA/FSIS exploratory pilot project to enhance data collection for antimicrobials used in food animals via the NARMS cecal sampling program. **P. Basu**

9:45 AGRO 86. Enhancing antibiotic stewardship: Antibiotic administration route impacts swine intestinal microbiota and resistance gene diversity. **C. Loving**

10:10 Intermission.

10:30 AGRO 87. Effect of biological treatment of manure on the concentration of antibiotic residues and tetracycline resistance genes. **T. Van den Meersche, G. Rasschaert, E. Van Coillie, F. Haesebrouck, M. Heyndrickx, E. Daeseleire**

10:55 AGRO 88. Assessing dairy manure management strategies for removal of antimicrobials and spread of antimicrobial resistant genes. **J. Hurst, L. Sassoubre, D.S. Aga**

11:20 AGRO 89. Monitoring the quantity and persistence of tetracycline resistance genes in swine waste over a period of 100 days. **M. Couch, A. Abdulrheem, C. Cruse, C. Fullington, E.D. Conte, S. Antle, J.H. Loughrin, R. Parekh, A. Getahun**

11:45 AGRO 90. Detection of acetyltransferase modification of aminoglycoside in bacteria using ultra-high performance liquid chromatograph-mass spectrometry. **J.J. Perez**

12:10 Concluding Remarks.

Section D

Renaissance Washington, DC Downtown Meeting Room 15

Managing Pesticide Use & Use Data

M. A. Robertson, K. Steinmann, *Organizers*

M. Zhang, *Organizer, Presiding*

8:25 Introductory Remarks.

8:30 AGRO 91. Overview of the California Pesticide Use Reports database. **K. Steinmann, M. Zhang, M. Robertson**

8:55 AGRO 92. Pesticide Use Reports (PUR) data has enabled hundreds of academic and medical research studies. **M. Grieneisen, M. Zhang**

9:20 AGRO 93. Employing pesticide use data to evaluate the impact of integrated pest management programs in Arizona and California. **J.J. Farrar, A. Crump, A.J. Fournier, P.C. Ellsworth**

9:45 AGRO 94. Estimating outdoor residential and urban pesticide use from the California Pesticide Use Reporting database. **W.M. Williams, C. Hoogeweg, Y. Luo, K.D. Moran**

10:10 Intermission.

10:30 AGRO 95. Using the California School Pesticide Use Report database to facilitate the adoption of effective least toxic pest management practices at schools sites statewide. **E. Denemark**

10:55 AGRO 96. Using pesticide use reporting databases to provide comments on regulatory processes and policies. **A. Crump, J.J. Farrar, A.J. Fournier, P.C. Ellsworth**

11:20 AGRO 97. PURwebGIS: simplifying a large agro-environmental spatio-temporal dataset for quick assessment and decision making. **M. Zhang, C. DeMars**

11:45 AGRO 98. Economic and pest management analysis of proposed pesticide regulations. **J. Steggall**

12:10 Concluding Remarks.

Section E

Renaissance Washington, DC Downtown Meeting Room 16

Pesticides, Pollinator Health & Agricultural Sustainability

J. R. Purdy, J. M. Van Emon, *Organizers*

M. Feken, T. Steeger, *Organizers, Presiding*

8:25 Introductory Remarks.

8:30 AGRO 99. Evaluating the impacts of pesticides on pollination as an ecosystem service: A synopsis of the IPBES report. **J. Pettis**

8:55 AGRO 100. Assessing effects of pesticides on bee immune system. **D. Lehmann**

9:20 AGRO 101. ATP-sensitive inwardly rectifying potassium channel regulation of viral infections in honey bees. **S. O'Neal, D. Swale, J.R. Bloomquist, T.D. Anderson**

9:45 AGRO 102. Use of a colony simulation model for assessing pesticide impacts to honey bees. **K. Garber, G. DeGrandi-Hoffman, T. Purucker, B. Curry, A. Kanarek**

10:10 Intermission.

10:30 AGRO 103. Using an adverse outcome pathway network to describe the weight of evidence linking nicotinic acetylcholine receptor activation to honey bee colony failure. **C. LaLone**

10:55 AGRO 104. Chemical interventions to reduce honey bee interaction with food sources. **N.R. Larson, U.R. Bernier, J.R. Bloomquist, T.D. Anderson**

11:20 AGRO 105. State Managed Pollinator Protection Plans (MP3s): Common sense solutions to complex challenges. **D. Hoskins**

11:45 AGRO 106. Systemic insecticide risk assessment for pollinators in ornamental horticulture crops. **R.S. Cowles, C. Palmer, J.A. Bethke, J. Chong, B.D. Eitzer, D. Potter, D. Smitley**

12:10 Concluding Remarks.

Ecological & Human Health Impacts of Emerging Environmental Contaminants

Sponsored by ENVR, Cosponsored by AGRO and CHAL

Measurements & Methods in Environmental Nanotechnology

Sponsored by ENVR, Cosponsored by AGRO and ANYL

MONDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown Mount Vernon Square B

Advances in Insecticide Mode of Action, Chemistry & Resistance New Chemistry

Financially supported by DuPont Crop Protection

J. M. Clark, *Organizer*

J. A. Ottea, D. M. Soderlund, *Presiding*

1:05 Introductory Remarks.

1:30 AGRO 107. Mechanisms of synergism for increased insecticidal action. **J.R. Bloomquist**

1:55 AGRO 108. Characterizing potassium transport pathways as novel targets for insecticide design. **D. Swale**

2:20 AGRO 109. Specific modes of action can facilitate rational approaches to overcoming resistance to chemical insect control agents. **J.A. Pickett**

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2:45 AGRO 110. Developing RNA interference as a pest management tool for western corn rootworm: Identifying opportunities and potential risks. **B. Siegfried**

3:10 Intermission.

3:30 AGRO 111. Lessons learned in the search for mosquitoicidal AChE inhibitors having both target selectivity and resistance-breaking properties.

P.R. Carlier, J.R. Bloomquist, J. Li, M. Totrov

3:55 AGRO 112. Discovery of novel topical and spatial repellents for use against mosquitoes. **U.R. Bernier**

4:20 Discussion.

Section B

Renaissance Washington, DC Downtown Meeting Room 2

Atmospheric Fate & Transport of Agricultural Emissions

Cosponsored by ENVR†

R. Li, *Organizer*

S. Grant, G. Rothman, *Organizers, Presiding*

1:50 Introductory Remarks.

1:55 AGRO 113. Development of an applied orchard air blast sprayer pesticide deposition model. **H. Thistle, M. Teske, M. Willett**

2:20 AGRO 114. Simple 1st principle approach for predicting the evaporation and spray drift (ground applications) of atomized liquid droplets. **S. Cryer, A. Altieri**

2:45 AGRO 115. Volatile organic compound emissions from poultry houses. **Q. Yao, C.J. Hapeman, H. Li, M.D. Buser, J. Wanjura, G. Holt, P. Downey, A. Torrents**

3:10 Intermission.

3:25 AGRO 116. Modeling dispersion of dust emissions from pesticide treated seeds during agricultural seed planting operations.

S. Ghosh, S. Grant, K. Crist, F. Rice

3:50 AGRO 117. Significant impact of biomass burning on PM_{2.5} concentrations in a Rocky Mountain valley: Results of multiple source apportionment models. **R. Li, W. Zhang, R. Hardy, R. Kotchenruther, T. Ward**

4:15 AGRO 118. Withdrawn.

4:40 Panel Discussion.

Section C

Renaissance Washington, DC Downtown Meeting Rooms 13/14

2,4-D Human Exposure Data: Lessons from Decades of Study

Cosponsored by ENVR

J. S. Lakind, *Organizer*

C. J. Burns, K. D. Racke, *Organizers, Presiding*

1:50 Introductory Remarks.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

1:55 AGRO 119. Epidemiology and public health protection: The 2,4-D story. **C. Burns**

2:20 AGRO 120. History, use and regulation of 2,4-D. **K.D. Racke, S. McMaster**

2:45 AGRO 121. Critical and systematic evaluation of 2,4-dichlorophenoxyacetic acid (2,4-D) exposure data: Quality and generalizability for human assessments. **J.S. Lakind, C.J. Burns, D.Q. Naiman, C. O'Mahony, G. Vilone, A.J. Burns, J.S. Naiman**

3:10 Intermission.

3:30 AGRO 122. 2,4-D Human exposure data: Harmonisation of published data. **G. Vilone, J.S. Lakind, C.J. Burns, C. O'Mahony**

3:55 AGRO 123. Ensuring harmonized and comparable laboratory measurements to improve public health. **H. Vesper**

4:20 Panel Discussion.

5:00 Concluding Remarks.

Section D

Renaissance Washington, DC Downtown Meeting Room 15

Managing Pesticide Use & Use Data

M. A. Robertson, M. Zhang, *Organizers*

K. Steinmann, *Organizer, Presiding*

1:50 Introductory Remarks.

1:55 AGRO 124. California pesticide use trend in agriculture in the last twenty five years. **M. Zhang, H. Chen, M. Grieneisen, K. Steinmann, M.A. Robertson**

2:20 AGRO 125. Efficacy of different strategies for the reduction of pesticide risk in agriculture: Inferences from The California Pesticide Use Reports (PUR) from 1993 to 2014. **L. Epstein, M. Zhang**

2:45 AGRO 126. Index method to evaluate growers' pesticide use for identification of effective on-farm pest management strategies: A case study of winegrape in Madera County, California. **Z. Qin, M. Zhang, B. Xu, W. Li**

3:10 Intermission.

3:30 AGRO 127. Botanical pesticide registration and use in California. **M. Grieneisen, M.B. Isman**

3:55 AGRO 128. Spatial re-allocation of pesticide use data in agricultural and urban settings. **C. Hoogeweg, R. Vamshi, W.M. Williams, M.J. Cheplick**

4:20 AGRO 129. Predicting illness rates from pesticide use data: The promise and challenges of geoinformatics. **L. Graham, G. Wroblicky, M. Zeiss**

4:45 Concluding Remarks.

Section E

Renaissance Washington, DC Downtown Meeting Room 16

Fate & Metabolism of Agrochemicals: Early Career Scientist

Y. Ding, S. Grant, F. Jia, M. Ma, *Organizers, Presiding*

1:50 Introductory Remarks.

1:55 AGRO 130. Practical challenges when conducting guideline soil adsorption batch equilibrium studies with low mobility compounds. **T. Siyoum, M.A. Ponte**

2:20 AGRO 131. Metabolism and residues of 2,4-dichlorophenoxyacetic acid in DAS-40278-9 maize (*Zea mays*) transformed with *Aryloxyalkanoate Dioxygenase-1* gene. **X. Zhou, S.L. Rotondaro, M. Ma, Y. Adelfinskaya, J. Balcer, B.M. Wendelburg, A.L. Latham**

2:45 AGRO 132. Assessing seasonal off-field transport of understudied agricultural chemicals to Midwest streams: The nitrogen stabilizer compound, nitrapyrin, and three dichloroacetamide herbicide safeners. **E.E. Woodward, M.L. Hladik, D.W. Kolpin**

3:10 Intermission.

3:30 AGRO 133. Aerobic soil degradation of 14C-meptyldinocap and identification of major metabolites. **J.A. Taylor, J. Balcer, M. Jung, K. Lynn, A.L. Latham**

3:55 AGRO 134. Concentration methods of aquatic or soil/sediment samples in preparation for chromatographic analyses. **M. Lee, M.A. Ponte**

4:20 AGRO 135. Characterizing the surface abiotic degradation products of UK-2A. **Q. Xiong, K. Myung, C. Yao, P. Graupner, Y.A. Adelfinskaya, J.F. Daeuble, S.T. Meyer, Z. Buchan, N. Wang, K.G. Meyer**

4:45 AGRO 136. Novel in vitro method for metabolite identification from fertile hen egg. **Y. Yuan, V. Gaddamidi**

5:10 Discussion.

Measurements & Methods in Environmental Nanotechnology

Sponsored by ENVR, Cosponsored by AGRO and ANYL

MONDAY EVENING

Section A

Walter E. Washington Convention Center Halls D/E

Sci-Mix

S. H. Jackson, *Organizer*

8:00 - 10:00

278, 283, 285, 288, 290, 293-295, 297-298, 300, 302-308, 321, 323-324, 328, 332, 335, 337-340, 343-349, 356, 360-361, 363, 365. See subsequent listings.

TUESDAY MORNING

Section A

Renaissance Washington, DC Downtown Mount Vernon Square B

Advances in Insecticide Mode of Action, Chemistry & Resistance

Mode of Action

Financially supported by DuPont Crop Protection

J. M. Clark, *Organizer*

T. Anderson, J. G. Scott, *Presiding*

8:35 Introductory Remarks.

8:40 AGRO 137. Canonical and non-canonical binding sites of neonicotinoids determining their selective actions on insect nicotinic acetylcholine receptors. **M. Ihara, D. Sattelle, K. Matsuda**

9:05 AGRO 138. Muscarinic acetylcholine receptors as a target for mosquitoicide development. **A.D. Gross, P.R. Carlier, J.R. Bloomquist**

9:30 AGRO 139. Synergism between pyrethroids and neonicotinoids on insect cholinergic synaptic transmission. **S. Thany**

9:55 Intermission.

10:15 AGRO 140. Mode of action characterization of the novel plant-parasitic nematocidal, fluzaindolizine. **D. Cordova, I. Kang, J. Andreassi, E. Benner, F. Partridge, D. Sattelle, J. Desaeger, T. Thoden, M. Rivera, S. Gutteridge, G.P. Lahm**

10:40 AGRO 141. Afidopyropen: New and potent modulator of insect TRP channels. **A. Nesterov, R. Kandasamy, D. London, L. Stam, W. von Deyn, X. Zhao, V.L. Salgado**

11:05 AGRO 142. Selective actions of isoxazoline antagonists and macrolide activators on ligand-gated chloride channels. **Y. Ozo**

11:30 Concluding Remarks.

Section A

Renaissance Washington, DC Downtown Mount Vernon Square B

Sterling Hendricks Memorial Lecture Award

Cosponsored by AGFD†

Financially supported by US Department of Agriculture

S. O. Duke, K. Kaplan, *Organizers, Presiding*

11:45 Introductory Remarks.

11:55 AGRO 143. New opportunities for sustainable food production from the chemical science of agriculture. **J.A. Pickett**

12:45 Discussion.

Section B

Renaissance Washington, DC Downtown Meeting Room 2

Atmospheric Fate & Transport of Agricultural Emissions

Cosponsored by ENVR†

G. Rothman, *Organizer*

S. Grant, R. Li, *Organizers, Presiding*

8:10 Introductory Remarks.

8:15 AGRO 144. Estimating exposure from volatile and semi-volatile pesticides. **C. Peck, G. Rothman, S. Shelat, C. Smith, F. Khan, J. Dawson**

8:40 AGRO 145. Developments in the evaluation of airborne exposures to pesticides. **D.A. Sullivan, R.D. Sullivan, D.J. Hinka**

9:05 AGRO 146. Measurement methods for volatile pesticides and impact on risk assessment. **G. Rothman, C. Peck, F. Khan, M.T. Shamim**

9:30 AGRO 147. Predicting pesticide volatility through coupled above/below ground multiphysics modeling. **M. Mao, S. Cryer, A. Altieri, P.L. Havens**

9:55 Intermission.

10:15 AGRO 148. Recent history of fumigant and semi-volatile bystander risk assessment and use of PERFUM. **R. Reiss**

10:40 AGRO 149. Simulating emissions of 1,3-dichloropropene after soil fumigation under several field-management conditions. **S.R. Yates, D. Ashworth, Q. Zhang**

†Cooperative Cosponsorship

11:05 AGRO 150. SOFEA3 modeling of 1,3-Dichloropropene concentrations in ambient air. **I. Van Wesenbeeck**

11:30 Concluding Remarks.

Section C

Renaissance Washington, DC Downtown Meeting Rooms 13/14

Application of Spatial Technologies to Advance Exposure Modeling & Risk Assessments

Cosponsored by ENVR

P. L. Havens, C. Hoogeweg, N. Thurman, *Organizers, Presiding*

8:10 Introductory remarks.

8:15 AGRO 151. Expanding the capacity and scope of the spatial aquatic model (SAM) for pesticides. **N. Thurman, J. Hook, S. Thawley, K. Pluntke, R. Shamblen, G. Rothman, J. Carleton, C. Koper, D. Young**

8:40 AGRO 152. Development of spatially explicit groundwater scenarios for use in EPA's Pesticide Exposure Assessments. **R.F. Bohaty, D. Young, M. Ruhman, J.C. Hook, S. Lennartz, P. Villanueva**

9:05 AGRO 153. Use of topographic and hydrographic spatial datasets in determining watershed areas in static water body exposure modeling. **L. Padilla, N. Peranganing, X. Hu, M. Winchell**

9:30 AGRO 154. Soil sustainability: The reality of erosion reduction practices by farmers and the impact to estimated environmental concentrations in a risk assessment. **A.M. Ritter, D.A. Desmarreau, P. Hendley**

9:55 Intermission.

10:15 AGRO 155. Considerations of input parameter quality in watershed models. **N. Thurman, J. Hook, K. Pluntke, S. Thawley, R. Shamblen, G. Rothman, J. Carleton, C. Koper, D. Young**

10:40 AGRO 156. Novel application of the SWAT model toward nutrient management decision-making and user-oriented access and assessment through a web interface. **A. Jacobson, D. Perkins, R. Galli, C. Moloney, C. Wade**

11:05 AGRO 157. Using web-based technologies to inform stakeholders - CoPST. **C. Hoogeweg, R. Breuer, D. Denton, W.M. Williams**

11:30 Concluding Remarks.

Section D

Renaissance Washington, DC Downtown Meeting Room 15

Managing Pesticide Use & Use Data

K. Steinmann, M. Zhang, *Organizers*

M. A. Robertson, *Organizer, Presiding*

8:10 Introductory Remarks.

8:15 AGRO 158. Walking the California county lines with pesticides on the mind: A tale of two cities. **A. Pitchford, M. Nash, Y. Yuan, F. Ayivi, M. Ensminger, Y. Luo, D. Denton**

8:40 AGRO 159. Seasonality in pesticide signals in California's urban watersheds. **D. Wang, M. Ensminger, R. Budd, N. Singhasemanon, K.S. Goh**

9:05 AGRO 160. Comparing efficacy of herbicides and surfactants in water hyacinth management. **D. Bubenheim, J. Madsen, G. Kyser**

9:30 AGRO 161. Methodology for prioritizing pesticides for surface water monitoring in agricultural and urban areas of California. **Y. Luo**

9:55 Intermission.

10:15 AGRO 162. Applications of California's Pesticide Use Reporting Database in water quality investigations. **J. Domagalski, J. Orlando**

10:40 AGRO 163. Spatio-temporal analyses of pesticide use on walnuts and potential risks to surface water in California. **H. Chen, M. Zhang**

11:05 AGRO 164. Improving operational aquatic plant management in the California Sacramento-San Joaquin delta resource. **D. Bubenheim**

11:30 Concluding Remarks.

Section E

Renaissance Washington, DC Downtown Meeting Room 16

Pesticide Registration, Monitoring & Enforcement

Financially supported by Bryant Christie

G. Farnsworth, H. B. Irrig, J. J. Johnston, C. Terry, *Organizers*

J. R. Purdy, J. M. Van Emon, *Presiding*

8:35 Introductory Remarks.

8:40 AGRO 165. Pesticide residues in foods: An overview of registration tolerance setting at the U.S. EPA. **D. Hrdy**

9:10 AGRO 166. IR-4 Project: Facilitating the registration of crop protection products for specialty crops. **J. Baron, D. Kunkel**

9:35 AGRO 167. USDA FSIS Policy guiding pesticides domestic and imported products. **M.M. O'Keefe**

9:55 Intermission.

10:15 AGRO 168. U.S. National Residue Program. **R. Kishore, R. Duverna, L. Bluhm**

10:45 AGRO 169. USDA's Pesticide Data Program: A national residue monitoring program. **D. Haynes, S. Abubeker**

11:10 Discussion.

Journal of Agricultural & Food Chemistry Best Paper Award & Young Scientist Award Symposium

Sponsored by AGFD, Cosponsored by AGRO, CINF and PROF

TUESDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown Mount Vernon Square B

Advances in Insecticide Mode of Action, Chemistry & Resistance

Resistance

Financially supported by DuPont Crop Protection

J. M. Clark, *Organizer*

A. D. Gross, D. R. Swale, *Presiding*

1:50 Introductory Remarks.

1:55 AGRO 170. Breaking the resistance cycle, challenges and opportunities. **J. Hemingway**

2:20 AGRO 171. Mechanisms of insecticide resistance in *Bemisia tabaci* with special reference to acetyl-CoA carboxylase inhibitors. **R. Nauen**

2:45 AGRO 172. Pesticides, pollinators, and parasites: Protecting bees with comparative toxicology. **T.D. Anderson**

3:10 Intermission.

3:30 AGRO 173. Two novel house fly Vssc mutations, D600N and T929I, give rise to new insecticide resistance alleles. **H. Sun, S. Kasai, J.G. Scott**

3:55 AGRO 174. Molecular basis of pyrethroid repellency. **K. Dong**

4:20 AGRO 175. Identification and interaction of multiple genes resulting in DDT resistance in the 91-R strain of *Drosophila melanogaster* by RNAi approaches. **J.M. Clark, J.H. Kim, K.S. Yoon, J. Moreau, J. Zina**

4:45 Concluding Remarks.

Section B

Renaissance Washington, DC Downtown Meeting Room 2

Atmospheric Fate & Transport of Agricultural Emissions

Cosponsored by ENVR†

S. Grant, *Organizer*

R. Li, G. Rothman, *Organizers, Presiding*

1:50 Introductory Remarks.

1:55 AGRO 176. Significant impact of atmospheric emissions and transport of pesticides on water resources. **R. Li**

2:20 AGRO 177. Assessing pesticide wet deposition risks in agricultural watersheds. **T.L. Potter, A. Coffin**

2:45 AGRO 178. Higher tier framework for determining appropriate buffer distance to non-target plants. **J.W. Perine, T.M. Ledson, R.A. Brain**

3:10 Intermission.

3:30 AGRO 179. Modeling of herbicide vapor phase uptake and injury to target plants. **Y. Zhang, S. Cryer, L. Acharya**

3:55 AGRO 180. Withdrawn.

4:20 AGRO 181. Impact of water stress on dicamba dissipation in susceptible soybean. **C.D. Willett, E.M. Grantz, M.N. Thompson, J.K. Norsworthy**

4:45 Panel Discussion.

Section C

Renaissance Washington, DC Downtown Meeting Rooms 13/14

Tiered Testing for Pollinator Protection: Experiences in Design, Implementation & Interpretation

Financially supported by SynTech Research

R. C. Biever, M. Echeverria, M. A. Maks, *Organizers*

B. L. Bret, *Organizer, Presiding*

1:25 Introductory Remarks.

1:30 AGRO 182. Development of tiered testing guidelines for pollinator protection. **M. Echeverria, A. Pease**

1:55 AGRO 183. Challenges and successes with tiered testing for pollinator protection in a regulatory framework. **C. Hart, B. Martinovic-Barrett, N. Lauro, N. McKenzie, W. Hou**

2:20 AGRO 184. Unforeseen challenges of pollinator toxicity test matrices. **S. Long, J. Staveley, B.M. Polakoff, R. Coler, J. Hoberg, M. Patnaude, K. Rathjen**

2:45 AGRO 185. Overcoming the challenges of Tier 1 guideline studies for pollinators. **H. Krueger**

3:10 Intermission.

3:30 AGRO 186. Validation of the 22-day honey bee larval toxicity, repeated (chronic) exposure study design. **D. Schmehl, J. Ellis, S.L. Clark**

3:55 AGRO 187. Complications associated with establishing reliable brood termination rates in tier II honey bee tunnel studies. **J. Louque, L. Brewer**

4:20 AGRO 188. Vital role of hive management in honey bee tier II studies. **M. Hill**

4:45 AGRO 189. Withdrawn.

5:10 Discussion.

Section D

Renaissance Washington, DC Downtown Meeting Room 15

Advanced Techniques for Isolation, Identification & Quantitation of Ag/Pharma Relevant Compounds from Biological Samples

Financially supported by JAFIC (Journal of Ag & Food Chemistry)

J.A. Taylor, Y. Yuan, *Organizers, Presiding*

1:25 Introductory Remarks.

1:30 AGRO 190. Identification and quantitation of naturally-occurring carcinogens, aristolochic acids, in raw ag commodities and soil: Identification and estimation of novel exposure pathway (2017 JAFIC Award address). **W. Chan, N.M. Pavlovic**

2:20 AGRO 191. Achiral and chiral analysis of pharmaceutical compounds/metabolites using SFC-MS and 2D LC-SFC-MS. **G. Li, L. Zang, Y. Yang, S. Joseph, C. Venkatramani, M. Al-Sayah, M. Goel, J. Girotti**

2:45 AGRO 192. Innovative approaches to sample clean-up, chromatography and mass spectrometry for metabolite identification in support of agrochemical and pharmaceutical development. **J. O'Neill**

3:10 Intermission.

3:30 AGRO 193. Purification and identification of conjugated agrochemical metabolites from biological matrices. **M.A. Jalal, T. Nguyen, T. Lee, A.F. Rose, S.V. Bondarenko, G. Kirk, S.H. Jackson**

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3:55 AGRO 194. Fast and efficient UPLC method development for metabolite isolation and identification. **M. Ma, J. McFadden, P. Graupner, Y.A. Adelfinskaya, K. Lynn, J.A. Taylor, J.R. Gilbert, L. Buchholz, A.L. Latham, R. Rasoulpour**

4:20 AGRO 195. Employing microbial biocatalysts to deliver scalable amounts of metabolites for identification and biological evaluation. **L. Evans**

4:45 AGRO 196. Characterization of fat soluble metabolites of agrochemicals in biological matrices. **J. LaMar**

5:10 Concluding Remarks.

Section E

Renaissance Washington, DC Downtown Meeting Room 16

Pesticide Registration, Monitoring & Enforcement

Financially supported by Bryant Christie

G. Farnsworth, C. Terry, *Organizers*

H. B. Irrig, J. J. Johnston, *Organizers, Presiding*

1:50 Introductory Remarks.

1:55 AGRO 197. FDA's Pesticide residue monitoring and enforcement. **C. Liang**

2:20 AGRO 198. Overview of the Codex Committee on Pesticide Residues (CCPR): What it is and what it does. **D.J. Miller**

2:45 AGRO 199. Same data, different outcome? A comparison of pesticide residue evaluations by EPA and JMPR. **M. Doherty**

3:10 Intermission.

3:30 AGRO 200. USDA Food Safety and Inspection Service (FSIS) equivalence of foreign food safety systems for pesticides. **S.R. Edwards**

3:55 AGRO 201. Pesticide MRLs and trade. **J. Chao**

4:20 Panel Discussion.

WEDNESDAY MORNING

Section A

Renaissance Washington, DC Downtown Mount Vernon Square B

Biorational Control of Medical & Veterinary Pests

Novel Tools & Targets

J. M. Clark, A. D. Gross, *Organizers*

J. R. Coats, E. Norris, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 AGRO 202. Phytochemical synergists: Natural plant oils as synergists for diverse pyrethroids. **E. Norris, M. Archevald-Cansobre, A.D. Gross, L. Bartholomay, J.R. Coats**

8:30 AGRO 203. Mosquitocidal activity and physiological actions of matrine, a plant natural product insecticide. **Y. Li, S. Jiang, J. Taylor-Wells, J.R. Bloomquist**

8:55 AGRO 204. Glutamate receptor-cation channel: A target of naturally occurring compounds. **A.D. Gross, R. Islam, J.R. Bloomquist**

9:20 Intermission.

9:40 AGRO 205. Molecular and nanoscale approaches to biorational control of mosquito vectors. **L. Bartholomay, P.M. Airs, Y. Phanse, K. Olson, B. Beaty**

10:05 AGRO 206. Overcoming insecticide resistance: Inhibiting ABC transporters as a means of increasing insecticide efficacy. **T.D. Anderson**

10:30 AGRO 207. Various strategies utilizing attractant toxic sugar baits in population management for mosquitoes, biting midges and tabanids. **D. Kline**

10:55 Concluding Remarks.

Section B

Renaissance Washington, DC Downtown Meeting Room 2

Analytical, Environmental & Regulatory Challenges with Legalized Cannabis

Cosponsored by CHAS†

K. L. Armbrust, G. C. Miller, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 AGRO 208. Withdrawn.

8:30 AGRO 209. Regulating pesticides on cannabis in California. **J. Townzen**

8:55 AGRO 210. Regulating medical cannabis cultivation as agriculture. **J. Marcu, K. Nevedal, S. Sherer**

9:20 AGRO 211. Time for a proactive approach to protecting public health and consumer safety in the cannabis industry. **L. Engelking**

9:45 Intermission.

10:05 AGRO 212. Pesticide residues in *Cannabis*: Pesticide exposure risk assessment. **P. Reibach**

10:30 AGRO 213. New research on tobacco and e-cigs: Lessons for cannabis. **S.M. Lomnicki, F. Hasan**

10:55 AGRO 214. Cannabis concentrates 101: Basic extraction and post-extraction processing techniques. **T. Vu**

11:20 AGRO 215. Representative and random cannabis sampling, sampler quality systems, and demonstration of competency in sampler protocols. **K. Watson**

11:45 Concluding Remarks.

Section C

Renaissance Washington, DC Downtown Meeting Rooms 13/14

Developing Pesticide Environmental Risk Assessment Approaches

Cosponsored by ENVR

R. Morris, N. Peranganin, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 AGRO 216. Ecological risk assessment of nano-enabled pesticides (nanopesticides): Considerations for regulatory evaluation. **R.S. Kookana**

8:30 AGRO 217. Influence of multiple chemical and non-chemical stressors on benthic communities in a mid-west agricultural stream. **L.W. Hall, W. Killen, R. Anderson, R. Alden**

8:55 AGRO 218. Bioavailability as a measure of risk; utilizing carbonaceous material to reduce organochlorine pesticide bioavailability in field conditions. **M. Anderson, A. Torrents, C.J. Hapeman, R. Chaney, L.L. McConnell, C. Green, R.E. Plummer, T. LaChance**

9:20 AGRO 219. Application of kinetic modeling to predict the fate of bound residue degradation in soil. **M. Zhang, S. Whiting, B. Clark**

9:45 Intermission.

10:05 AGRO 220. Case study on estimating potential human health pesticide concentrations in drinking water from the use of benzobicyclon on rice in California. **K.E. White, J. Carleton, J. Hetrick, K. Milians, G. Orrick, C. Peck, A. Shelby, N. Thurman, D. Young**

10:30 AGRO 221. Characterization of drinking water intake watersheds and associated community water systems vulnerable to pesticide contamination. **R.F. Bohaty, J. Hetrick, D. Spatz**

10:55 AGRO 222. New data for old: What does screening assessment mean for older pesticides in registration review? A pyrethroid example. **P. Hendley, J. Giddings, R. Jones, S.H. Jackson, R. Underwood**

11:20 AGRO 223. Risk mitigation and environmental risk assessment. **R. Sur, M. McCoole, Z. Tang, A. Nikolakis**

11:45 Concluding Remarks.

Section D

Renaissance Washington, DC Downtown Meeting Room 15

Emerging Mass Spectrometry Trends in Support of Agricultural Research & Development

Financially supported by BASF

J. Balcer, P. Reibach, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 AGRO 224. Applications of proteomics, metabolomics, and immunoassays in agricultural and environmental chemistry. **Q.X. Li**

8:55 AGRO 225. High resolution mass spectrometry applications in the identification of environmental metabolites to support the discovery and development of new agricultural products. **Y.A. Adelfinskaya**

9:20 AGRO 226. Cold metabolism: HRAM mass spectrometry support for the early phases of insecticide discovery. **J.C. Guo**

9:45 Intermission.

10:05 AGRO 227. Automated strategy for targeted and untargeted metabolite identification in xenobiotic metabolism. **R. Lee, V. Lashin, A. Paramonov, A. Sakharov**

10:30 AGRO 228. Beyond accurate mass, workflows for small molecule structure elucidation in agricultural research. **S.A. Baumann, S. Tong, I. Blazenovic**

10:55 AGRO 229. Development and use of UHPLC-HRMS, MS/MS libraries, and compound databases for screening chemical residues and contaminants in foods. **J.W. Wong, J. Wittenberg, K. Simon, K. Zhang, D. Hayward, H. Park, Z. Jia, R. Carlson, J. Wang, J.S. Chang**

11:20 AGRO 230. Screening and quantitative analyses for cannabis samples using LC-MS/MS. **P.C. Winkler**

11:45 Concluding Remarks.

Section E

Renaissance Washington, DC Downtown Meeting Room 16

AGRO Memorial Symposium: Remembering Bob Krieger & Richard Allen

Financially supported by Stone Environmental

K. Gohre, T. S. Ramanarayanan, E. A. Schoenau, J. N. Seiber, *Organizers*

M. M. Dyk, G. C. Miller, *Organizers, Presiding*

8:00 Introductory Remark.

8:05 AGRO 231. Understanding human biomonitoring data in a health risk assessment context. **R.A. Becker**

8:30 AGRO 232. Urinary dialkyl phosphates as biomarkers of hazard and exposure: A review. **A. Chukwudebe**

8:55 AGRO 233. Contribution of hand exposures to total pesticide exposures of barehanded and gloved hand harvesters. **G. Sankaran, J. Ross, D.A. Eastmond, R.I. Krieger**

9:20 AGRO 234. Are the assumption of genericness and the use of surrogate chemicals in worker exposure and risk assessment valid? **M.E. Krolski, C. Lunchick**

9:45 Intermission.

10:05 AGRO 235. Risk assessment of incidental non-dietary exposure based on studies of surface residue transfer of boric acid & DOT from treated residential surfaces. **C. Bernard, M. Manning**

10:30 AGRO 236. Surrogating biomonitoring data: Case study of pyrethroids in pet spot-on products. **J.H. Driver, J.H. Ross**

10:55 AGRO 237. Validating EPA's Standard Operating Procedures for residential exposure to insecticide-impregnated pet collars. **J. Ross, J.E. Chambers, J. Driver**

11:20 AGRO 238. Minimizing exposure to volatile pesticides. **J.N. Seiber, G.C. Miller, J.E. Woodrow**

11:45 Concluding Remarks.

WEDNESDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown Mount Vernon Square B

Biorational Control of Medical & Veterinary Pests

Bringing New Products to Market

J. M. Clark, J. R. Coats, *Organizers*

A. D. Gross, E. Norris, *Organizers, Presiding*

2:25 Introductory Remarks.

2:30 AGRO 239. Products for global vector control: putting the rational into biorational. **D. Strickman**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

2:55 AGRO 240. Behavior manipulation of vectors of disease. **A. Mafra Neto**, E. Keogh, T. Dekker, G. Batista, L. Mboera, E. Kemibala, P. Kija, S. Singh, W. Foster, G. White, J. Saroli, R. Silva, M. Shahbazi, C.R. Bernardi, W. Urrutia, R. Borges, G. Martinez, B. Avalos, L. Mafra, K. Spencer

3:20 AGRO 241. Development of deltamethrin for mosquito control. **M.E. Krolski**, K. Vandock, J. Brill

3:45 Intermission.

4:05 AGRO 242. Novel pest control technologies: Utilizing behavioural assays for the development of push-pull strategies against *Ae. aegypti*. **U. Gordon**

4:30 AGRO 243. Future public health vector control: Bringing new products to market. **R. Vaidyanathan**

4:55 AGRO 244. Bringing new products to market: Collaborative efforts leading to innovative solutions in vector control. **N. Hamon**

5:20 Concluding Remarks.

Section B

Renaissance Washington, DC Downtown Meeting Room 2

Communicating Pesticide Science to the Public

P.A. Brindle, C. Tiu, *Organizers*

H. B. Irrig, *Organizer, Presiding*

2:00 Introductory Remarks.

2:05 AGRO 245. Advocacy for science with non-scientists. **L.H. Latimer**

2:30 AGRO 246. Using evidence-based practices to address lay theories about chemicals: Tapping guidance from the National Academy of Science. **K. Rowan**

2:55 AGRO 247. Starting the science conversation through humor and community. **G. O'Sullivan**

3:20 AGRO 248. What's the hazard in risk? **R. Mitkus**

3:45 Intermission.

4:05 AGRO 249. Communicating pesticide food safety issues to the public. **C.K. Winter**

4:30 AGRO 250. Communicating science to the public at the National Pesticide Information Center. **J.J. Jenkins**, A. Leytem, A. Hallman, B. Hanson

4:55 AGRO 251. Changing the GMO conversation one person at a time. **A. Hood**

5:20 Panel Discussion.

Section C

Renaissance Washington, DC Downtown Meeting Rooms 13/14

Developing Pesticide Environmental Risk Assessment Approaches

Cosponsored by ENVR

R. Morris, N. Peranginangin, *Organizers, Presiding*

2:00 Introductory Remarks.

2:05 AGRO 252. Evaluation of drift potential of higher order tank mix combinations. **T. Orr**, A. Schapaugh, N. Pai, T. Bhakta

2:30 AGRO 253. Expanding the tiered approach for drift exposures to non-target plants. **J.W. Perine**, R.A. Brain, T.M. Ledson

2:55 AGRO 254. Withdrawn.

3:20 AGRO 255. Consideration of using bias factors and other methods to estimate potential maximum concentrations in monitoring data. **J. Aldworth**, P. Mosquin, W. Chen

3:45 Intermission.

4:05 AGRO 256. Current status of regulations involving environmental risk assessment in Brazil. **A. Cione**

4:30 AGRO 257. Comparison of surface water pesticide environmental risk assessment tools in U.S. and China. **D. Mao**, W. Chen, M.J. Cheplick

4:55 AGRO 258. Global use of field trials based on ecoregion similarities: Southside (Southern vs. Northern Hemisphere). **B. Gottesburen**, R. Gangaraju, M.T. Shamim

5:20 AGRO 259. Global use of field trials based on ecoregion similarities: Comparison of data from New Zealand and Chile vs. Europe. **B. Gottesburen**, H. Bayer, K. Platz, B. Erzgraeber, F. Donaldson, J. Goulet Fortin, A. Fischer, F. Kroeger

5:45 Concluding Remarks.

Section D

Renaissance Washington, DC Downtown Meeting Room 15

Good Laboratory Practices for the Agrochemical Professional

Cosponsored by ENVR

C. Lee, P. M. Maldonado, K. Watson, *Organizers, Presiding*

2:00 Introductory Remarks.

2:05 AGRO 260. EPA good laboratory compliance. **D. Myers**

2:30 AGRO 261. Office of Pesticide Programs processing of GLP inspection referrals and evaluation of GLP non compliance. **D.D. Rice**

2:55 AGRO 262. Real world examples of what not to do. **C. Lee**

3:20 AGRO 263. How personnel can make or break your EPA GLP study. **P.M. Maldonado**

3:45 Intermission.

4:05 AGRO 264. Conduct of method validations and independent laboratory verifications. **L. Sanghani**, N.A. Khan, M. Ansari

4:30 AGRO 265. Auditing field aerial drift studies and field volatility studies using Good Laboratory Practices (GLPs). **K. Watson**

4:55 AGRO 266. Practical application of OECD document 17: Application of GLP principles to computerized systems. **J.A. Franchetti**

5:20 AGRO 267. Using the governance risk and compliance model to ensure implementation of computerized systems that meets regulators expectations. **J.A. Franchetti**

5:45 Discussion.

Section E

Renaissance Washington, DC Downtown Meeting Room 16

AGRO Memorial Symposium: Remembering Bob Krieger & Richard Allen

M. M. Dyk, K. Gohre, G. C. Miller, E. A. Schoenau, J. N. Seiber, *Organizers*

T. S. Ramanarayanan, T. Xu, *Organizers, Presiding*

2:00 Introductory Remarks.

2:05 AGRO 268. Richard Allen, valued colleague and scientist: Aldicarb potable well monitoring study. **R. Jones**, P.N. Coody, Z. Tang, D.G. Dyer, I.D. Kelly, T. Xu, K. Repprecht, D. Netzband, C. Lam, M. Cole

2:30 AGRO 269. Past present and future of environmental research on crop protection products. **I.D. Kelly**

2:55 AGRO 270. Determination of adduct formation between human serum albumin and organophosphates using MALDI-TOF/TOF and LC-Q/TOF. **Q.X. Li**, S. Chu

3:20 AGRO 271. Summary of the fate and behavior of mandestrobin in the environment. **K. Gohre**, J.C. Aston, J.J. Maurer, J. Whitby, T. Nguyen, M.A. Jalal, S.H. Jackson, R. Allen

3:45 Intermission.

4:05 AGRO 272. What is t_{rep} and how does it impact risk assessment? A PWC sensitivity analysis. **J.G. Whitby**, K. Gohre, S.H. Jackson

4:30 AGRO 273. Fate and transport studies of a pre-emergent herbicide in tiled fields of the upper midwest. **T. Xu**, R. Jones, D. Netzband, D.R. Gabbert, C. Hassinger, M. Veal, S. Blanchfield, P.N. Coody, B. Hoppie

4:55 AGRO 274. Evaluation of model simulation of pesticide transport through subsurface tile drains. **M. Winchell**, Z. Tang, H. Rathjens, J. Stryker, L. Padilla, T. Xu

5:20 AGRO 275. Higher tier assessment options in drinking water assessments. **R. Jones**, R. Freedlander, P.L. Havens, W. Chen, N. Peranginangin, S.H. Jackson, K.S. Henry

5:45 Concluding Remarks.

Section F

Walter E. Washington Convention Center Hall D

Assessing Human & Ecosystem Health Risks of Agrochemicals

D. D. Campbell, J. Crossland, G. Hall, L. Honey, B. McGaughey, *Organizers*

12:00 - 2:00

AGRO 276. Improved ESA implementation through species distribution modeling. **R. Smyth**

AGRO 277. Invasive species and biodiversity: Combining information to prioritize management projects. **J. Dean**

AGRO 278. Natural variability of allergen levels in conventional soybeans: Assessing variation across North and South America from five production years. **T. Geng**

AGRO 279. Effects of different protective measures on body exposure levels of chlorothalonil applicators in cucumber greenhouses. **A. Xuehua**

AGRO 280. Higer *in vitro* hepatic clearance of bifenthrin in children versus adults. **A. Chadrasekaran**, K. Kassahun, **G.C. Nallani**, L. Shen, Z. Liu, S.F. El-Naggar

AGRO 281. Effects of mixtures of dicamba and glyphosate on nontarget plants. **D. Olszyk**, T. Pfeleeger, E. Lee, M. Blakeley-Smith, T. Shiroyama, M. Plocher

AGRO 282. Two study designs and data types used to determine mixture ecological toxicity of crop protection herbicide products. **T. Jones-Jefferson**, P. Valverde, **K. Ralston-Hooper**

AGRO 283. Toxicity impacts of dicloran exposed to UV-light on zebrafish. **L. Basirico**, E. Vebrosky, K.L. Armbrust

AGRO 284. Using population models to gain insights into direct and indirect effects of pesticides on listed fish populations. **A. Schmolke**, **B. Kearns**, V. Forbes, M. Kern, K. Kapo, C. Moloney, A.C. Barefoot, H. Ochoa-Acuna

AGRO 285. Use of bias factors and other methods to assess potential maximum annual concentrations of surface water monitoring data. **P. Mosquin**, J. Aldworth, W. Chen

AGRO 286. Quantification of surface water monitoring data using an integrative spatial and temporal analysis approach. **J. Hetrick**, C. Peck, J.C. Hook, R.F. Bohaty

AGRO 287. Inductive habitat modeling as a tool to predict listed aquatic species' occurrence in the absence of critical habitat. **B. Kearns**, **J. Amos**, S. Kay

AGRO 288. Applying the source to outcome approach for exposure, hazard and risk evaluation of an irritant aerosol. **S. Flack**, P. Hinderliter, T.M. Ledson, A.Z. Szarka, K. Licht-Kaiser, T.S. Ramanarayanan, D. Wolf

AGRO 289. Case study on evaluating ecological risk from the use of pesticides on rice. **K.E. White**, J. Hetrick, G. Orrick, C. Peck, M. Ruhman, A. Shelby, N. Thurman, D. Young

AGRO 290. Innovative approaches for assessing risk to wildlife from the use of a veterinary medicinal product in cattle. **J. Staveley**, J. Nusz, J. Thiry, G. Scheef

Section G

Walter E. Washington Convention Center Hall D

Pollinators, Pesticides & Risk Assessment

R. C. Biever, B. L. Bret, M. Echeverria, M. A. Maks, *Organizers*

12:00 - 2:00

AGRO 291. Pollinator protection label language. **A. McCaskill**, I.D. Kelly, L. Bowers

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AGRO 292. What is the honey bee (*Apis mellifera*) RT25 and what does it mean? C. Wendel, R. Baris

AGRO 293. Novel analytical determination of active ingredient concentration in royal jelly and sucrose diet solutions. F. McGuinness, K. Rathjen, A. Fauser, A. Clarke, M. Kelly, J. Hoberg, P. Reibach

AGRO 294. ATP-sensitive inwardly rectifying potassium channel modulators alter cardiac function in honey bees. S. O'Neal, D. Swale, J.R. Bloomquist, T.D. Anderson

AGRO 295. Seasonality and acetone solvent effects on the success of in-vitro honey bee larval studies. M.H. Huang, S. Oberrauch, A. Kling, E. Verge, J. Eckert

AGRO 296. Industry perspective on tiered testing for pollinator protection. R. Brinkmeyer

AGRO 297. Withdrawn.

AGRO 298. Challenges and achievements in the conduct of the chronic oral toxicity test with the adult honey bee. J. Leonard

AGRO 299. 21-Day chronic larval toxicity test guidance and acute oral toxicity test guidelines for honeybees (*Apis mellifera*). T. Steeger, N. Al-Tall

AGRO 300. Assessment of pesticide risks on honey bee colonies in higher tier studies. C. Berg

AGRO 301. Modeling the exposure of honey bees to seed treatment insecticides during corn planting. D. Sponsler, M. Wransky, R. Johnson

AGRO 302. Risk assessment of foliar insecticides commonly used in corn and soybean production on monarch butterfly (*Danaus plexippus*) larvae. N. Krishnan, K. Bidne, R. Hellmich, J.R. Coats, S. Bradbury

Section H

Walter E. Washington Convention Center Hall D

Discoveries in the Chemistry of Pest Control

J. J. Beck, S. O. Duke, C. Rering, *Organizers*

12:00 - 2:00

AGRO 303. Plant essential oils are capable of enhancing diverse synthetic pyrethroids against susceptible and resistant mosquito strains. E. Norris, M. Archevald-Cansobre, A.D. Gross, L. Bartholomay, J.R. Coats

AGRO 304. Analysis of activity of monoterpenoid plant compounds on nematode acetylcholine receptors. C. Wong, J.R. Coats

AGRO 305. Characterizing the physiological role and toxicological potential of potassium transport pathways in the tick salivary gland. Z. Li, D.R. Swale

AGRO 306. Synergistic effect of permethrin with potassium channel blockers on *Anopheles gambiae*. S. Jiang, J.R. Bloomquist

AGRO 307. Physiological characterization of inward rectifying potassium (Kir) channels in the insect nervous systems. R. Chen, D.R. Swale

AGRO 308. Mode-of-action studies of a novel ligand-gated chloride channel antagonist insecticide, fluxametamide. M. Asahi, T. Kagami, K. Nakahira, M. Kobayashi, Y. Ozoe

AGRO 309. Withdrawn.

AGRO 310. Comparative behavioral responses of *Aedes aegypti*, *Aedes albopictus* and *Culex quinquefasciatus* to plants base repellent of vetiver compounds. J. Nararak, T. Chareonviriyaphap

AGRO 311. Differential transcription profiles of *Plutella xylostella* following sublethal treatment of five different insecticides. Y. Gao, K. Kim, S. Lee

AGRO 312. RNAi validation of detoxification genes involved in ivermectin tolerance in *Drosophila melanogaster*. J. Kim, J. Moreau, Y. Ali, P. Razo, K.S. Yoon, J.M. Clark

AGRO 313. Antifungal and herbicide activities of fungi from continental Antarctica. V. Godinho, V. Gonçalves, C. Carvalho, I. Santiago, H. Moraes, G. Vitorelli, C. Cantrell, D. Wedge, S. Duke, L. Rosa

AGRO 314. New pesticidal diterpenoids from *Vellozia gigantea* (Velloziaceae), an endemic neotropical plant living in the endangered Brazilian biome Rupestrian Grasslands. M. Ferreira, C.L. Cantrell, S.O. Duke, A. Ali, L. Rosa

AGRO 315. Functionality of a maize chitinase potentially involved in ear rot pathogen resistance. P. Dowd, T.A. Naumann, N.P. Price, E.T. Johnson

AGRO 316. MycoSymbiosis: Antifungal activity against phytopathogenic fungi produced by endophytic fungi associated with medicinal plants from Brazil and United States. C. Carvalho, A.F. Silva-Hughes, D.E. Wedge, C.L. Cantrell, Z. Pan, R.M. Moraes, S.S. Amorim, X. Wang, N. Techen, N. Tabanca, S.C. Queiroz, L. Rosa

AGRO 317. Influence of polymeric surfactant structure and physical-chemical properties on the physical stability of an oil in water emulsion type agrochemical formulation. R. Acosta Amado, G. Powels

AGRO 318. Withdrawn.

AGRO 319. Environmental fate studies with ¹⁴C-POEA. M.R. Shepard, M.L. Kurtzweil, S.L. Levine

AGRO 320. Identification of metabolites in soil and water-sediment studies conducted with ¹⁴C-POEA. M.R. Shepard, M.L. Kurtzweil, S.L. Levine

AGRO 321. Colorants: The most active inert ingredients in pesticide formulations. V. Shing

AGRO 322. Comparison of CARES-NG and DEEM/CALENDEX acute and long-term drinking water exposures. A.Z. Szarka, A.D. Gibson

Section I

Walter E. Washington Convention Center Hall D

Pesticide Use & Regulatory Issues

J. Gan, M. A. Robertson, K. Steinmann, M. Zhang, *Organizers*

12:00 - 2:00

AGRO 323. Using pesticide use reporting to track mating disruption in almonds. M. Parker

AGRO 324. Patterns of fumigant use in California grapes. D. Downie

AGRO 325. Roles of national associations in state and federal regulatory cooperation: Implications for future cannabis policy. K.L. Armbrust, E. Vebrosky, L. Basicrco

AGRO 326. Withdrawn.

AGRO 327. Challenges for U.S. crop protection labeling specialists in today's regulatory environment. K. Shears, N. Algarin

AGRO 328. Evolving roles and regulatory obligations for distributors and retailers in the agrochemical value chain. S. Sumulong

Section J

Walter E. Washington Convention Center Hall D

Advances in Analysis of Agriculturally-Important Chemicals

S. Perez, M. Saha, *Organizers*

12:00 - 2:00

AGRO 329. Identification of new metabolites of a pesticide in an anaerobic aquatic metabolism study. J. Ferguson, K.M. Campbell, P. Halarnkar, J.T. Cole

AGRO 330. Isolation and identification of a complex insecticide metabolic profile in laying hens. J.A. Taylor, J. Balcer, P. Edwards, A.L. Latham

AGRO 331. Identification of trifluoroacetic acid as polar metabolite from pesticides containing a trifluoromethyl (CF₃) moiety using ¹⁴C tracer technology. K. Ahn, Y. Choy, T. Fleischmann, D. Dohn

AGRO 332. Isolation, characterization and identification of metabolites of non-labeled, stable isotope labeled, and radioactive compounds using various analytical techniques and strategies. A. Mutlib, L. Shen, K. Kassahun, X. Huang

AGRO 333. Identification and characterization of a polar metabolite produced from a FMC herbicide administered to Sprague-Dawley rats. L. Shen, X. Huang, A. Mutlib, G.C. Nallani, A. Chadrasekaran, H. Li

AGRO 334. Transformation rate of insecticide spirotetramat to its metabolites in perilla leaves. J. Kang, J. Hwang, S. Lee, S. Kwak, M. Kang, J. Ryu, S. Hong, J. Kim

AGRO 335. Highly sensitive and selective detections of fumigants on paper based colorimetric sensors. P. Tang, G. Sun

AGRO 336. Novel sorbent for pass-through cleanup: A simple, quick, and effective alternative for removal of lipids and chlorophyll from QuEChERS extracts. M.S. Young, K. Tran

AGRO 337. Are additional solvent extractions in soil/sediment laboratory studies really necessary? A follow-up presentation with an expanded date set. K. Malekani, M.J. Schocken, M.F. Lenz, R.L. Warren, K. Venkatesh, S. Mislankar, K.M. Campbell, S.P. McLaughlin, Q. Ma, P. Cassidy, P. Miner

AGRO 338. Improvement of extraction efficiency for multi-residue analysis methods of pesticides in agricultural products with QuEChERS method. S. Lee, J. Hwang, S. Kwak, J. Kang, S. Hong, M. Jang, G. Rhee, Y.D. Lee, J. Kim, M. Kang, J. Ryu

AGRO 339. FT-IR Testing method and stewardship for 2,4-D and dicamba resistant crops. A.E. Brown, D.L. Sparks, C.X. Reid, A. Meredith, D. Reynolds

AGRO 340. Novel ionisation technique enhances sensitivity & lowers matrix effects in the UPLC-MS/MS analysis of a range of crop protection chemicals & their metabolites. M. Jones, P. Hancock

AGRO 341. Simultaneous determination of 68 pesticides in tobacco by GC-MS/MS using multi-walled carbon nanotubes as a reversed dispersive solid phase extraction sorbent. L. Chen, H. Cui, L. Zhao, Y. Qin, M. Fan, Y. Jia, L. Pan, H. Liu

AGRO 342. Streamlined analysis of >150 veterinary drugs including aminoglycosides in egg, meat, liver, and kidney samples by ultrahigh performance liquid chromatography: Tandem mass spectrometry. S.J. Lehotay, A.R. Lightfield

AGRO 343. Analysis of veterinary drug residues in imported and domestic crawfish using liquid chromatography time-of-flight mass spectrometry. E. Wall, K.L. Armbrust

AGRO 344. Determination of phenol residues in agricultural surface water by dispersive solid-phase extraction coupled with HPLC. T. Boontongto, R. Burakham

AGRO 345. Mass spectrometry based detection of vitellogenin peptides as biomarker of fish exposure to estrogenic compounds in aquatic environments. P. He, E. Match, L. Yonkos, A. Friedman, G. Atilla-Gokcumen, D.S. Aga

Section K

Walter E. Washington Convention Center Hall D

Environmental Fate of Agrochemicals

S. H. Jackson, L. Padilla, Z. Tang, *Organizers*

12:00 - 2:00

AGRO 346. Transformation of 2,4-D herbicides in simulated leaf surface systems. L. Su, N. Dai

AGRO 347. Prediction of air pollutants emission from poultry houses by a modified Gaussian plume model. Z. Yang, Q. Yao, M.D. Buser, C.J. Hapeman, J. Alfieri, H. Li, P. Downey, A. Torrents

AGRO 348. Evaluation of ammonia air-surface exchange at the field scale: Integration of soil and stomatal emission potential parameterizations in a modelling approach. N. Lichiheb, L. Myles, E. Personne, M. Heuer, M. Buban

AGRO 349. Spatial and temporal patterns of coarse and fine particulate matter in the United States: Influences from different sources. R. Li

AGRO 350. Improving prediction of climate, snowpack and precipitation that affect agricultural ecosystems and the fate and transport of agrochemicals. R. Li, S. Wang, R. Gillies

AGRO 351. Spray drift and volatilization testing facilities. T. Lane, J. Eastep, R. Hecker, J. Arnold

AGRO 352. Using models to evaluate exposure to non-target plants through runoff and drift from agricultural fields. A.M. Ritter, M.J. Cheplick, D.A. Desmarreau, M. Guevara

AGRO 353. Vegetative Filter Strip (VFS) modeling in risk assessment. A.M. Ritter, D.A. Desmarreau, P. Hendley

AGRO 354. Influence of preferential flow on agrochemical transport through riparian buffers. E. Orozco, R. Munoz-Carpena, B. Gao, G. Fox

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

AGRO **355**. Evaluating VFS efficacy to mitigate pesticide risk to aquatic threatened species using coupled exposure-effect models: The case of salmonids. **I. Rodea-Palomares**, Q. Zhao, R. Munoz-Carpena, A.M. Ritter, G. Fox, D. Blancher, D. Park

AGRO **356**. Farm pond pesticide monitoring case study for the evaluation of vegetative filter strip efficacy and aquatic persistence and accumulation. **S. Wente**, E. Odenkirchen

AGRO **357**. Quantification of turfgrass buffer performance in reducing transport of pesticides in surface runoff. **P.J. Rice**, **T. Xu**, J. White, B. Horgan, J. Williams, P.N. Coody, E.L. Arthur, L.L. McConnell

AGRO **358**. Removal of neonicotinoid insecticides by prairie strips in row-cropped watersheds with historical seed coating use. **M.L. Hladik**, S. Bradbury, L.A. Schulte, M. Helmers, C. Witte, D.W. Kolpin, J.D. Garrett, M. Harris

AGRO **359**. Development of multivariate regression model using soil properties and pesticide soil sorption coefficients. **M. Kim**, A. Chadrasekaran, R. Morris

AGRO **360**. Soil metabolism of [¹⁴C]atrazine in two soil types using various soil aliquot sizes. **S.P. McLaughlin**, A. Dean, D. Koch, M. McDonough, M. Crabb, R. Brackett

AGRO **361**. Adsorption/desorption coefficient relationships versus typical soil characteristics for different agrochemical classes. **M.A. Ponte**

AGRO **362**. Fate and transport of the agricultural antibiotic sulfadiazine in soil. **D. Ashworth**, S.R. Yates, L. Ma, J. Sangster

AGRO **363**. Penetrative behaviors of azoxystrobin and chlorothalonil into apples cuticular waxes and fungicide systemicity. **J. Hwang**, D. Seok, S. Lee, S. Kwak, J. Kang, S. Hong, J. Kim

AGRO **364**. Correlation analysis for the enantioselective degradation and toxicity of isofenphos-methyl to the pluteella xylostella. **B. Gao**

AGRO **365**. Uptake translocation of insecticide dinotefuran from soil into radish. **K. Se-Yeon**, J. Hwang, S. Lee, J. Ryu, M. Kang, J. Kang, J. Kim, S. Hong

WEDNESDAY EVENING

Advances in Environmental Analytical Methods for EPA Compliance Reporting & Exposure Risk Assessment

Sponsored by ENVR, Cosponsored by AGRO and CHAL

Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation

Sponsored by ENVR, Cosponsored by AGRO, CEI and CHAL

Ecological & Human Health Impacts of Emerging Environmental Contaminants

Sponsored by ENVR, Cosponsored by AGRO and CHAL

Measurements & Methods in Environmental Nanotechnology

Sponsored by ENVR, Cosponsored by AGRO and ANYL

THURSDAY MORNING

Section A

Renaissance Washington, DC Downtown Meeting Room 4

Biorational Control of Medical & Veterinary Pests Characterization of Insecticide Resistance

J. M. Clark, E. Norris, *Organizers*

J. R. Coats, A. D. Gross, *Organizers, Presiding*

8:50 Introductory Remarks.

8:55 AGRO **366**. Overcoming insecticide resistance: Detection and management of insecticide-resistant human lice. J.H. Kim, K. Gellatly, K.S. Yoon, E. Murenzi, J.M. Clark

9:20 AGRO **367**. What is kdr?
L. Smith, S. Kasai, J.G. Scott

9:45 AGRO **368**. Breaking insecticide resistance: Peptide neurohormone targets. A. Nuss

10:10 Intermission.

10:30 AGRO **369**. GPCR regulatory signaling pathway: The mechanisms underlying insecticide resistance in mosquitoes. N. Liu

10:55 AGRO **370**. Determination and comparison of the cuticular thickness across several insecticide resistant and susceptible populations of the common bed bug, *Cimex lectularius* L., using scanning electron microscopy (SEM). R. Koganemaru, K. Patton, D. Miller

11:20 AGRO **371**. Overcoming insecticide resistance: Characterizing resistance mechanisms in mosquito populations. J.A. Ottea

11:45 Concluding Remarks.

Section B

Renaissance Washington, DC Downtown Meeting Room 2

Communicating Pesticide Science to the Public

H. B. Irrig, C. Tiu, *Organizers*

P. A. Brindle, *Organizer, Presiding*

8:25 Introductory Remarks.

8:30 AGRO **372**. Three fundamentals of effective communications – and how to use them. J. Gilder

9:20 AGRO **373**. Chemical and pesticide communications and advocacy: The current state of play. J. Byrne

10:10 Intermission.

10:30 AGRO **374**. Communicating concepts in pesticides and agriculture to a concerned public. K.M. Folta

10:55 AGRO **375**. Communicating safety of agricultural technology to non-science audiences. C. Moseley, P. Laird, P.F. Hoekstra

11:20 AGRO **376**. Communicating turf pesticide risk assessment science to the public: Lessons learned. S.Z. Cohen

11:45 Panel Discussion.

Section C

Renaissance Washington, DC Downtown Meeting Room 13

Species Habitat Determination & Chemical Exposure Routes & Timing

A. Kenney, D. Perkins, C. Wade, *Organizers*

R. F. Bohaty, A. Frank, *Organizers, Presiding*

8:25 Introductory Remarks.

8:30 AGRO **377**. Mapping U.S. Fish and Wildlife Service listed species current range maps: The good, the bad, and the ugly. K. Paul, N. Golden

8:55 AGRO **378**. Approaches for defining spatially explicit habitat in the absence of federally declared critical habitat. J. Amos, B. Kearns, S. Kay

9:20 AGRO **379**. Characterizing land use for pesticide risk assessments. A.C. Barefoot, T. Carro, A. Frank, C. Jones

9:45 AGRO **380**. Development of detailed habitat classification for wildlife exposure modeling. W. Stiteler, T.L. Negley

10:10 Intermission.

10:30 AGRO **381**. Systematic and AI-specific sources of uncertainty in screening pesticide aquatic risk assessments: How much do they add to regulatory confusion? P. Hendley, C.M. Holmes, M. Winchell, D.A. Desmarteau, A.M. Ritter, J. Giddings

10:55 AGRO **382**. Tools for estimating the magnitude of population effects to endangered species using predicted pesticide exposure concentrations, extent of overlap of species ranges with pesticide use sites, and refined toxicity data. C. Rossmel, C. Peck, C. Jennifer, J.C. Hook, K. Garber, M. Panger, N. Golden, G. Noguchi, D. Baldwin

11:20 AGRO **383**. Identification of riparian buffer strips within agricultural fields in Illinois using satellite imagery. K. Copenhaver

11:45 AGRO **384**. Collaborative approaches to pollinator habitat conservation at multiple scales and across industry sectors. I. Caldwell, D. Perkins, K. Copenhaver

12:10 Concluding Remarks.

11:20 AGRO **383**. Identification of riparian buffer strips within agricultural fields in Illinois using satellite imagery. K. Copenhaver

11:45 AGRO **384**. Collaborative approaches to pollinator habitat conservation at multiple scales and across industry sectors. I. Caldwell, D. Perkins, K. Copenhaver

12:10 Concluding Remarks.

Section D

Renaissance Washington, DC Downtown Meeting Room 14

Synthesis & Chemistry of Agrochemicals

Cosponsored by ORGN

J. D. Eckelbarger, *Organizer*

T. M. Stevenson, *Organizer, Presiding*

8:25 Introductory Remarks.

8:30 AGRO **385**. Investigation of heteroatom substituents in insecticidal N-(5-aryl-1,3,4-thiadiazol-2-yl)amides. J.D. Eckelbarger, A. Buysse, M.H. Parker, M.C. Yap, J.M. Babcock, R. Hunter, Y. Adelfinskaya, J.G. Samaritoni, N. Garizi, T.K. Trullinger

8:55 AGRO **386**. Discovery of NexGard®. M. Xu, J.K. Long, G.P. Lahm, T. Wagerle, W. Shoop

9:20 AGRO **387**. Synthesis of quinoline sulfonamides as insecticidal METI inhibitors with low mammalian toxicity. W. von Deyn, M. Puhl, N. Rankl

9:45 AGRO **388**. Insecticide discovery: Synthetic spinosyn mimics. T.C. Sparks, G.D. Crouse, D.A. David, A. Brown, B. Kristy, J.G. Samaritoni

10:10 Intermission.

10:30 AGRO **389**. Triflumezopyrim (DuPont PyraXalt®): Discovery and optimization of mesoionic pyrido[1,2a]pyrimidinones as a novel class of insecticides. W. Zhang, C.W. Holyoke, T.F. Pahutski, K.A. Hughes, M.T. Tong

10:55 AGRO **390**. New macrocyclic compound for broad spectrum disease control. B.M. Nugent, K.G. Meyer, C. Yao, J. Owen, J.M. Renga, K. Myung, J.F. Daeuble, P. Johnson

11:20 AGRO **391**. Niementowski, Gould-Jacobs & Co.: Forgotten name reactions enable the synthesis of fungicidal tubulin polymerization inhibitors and promoters. C. Lamberth

11:45 Concluding Remarks.

Advances in Environmental Analytical Methods for EPA Compliance Reporting & Exposure Risk Assessment

Sponsored by ENVR, Cosponsored by AGRO and CHAL

Nanoscale Sensing in Foods & Other Complex Media

Sponsored by AGFD, Cosponsored by AGRO, ANYL, COLL, ENVR and INOR

THURSDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown Meeting Room 4

Biorational Control of Medical & Veterinary Pests

Development & Future Potential of Spatial Repellents

J. R. Coats, A. D. Gross, *Organizers*

J. M. Clark, E. Norris, *Organizers, Presiding*

1:15 Introductory Remarks.

1:20 AGRO **392**. Preventing the bite: Potential of spatial repellents in the prevention of mosquito-borne disease. N. Achee

1:45 AGRO **393**. Field evaluation of tranfluthrin against outdoor biting mosquito in Thailand. T. Chareonviriyaphap, C. Sukkanon, J. Hii, M. M.C

2:10 AGRO **394**. Molecular basis of transfluthrin repellency in *Aedes aegypti*. F. Liu, P. Xu, E. Bandason, Y. Du, L. Smith, J. Scott, K.R. Chauhan, K. Dong

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2:35 AGRO 395. Excito-repelleny properties of *Cinnamomum porrectum* (Roxb.) leaf essential oil against laboratory populations of *Aedes aegypti*, *Ae. albopictus* and *Culex quinquefasciatus* (Diptera: Culicidae). S. Thongsahuan, W. Pronphol, S. Panpongsiri, T. Khongsukniran, J. Nararak, T. Chareonviriyaphap

3:00 AGRO 396. Semiochemicals and other behavior-modifying chemicals for prevention of tick bite and tick-borne disease transmission. A. Li

3:25 AGRO 397. Development of non-pyrethroid spatial repellents. J.R. Coats, E. Norris, J.S. Klimavicz

3:50 Concluding Remarks.

Section B

Renaissance Washington, DC Downtown Meeting Room 2

Communicating Pesticide Science to the Public

P. A. Brindle, H. B. Irrig, *Organizers*

C. Tiu, *Organizer, Presiding*

1:15 Introductory Remarks.

1:20 AGRO 398. Pesticides? How hard can it be to talk about that? N. Sisk

1:45 AGRO 399. Trade, regulation, and the court of public opinion: Today's strategies for tomorrow's problems. D. Taveau

2:10 AGRO 400. Are we safe yet? J.M. Stewart

2:35 AGRO 401. Developing a safety communication strategy using social media analytics: Pilot program to address pesticides residue. N. Mitchell, B. Kennedy, R. Vinas, M. Basu

3:00 AGRO 402. Withdrawn.

3:25 Panel Discussion.

3:50 Concluding Remarks.

Section C

Renaissance Washington, DC Downtown Meeting Room 13

Current Regulatory & Scientific Landscape of Mixture Toxicity & Risk Assessment

Financially supported by Exponent

P. L. Havens, K. Ralston-Hooper, J. Staveley, *Organizers*

S. L. Levine, *Organizer, Presiding*

1:15 Introductory Remarks.

1:20 AGRO 403. Assessing pesticide mixtures with potential synergistic interactions to support of endangered species assessments. S.L. Levine

1:45 AGRO 404. Toxicological assessment of chemical mixtures needs a realignment of assumptions, methods, and study designs. C.J. Borgert

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

2:10 AGRO 405. Accounting for pesticidal mixture interaction in ecological risk assessment in the USEPA office of pesticide programs. E. Odenkirchen, F.T. Farruggia

2:35 AGRO 406. Statistical analysis of experiments with crop protection mixtures. P. Valverde, K. Ralston-Hooper, T. Jones-Jefferson

3:00 AGRO 407. Prospective risk assessment for mixtures of agricultural chemicals in surface water: Results of two case studies. C.M. Holmes, M. Hamer, C. Brown, R. Jones, L. Maltby, E. Silberhorn, J.S. Teeter, M. Warne, L. Weltje

3:25 AGRO 408. Foliar herbicide interactions: A weed science perspective. B.G. Young

3:50 Concluding Remarks.

Section D

Renaissance Washington, DC Downtown Meeting Room 14

Synthesis & Chemistry of Agrochemicals

Cosponsored by ORGN

T. M. Stevenson, *Organizer*

J. D. Eckelbarger, *Organizer, Presiding*

1:15 Introductory Remarks.

1:20 AGRO 409. Herbicidal oxazolidinones. T.M. Stevenson, P.L. Sharpe

1:45 AGRO 410. Discovery of novel maize selective acetyl-CoA carboxylase inhibitors. J. Scutt

2:10 AGRO 411. Discovery of bicyclopirones. A.J. Edmunds, A. De Mesmaeker, S.V. Wendeborn, W.T. Rueegg, A.M. Michel, J.H. Schaezler, R.G. Hall, R. Beaudegnies

2:35 AGRO 412. Carbonyl containing heterocycles as aromatic moieties in HPPD herbicides. T.M. Stevenson, T. Cenizal

3:00 AGRO 413. Journey towards new herbicides: Quinoxalines and acyl prolines. T. Seitz

3:25 AGRO 414. Scaffold hopping approaches in the agrochemical lead optimization. C. Lamberth

3:50 Concluding Remarks.

ANYL

Division of Analytical Chemistry

K. Phinney and L. Baker, *Program Chairs*

SUNDAY MORNING

Section A

Grand Hyatt Washington
Constitution E

Nanotechnology & Single Cell Analysis in Biology & Medicine

Cosponsored by BIOL, COLL and PHYS

X. N. Xu, *Organizer, Presiding*

8:30 ANYL 1. Nanowire-enabled bio-electronics. C.M. Lieber, A. Zhang, J. Lee, S. You, Y. Zhao, R. McGillicuddy

9:00 ANYL 2. Nanopatterned extracellular matrices enable cell-based assays with a mass spectrometric readout. C.A. Mirkin, M. Mirksich, M.D. Cabezas

9:30 ANYL 3. Photostable optical nanoscopy (PHOTON) for following single live cells: From fundamental discoveries to biomedical applications. X.N. Xu, P. Songkiatsak, P. Cherukuri, A. Poudel

10:00 Intermission.

10:10 ANYL 4. Probing the cell-nano-material interaction with gold nanostructures. Y. Xia

10:40 ANYL 5. Changing cell behavior with colloidal gold nanoparticles. C.J. Murphy

11:10 ANYL 6. Application of photothermal therapy of cancer using gold nano-rods on different animals shown to be safe and successful and stops cancer cell migration. M.A. El-Sayed

Section B

Grand Hyatt Washington
Independence F

Advances in Spectroscopy Applied to Biological & Materials Chemistry

J. M. Harris, *Organizer, Presiding*

8:30 ANYL 7. Single-molecule fluorescence spectroscopy to probe structural dynamics of a macromolecular complex at a sub-nm and sub-ms resolution. S. Wei, J. Kim, J. Lee, T. Lee

8:55 ANYL 8. Using Monte Carlo Simulation to Improve Accuracy in smFRET Data Analysis. J. Chen

9:20 ANYL 9. Single-shot microsecond mid-infrared spectroscopy with quantum cascade laser frequency combs. M. Mangold, A. Hugi, A. Lyon, M. Geiser, W. Wüster, F. Kapsalidis, P. Jouy, J. Faist

9:45 ANYL 10. Probing the interactions of divalent cations with lipid membranes using vibrational sum frequency spectroscopy. S. Pullanchery, P.S. Cremer

10:10 Intermission.

10:20 ANYL 11. Infrared spectroscopy of supported lipid bilayers. A.J. Baxter, A. Sendeck, T. Yang, P.S. Cremer

10:45 ANYL 12. Structural features and solvation effects of α -synuclein amyloid fibrils probed by Raman spectroscopy. J.D. Flynn, J.C. Lee

11:10 ANYL 13. Accurate and efficient DFT-GIAO ^{13}C and ^{15}N NMR chemical shift prediction procedure using B3LYP/cc-pVDZ: Application for rapid structure elucidation of regioisomers, tautomers, protonation states and N-oxides. N.C. Gonnella, K. Fandrick, P. Jones, D. Xin, C.A. Sader, U. Fischer, K. Wagner

11:35 ANYL 14. Analytical methodology for the study of structure-property comparison in modified polyacetal blends. D. Pradhan, S. De

Section C

Grand Hyatt Washington
Independence G

Analytical Toxicology in the 21st Century

Cosponsored by TOXI

J. W. Boyd, *Organizer, Presiding*

8:00 Introductory Remarks.

8:10 ANYL 15. Innovative tools and techniques in advancing toxicology. J.W. Boyd

8:30 ANYL 16. pHLLIP-dye conjugates as probes for visualizing inflammatory response. N. Prince

8:50 ANYL 17. Recent advances in the analytical toxicology toolbox for measuring protein phosphorylation signaling networks. J.V. Miller

9:10 Intermission.

9:20 ANYL 18. LC-MS/MS discovery tool for the identification or histone posttranslational modifications. J. Galligan, P. Kingsley, L.J. Marnett

9:40 ANYL 19. Identifying chemical-protein adducts using a multipronged approach. J. Smith, J. Hansen, S. Nag, A.T. Wright, T. Shi, P. Piehowski

10:00 ANYL 20. Enhancing integrative 'omics studies of nanoparticle exposure using ion mobility spectrometry-hydrogen deuterium exchange-mass spectrometry techniques. S.J. Valentine, H. Maleki, M. Maurer, N. Ronaghi

10:20 ANYL 21. When just knowing isn't enough: Turning unknowns into quantitative knowns in non-targeted analyses. J.N. Grossman, A.R. Marcotte, A.D. McEachran, A.J. Williams, J.R. Sobus

10:40 Intermission.

10:50 ANYL 22. Relevance of the test system: When 21st century tools can't ensure test method acceptance. Q. Zhang, H. Raabe

11:10 ANYL 23. Plasma proteomics, the link between engineered nanomaterial inhalation and systemic microvascular dysfunction? T. Nurkiewicz

11:30 ANYL 24. Promise and peril; fact versus fiction: Forethought, verification and validation in translating discoveries into regulation and risk assessment. C.J. Borgert

11:50 Concluding Remarks.

Section D

Grand Hyatt Washington
Independence H

Pigments, Coatings & Paper

S. R. Carlo, M. Ramirez, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 ANYL 25. Controlled wetting, adhesion, and absorption of water and oils on paper. D.W. Hess, V. Breedveld

8:55 ANYL 26. Analytical characterization of protective varnish for banknotes. T. Classick

9:15 ANYL 27. Micro-Sampling size exclusion chromatography at the Library of Congress for the analysis of paper aging and degradation. A. Davis, L. Brostoff

9:35 ANYL 28. Non-Destructive analysis of printing substrates via resonant cavity broadband dielectric spectroscopy. M. Kombolias, Y. Obeng, J. Obrzut, K. Montgomery, M. Postek, D. Poster

9:55 Intermission.

10:10 ANYL 29. Development of a spectral quality metric for evaluation of pigmented security inks. P.R. Kust

10:30 ANYL 30. Identification of leachable plasticizers by mass spectrometry: Deciphering press roller influence on ink curing. **M. Ramirez**, C.M. Soto, J. Evans, K. Monaco, B.T. Horlor, J. Lamb, B. Liu, C. Hoover, J. Wilhite, R.S. Davis, S.R. Carlo

10:50 ANYL 31. Analyzing the curing characteristics of ink using differential scanning calorimetry. **B.T. Horlor**, C. Hoover, J. Lamb, M. Ramirez, C.M. Soto, S.R. Carlo

11:10 Concluding Remarks.

Section E

Grand Hyatt Washington
Independence I

New Approaches to Teaching: Strategies, Instrumentation, Standards

Cosponsored by CHED

J. Carver, *Organizer, Presiding*

8:00 ANYL 32. Leveraging R for the teaching of analytical chemistry. **D.T. Harvey**

8:50 Intermission.

9:00 ANYL 33. Assessment of a field-based environmental chemistry course for chemistry and environmental science majors. **S. Plummer Oxley**, D. Turner, R. Sperling

9:50 Intermission.

10:00 ANYL 34. Using guided inquiry and peer mentoring in an instrumental analysis lab. **C.M. Strollo**, A.A. Peterson

10:50 Intermission.

11:00 ANYL 35. Uncertainty calculations in the quantitative analysis laboratory. **B.T. Cooper**, C.M. Carlin

SUNDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution E

Nanotechnology & Single Cell Analysis in Biology & Medicine

Cosponsored by BIOL, COLL and PHYS

X. N. Xu, *Organizer, Presiding*

1:30 ANYL 36. Beyond biomarkers: Array-based profiling for diagnostics and geno- and phenotypic screening for precision medicine. **V.M. Rotello**

2:00 ANYL 37. Colloidal nanoparticles may induce changes in cellular morphology. **W. Parak**

2:30 ANYL 38. Probing of effects of silver nanoparticles on single liver tumor cells. **A. Korell**, P. Songkiatissak, A. Poudel, S. Phan, X.N. Xu

2:55 Intermission.

3:05 ANYL 39. Single-molecule detection of protein efflux from microorganisms using fluorescent single-walled carbon nanotube sensor arrays. **M.D. Landry**, J. Dong, M. Strano

3:30 ANYL 40. Large-scale synthesis of multifunctional janus particles for single-cell in situ cytokine analysis. **P. Zhao**

3:55 ANYL 41. Multifunctional nanoparticles responsive to intracellular microenvironment for cancer theranostics. **J. Zhu**, Z. He

Section B

Grand Hyatt Washington
Independence F

Oxidative Stress & Antioxidants: Measurement Tools & Analytical Challenges

Cosponsored by COLL

M. R. Hepel, *Organizer, Presiding*

E. Andreescu, *Presiding*

1:30 Introductory remarks.

1:35 ANYL 42. Electrochemical quantification of oxidative/nitrosative stress and antioxidants: Sensing designs and biological applications. **E. Dumitrescu**, X. Liu, **E. Andreescu**

2:05 ANYL 43. Identification of dityrosine crosslinking in a monoclonal antibody subjected to thermal stress in lab-scale Hastelloy® containers. **M.T. Kim**, N. Klair, A. Lee, A. Patel

2:30 ANYL 44. Monitoring DNA damage by radical formation mechanisms. **M.R. Hepel**

2:55 ANYL 45. Gold nanoparticle grid-enhanced SERS biosensor for evaluation of DNA damage by oxidants and DNA protection. **H. Ilkhani**, M.R. Hepel

3:20 Intermission.

3:35 ANYL 46. Monitoring reactive oxygen species generated at the supported lipid bilayer surface upon transition metal ion binding. **V.R. Greenberger**

4:00 ANYL 47. Selective and sensitive monitoring antioxidants in the rat brain based on the dye-labeled DNA/polydopamine conjugates. **M. Shishi**

4:25 ANYL 48. Oxidative damage of DNA caused by chromium species. **E. Matysiak-Brynda**, **A.M. Nowicka**, M.R. Hepel

Section C

Grand Hyatt Washington
Independence G

Bispecific Antibody Therapeutics

J. Zhu-Shimoni, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 ANYL 49. Regulator's perspective on challenges in the development of bispecific antibodies. **M. Shapiro**

1:35 ANYL 50. Bispecific antibodies as drugs: Are we there yet? **P. Carter**

2:00 ANYL 51. DuoBody technology: A versatile platform for bispecific antibody discovery and development. **M.D. Van Kampen**, R.G. Hibbert, C. Cimander, A.F. Labrijn, J. Schuurman, P.W. Parren, R.N. de Jong

2:20 ANYL 52. Identification and targeted downstream removal of mis-paired variants in a bispecific format. **A. Williams**

2:40 Intermission.

3:00 ANYL 53. Engineering the efficacy of EGFR x cMet bispecific antibody. **M. Chiu**

3:20 ANYL 54. pH-induced microenvironment modulation results in conformational changes in Knob and hole half bispecific antibodies. **Y. Adem**

3:40 ANYL 55. Characterization and control of side products of bispecific antibodies: Delivering the pipeline with new formats. **V. Lundin**, H. Zhang, A. Estevez, X. Gao, K. Lin, K. Catherman, F. Hermann, J. Quang, K. Aurori, J. Giulianotti, M. Bhaumik, A. Ladiwala, H. Liu, J. Zhang, C. Ciferri, J. Shimoni

4:00 ANYL 56. Rapid production of bispecific antibodies using 'off-the-shelf' IgG. **B. Altun**, A. Tsourkas

4:20 Panel Discussion.

Section D

Grand Hyatt Washington
Independence H

Analytical Chemistry in the Context of Cultural Heritage

Teaching Chemistry through Art

Cosponsored by HIST

G. D. Smith, *Organizer*

M. J. Samide, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 ANYL 57. Art and science: A context for chemical education. **M.J. Samide**

1:35 ANYL 58. Connecting chemistry and art in the liberal arts classroom. **S. Hubbard**

2:05 ANYL 59. Undergraduate research at the interface of analytical chemistry and art conservation: SERS Studies of organic pigments in oil paintings. **S. Svoboda**, **K.L. Wustholz**

2:35 ANYL 60. Materials alchemy: Teaching chemistry and materials science to art and design students. **M.G. MacDonald**

3:05 Intermission.

3:15 ANYL 61. Using multiple resources to encourage students to find their own voice in the chemistry of art. **P.K. Jue**

3:45 ANYL 62. Imaging methodologies and standoff spectroscopy: Utilizing portable instrumentation across a range of undergraduate courses and in museum and university research domestically and abroad. **E.S. Uffelman**, M.E. Stephenson, D. Monteagudo, H.M. Billings

4:15 ANYL 63. Have guns - will travel: Case studies of the on-site use of handheld portable XRF and FT-IR instrumentation for collaborative multi-disciplinary undergraduate research. **C.C. Deibel**, M. Deibel

4:45 Discussion.

Section E

Grand Hyatt Washington
Independence I

New Approaches to Teaching: Strategies, Instrumentation, Standards

Cosponsored by CHED

J. Carver, *Organizer, Presiding*

1:30 ANYL 64. Electrolysis of water in the classroom using inexpensive microfluidics. **C. Critchfield**, T. Davis, J. Carver, L.A. Holland

2:00 Intermission.

2:10 ANYL 65. Safe and cost effective teaching experiments for personalized learning in college-level chemistry. **L. Veltri**, T. Davis, C.L. Critchfield, L.A. Holland

3:00 Intermission.

3:10 ANYL 66. WVNanoSAFE: Tools to foster independence and critical thinking early in undergraduate research. **L.A. Holland**, K.D. Quedado, R.J. Henderson

SUNDAY EVENING

Section A

Walter E. Washington Convention Center
Hall D

Analytical Division Poster Session

L. A. Baker, K. Phinney, *Organizers*

7:00 - 9:00

ANYL 67. Use of boiled groundnut (*Arachis hypogaea*) shells in the adsorption and removal of Pb(11) and Cd(11) ions from aqueous solution. **T.A. Abii**

ANYL 68. Cyclodextrin supramolecular complexes for the detection of delta-9-tetrahydrocannabinol in saliva. **M. Smith**, M. Levine

ANYL 69. Investigating the background interferences of carpet substrates in accelerant identification. **S. Haddadi**, A. Aldrich, G. Odugbesi

ANYL 70. Withdrawn.

ANYL 71. Identification from blood using single analyte bioaffinity-based assays. **L.K. McGoldrick**, S. Farrell, J. Agudelo, M.E. Hair, E. Brunelle, C. Huynh, L. Halámková, J. Halamek

ANYL 72. Differentiation of ammunition by ICP-OES analysis of gunshot residue. **C. Barbera**, C.C. Philipp

ANYL 73. Dry reagent chemistry for Homemade Explosives (HMEs) detection. **A.R. Nicolaescu**, M. Felten, K. Ewing, S. Graber

ANYL 74. Analysis of drugs used in facilitated criminal acts using solid phase extraction and liquid chromatography-mass spectrometry. **V. Niri**, S. Haddadi, K. LaGatta, K. Herard

ANYL 75. Identification and quantitation of *Psilocybe cubensis* DNA using a quantitative real-time polymerase chain reaction high resolution melt (qPCR-HRM) assay. **A. Cowan**, K.M. Elkins

ANYL 76. Swab spray mass spectrometry for rapid analysis of organic gunshot residue from human hand and various surfaces using commercial and fieldable mass spectrometry systems. **P.W. Fedick**, R.M. Bain

ANYL 77. Withdrawn.

ANYL 78. Withdrawn.

ANYL 79. Phosphorus speciation using ³¹P nuclear magnetic resonance spectroscopy in order to trace phosphorus sources and movement in the northern Florida everglades and the C51 basin. **B. Duersch**, J. Louda

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- ANYL **80.** Chemical contamination derived from debris plastics in ocean water and sand in the world. **K. Koizumi**, Y. Koderu, T. Komoriya, K. Amamiya, K. Takatama, D.M. Karl, **K. Saido**, T. Hiaki
- ANYL **81.** Optimization and validation of solid phase extraction (SPE) and an HPLC-UV/DAD procedure for the determination of selected active pharmaceutical ingredients in aqueous matrices. **O.S. Olatunji**, O.S. Fatoki, B.O. Opeolu, B.J. Ximba, B. Genthe
- ANYL **82.** Identification and quantification of paralytic toxins in Puget Sound marine organisms. **E. Deveau**, E. Frame, **K.M. Pierce**
- ANYL **83.** Elucidating the mechanism for invasiveness in *Phragmites australis* using omics. **R. Weed**, J. Park, A. Berim, J. Wang, D. Gang
- ANYL **84.** Natural dyes in cyanide and anion sensing. **Y.M. Hijji**, M. AbdelRasoul, H.S. Al Easa
- ANYL **85.** Identification of mercury and dissolved organic matter complexes using ultra-high resolution mass spectrometry. **H. Chen**
- ANYL **86.** Oil removal and recovery using graphene oxide functionalized sponges. **H. Chang**
- ANYL **87.** Facile preparation of hexadecyl-functionalized magnetic core-shell microspheres for the extraction of polychlorinated biphenyls in environmental waters. **Y. Fan**, X. Li, S. Qi
- ANYL **88.** Development of an X-ray fluorescence method for the detection of mercury vapor. **R.E. Bachman**, **A.C. Westmoreland**
- ANYL **89.** Analysis of VOCs emitted from rigid PVC used in museum casework. **C. Liggett**, M.J. Samide, G.D. Smith
- ANYL **90.** Cormorant AGE's: When old isn't based on pentosidine concentrations in tissues. **R.S. Stahl**, B. Dorr
- ANYL **91.** Direct mass spectrometric signatures of E-waste in polymeric food contact materials. **L.K. Ackerman**, F. Puype
- ANYL **92.** Innovative and rapid method for the quantification of persulfate in environmental samples using customized HPLC system. **A. Ghauch**, A. Baalbaki, S. Jaber, N. Zeineddine, M. Amasha
- ANYL **93.** Robust, automated hormone data analysis. **J. Wang**, N. Tao, K.-J. Skogerson, B. Foat, R. Martin
- ANYL **94.** In-situ derivatization of polar terpenes on a modified sorbent tube followed by thermal desorption analysis by Gas Chromatography-Mass Spectrometry (GC-MS). **M. Dalilian**, N. Chong
- ANYL **95.** Degradation of selected hazardous organic compounds by chlorine dioxide and ozone. **M. Hoque**, N. Chong
- ANYL **96.** Biodiesel production using ultrasonic irradiation and its fuel performance. **S.A. Abdulramoni**, N. Chong, B. Ooi
- ANYL **97.** Withdrawn.
- ANYL **98.** Portable chemiluminescent biosensor capable of rapidly and simultaneously monitoring HIV and HCV in a sample. **J. Chong**, K. Cho, S. Choi, J. Lee
- ANYL **99.** Simultaneous determination of five antiretroviral drugs plus cobicistat in human plasma using strong cation mixed-mode SPE and HPLC-MS/MS. **S. Brown**, F. Lawson-Hellu, D. Murrell, S. Hairiforoosh
- ANYL **100.** Sensitive, selective, and quantitative copper sensor using click-chemistry with gold nanoparticles. **R. Cary**, S. Unser, L. Sagle
- ANYL **101.** Utilizing oxygen sensing boron nanoparticles to develop a novel immunometabolism assay. **D. Dixon**, M. Zhuang, C.A. DeRosa, C.L. Fraser, R.R. Pompano
- ANYL **102.** Sensitive, rapid and high throughput measurement of nicotine in human serum by automation and liquid chromatography-atmospheric pressure ionization tandem mass spectrometry. **B. Xia**, J. McGuffey, Y. Xia, T. Guillot, E. McGahee, L. Wang, B. Blount
- ANYL **103.** Off-on switching Ru(bpy)₃²⁺ electrochemiluminescence biosensor based on ferrocene-labelled DNA molecular beacon and using N-butyl-diethanolamine as co-reactant. **L. Lu**
- ANYL **104.** 1D Bead-Array SELEX for STAT3-targeted aptamer selection. **J. Weng**, L.C. Chen
- ANYL **105.** Towards an automatic structure elucidation process in various chemical workflows by LC-HRMS and NMR data analysis. **G. Plasencia Galloré**, E. Ortega, T. Radchenko, B. Serra, I. Zamora
- ANYL **106.** Determining nitric oxide-induced macrophage polarization via glucose consumption. **J.B. Taylor**, M.H. Schoenfish
- ANYL **107.** Electrochemical studies of bioanalytes using microdevices with embedded microheaters. **S.M. Robinson**, Z. Shen, H.O. Sintim, S. Semancik
- ANYL **108.** Simultaneous targeting STAT3 and NF- κ B in cancer cell lines with decoy oligonucleotides. **P. Lee**, L.C. Chen
- ANYL **109.** Determination of nicotine and nicotine N-oxide in e-cigarette liquids. **K. Ferguson**, M.J. Samide, A.M. Wilson
- ANYL **110.** Phenyl and amine stationary phase gradients on packed columns for high-pressure liquid chromatography. **A.V. Forzano**, M.M. Collinson, S.C. Rutan
- ANYL **111.** Confocal Raman microscopy for probing the interior of individual porous particles to understand stationary phase structure and function. **J.P. Kitt**, D. Bryce, **J.M. Harris**
- ANYL **112.** Development of a test mixture for untargeted HRMS method harmonization. **B.J. Place**, C. Rimmer
- ANYL **113.** Amplified Luminescent Proximity Homogeneous Assays (Alpha) for detection of hyaluronan-protein binding. **X. Huang**, M.K. Cowman
- ANYL **114.** Assay of genome-wide transcriptome and secreted proteins on the same single immune cells by microfluidics and RNA sequencing. **J.V. George**, J. Wang
- ANYL **115.** Development of cost-effective chemiluminescent immunosensor for the rapid monitoring of influenza A viruses. **C.T. Lee**, Y. Kim, J. Lee
- ANYL **116.** Development of a LC-MS/MS method for the analysis of everolimus in rabbit aqueous humor. **Q. Wang**, Z. Tang, L. Wang, Z. Xia
- ANYL **117.** Transient protein-protein interactions within Hs578T breast cancer cells. **E.L. Kennedy**, M. Jeon, A. Huynh, M. Kyoung
- ANYL **118.** Withdrawn.
- ANYL **119.** Paper-based lipid and carbohydrate assays. **B. Giri**, A. Pandeya, S. Rayamajhi, S. Giri
- ANYL **120.** Automated determination of reaction progress coupled with impurity profiles. **P. Scholl**, J. Riley, D. Hebraut
- ANYL **121.** Simultaneous estimation of ketorolac tromethamine and phenylephrine hydrochloride in artificial aqueous humor. **F. Tandel**
- ANYL **122.** Ultrasensitive detection of glycosaminoglycans by rolling circle amplification. **X. Han**, R.J. Linhardt, L. Lin
- ANYL **123.** Bead-based cytokine detection in live lymph node slices. **M. Belanger**, R.R. Pompano
- ANYL **124.** Raman, infrared and luminescence spectroscopic investigation in paraoxonase 1 (PON1) active site. **Y. Wang**, T.J. Magliery, T.L. Gustafson
- ANYL **125.** Fluorescent single wall carbon nanotube microarray for label-free, real-time biomolecular detection and binding kinetic analysis. **J. Dong**, M. Strano
- ANYL **126.** Use of peptide nucleic acid coated gold nanoparticles for signal detection and amplification in microfluidic diagnostics. **K.M. Oshaben**, K.M. George Rosenker, C. Zhao, D.H. Appella
- ANYL **127.** Analysis of the effect of minimal vs. complex media on the metabolite profiles of microorganisms by gas chromatography-mass spectrometry. **J. Kim**, K. Kim
- ANYL **128.** Development of analytical method for N-formal-based formaldehyde releasing preservatives in cosmetics. **S. Park**
- ANYL **129.** Targeted DNzyme-nanocomposite probe equipped with built-in Zn²⁺ arsenal for combined treatment of gene regulation and drug delivery. **Z. He**, J. Zhu
- ANYL **130.** Identification of 1,5-naphthyridinophthalone and its quantification in the color additive D&C Yellow No. 10 (Quinoline Yellow) using high-performance liquid chromatography. **A. Weisz**, I.C. James, E.P. Mazzola, C. Ridge, C.F. James, S. Markey
- ANYL **131.** Stability of isolated antibody-antigen complexes as a predictive tool for selecting toxin neutralizing antibodies. **P.M. Legler**, **J. Compton**, M.L. Hale, G.P. Anderson, M.A. Olson, C.B. Millard, E.R. Goldman
- ANYL **132.** Environmentally friendly fingerprinting of *Phyllanthus niruri* by HPLC, an important medicinal plant in the treatment of kidney stones: Multivariate experimental design approach. **J.H. Pelissari**, C.S. de Funari, R.L. Carneiro, **D. Rinaldo**
- ANYL **133.** Mass spectrometry-based characterization of recombinant human immunodeficiency virus type 1 (HIV-1) envelope (Env) vaccine. **V. Sharma**
- ANYL **134.** Simple and sensitive method for the determination of alkylating chloride by LC-MS. **M. Powell**, M. Musteata, L. Xu
- ANYL **135.** Mediator-based electrochemical analysis of biotherapeutics. **J. Askim**
- ANYL **136.** Forced degradation and mechanistic study of beclabuvir. **Q. Ye**, Y. Huang, **S. Grier**, S.A. Miller
- ANYL **137.** Computer simulation software for rapid gas chromatographic method development. **M. Chai**
- ANYL **138.** Determination of aniline, 4-aminoazobenzene, and 2-naphthol in the color additive D&C Red No. 17 using ultra-high-performance liquid chromatography. **H. Yang**, A. Weisz
- ANYL **139.** Identification of *ortho*-substituted benzoic acid/ester derivatives via gas phase neighboring group participation effect in (+)-ESI high resolution mass spectrometry. **H. Sheng**, W. Blincoe, A. Rodriguez-Granillo, J. Sauri, N. Pierson, I.K. Mangion, R. Williamson
- ANYL **140.** Enantiomeric separation of chiral scaffolds and cores used in drug discovery. **M.J. Wilcox**, C. Lerner, S. Anderson, T. Szczerba, G. Lowden
- ANYL **141.** Image analysis and chemometric one-class classification of *Blumea balsamifera* thin-layer chromatography fingerprints towards rapid quality assessment. **S.M. Sibug**, F. Salatan, E. Enriquez, I. Padolina, F.C. Garcia, M.J. Garrovillas
- ANYL **142.** Overcoming challenges in single particle ICP-MS analysis of redox active nanoparticles. **J. Liu**, K. Murphy, M. Winchester, V.A. Hackley
- ANYL **143.** Terahertz multispectral imaging and other analyses of gold nanoparticles. **J. Oh**, W. Ghann, H. Kang, J. Uddin, A.K. Rahman, A. Rahman
- ANYL **144.** Nanowire tools for highly-localized studies of neuronal cells. **A. Zhang**, J. Lee, S.S. You, Y. Zhao, R. McGillicuddy, C.M. Lieber
- ANYL **145.** Rapid, template-free synthesis of macroscale semiconductor nanoparticles via tailored photoexcitation. **A. Carim**, N.A. Batara, H. Atwater, N.S. Lewis
- ANYL **146.** Biosensing based on ordered gold nanoshell arrays with plasmonic tunability. **W. Qian**
- ANYL **147.** Nanofiber scaffolds as an ex-vivo method for CD34+ Hematopoietic Progenitor Stem Cell (HPC) growth and expansion. **C. Winstead Casson**, K. Milligan, L. Lott
- ANYL **148.** Alloyed metallic thin films and nanostructures with tunable optical properties for plasmonics. **C. Gong**, M. Dias, M.S. Leite
- ANYL **149.** S-Nitrosothiol functionalized mesoporous silica nanoparticles for extended nitric oxide-release. **M. Malone-Povolny**, M.H. Schoenfish
- ANYL **150.** Hyaluronidase-triggered anticancer drug and siRNA delivery from cascaded targeting nanoparticles for drug resistant breast cancer therapy. **T. Liang**, J. Zhu, J. Ding
- ANYL **151.** Analyzing single molecule thermodynamics from laser-induced nanopore heating. **C. Angevine**, K.N. Kothalawala, J.W. Robertson, A. Antonyamsy, **J. Reiner**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

ANYL **152.** Morphology change of DNA by ionic liquids and its characterization using solid-state nanopore. **K. Jeong**, K. Luo, J. Jung, Y. Kim

ANYL **153.** Development of gas flow method for the non-destructive evaluation of glass nanopipette. **T. Takami**, F. Iwata, Y. Takakuwa

ANYL **154.** Measuring copolymer chemical heterogeneity by combining SEC with offline Raman spectroscopy. **A.M. Striegel**, A. Urbas, L. Pitkanen

ANYL **155.** Screening of protein interaction against glycopolymer synthesized by click chemistry. **Y. Terada**, Y. Hoshino, Y. Miura

ANYL **156.** Characterization of plasma proteins and lipoproteins using micro-channel asymmetrical flow field-flow fractionation. **R. Reed**, S. Tadjiki, R. Welz, T. Pfaffe, F. Meier, R. Drexel, T. Klein

ANYL **157.** Nitric oxide diffusion through cystic fibrosis-relevant media and bactericidal efficacy against biofilms. **J. Hall**, D.J. Suchyta, K. Rouillard, M.H. Schoenfish

ANYL **158.** Improved understanding of polyolefin chain ends through ¹³C NMR. **Y. He**, J. Klosin, B. Bailey

ANYL **159.** Multi-technique analysis of naturally aged wood polymer composites. **C.S. Swagler**, E.R. Welton, L.D. Brunelle, D.J. Gardner, R.E. Goacher

ANYL **160.** Study of electrochemical reactions across oil-water interface by single particle collision. **D.K. Paul**, J.C. Alvarez

ANYL **161.** Electrostatic force curves in finite-size-ion electrolytes. **F. Zypman**, S.J. Eppell

ANYL **162.** Phase selectivity of pyrimidine polymorphs with functionalized templates. **T.A. Watts**, J.A. Swift

ANYL **163.** Broadband TOCSY experiment in ¹⁹F NMR with spin lock effected by BURBOP. **A.A. Marchione**

ANYL **164.** Polyoxometalate cluster molecules as cathodes for rechargeable magnesium batteries. **H.K. Henry**, S. Lee

ANYL **165.** *In situ* SHINERS investigation of lithium electrode/electrolyte interfaces. **Y. Gu**, S. Tang, W. Zhang, W. Wang, J. Yan, B. Mao, Z. Tian

ANYL **166.** Comparative voltammetric studies of the diffusion of ferrocene in symmetric and asymmetric imidazolium ionic liquids. **M. Thakurathi**, E. Guring, M. Cetin, V. Thalangamaarachchige, M.F. Mayer, C.L. Korzeniewski, E.L. Quitevis

ANYL **167.** Field-ready quality assurance test kits and mobile app for the contract farming medicinal plant industry. **S.M. Sibug**, F. Salatan, P. Tabudlong, I. Padolina, P. Cruz, **E. Enriquez**

ANYL **168.** Identification and occurrence in food oils of the Stearidonic acid trans fatty acids. **A. Milani**, P. Delmonte

ANYL **169.** Biomarker analysis via bioaffinity cascades for forensic applications. **J. Agudelo**, J. Halamek, E. Brunelle, C. Huynh, L. Halámková

ANYL **170.** Withdrawn.

ANYL **171.** Withdrawn.

ANYL **172.** Applications of multidimensional time model for probability cumulative function to Brownian motion on fractals to kinetics of chemical reactions and other areas of chemical research. **M. Fundator**

ANYL **173.** Determination of nano particle sizes by turbidity-Debye method. **B. Niu**, X. Song, Y. Xu

Section A

Walter E. Washington Convention Center Hall D

Analytical Techniques Used to Address FDA Regulatory Questions & Challenges

J. H. Callahan, *Organizer*

7:00 - 9:00

ANYL **174.** Volatile N-nitrosamines in tobacco matrices using isotope dilution gas chromatography-triple quadrupole tandem mass spectrometry. **J. Lisko**, A. Blasiole, C. Watson, L. Valentin-Blasini

ANYL **175.** Determination of exposure to heterocyclic aromatic amines in the general US population with sensitive tandem mass spectrometry and high-throughput robotic sample preparation. **L. Zhang**, Y. Xia, B. Xia, J. McGuffey, E. McGahee, B. Blount, L. Wang

ANYL **176.** Identification of food-borne pathogens *Salmonella*, *Shigella*, *E. coli*, using tandem mass spectrometry. **S. Chen**, C.H. Parker, T.R. Croley, M. McFarland

ANYL **177.** Evaluation of Matrix-Assisted Laser Desorption Ionization-Time of Flight Mass Spectrometry (MALDI-TOF MS) for the rapid identification of fungal pathogens isolated from FDA regulated products. **S. Cole**, C. Randell, C. Nevins, C. Karbiwnyk

ANYL **178.** Method development for speciation of gadolinium based contrast agents by UPLC-ICP-MS. **C.R. Beekman**, A. Mohammad, P. Faustino

ANYL **179.** Morphological characterization of coatings on guidewire surrogates using cryogenic scanning electron microscopy. **Y. Wu**, B. Koo, H. Shi, N. Duraiswamy, J. Zheng

ANYL **180.** Evaluation of coating integrity of drug coated balloons. **S. Woolford**, A. NguyenPho, B. Oktem, S.I. Wickramasekara, M. McDermott

ANYL **181.** Implementation of a multi-span robotic platform for the development of a high throughput assays for cell proliferation using PA-1 human tumor and CHO Chinese hamster ovary cell lines. **A.M. Masood**, P. Faustino

ANYL **182.** Sample clean-up strategies and proteomics profiling of swine serum proteins following lipopoly-saccharide challenge. **Z. Olumee-Shabon**, C. Chattopadhyaya, P.J. Kijak

ANYL **183.** Simultaneous separation and quantification of free drug and liposome-associated drug by capillary electrophoresis with UV-Vis detection. **M. Mohamed Ansar**, W. Jiang, T. Mudalige

ANYL **184.** Characterization of coexistence of nanoemulsion droplets and liposomes in propofol drug products. **Y. Wu**, P. Petrochenko, S. Manna, B. Koo, J. Myung, S. Choi, D. Kozak, J. Zheng

ANYL **185.** Physicochemical characterization and *in vitro* drug release testing of a multivesicular liposomal bupivacaine formulation. **S. Manna**, P. Petrochenko, Y. Wu, B. Koo, K. Ren, Y. Wang, S. Choi, D. Kozak, J. Zheng

ANYL **186.** Determination of the best approach for processing human plasma samples to manage the matrix effect for analysis of three model drugs using RapidFire-MS/MS system. **J. Zhang**, A. Katlias, P. Faustino

ANYL **187.** Advanced automation approaches to develop analytical methods for metal analysis in pharmaceuticals. **A. Mohammad**, H. Bhatia, C.R. Beekman, C. Madhava, C. Agarabi, K.A. Brorson, S. Yoon, P. Faustino

ANYL **188.** Bioavailability evaluation of two taste-masked pediatric products of brompheniramine in porcine models. **D. Shakleya**, J. Wang, Y. Yang, P. Faustino

ANYL **189.** Sensitive and robust UPLC-MS assay for brompheniramine in porcine plasma and its application to pharmacokinetic evaluation of brompheniramine taste-masked pediatric formulation. **J. Wang**, D. Shakleya, Y. Yang, P. Faustino

ANYL **190.** FDA initiative on USP monograph modernization: Selenium quantification in antidandruff shampoo and lotion by inductively coupled plasma – optical emission spectrometry (ICP-OES) after microwave assisted digestion. **M.G. Truchan**, **W. Kuo**, G.M. Maxwell, A.M. Trifanov, P.A. Klimkewicz, B.D. Harris, I.P. Mayers, S.H. Moini, M. Chang, L.M. Santos

ANYL **191.** Determination of 2-(2-quinoliny)-1H-indene-1,3(2H)-dione in D&C Yellow No. 10 straight colors and lakes. **N. Belai**

ANYL **192.** Application of EPA Method 6020 to the determination of trace element impurities in color additive pigments with high mineral content. **N.M. Hepp**

ANYL **193.** Identification of organic pigments in tattoo inks by liquid chromatography with photodiode array and mass spectrometry detection. **M. Perez-Gonzalez**, B. Petigara Harp

ANYL **194.** Analytical techniques used for the detection and characterization of nanomaterials. **S.A. Khan**, T.R. Croley

ANYL **195.** Dilute-and-shoot UPLC/MS/MS method for simultaneous determination and confirmation of eleven mycotoxins in distiller's dried grains with solubles. **H. Li**, C. Nocketto, P. Kijak

ANYL **196.** Optimized sample preparation and high-resolution mass spectrometric multi-residue quantitation and confirmation method for 30 veterinary drug residues in raw-milk. **H. Escobar**, L. Girard, S. Turnipseed, P.J. Kijak, H. Jayasuriya, **K.B. Herath**

ANYL **197.** Mass spectrometric analysis of the effects of a proline endopeptidase on gluten in a wheat gluten incurred model sorghum beer. **K.L. Fiedler**, R. Panda, T.R. Croley

ANYL **198.** Validation of an LC-MS/MS method for analysis of anti-diabetic, anti-obesity, and cholesterol-lowering drugs in botanical dietary supplements labelled for blood sugar management. **J. Ma**, R. Pawar, E. Grundel

ANYL **199.** Determination of endogenous concentrations of nitrites and nitrates in cheese: Method development and validation using ion chromatography. **N. Jeong**, S. Genualdi, L. Dejager

ANYL **200.** ATR-FTIR Spectroscopy and PLSR analysis of dietary fatty acids. **S. Karunathilaka**, C. Srigley, S. Farris, J. Chung, M.M. Mossoba

ANYL **201.** Determination of the Bis(2-ethylhexyl) phthalate (DEHP) concentration of beer stored in bottles with PVC gaskets. **K. Carlos**, S. Genualdi, L. Dejager, T. Begley

ANYL **202.** Rapid detection of milk powder adulteration based on NIR spectroscopy and chemometric analysis. **B.J. Yakes**, K. He, S. Karunathilaka, J. Chung, T. Michael, M.M. Mossoba

MONDAY MORNING

Section A

Grand Hyatt Washington Constitution E

Nanotechnology & Single Cell Analysis in Biology & Medicine

Cosponsored by BIOL, COLL and PHYS

X. N. Xu, *Organizer, Presiding*

8:00 ANYL **203.** Nanoscience approaches to heterogeneity in biological systems. **P.S. Weiss**

8:30 ANYL **204.** Imaging molecular transport through living cell membrane in real time. **H. Dai**

9:00 ANYL **205.** DNA-based fluorescence probes reveal the biophysics of platelet activation. **K. Salaita**

9:30 ANYL **206.** Polymer-based nanosensors using flight-time identification of mononucleotides for single-molecule sequencing. **S.A. Soper**, S. Park, E. Podlaha-Murphy

10:00 Intermission.

10:10 ANYL **207.** Multimodal imaging and analysis at single cell level. **G. Liu**

10:40 ANYL **208.** Chemical sensing using radioluminescent phosphors. **G. Schober**, D. Benza, U. Uzair, H. Chen, D.C. Colvin, J.C. Gore, J.T. Tzeng, F. Alexis, **J.N. Anker**

11:10 ANYL **209.** Real-time imaging and sensing of single cancer stem cells. **P. Songkiatissak**, P. Cherukuri, A. Poudel, X.N. Xu

Section B

Grand Hyatt Washington Independence F

Self-Assembly & Non-Covalent Interactions: The Fundamental Science of Supramolecular Materials

Cosponsored by COLL

K. Ng, *Organizer*
S. J. Belh, *Organizer, Presiding*

8:30 ANYL **210.** Supramolecular self-assembly for light-harvesting: utilizing counterions for directing hierarchical assembling. **D.M. Eisele**

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9:05 ANYL 211. Analysis of natural organic nanomaterial supramolecular self-assembly: Fulvic and humic acids. **M.J. Wells**, M.R. Eshfahani, H.A. Stretz

9:35 ANYL 212. Living crystallization-driven, seeded growth approaches to functional supra-molecular materials. **I. Manners**

10:05 ANYL 213. Selective nucleation of polymorphic compounds on functionalized templates. **M.A. Solomos**, J.A. Swift

10:25 ANYL 214. Dynamic, reconfigurable materials and nanostructures built with DNA. **R. Schulman**

11:00 ANYL 215. Standing, lying, and sitting: Reenvisioning amphiphilicity for nanostructured synthetic materials. **S.A. Claridge**

Section C

Grand Hyatt Washington
Independence G

Analytical Techniques Used to Address FDA Regulatory Questions & Challenges

Food & Feed

J. H. Callahan, *Organizer*

S. Swatkoski, *Presiding*

8:00 Introductory Remarks.

8:05 ANYL 216. Non-targeted screening using LC/HR-MS: Impacts of sample preparation and acquisition methods on chemical coverage. **A. Knolhoff**, C. Kneapler, T.R. Croy

8:45 ANYL 217. Strategies for extraction and purification of tetrodotoxin and saxitoxin from fish filets with LC-MRM-MS analysis. **S.C. McGrath**, J. Deeds

9:20 ANYL 218. Direct elemental analysis of food by laser ablation inductively coupled plasma mass spectrometry. **T.I. Todorov**, G. Jo

9:55 Intermission.

10:10 ANYL 219. Validation of a Cavity Ring-Down Spectroscopy method for the detection of economic adulteration of lemon juice and honey. **M. Mantha**, K.M. Kubachka, J.R. Urban

10:45 ANYL 220. Determination of iodine value (IV) in hydrogenated oils. **C. Srigley**, S.P. Kotoski

11:20 ANYL 221. Animal feed contaminants and veterinary drug residues, the application of analytical chemistry in the Office of Research, Center for Veterinary Medicine/FDA. **K.B. Herath**, P.J. Kijak

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section D

Grand Hyatt Washington
Independence H

Analytical Chemistry in the Context of Cultural Heritage

Research & Application

Cosponsored by HIST

M. J. Samide, *Organizer*

G. D. Smith, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 ANYL 222. New approach to an old problem: Evaluation of pollutant off-gassing from materials used in the museum environment. **G.D. Smith**, M.J. Samide, C. Liggett

8:35 ANYL 223. Towards understanding the basis of Oddy test failures via volatile organics and other analytical analyses. **E.B. Monroe**, K. Stoneburner, C. Connelly Ryan, F. France

9:05 ANYL 224. Physical and chemical properties of traditional and water-mixable oil paints assessed using single-sided NMR. **N.A. Udell**, R.E. Hodgkins, B.H. Berrie, **T.K. Meldrum**

9:35 ANYL 225. Unlocking protein binder-pigment interactions by coupling ELISA with MS techniques. **J. Arslanoglu**, N. Atlasevich, C. Tokarski

10:05 Intermission.

10:15 ANYL 226. Analysis of carbon inksticks through Raman spectroscopy. **J.A. Giacciai**, J.H. Miller

10:45 ANYL 227. Withdrawn.

11:15 ANYL 228. Portrait of an ancient woman revealed by high resolution portable macro-XRF scanning. **E. Del Federico**, C. Kehlet, N. Barbi, M. Gironda, R. Alberti

Section E

Grand Hyatt Washington
Independence I

Advances in Electrochemistry

A. Izadyar, *Organizer, Presiding*

8:30 ANYL 229. Quantifying the selectivity of metallophthalocyanine-nitric oxide interactions for oxidative electrocatalysis. **M.D. Brown**, M.H. Schoenfish

8:50 ANYL 230. Stepwise proton-coupled electron transfer oxidation of glutathione in phosphate buffer. **K. Meng**, J.C. Alvarez

9:10 ANYL 231. Fast-Scan cyclic voltammetry for understanding transient adenosine and oxygen release during ischemia-reperfusion injury. **Y. Wang**, B. Venton

9:30 Intermission.

9:50 ANYL 232. Nanoporous electrodes for bioanalytical applications. **M.K. Khan**, A. Farghaly, D. Ye, M.M. Collinson

10:10 ANYL 233. Electrochemical design and evaluation of redox active macromolecules for energy storage. **E.C. Montoto**, Y. Cao, K. Hernandez-Burgos, J.S. Moore, J. Rodriguez Lopez

10:30 ANYL 234. Withdrawn.

Measurements & Methods in Environmental Nanotechnology

Sponsored by ENVR, Cosponsored by AGRO and ANYL

MONDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution E

Nanotechnology & Single Cell Analysis in Biology & Medicine

Cosponsored by BIOL, COLL and PHYS

X. N. Xu, *Organizer, Presiding*

1:30 ANYL 235. Micro-Assays for the single cell. **N.L. Allbritton**

2:00 ANYL 236. *In-situ* single-cell proteomics in the frog embryo by bottom-up mass spectrometry. **C. Lombard-Banek**, S.A. Moody, P. Nemes

2:30 ANYL 237. Real-time *in vivo* monitoring of single neuron-neuron communication. **M.S. Johnson**, A. Yawn, X.N. Xu

3:00 Intermission.

3:10 ANYL 238. Ultrasensitive real-time imaging of cancer cells based on biosynthesized nanoscale probes. **X. Wang**

3:40 ANYL 239. Enzyme-catalyzed amplification of fluorescent immunolabeling of a single cell for high-sensitive flow cytometry. **T. Nohori**, K. Tosaka, T. Yamamoto, A. Kishimura, T. Mori, Y. Katayama

4:10 ANYL 240. Nano endoscopy with plasmon-enhanced fluorescence for sensitive single-cell analysis. **Y. Lu**, H. Yuan, J. Chen, X. Zhang

Section B

Grand Hyatt Washington
Independence F

Self-Assembly & Non-Covalent Interactions: The Fundamental Science of Supramolecular Materials

Cosponsored by COLL

S. J. Belh, *Organizer*

K. Ng, *Organizer, Presiding*

1:30 ANYL 241. Crystalline sponge method for synthetic and natural product studies. **M. Fujita**

2:00 ANYL 242. Optimal methodology in the pursuit of binding constants from spectrophotometric titration data for self-assembling systems. **D. Vander Griend**, N. Kazmierczak

2:30 ANYL 243. Peptide-porphyrin self-assembled nanostructures for artificial light harvesting in aqueous medium. **N. Wijerathne**, A. Masurkar, M. Kumar, I. Kymissis, R. Uljin

2:50 ANYL 244. Playing with hydrogen bonding and network formation in the design of supramolecular elastomers and thermoplasts. **H. Frauenrath**

3:20 ANYL 245. DNA-templated recognition and polymerisation. **J. Knoops**, J. Rubio-Magnieto, Q. Cao, E. Moulin, N. Giuseppone, M. Surin

3:40 ANYL 246. Cage molecule self-assembly. **P.S. Weiss**

Section C

Grand Hyatt Washington
Independence G

Analytical Techniques Used to Address FDA Regulatory Questions & Challenges

Medical Devices & Tobacco

J. H. Callahan, *Organizer*

K. Agnew-Heard, *Presiding*

1:00 ANYL 247. Application of analytical chemistry to address regulatory challenges for medical devices. **J. Guo**

1:40 ANYL 248. Application of cryo-electron microscopy for morphological characterization of drug and device products. **J. Zheng**

2:15 ANYL 249. Application of mass spectrometry for device contaminant analysis. **S.I. Wickramasekara**

2:50 Intermission.

3:05 ANYL 250. Chemical characterization and toxicological risk assessment of medical devices. **R. Brown**

3:40 ANYL 251. Current state of chemical analysis of e-cigarette aerosol. **B. Oktem**, S.I. Wickramasekara

4:15 ANYL 252. Determination of arsenic and cadmium in several tobacco products. **J.J. Arrecis**, J.O. Vega, J. Dimandja

Section D

Grand Hyatt Washington
Independence H

Analytical Chemistry in the Context of Cultural Heritage

Research & Application

Cosponsored by HIST

G. D. Smith, *Organizer*

M. J. Samide, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 ANYL 253. Effects of pH and reactant molar ratio on iron gall ink products. **S. Mazurek**, L. Brostoff, B.W. Eichhorn, E.B. Monroe, J. Hu, L. Stevens

1:35 ANYL 254. Characterization of proteinaceous and polysaccharide based materials in the same art micro-sample by MALDI MS. **C. Granzotto**, J. Arslanoglu

2:05 ANYL 255. Organogels from partially hydrolyzed poly(vinyl acetate) and benzene-1,4-diboronic acid for cleaning water-sensitive surfaces. **T. Duncan**, B.H. Berrie, R.G. Weiss

2:35 ANYL 256. Historical azo pigments: Synthesis and characterization. **S.Q. Lomax**, J.F. Lomax, T. Graham, T.J. Moore

3:05 Intermission.

3:15 ANYL 257. Nanochemistry of silver and platinum in nineteenth-century photography. **J.M. Walker**, R. Namde, K.C. Scott

3:45 ANYL 258. Broken cylinders: Uncovering the nature of damage to early wax cylinder audio recordings during storage. **E.B. Monroe**

4:15 ANYL 259. Detection and mapping of faded red lake pigments in Van Gogh paintings using non-contact, chemical imaging methods. **K. Dooley**, C. Miliani, K. Janssens, J.K. Delaney

Section E

Grand Hyatt Washington Independence I

Advances in Electrochemistry

A. Izadyar, *Organizer, Presiding*

1:30 ANYL 260. Role of structure maker/breaker ions in solvation shell and redox reaction entropy of outer sphere electron transfer reactions. **B. Huang, S. Mui, S. Feng, Y. Shao-Horn**

1:50 ANYL 261. Analytical electrochemistry: How pulsed chronopotentiometry improved and expanded the application of polymer membrane Ion-Selective Electrodes (ISEs). **K.L. Gemene**

2:10 ANYL 262. Electrochemical reaction kinetics: Studied at directly heated electrodes. **J. Mathivanan, S. Galagedera, G. Flechsig**

2:30 Intermission.

2:50 ANYL 263. Improving the formation of electrically-deposited enzyme-embedded chitosan coatings onto carbon fiber microelectrodes. **R.B. Keithley, C.E. Donahue, D.R. Miller, T.W. Beger, T. Johann**

3:10 ANYL 264. Withdrawn.

3:30 ANYL 265. Simultaneous optical and electrochemical recordings of single nanoparticle electrochemistry. **W. Wang**

Measurements & Methods in Environmental Nanotechnology

Sponsored by ENVR, Cosponsored by AGRO and ANYL

Undergraduate Research Posters

Analytical Chemistry

Sponsored by CHED, Cosponsored by ANYL and SOCED

MONDAY EVENING

Section A

Walter E. Washington Convention Center Halls D/E

Sci-Mix

L. A. Baker, K. Phinney, *Organizers*

8:00 - 10:00

68, 71-72, 75-77, 79-80, 84-85, 100-101, 111, 122, 125-126, 144, 147, 177, 183. See previous listings.

TUESDAY MORNING

Section A

Grand Hyatt Washington Constitution E

ANYL Division Award Symposium

L. A. Baker, K. Phinney, *Organizers*

J. M. Harris, *Presiding*

8:00 Introductory Remarks.

8:05 ANYL 266. Nano-enabled electrochemistry of single atoms and molecules. **P.W. Bohn**

8:40 ANYL 267. Single nanoparticle biosensing with a NIR surface plasmon resonance imaging microscope. **R.M. Corn**

9:15 ANYL 268. Nanostructure-based surface-enhanced Raman spectroscopy: Toward to a versatile tool for analytical chemistry. **Z. Tian, B. Ren, J. Li, D. Wu, Z. Yang, S. Ding, Y. Huang, B. Mao**

9:50 Intermission.

10:05 ANYL 269. Interpreting the collision cross sections of proteins: Insights from ion mobility, unfolding, and folding of ions in the gas phase. **M.F. Bush**

10:40 ANYL 270. Targeting intact proteins using triple quadrupole mass spectrometry. **K. Schug, E. Wang, D.K. Appulage, Y. Baghdady**

11:15 ANYL 271. Analytical biosensor systems and systems for bioanalysis. **F.S. Ligler**

11:50 Concluding Remarks.

Section B

Grand Hyatt Washington Independence F

Developments in ICP-MS: Advancing Environmental & Clinical Analyses

J. Farell, M. W. Tehrani, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ANYL 272. Advantages of reaction cell ICP-MS for arsenic analysis and speciation. **B.P. Jackson**

8:35 ANYL 273. Investigation of heavy-metal contaminates and induced stress responses in aquaponics systems. **M. Schmale**

9:05 ANYL 274. Selenium (IV) and selenium (VI) speciation in waste water by IC-ICP-MS (Ion Chromatography-Inductively Coupled Plasma Mass Spectrometry): Speciation application. **S.S. Chudasama**

9:35 Intermission.

9:50 ANYL 275. Advances to inorganic mass spectrometry with MS/MS technology. **A. Liba**

10:20 ANYL 276. Characterizing the trace element content of human follicular fluid using ICP-MS/MS: Evaluation of O₂ as a reaction gas. **A. Galusha, F. Khatib, C.D. Palmer, M.S. Bloom, V.Y. Fujimoto, P. Parsons**

10:50 ANYL 277. Trace element uptake in keratin tissues: An analysis of horns from lead-dosed goats using ICP-MS/MS and spatial imaging techniques. **M.W. Tehrani**

11:20 ANYL 278. Handling interferences in the modern laboratory: Enhancing productivity with advances in triple quadrupole ICP-MS technology. **M. Rury**

11:50 Concluding Remarks.

Section C

Grand Hyatt Washington Independence G

Analytical Techniques Used to Address FDA Regulatory Questions & Challenges

Biologics, Biopharmaceuticals & Allergens

J. H. Callahan, *Organizer*

S. Conklin, *Presiding*

8:00 ANYL 279. Mass spectrometry based characterization of influenza hemagglutinin glycoprotein antigens. **J. Cipollo**

8:40 ANYL 280. Deep Ultraviolet Resonance Raman (DUVRR) spectroscopy of protein therapeutics. **S. Arzhantsev, C. Qiu**

9:15 ANYL 281. Assigning glycopeptides from MS² data using GLYMPS. **L. Parsons, Y. An, J.F. Cipollo**

9:50 Intermission.

10:05 ANYL 282. Modern applications of mass spectrometry in the analysis of biopharmaceuticals and other complex drug products. **X. Wang, S.M. Rogstad**

10:40 ANYL 283. Multiple reaction monitoring mass spectrometry for targeted quantification of allergens in complex allergenic preparations: The potential and challenges. **S. Mindaye, J. Spiric, N. David, R. Rabin, J. Slater**

11:15 ANYL 284. Quantification of milk allergens in dark chocolate: Comparison of isotope dilution multiple reaction monitoring to ELISA. **P.F. Scholl, S. Baek, B. McCormick, Y. Adachi, Y. Zhang, J. Ihrie, Y. Yu, B. Bedford, L. Jackson**

Section D

Grand Hyatt Washington Independence H

Nanotechnology: Fabrication, Applications & Impact

W. L. Hinze, I. M. Warner, *Organizers*

C. D. Tran, *Organizer, Presiding*

8:00 ANYL 285. Tunable nanomaterials for biomedical applications. **I.M. Warner, N. Bhattarai, J. Mathis, N. Siraj**

8:25 ANYL 286. Army Basic Research: Pursuit of disruptive technologies for a complex world. **T.A. Alexander**

8:50 ANYL 287. Fabrication of lignocellulose-supported Pd-based water purification catalysts via ionic liquid based natural fiber welding. **P.C. Trulove, D.P. Durkin, T. Ye, H. De Long, H. Fairbrother, L.M. Haverhals, D. Shuai**

9:15 ANYL 288. Nonlinear and ultrafast spectroscopy of molecular dye interactions with colloidal plasmonic nanoparticles. **L.H. Haber, T.E. Karam, H. Smith, R.R. Kumal, R.A. Khoury, J.C. Ranasinghe, K. Lopata**

9:40 Intermission.

10:05 ANYL 289. One-Pot synthesis of biocompatible silver and gold nanoparticle composites from cellulose, chitosan and keratin: Characterization and antimicrobial activity. **C.D. Tran**

10:30 ANYL 290. Biophysical characterization of functionalized titania nanoparticles and their application in dental adhesives. **B.C. Nelson, J. Sun**

10:55 ANYL 291. V₂O₅ in Anodized aluminum oxide, impact of pore size, interconnections, and dynamic conductivity. **N. Kim, K. McKelvey, C. Liu, E. Sahadeo, O. Rose, S. Lee, G. Rubloff, H.S. White**

11:20 ANYL 292. Ratiometric quantum dot cell-penetrating sensors. **P.T. Snee, A. Shamirian, C. Tyrakowski, L. Page**

Section E

Grand Hyatt Washington Independence I

Characterization of Macromolecules & Nanoparticles by Hyphenated Separation Approaches

Y. Brun, *Organizer*

C. J. Rasmussen, *Organizer, Presiding*

8:30 ANYL 293. Optimization of the aqueous ATRP synthesis of sodium poly(styrene sulfonate): Effect of reaction variables as assessed by SEC-MALS. **P. Balding, R. Cueto, P.S. Russo**

9:00 ANYL 294. Multi-detector Hollow-Fiber Flow Field-Flow Fractionation (HF5) of polysaccharides. **A.M. Striegel, L. Pitkanen**

9:30 ANYL 295. Characterization of polyolefins with precise branch frequency and tunable branch length by GPC-IR. **S.V. Orski, W.S. Farrell, K. Beers**

9:50 Intermission.

10:05 ANYL 296. Size exclusion chromatography with superficially porous particles. **M.R. Schure, R. Moran, S. Schuster, B. Wagner, C. Luo**

10:35 ANYL 297. Differential mobility analyzer hyphenated with single particle ICP-MS for separation and characterization of metal-containing nanoparticles and their aggregates. **J. Tan, J. Liu, M. Li, H. El Hadri, V.A. Hackley, M.R. Zachariah**

10:55 ANYL 298. Withdrawn.

11:15 ANYL 299. Withdrawn.

11:35 Concluding Remarks.

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

Sponsored by CHED, Cosponsored by ANYL, BMGT, CELL, COLL, POLY and PRES

Advancing Analytical Methods in Food Forensics & Authentication

Sponsored by AGFD, Cosponsored by ANYL

Trace Organic Contaminants (TrOCs) in Aquatic Systems: Advancements in Monitoring & Remediation

Sponsored by ENVR, Cosponsored by ANYL and BIOL

Advances in Flavor Analysis

Sponsored by AGFD, Cosponsored by ANYL

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

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TUESDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution E

Earle B. Barnes Award for Leadership in Chemical Research Management: Symposium in honor of Laurie E. Locascio

Why Not Me? Changing the Face of Leadership in Science

Cosponsored by PRES

M. Satterfield, *Organizer*

J. Morrow, M. Satterfield, *Presiding*

2:00 Introductory Remarks.

2:05 ANYL 300. Symposium welcome, Earle B. Barnes award winner. L. Locascio

2:15 ANYL 301. Identifying strategic opportunities to make organizations stronger by inclusion. W.E. May

2:30 ANYL 302. Demonstrating passion and grit to drive science and technology policy change and foster diversity. P. Falcone

2:45 ANYL 303. Collaboration and communication among science and technology, mental health and advocacy groups to foster diversity and inclusion. M. Basco

3:00 ANYL 304. Fostering a vision for a science career and embracing and encouraging a passion for science. Y. Sierra-Sastre

3:15 ANYL 305. Advancing diversity and equity in organizational efforts to foster inclusion, including race, gender, identity, sexual orientation, ethnicity, socioeconomic status, and ability. E. Domingo-Snyder

3:30 Intermission.

3:40 Panel Discussion.

4:10 Discussion.

4:25 Concluding Remarks.

Section B

Grand Hyatt Washington
Independence F

Developments in ICP-MS: Advancing Environmental & Clinical Analyses

J. Farrell, M. W. Tehrani, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 ANYL 306. Nanoparticle measurements using single particle ICP-MS and capillary electrophoresis ICP-MS. J. Olesik, S. Jiao

1:35 ANYL 307. Evaluation of size-dependent gold nanoparticle uptake in *Caenorhabditis elegans* using inductively coupled plasma mass spectrometry and imaging techniques. M. Johnson, J. Bennett, N. Sharp, A.R. Montoro, S. Hanna, K. Murphy, B.C. Nelson

2:05 ANYL 308. Assessing *in vivo* and *in vitro* metal levels by ICP-MS: Selected applications in biomedical and regulatory science research. J.A. Centeno

2:35 Intermission.

2:50 ANYL 309. Traceability and interlaboratory harmonization of ICP-MS trace element data for the Children Health Environmental Analytical Resource (CHEAR). P. Parsons, A. Galusha, A.J. Steuerwald, C.D. Palmer, C. Consortium

3:20 ANYL 310. Novel Applications of ICP-MS for the evaluation of public health environmental chemical exposures. R.L. Jones, C. Ward, J. Jarrett, J. Deanna, K. Caldwell

3:50 ANYL 311. Incorporation of LA-ICP-MS advances in undergraduate research and curriculum: Novel environmental applications, rewards and challenges. D.D. Amarasiwardena

4:20 Concluding Remarks.

Section C

Grand Hyatt Washington
Independence G

Analytical Techniques Used to Address FDA Regulatory Questions & Challenges

Drugs

J. H. Callahan, *Organizer*

C. Ridge, *Presiding*

1:00 ANYL 312. Innovation and regulatory science: Catalysts for advanced pharmaceutical analysis. P. Faustino

1:35 ANYL 313. Advanced analytical methods for evaluating complex drug products. C. Guo

2:05 ANYL 314. Determination of counterfeit pharmaceuticals at the FDA Forensic Chemistry Center. C. Flurer

2:35 ANYL 315. FDA-DOD Shelf life Extension Program (SLEP): A public health model for emergency readiness. S. Khan, P. Faustino, C.N. Cruz

3:05 Intermission.

3:20 ANYL 316. High throughput automated ICP-MS sample prep platform for *in-vitro* and *in-vivo* studies to support manufacturing and regulatory science. A. Mohammad, P. Faustino

3:50 ANYL 317. Introduction to division of applied regulatory science: Research to evaluate and enhance drug safety. V. Patel

4:20 ANYL 318. Advanced robotics coupled with a mass spectrometry platform for clinical studies: Proof-of-concept to support review and surveillance. J. Zhang, C.N. Cruz, P. Faustino

Section D

Grand Hyatt Washington
Independence H

Nanotechnology: Fabrication, Applications & Impact

C. D. Tran, I. M. Warner, *Organizers*

W. L. Hinze, *Organizer, Presiding*

1:00 ANYL 319. Surfactant mediated one-pot synthesis with *in situ* preconcentration of metal nanomaterials using thermoresponsive zwitterionic type surfactants. W.L. Hinze, Y. Takagai, R. Miura, A. Endo, H.T. Thi

1:25 ANYL 320. Withdrawn.

1:50 ANYL 321. Patterned graphene gold nanocomposites for electrochemical detection of microfluidic enriched biomarkers. B. Sanghavi, A. Rohani, R. Fernandez, N. Swami

2:15 ANYL 322. Surface modification of gold thin film via electrografting for the coupling of surface plasmon resonance and electrokinetic method, focusing on biosensor development. O. Sathoud, W. Gilbraith, K.S. Booksh

2:40 Intermission.

3:05 ANYL 323. Gold nanorod self-assembly, functionalization, and application as an ordered array biochip with surface plasmon coupled fluorescence enhancement. L. Tang, Z. Mei

3:30 ANYL 324. Not 1:1 detection of biomolecules. F. Xia

3:55 ANYL 325. Turn-on luminescence detection of cysteine and histidine base on terbium (III) coordination polymer-copper (II) ensemble. S. Xue, G. Shi

4:20 ANYL 326. Serum microRNA signature for the diagnosis of clinically significant prostate cancer. A.H. Alhasan

Section E

Grand Hyatt Washington
Independence I

Advances in Multidimensional Separations

C. Rimmer, *Organizer*

B. J. Place, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ANYL 327. Characterization of synthetic polymers using ultra-high pressure two-dimensional liquid chromatography. L. Bai, P. Yang, W. Gao, M. Janco, J.N. Alexander

2:05 ANYL 328. Application of offline LC-GC for the analysis of complex fatty acid samples. P. Delmonte

2:35 Intermission.

2:50 ANYL 329. 3D separations: Advantages, feasibility and orthogonality. M.R. Schure, J.M. Davis

3:20 ANYL 330. Detailed molecular characterization of base oils using GCxGC-FID. R.E. Mohler, J.K. Curtis, C.S. Hsu, Y. Hao

3:50 ANYL 331. Temporal proteomic profiling of frog (*Xenopus*) embryonic development by nanoLC-MS. A. Baxi, C. Lombard-Banek, S.A. Moody, P. Nemes

4:20 Concluding Remarks.

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

Sponsored by CHED, Cosponsored by ANYL, BMGT, CELL, COLL, POLY and PRES

Advancing Analytical Methods in Food Forensics & Authentication

Sponsored by AGFD, Cosponsored by ANYL

Advances in Flavor Analysis

Sponsored by AGFD, Cosponsored by ANYL

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

TUESDAY EVENING

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

WEDNESDAY MORNING

Section A

Grand Hyatt Washington
Constitution E

Decentralized Medicine: Diagnostics in the 21st Century

S. P. Mulvaney, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 ANYL 332. Incorporation of synthetic, toe-hold based gene circuits for the development of electrochemical sensors for rapid disease diagnostics. S.J. Smith, P. Sadatmousavi, E. Amalfitano, K. Pardee, S.O. Kelley

8:25 ANYL 333. Lab-on-the-body: The integration of biochemical sensors and low-power wearables. M. Daniele

8:45 ANYL 334. Multiplexed cytokine profiling toward the diagnosis of reactivatable latent tuberculosis infection using silicon photonic micro-ring resonator arrays. R.C. Bailey

9:05 ANYL 335. Biomeme's two3™ device development for decentralized medicine: Balancing open architecture with ease-of-use. M. Perelman

9:40 Intermission.

9:55 ANYL 336. Biosurveillance in resource-limited environments. C. Taitt

10:20 ANYL 337. Sustainability isn't just for energy: Development of sustainable immunoassays for detection of West African infectious diseases. K. Ricks, M. Poli, R. Schoepp

10:45 ANYL 338. Decentralized health care delivery: Experiences with the Fionet™ system. R. Zastawny, I. Fine

11:20 ANYL 339. Research developments in point-of-care testing for the DoD. R. Schoske, F. Amariei

Section B

Grand Hyatt Washington
Independence F

Nanopores, Nanopipettes & Nanocapillaries as Tools for Analytical Chemistry

C. Cheyne, J. Experton, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ANYL 340. Coupling ion channels to mobile nanofluidic devices (nanopipettes). L.A. Baker

8:40 ANYL 341. Nanopores for separating very large proteins. M.J. Wirth, T. Ragland, J. Yasosky

9:15 ANYL 342. Transport through pores: From living cells to diodes, transistors, and probing single particles. Z. Siwy

9:50 Intermission.

10:00 ANYL 343. Chemo responsive pump that turns off in the presence of Pb²⁺. C.R. Martin, X.J. Wu, W. Xu

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

10:35 ANYL 344. Electrochemical and photoelectrochemical analysis platform for sensitive detection of H₂O₂ release from living cells. Z. Li, Z. Zhang

11:10 ANYL 345. Monitoring enzyme catalysis confined in nanochannels through catalyzed polymer deposition. H. Dai, Y. Fu, Y. Li

11:45 Concluding Remarks.

Section C

Grand Hyatt Washington
Independence G

Advances in Analytical Forensic Chemistry & Toxicology

Cosponsored by TOX

S. Bell, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 ANYL 346. Evaluation of the repeatability, reproducibility, and uncertainty of retention indices and electron impact spectra of selected novel psychoactive substances. K. Kelly, S. Bell

8:25 ANYL 347. Structure identification for non-targeted analytical chemistry using the US EPA's CompTox chemistry dashboard. A.D. McEachran, J.N. Grossman, S. Newton, K. Isaacs, K. Phillips, N. Baker, J.R. Sobus, C. Grulke, A.J. Williams

8:45 ANYL 348. Standardizing a standard? Identification and comparison of chemicals in standard reference materials using non-targeted analysis of organic molecules by high-resolution mass spectrometry. S. Laughlin, J. Grossman, S. Newton, A.D. McEachran, A.J. Williams, A.R. Marcotte, E.M. Ulrich, J.R. Sobus

9:05 Intermission.

9:20 ANYL 349. Exhaustive characterization of firearm discharge residue using mass spectral imaging and time-of flight secondary ion mass spectrometry. W. Feeney, S. Bell

9:40 ANYL 350. Application of host-guest complexation and tandem mass spectrometry to the characterization of elemental constituents of firearms discharge residue. S. Brooks, W. Feeney, S. Bell

10:00 ANYL 351. Lawsone-Schiff-bases as novel reagents for visualization of latent fingerprint and their enhancement with anions. Y.M. Hijji, L. Sreerama, A. Fakhroo, N. AlGunid, S. Darwich, N. Sarhan

10:20 ANYL 352. Detection and identification of kratom (*Mitragyna speciosa*) using chemical tests and a quantitative real-time polymerase chain reaction high resolution melt (qPCR-HRM) assay. K.M. Elkins, A. Cowan

10:40 Intermission.

10:55 ANYL 353. Screening for drugs of abuse and their metabolites in biological matrices using solid-phase microextraction and Direct Analysis in Real Time-Mass Spectrometry (SPME-DART-MS). E. Eubank, J.D. Newman, J. Zehr, J.A. Trimboli

11:15 ANYL 354. Pharmaceutical analysis of police seizures and amnesty bins in the Southwest of England. H.A. Naqi, I.S. Blagbrough, S.M. Husband

Section D

Grand Hyatt Washington
Independence H

Instrumentation & Methods to Characterize Nanomaterials Critical to the Global Economy

L. A. Holland, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 ANYL 355. When are nanoparticles safe? A.J. Haes

9:00 Intermission.

9:05 ANYL 356. Fluorescence lifetime spectroscopy for real time monitoring of the formation and degradation of luminescent quantum dots in solution. T. Curry, D. Williams, Z. Rosenzweig

10:00 Intermission.

10:05 ANYL 357. Rapid characterization of carbon nanotubes with capillary electrophoresis. T. Davis, L.A. Holland

11:00 Intermission.

11:05 ANYL 358. Characterizing titanium dioxide in aquatic exposures. M. Ellington, V. Nyakubaya, L.A. Holland

Section E

Grand Hyatt Washington
Independence I

Graduate Fellows Symposium

L. A. Baker, *Organizer*

K. Phinney, *Organizer, Presiding*

8:30 ANYL 359. Harnessing electron spin labels for single-molecule magnetic resonance imaging. C.E. Isaac, H. Nguyen, E.A. Curley, M.C. Boucher, J.A. Marohn

9:05 ANYL 360. Functional screening of membrane proteins with microfluidic nanodisc libraries. J. Wade, C.M. Riordan, R.C. Bailey

9:40 ANYL 361. Development and application of mass spectrometry strategies to longitudinally model N-glycans in the spontaneous hen model of ovarian cancer. E. Hecht, B. Cartliff, R. Wysocky, J. Pettite, A. Molsinger-Reif, D. Muddiman

Advancing Analytical Methods in Food Forensics & Authentication

Sponsored by AGFD, Cosponsored by ANYL

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YOC†

WEDNESDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution E

Label-Free Assay of Oncogenic Biomolecules (mRNA, microRNA, Aptamers & Proteins)

Surface-Enhanced Raman Spectroscopy (SERS)- & Nanophotonic-Based Biomolecule Detection

R. Sardar, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ANYL 362. MicroRNA detection by surface enhanced raman scattering. Y. Zhao

2:05 ANYL 363. SERS detection in biofluids for cancer diagnostics. Z.D. Schultz, E.A. Peters, A.H. Nguyen, R.A. Masitas

2:35 ANYL 364. Analysis of multiplexed nanosensor arrays based on nIR fluorescent single walled carbon nanotubes. J. Dong, M. Strano

2:55 Intermission.

3:10 ANYL 365. Design of nanostructured components for SERS sensing. V.V. Tsukruk

3:40 ANYL 366. Noble-metal nanostructures for colorimetric diagnostics of cancer biomarkers. H. Ye, X. Xia

4:10 ANYL 367. Nanoporous CNT-based EIS biosensor for selective and sensitive detection of biomolecules. M. Mursalat, J. Frederick, N. Tasovac, M. Krishnamurthy, S. Basuray

Section B

Grand Hyatt Washington
Independence F

Nanopores, Nanopipettes & Nanocapillaries as Tools for Analytical Chemistry

C. Cheyne, J. Experton, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 ANYL 368. α -Hemolysin as a nanoreactor for hours-long monitoring of single molecule reactions. H. Ren, C. Cheyne, A.M. Fleming, R. Johnson, C.J. Burrows, H.S. White

1:35 ANYL 369. Withdrawn.

2:05 ANYL 370. Gold nanotubes as bipolar electrodes for the deposition and study of manganese dioxide. J. Experton, X.J. Wu, C.R. Martin

2:35 ANYL 371. High-resolution physical characterization of individual metallic nanoparticles. H. Wang, J.W. Robertson, J. Kasianowicz, J. Eteddgui

3:05 Intermission.

3:15 ANYL 372. Single molecule protein analysis using OmpG nanopore. M.A. Fahie, B. Pham, B. Yang, M. Chen

3:45 ANYL 373. Motion of Li⁺ and methanol through a 2.25-nm-diameter single-walled carbon nanotube. M.D. Ellison, L.M. Nebel, S. Menges, G. D'Arcangelo, A. Kramer, L. Draghushuk, J. Benck, S. Shimizu, M. Strano

4:15 ANYL 374. Recognition unit-free and self-cleaning photoelectrochemical sensing platform on TiO₂ nanotubes photonic crystals for sensitive and selective detection of dopamine. Y. Xin, Z. Zhang

4:45 Concluding Remarks.

Section C

Grand Hyatt Washington
Independence G

Advances in Separations

J. L. Maclachlan, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 ANYL 375. Application of analytical ultracentrifugation in biopharmaceutical development: Separation and characterization of large molecular assemblies. Q. Zou

1:25 ANYL 376. Three-phase direct immersion in-tube microextraction coupled with capillary electrophoresis. J. Choi, D. Chung, Y. Choi

1:45 ANYL 377. TD-DFT Performance for modeling GC-VUV absorption spectra. J. Reyes, E. Hecceg, B. Winniford, J. Griffith, K. Sun, D. Sloan

2:05 ANYL 378. Ionic liquid functionalization of semi-packed columns for high-speed gas chromatography. B.P. Regmi, R. Chan, M. Agah

2:25 ANYL 379. Real-time detection of toxic arsine vapors in the workplace at low ppb levels. J.L. Maclachlan, J.N. Driscoll

2:45 Intermission.

3:00 ANYL 380. Recent application of supercritical fluid chromatography (SFC) in pharmaceutical development. L. Zhang, L. He, Y. Shi, B. Kleintop

3:20 ANYL 381. Multivariate correlation for botanical supplements and assigning quantifiable similarity. J.J. Kellogg, O. Kvalheim, N.B. Cech

3:40 ANYL 382. Quantitative analysis of a low-use pesticide in surface water. D.A. Goldade, B.G. Abbo

4:00 ANYL 383. Destructive stationary phase gradients for liquid chromatography. C. Cain, A. Forzano, M.M. Collinson, S.C. Rutan

4:20 ANYL 384. Novel approach to developing a selective method to analyze and characterize PEG-maleimide conjugation intermediates. J. Wang, S.H. Yang, K. Zhang

4:40 ANYL 385. Simple and efficient approach for recovery estimation of real samples during reverse phase prep purification. L.K. Bajpai, K. Asokan, S. Samy, S. Murugesan, R. Gurrarn, L. Leelavathi, V. Kanthappa, Y. Zhang

5:00 Concluding Remarks.

Section D

Grand Hyatt Washington
Independence H

Instrumentation & Methods to Characterize Nanomaterials Critical to the Global Economy

L. A. Holland, *Organizer*

T. Davis, *Presiding*

1:00 ANYL 386. Detailed physicochemical characterization of individual nanoparticles with global implications through electrospray ionization coupled to real-time dual-polarity single particle mass spectrometry and surface enhanced Raman spectroscopy. A.P. Ault, J.L. Axson, A. Bondy

1:55 Intermission.

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

2:00 ANYL 387. Perfect unions: Multifunctional fluorescence microscopies and epoxy/nanocellulose composite materials. **B. Jones**, S. Seethamraju, J. Breffke, J.W. Woodcock, R. Beams, J.W. Gilman, S. Stranick

2:55 Intermission.

3:00 ANYL 388. Analysis of AFM force distance curves in electrolytes. **M. Feinstein**, F. Zypman, S.J. Eppell

3:55 Intermission.

4:00 ANYL 389. Lattice expansion and elemental distribution in PtMo catalyst nanoparticles: Quantitative high angle annular dark-field STEM analysis. **D. Zhou**, I. Ro, G. Huber, P. Voyles

Section E

Grand Hyatt Washington
Independence I

Chemical Tools to Quantify the Tumor Microenvironment

S. Burrows, *Organizer*

M. R. Lockett, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ANYL 390. In-situ combinatorial microRNA analysis. **S. Burrows**

2:05 ANYL 391. Transport analysis of cytokines in live lymph node tissue on-chip. **A.E. Ross**, R.R. Pompano

2:35 ANYL 392. Sialic acid modification: Stabilization and determination of linkages of sialylated glycans. **S. Yang**, H. Zhang, J.F. Cipollo

3:05 Intermission.

3:20 ANYL 393. Ultrasensitive protein-based cancer diagnostics using low cost microfluidic arrays. **J. Rusling**

3:50 ANYL 394. Paper-Based tumor models: Quantifying the role of oxygen in drug metabolism. **M.R. Lockett**

Advanced Mass Spectrometric Techniques in Toxicology

Sponsored by TOXI, Cosponsored by ANYL

Advancing Analytical Methods in Food Forensics & Authentication

Sponsored by AGFD, Cosponsored by ANYL

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

WEDNESDAY EVENING

Measurements & Methods in Environmental Nanotechnology

Sponsored by ENVR, Cosponsored by AGRO and ANYL

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Trace Organic Contaminants (TroCs) in Aquatic Systems: Advancements in Monitoring & Remediation

Sponsored by ENVR, Cosponsored by ANYL and BIOL

THURSDAY MORNING

Section A

Grand Hyatt Washington
Constitution E

Label-Free Assay of Oncogenic Biomolecules (mRNA, microRNA, Aptamers & Proteins)

Nanoplasmonic-Based Cancer Diagnosis & Treatment

R. Sardar, *Organizer*

L. Sagle, *Presiding*

8:00 ANYL 395. Nanoplasmonic quantification of tumor-derived extracellular vesicles in plasma microsamples for diagnosis and treatment monitoring. **T. Hu**

8:30 ANYL 396. Plasmonic paper for the detection of renal cancer in point-of-care and resource-limited settings. **R. Hu**, J. Morrissey, L. Tian, C. Wang, E. Kharasch, **S. Singamaneni**

9:00 ANYL 397. Ultrasensitive LSPR-based nanosensor for microRNA detection. **T. Habarakada Liyanage**, R. Sardar

9:30 Intermission.

9:45 ANYL 398. Localized surface plasmon resonance technologies for cancer diagnosis and treatment. **L. Sagle**, J. He, S. Unser, R. Cary

10:15 ANYL 399. Phosphoprotein profiling using silicon photonic sensor arrays reveals functional aspects of therapeutic response and compensatory mechanisms of resistance. **R.C. Bailey**, J. Wade

10:45 ANYL 400. Therapeutic drug monitoring with plasmonic biosensors. **J. Masson**

11:15 ANYL 401. Nanoparticle-enhanced SPRI for ultrasensitive biosensing of microRNA and protein cancer biomarkers. **B.M. Matthews**, R.M. Corn

Section B

Grand Hyatt Washington
Independence F

Advances in Nanosensors & Terahertz: Current Applications & Future Direction for the 21st Century

M. A. Meador, *Organizer*

A. Rahman, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 ANYL 402. Breaking the wavelength barrier for sub-nanometer 3D imaging by terahertz reconstructive route. **A. Rahman**, A.K. Rahman

9:15 ANYL 403. Interaction of sensitizing dyes with nanostructured TiO₂ film in dye-sensitized solar cells using terahertz spectroscopy. **W. Ghann**, A. Rahman, A. Rahman, J. Uddin

9:45 ANYL 404. Designing of CA-CdTe QDs based fluorescent sensor for detection of homocysteine. **J. Hu**, C. Qu, R. Yang, L. Qu

10:15 Intermission.

10:25 ANYL 405. Chemically modified cellulose strips with vitamin B6 cofactors conjugated fluorescent nanoclusters for the detection of metal ions. **S.K. Sahoo**

10:55 ANYL 406. Electrical properties of semiconductor wafers by terahertz reflection modeling. **A. Rahman**, A.K. Rahman

11:25 Discussion.

11:40 Concluding Remarks.

Section C

Grand Hyatt Washington
Independence G

Recent Advances in Stationary Phase Design in Liquid Chromatography

A. J. Alpert, *Organizer*

M. R. Schure, *Organizer, Presiding*

8:00 ANYL 407. Direct HIC-MS analysis of antibodies, antibody-drug conjugates, and other proteins. **A.J. Alpert**

8:35 ANYL 408. Advances in HILIC selectivity with tailor-made columns for HPLC and UHPLC. **W. Jiang**

9:10 ANYL 409. Mechanistic investigations of alternative retention and selectivity using pentafluorophenyl stationary phases in reversed-phase liquid chromatography. **D.S. Bell**

9:45 Intermission.

10:00 ANYL 410. Mechanism, overview, advantages and disadvantages of mixed stationary phases. **M.R. Schure**

10:35 ANYL 411. Comparing structure, retention mechanism, and shape selectivity of monomeric and polymeric C18 stationary phases: Results from molecular simulations. **J.I. Siepmann**, J. Rafferty, M.R. Schure

11:10 ANYL 412. Simulations for retention prediction on stationary phase gradients. **L.N. Jeong**, S.G. Forte, S.C. Rutan

Section D

Grand Hyatt Washington
Independence H

New Separation Technologies That Advance & Support Bioanalyses

L. A. Holland, *Organizer, Presiding*

8:00 ANYL 413. Patterned capillary electrophoresis that enables unique combinations of chemical selection for targeted biomolecule separations. **L.A. Holland**, S. Gattu, C.L. Crihfield, L. Bwanali

8:55 ANYL 414. Synthetic receptor-enabled capillary electrophoresis for analysis of protein methylation. **J. Lee**, **W. Zhong**

9:50 Intermission.

10:00 ANYL 415. Microprobe-CE-MS for *in situ* tracking of metabolome evolution in single-cells of the developing frog embryo. **R.M. Onjiko**, E. Portero, S.A. Moody, P. Nemes

10:30 ANYL 416. New bioanalytical capillary separations to determine the glycosylation. **S. Gattu**, C.L. Crihfield, L. Bwanali, L.A. Holland

11:00 ANYL 417. Microchannel electrophoresis separations of proteins using thermoresponsive nanogels. **C. Crihfield**, S. Gattu, L. Bwanali, L.A. Holland

11:30 ANYL 418. New capillary electrophoresis separations of proteins relevant to biological therapeutics. **L. Bwanali**, C.L. Crihfield, S. Gattu, L.A. Holland

Chemistry in the Age of Cheap Computing

Sponsored by CHED, Cosponsored by ANYL

Nanoscale Sensing in Foods & Other Complex Media

Sponsored by AGFD, Cosponsored by AGRO, ANYL, COLL, ENVR and INOR

THURSDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution E

Label-Free Assay of Oncogenic Biomolecules (mRNA, microRNA, Aptamers & Proteins)

Electrochemical-Based Biomolecular Assay

R. Sardar, *Organizer*

B. Johnson, *Presiding*

1:30 ANYL 419. Sample preparation-free real-time sensitive detection of MicroRNA in human serum using cantilever biosensors. **B.N. Johnson**

2:00 ANYL 420. Detection of microRNAs and epigenetic modification by a novel solid-state nanopore assay. **O. Zahid**, F. Wang, J. Ruzicka, E. Taylor, A. Hall

2:30 Intermission.

2:45 ANYL 421. Withdrawn.

3:15 ANYL 422. Collagen membranes with ribonuclease inhibitors for long-term stability of electrochemical, aptamer-based sensors employing RNA. **R.J. White**, M. Santos-Cancel

3:45 ANYL 423. Biomolecular detection based on nanostructured microelectrodes. **J. Das**, S.O. Kelley

Section B

Grand Hyatt Washington
Independence F

Advances & Applications of Imaging Mass Spectrometry

X. Yu, *Organizer, Presiding*

1:00 ANYL 424. Nanoscale chemical imaging using secondary ion mass spectrometry. **Z. Zhu**, X. Yu

1:40 ANYL 425. In situ probing of electron transfer in the riboflavin reduction process by dynamic liquid ToF-SIMS. **R. Yu**, R. Komorek, X. Yu, Y. Zhang, Y. Long, Z. Zhu, X. Yu

2:00 ANYL 426. Mass spectrometric investigation of electrical double layer at electrode-electrolyte interfaces. **Y. Zhang**, Y. Zhou, Z. Wang, C. Wang, B. Liu, X. Yu, F. Wang, Z. Zhu

2:20 ANYL 427. *In Situ* Chemical imaging of the evolving material interface in liquids. **X. Yu**

2:50 Intermission.

3:10 ANYL 428. In situ characterization of microbial aggregates using SALVI and liquid ToF-SIMS. **W. Wei**, R. Komorek, X. Yu, Y. Zhang, F. Liu, Z. Zhu, X. Yu

3:40 ANYL 429. Comparison study of amyotrophic lateral sclerosis (ALS) mouse brains via MALDI mass spectrometry imaging (MSI) to identify biomarkers. **C. Rawlins**, D. Calligaris, J.R. Auclair, A. Harry, K.A. Bemis, E. Luther, O. Vitek, N.Y. Agar, J.N. Agar

4:00 ANYL 430. Metabolomics of biological nitrogen fixation explored by laser ablation electrospray ionization mass spectrometry combined with fluorescence microscopy. **S. Stopka**, B. Agtuca, R. Khattar, C.R. Anderton, D.W. Koppelaar, L. Pasa-Tolic, G. Stacey, A. Vertes

4:20 ANYL 431. Understanding green rust formation in ionic liquids by liquid ToF-SIMS and SALVI. **Y. Fu**, J. Yao, D. Lao, Y. Zhou, S.K. Nune, Z. Zhu, D.J. Heldebrant, X. Yu

4:40 ANYL 432. Does time play a role in Glyoxal and hydrogen peroxide photochemical aging and aqueous secondary organic aerosol formation? **F. Zhang**, X. Yu, X. Sui, J. Chen, Z. Zhu, X. Yu

Section C

Grand Hyatt Washington Independence G

Advances in Mass Spectrometry

K. Phinney, *Organizer, Presiding*

1:30 ANYL 433. Mass spectrometry of certain industrial polymers with atmospheric pressure chemical ionization. **C. Zu**

1:50 ANYL 434. Unusual (+/-)-electrospray ionization induced fragmentation: Structural elucidation of an in-process synthetic intermediate of doravirine (MK-1439) using LC/HRMS/MS and 2D-NMR. **H. Sheng**, K. Lexa, L. Zhang, R. Yang, T. Wright, B. Sherry, R.M. Helmy, G. Martin

2:10 ANYL 435. Open workflow to generate MS-Ready structures and improve non-targeted mass spectrometry. **A.D. McEachran**, K. Mansouri, C. Grulke, A.J. Williams

2:30 ANYL 436. Ion mobility-mass spectrometry Collision Cross Section Prediction (CCSP) and application to prebiotic chemistry. **M.T. Soper-Hopper**, A. Petrov, J.N. Howard, S. Yu, J.G. Forsythe, M. Grover, F.M. Fernandez

2:50 ANYL 437. Single-cell metabolomics for tracking cell differentiation in the live embryo. **E. Portero**, R. Onjiko, S.A. Moody, P. Nemes

3:10 Intermission.

3:30 ANYL 438. Bottom-up proteomics for small neuron populations by ultrasensitive mass spectrometry. **S. Choi**, M. Zarnabide, M. Manzini, P. Nemes

3:50 ANYL 439. Quantification of cardiac troponin I in patient plasma by magnetic particle immunoenrichment and targeted mass spectrometry. **N. Schneck**, K. Phinney, S. Lee, M. Lowenthal

4:10 ANYL 440. LC-MS Method to detect neurotransmitters *in vivo* during period of drug abuse. **A.G. Zestos**, R. Kennedy, M. Gnegy

4:30 ANYL 441. Targeted metabolic profiling rapidly differentiates pathogenic *Escherichia coli* and *Staphylococcus aureus* at species and strains level. **H. Li**, T. Malchow, J. Zhu

Nanoscale Sensing in Foods & Other Complex Media

Sponsored by AGFD, Cosponsored by ANYL, COLL, ENVR and INOR

BIOT

Division of Biochemical Technology

M. O'Malley and V. Roy, Program Chairs

MONDAY MORNING

Recombinant Type Materials

Sponsored by PMSE, Cosponsored by BIOT

MONDAY AFTERNOON

Recombinant Type Materials

Sponsored by PMSE, Cosponsored by BIOT

Undergraduate Research Posters

Biotechnology

Sponsored by CHED, Cosponsored by BIOT and SOCED

TUESDAY MORNING

Recombinant Type Materials

Sponsored by PMSE, Cosponsored by BIOT

TUESDAY AFTERNOON

Recombinant Type Materials

Sponsored by PMSE, Cosponsored by BIOT

BIOL

Division of Biological Chemistry

L. Hedstrom and S. Kelley, Program Chairs

OTHER SYMPOSIA OF INTEREST:

Experimental & Computational Advances in Understanding Enzyme Specificity & Promiscuity (see *PHYS*, Sun, Mon, Tue, Wed)

Undergraduate Research Posters (see *CHED*, Mon)

Cross-Link DNA Repair (see *TOXI*, Tue)

Memorial Symposium Honoring Justine Roth: Oxygen & Isotope Effects in Mechanisms, from Enzymes to Small Molecules (see *INOR*, Tue)

SOCIAL EVENTS:

Gordon Hammes Award Lecture Reception, 5:45 PM: Sun

SUNDAY MORNING

Section A

Walter E. Washington Convention Center Room 145B

Repligen Award for the Chemistry of Biological Processes

W. A. Van Der Donk, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 BIOL 1. Function and structure of a new class of indole alkaloid cyclases in the Stigonematales cyanobacteria. **D.H. Sherman**, S. Li, S.A. Newmister, A.N. Lowell, F. Yu

9:15 BIOL 2. Diverse evolutionary solutions to β -lactam antibiotic biosynthesis and the partitioning of reactive intermediates by non-ribosomal peptide synthetases. **C.A. Townsend**

9:55 Intermission.

10:10 BIOL 3. Pathway for production of the bacterial cofactor pyrroloquinoline quinone (PQQ): At the confluence of radical SAM (RS) enzymes and ribosomally synthesized and post-translationally modified peptides (RiPPs). **J. Klinman**

10:50 Award introduction.

10:55 BIOL 4. Two radical proteins: Hydroxyethylphosphonate dioxygenase and methylphosphonate synthase. **W.A. Van Der Donk**

Merck Research Award Symposium

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Nanotechnology & Single Cell Analysis in Biology & Medicine

Sponsored by ANYL, Cosponsored by BIOL, COLL and PHYS

Experimental & Computational Advances in Understanding Enzyme Specificity & Promiscuity

Catalytic Promiscuity & the Emergence of New Proteins

Sponsored by PHYS, Cosponsored by BIOL and COMP

SUNDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 145B

Mitochondrial Chemical Biology

S. O. Kelley, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 BIOL 5. Spatiotemporal proteomic analysis of mitochondrial sub-compartments and next-generation enzymatic proximity labeling methods. **T. Branon**, A. Ting

1:40 BIOL 6. Mitochondrial protein functions elucidated by multi-omic mass spectrometry profiling. **D. Pagliarini**

2:15 BIOL 7. Mitochondrial nanomedicine. **S. Dhar**

2:50 Intermission.

3:00 BIOL 8. Targeting mitochondrial DNA. **S.O. Kelley**

3:35 BIOL 9. Mitochondrial topoisomerases and their repair enzymes. **Y. Pommier**

Section B

Walter E. Washington Convention Center Room 147B

Gordon Hammes Award Lecture

L. Hedstrom, *Organizer*

A. Schepartz, *Organizer, Presiding*

4:30 Introductory Remarks.

4:35 BIOL 10. Molecular interactions of lipopolysaccharide with an outer membrane protein from *Pseudomonas aeruginosa* probed by solution NMR. **I. Kucharska**, B. Liang, N. Ursini, L.K. Tamm

4:50 Award Introduction.

4:55 BIOL 11. Discovery of novel enzymes in novel metabolic pathways. **J.A. Gerlt**

5:40 Concluding Remarks.

Nanotechnology & Single Cell Analysis in Biology & Medicine

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Science Communications: The Art of Developing a Clear Message

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Experimental & Computational Advances In Understanding Enzyme Specificity & Promiscuity

Computational Tools for Enzyme Evolution & Functional Annotation

Sponsored by PHYS, Cosponsored by BIOL and COMP

MONDAY MORNING

Section A

Walter E. Washington Convention Center Room 145B

Eli Lilly Award in Biological Chemistry

H. C. Hang, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 BIOL 12. New bioluminescent tools to spy on cellular communication. **J.A. Prescher**

9:20 BIOL 13. Understanding the site-specific consequences of O-GlcNAc using synthetic protein chemistry. **M. Pratt**

10:05 Intermission.

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10:20 BIOL 14. Rational strategy to design probes for the chemical genetic analysis of AAA+ proteins. T. Kapoor

11:05 Award introduction.

11:10 BIOL 15. Chemical dissection of host immunity and microbial pathogenesis. H.C. Hang

Building a Safety Culture Across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Nanotechnology & Single Cell Analysis in Biology & Medicine

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Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED#, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

Impact of Carbonyl & Glycative Stress on Diabetic & Aging Related Diseases

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Good Cop, Bad Cop

Sponsored by INOR, Cosponsored by BIOL

Experimental & Computational Advances In Understanding Enzyme Specificity & Promiscuity

Computational Approaches to Enzyme Design

Sponsored by PHYS, Cosponsored by BIOL and COMP

MONDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 145B

Mid-Career Investigators in Biological Chemistry

L. Hedstrom, *Organizer*

A. Sarkar, *Presiding*

1:00 Introductory Remarks.

1:05 BIOL 16. Volatile nematode sex pheromones. R. Shinya, M. Gronquist, D. Leighton, Y. Hsueh, F. Schroeder, P.W. Sternberg

1:25 BIOL 17. Viewing human DNA polymerase β faithfully and unfaithfully bypass an oxidative lesion by time-dependent crystallography. Z. Suo

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

1:45 BIOL 18. Dissecting and targeting the dynamic process of BAX activation. E. Gavathiotis

2:05 BIOL 19. High resolution co-crystal structure of the apelin receptor and peptide agonist complex. W. Zhong

2:25 BIOL 20. Proteolytic cleavage of TRIM14 by the VEEV nonstructural protein 2 cysteine protease. E. Morazzani, J. Compton, D.H. Leary, N.E. Zachara, X. Hu, J.J. Marugan, P. Glass, P.M. Legler

2:45 Intermission.

3:00 BIOL 21. Cycloretinal in age-related macular degeneration: Its biosynthesis by the milk protein beta-lactoglobulin and its catabolism as a treatment strategy. C. Watanabe

3:20 BIOL 22. Potent antimicrobial peptide dendrimers against multi-drug resistant *Pseudomonas aeruginosa* and *Acinobacter baumannii*. T. Darbre

3:40 BIOL 23. Toward vancomycin-like antibiotics: Targeting bacterial lipids with synthetic peptides. J. Gao

4:00 BIOL 24. Bioprospecting and the discovery of cationic antimicrobial peptides from American alligator (*Alligator mississippiensis*) and Komodo dragon (*Varanus komodoensis*). B. Bishop, M. Juba, P. Russo, M. Devine, S. Barksdale, K. Vliet, J. Schnur, M.L. van Hoek

Section B

Walter E. Washington Convention Center Room 147B

Early Career Investigators in Biological Chemistry

Cosponsored by PROF

L. Hedstrom, *Organizer*

J. Houglund, *Presiding*

1:00 Introductory Remarks.

1:05 BIOL 25. Biochemistry of new metal-specific catalytic DNA. J. Liu

1:25 BIOL 26. RNA-biased small molecules and privileged RNA topologies for selective small molecule: RNA recognition. A.E. Hargrove, B. Morgan, C.S. Eubanks, N.N. Patwardhan, A. Donlic, J. Forte

1:45 BIOL 27. Site-specific RNA binding and translation inhibition by transition metal complexes. S.S. Jain, C.M. Anderson, M. Breshears, H. Hoang, S. Lundgren

2:05 BIOL 28. Chemical modification of mRNA: Toward enabling gene therapy. C. Gampe

2:25 Intermission.

2:40 BIOL 29. Targeting structurally and functionally diverse nucleic acids with druglike small molecules. J.S. Schneekloth, Jr.

3:00 BIOL 30. Molecular mechanisms underlying the hijack of host protein-protein interactions by NS1 of the 1918 Spanish influenza A virus. Q. Shen, D. Zeng, J. Shi, B. Zhao, W. Hwang, P. Li, J. Cho

3:20 BIOL 31. Chemical probes to perturb autophagy regulation and Bcl-2 in neurodegenerative disease. P.C. Trippier

3:40 BIOL 32. KaiC is sufficient to reconstitute the evolutionary primitive hourglass type circadian oscillator *in vitro*. Y. Jeong, Y. Kim

Building a Safety Culture Across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Nanotechnology & Single Cell Analysis in Biology & Medicine

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Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

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Experimental & Computational Advances In Understanding Enzyme Specificity & Promiscuity

Discovery & Engineering of Industrially Relevant Enzymes

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MONDAY EVENING

Section A

Walter E. Washington Convention Center Halls D/E

Sci-Mix

L. Hedstrom, *Organizer, Presiding*

8:00 - 10:00

50, 53, 56, 59, 63, 67-68, 84, 86, 89, 94, 98, 109, 114, 124, 129, 131, 160-161, 165. See subsequent listings.

TUESDAY MORNING

Section A

Walter E. Washington Convention Center Room 145B

Pfizer Award in Enzyme Chemistry

Financially supported by Pfizer

E. P. Balskus, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 BIOL 33. Bait-and-switch mechanism in microbial oxalate metabolism. M.I. Gibson, P.Y. Chen, E.J. Brignole, A. Johnson, E. Pierce, M. Can, S.W. Ragsdale, C.L. Drennan

9:10 BIOL 34. Phenotypic screening for molecular messages regulating microbiomes and their hosts. J. Clardy

9:45 BIOL 35. Using host genetics to decipher gut microbial metabolism. F.E. Rey

10:20 Award introduction.

10:25 BIOL 36. Deciphering the human gut microbiota through enzyme discovery. E.P. Balskus

Crosslink DNA Repair

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Understanding the Chemistry of Our Planet

Chemistry's Role in our Earth System

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Informatics & Chemical Biology: Identifying Targets & Biological Pathways

Sponsored by CINF, Cosponsored by BIOL and MEDI

Trace Organic Contaminants (TrOCs) in Aquatic Systems: Advancements in Monitoring & Remediation

Sponsored by ENVR, Cosponsored by ANYL and BIOL

Many Colors of Copper

Small Molecule Activation

Sponsored by INOR, Cosponsored by BIOL

TUESDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 145B

Early Career Investigators in Biological Chemistry

Cosponsored by PROF

L. Hedstrom, *Organizer*

A. E. Hargrove, *Presiding*

1:30 Introductory Remarks.

1:35 BIOL 37. Determining role of protein glutathionylation in muscle. Y. Ahn

1:55 BIOL 38. Multiple microviridin core peptides are processed by an ATP grasp ligase in a distributive and directional manner. Y. Ding

2:15 BIOL 39. Biosynthesis of deep-sea marine natural products: Genes, enzymes and pathways. G. Wang

2:35 BIOL 40. Activity of KS^S in *trans*-AT PKS biosynthesis: Control of the ACP modification by inhibition of acyltransferase. Y. You

2:55 BIOL 41. Exploring the macromolecular crowding effects on enzyme inhibition. M.M. Rowland, T. Legenzoff, A. Payne, A. Anderson, M. Kim, A. Winfrey, A. Waugaman

3:15 Intermission.

3:30 BIOL 42. Rational redesign of the collagen triple helix interface. D.M. Chenoweth

3:50 BIOL 43. High-throughput discovery of Protein Catalyzed Capture (PCC) agents as antibody alternatives for thermally stable biological assays. **M.B. Coppock**, C. Jones, B.T. Lai, H.D. Agnew, J.R. Heath, D.N. Stratis-Cullum

4:10 BIOL 44. Cofactor regulation is important for the function of p97/VCP AAA ATPase. **T. Chou**

4:30 BIOL 45. Protein topography by rapid methylene derivatization during ESI and top-down mass spectrometry. **P.A. Martino**

Section B

Walter E. Washington Convention Center Room 147B

Graduate Student & Postdoctoral Fellow Symposium

Cosponsored by PROF

L. Hedstrom, Organizer

S. S. Jain, Presiding

1:30 Introductory Remarks.

1:35 BIOL 46. Synthesis and evaluation of oxazolidinone-based small molecule libraries for the selective recognition of RNA bulge motifs. **B. Morgan**, R. Culver, C. Eubanks, J. Forte, A.E. Hargrove

1:50 BIOL 47. Role of HIV-1's highly basic patch and myristoyl group on matrix-tRNA interactions. **C. Gaines**, A. Rivera-Oven, E. Tkacik, P. Somani, A. Yang, A. Achimovich, T. Alabi, M.F. Summers

2:05 BIOL 48. Targeting folded HIV-1 RRE RNA with unnatural branched peptides: Boosting affinity and selectivity. **A. Peralta**, Y. Dai, J. Wynn, S. Chringma, S.F. Le Grice, W.L. Santos

2:20 BIOL 49. Novel mechanomagnetic assay to decode the ribosomal frame-shifting motion. **H. Yin**, S. Xu, Y. Wang

2:35 BIOL 50. Study of RNA chemical modifications as crucial epigenetic regulators. **B. Zhao**, X. Wang, A. Beadell, N. Tirumuru, R. Ho, L. Wu, C. He

2:50 BIOL 51. Spatial regulation of glycolytic and gluconeogenic enzyme compartmentalization by small molecules in human cells. **D. Schmitt**, P. Dranchak, J. Inglese, S. An

3:05 Intermission.

3:20 BIOL 52. Noninvasive imaging of human immune cell infiltration in a human xenograft model of graft-versus-host disease. **M. Rashidian**, C.H. Van Elssen, V. Vrbancac, H. Ploegh

3:35 BIOL 53. Dynamic multi-color protein labeling in living cells. **C. Li**, M. Plamont, H.L. Sladitschek, V. Rodrigues, I. Aujard, P. Neveu, T. Le Saux, L. Jullien, A. Gautier

3:50 BIOL 54. Terminal alkynes as Raman probes of α -synuclein aggregation in cellular environments. **J.D. Flynn**, J.C. Lee

4:05 BIOL 55. Constructing red-shifted fluorescent protein sensors of cellular redox status. **K.J. Trull**, S. Norcross, J. Snaidler, S. Doan, K. Tat, L. Huang, M. Tantama

4:20 BIOL 56. Chemical-proteomic targeting of mitochondrial cysteine residues involved in metabolic and redox regulation. **D. Bak**, M. Pizzagalli, E. Weerapana

4:35 BIOL 57. Near infrared fluorescence tagged glucosamine for non-invasive *in-vivo* tumor detection. **M. Mathew**, S. Parthasarathy

Understanding the Chemistry of Our Planet

Human Impacts to our Planet

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

Memorial Symposium Honoring Justine Roth: Oxygen & Isotope Effects in Mechanisms, from Enzymes to Small Molecules

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Experimental & Computational Advances In Understanding Enzyme Specificity & Promiscuity

Structure-Function Relationships in Enzyme Evolution

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Catalysis

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TUESDAY EVENING

Section A

Walter E. Washington Convention Center Hall E

Current Topics in Biochemistry

L. Hedstrom, S. O. Kelley, Organizers

7:00 - 9:00

BIOL 58. Investigating the mechanism of LThDP decarboxylation by DXP synthase. **A. DeColli**, A. Majumdar, N.S. Nemeria, F. Jordan, C. Freil Meyers

BIOL 59. Developing of plug-and-playable fluorescent cell imaging modular toolkits based on the protein ligation system, SpyTag/SpyCatcher. **Y. Bae**, S. Kang

BIOL 60. Lead tightly associates with neuronal calcium sensor (NCS) protein DREAM and promotes structural changes analogous to calcium bound DREAM. **S. Azam**, J. Miksovskva

BIOL 61. SMYD2 glutathionylation controls sarcomere stability and myofibril integrity. **D.N. Munkanatta Godage**, K. Samarasinghe, Z. Yang, M. Luo, Y. Ahn

BIOL 62. Discovery of a small molecule protease inhibitor from an abundant human gut commensal microbe. **B.A. Schneider**, E.P. Balskus

BIOL 63. Novel anionic conjugated polyelectrolyte lipoplex and its application for apoptosis imaging. **P. Wu**, C. Tan

BIOL 64. 2-APB and CGP-37157 as neuroprotective agents against the toxicity and uptake of 1-methyl-4-phenylpyridinium in dopaminergic MN9D cell. **V.Q. Le**, M. Mapa, K. Wimalasena

BIOL 65. Computer-aided analysis of autophagy pathway. **K. Han**, M. Choi, J. Kim

BIOL 66. Autophagy-induced cellular phase transitions. **K. Han**, J. Kim, M. Choi

BIOL 67. *Gaussia princeps* luciferase: A bioluminescent substrate for oxidative protein folding. **T. Yu**, J.A. Prescher, C. Thorpe

BIOL 68. Interactions between human pyruvate dehydrogenase complex (PDC) components and four isoforms of pyruvate dehydrogenase kinases (PDKs). **L. Yang**, N.S. Nemeria, E.L. Guevara, J. Zhou, J. Wang, F. Jordan

BIOL 69. Impact of carvedilol on the thioredoxin pathway. **M. Alharbi**, K. Larsen, C. Lynch, T.M. Seefeldt

BIOL 70. Transcriptional regulator of eicosapentaenoic acid synthesis (PfaR): Recombinant expression and evidence of its DNA-binding role. **M.C. Ortiz**, C. Rullán-Lind, Y. Morales-Lozada, M. Pérez-Oquendo, R. González-Méndez, A. Baerga-Ortiz

BIOL 71. Searching RNA 3D structures for tertiary structural patterns. **M.S. Adams**, K.E. Richardson, C.C. Kirkpatrick, D.W. Gohara, B. Znosko

BIOL 72. Developing a luciferase based circulating tumor cells detection system using functionally modulated SpyTag/SpyCatcher bacterial clue. **B. Choi**, H. Moon, H. Choi, S. Kang

BIOL 73. Lipid raft formation: Key role of polyunsaturated phospholipids. **C. Wang**, S.L. Regen

BIOL 74. Enzymology and drug discovery studies on the L205R mutant of cAMP-dependent Protein Kinase (PKA α). **N. Luzi**, D. Peterson, K.C. Ellis

BIOL 75. NagD from *Yersinia pestis*. **M. Le**, L. Dass, I. Moreno, S.F. O'Handley

BIOL 76. Withdrawn.

BIOL 77. Hidden antioxidative functions of NADH coexisting with hemoglobin. **H. Sakai**

BIOL 78. Progress toward the chemical characterization 3-vinyl-2,3-pyrroline-5-carboxylic acid (VPCA): A bacterial, natural-product synthon. **K.L. Colabroy**, B. Juliano, E.R. Gassaway, Z. Zimmerman

BIOL 79. Fluorescent indicator displacement assay to identify and characterize secondary structure-specific RNA: Small molecule interactions. **S. Wicks**, B. Morgan, A.E. Hargrove

BIOL 80. Acetyl-group sensing through modulation of conformational dynamics in an arylalkylamine N-acetyltransferase. **A. Aboalroub**

BIOL 81. Regulatory metabolic complex for glucose metabolism in living cells. **M. Jeon**, C. Kohnhorst, M. Kyoung, D. Schmitt, E.L. Kennedy, S.M. Bracey, J. Ramirez, B.T. Luu, S. Russell, S. An

BIOL 82. Developing high-field MRI contrast conjugate agents using protein cage nanoparticles. **H. Kim**, S. Jin, H. Choi, H. Cho, S. Kang

BIOL 83. Understanding the role of TRAF6 in the antiviral activity of Viperin. **A. Patel**, S. Ghosh, A.B. Dumbrepatil, E.G. Marsh

BIOL 84. Development of chemical probes and high-throughput screening strategies to target an oncogenic RNA triple helix. **A. Donlic**, J. Xu, A. Liu, C. Roble, A.E. Hargrove

BIOL 85. Elucidating the role of the proximal ligand loop in chloroperoxidase catalysis. **E. Kwong**, X. Wang

BIOL 86. Biochemical characterization of PRMT5 inhibition by small molecules designed via structure-based design. **W. Zhou**

BIOL 87. Heterogeneous nucleation of oligomeric superoxide dismutase-1 controlled by glycerolipid head groups. **S. Rasouli**, A. Abdolvahabi, B.F. Shaw, A. Chuprin

BIOL 88. Study on lipid composition of scalp sebum collected from women in different countries. **K. Nagami**, Y. Nagano

BIOL 89. Discovery and characterization of notch1 modulating peptides. **D. Schachter**, Y. Li

BIOL 90. Neutron vibrational spectra of biomolecular building blocks using the high resolution VISION spectrometer and accompanying computed spectra using several computational methods. **A.A. Sedova**, A.C. Fitzsimmons, M.D. Smith, L. Petridis, L. Daemen, A. Ramirez-Cuesta, J. Smith

BIOL 91. Investigating metastatic potential in colon and prostate cancers using synthetic lectins. **T. Hundal**, J.J. Lavigne

BIOL 92. *In vitro* kinetics of mutant superoxide dismutase-1 aggregation can predict patient survivability in amyotrophic lateral sclerosis. **A. Abdolvahabi**, S. Rasouli, Y. Shi, C. Croom, B.F. Shaw

BIOL 93. Investigation of a functionally essential domain within human ghrelin O-acetyltransferase. **M. Campana**, M. Ashkar, J. Hougland

BIOL 94. Understanding the alternative activities of DXP synthase. **M. Johnston**, A. Majumdar, C. Freil Meyers

BIOL 95. New library generation method for metabolic pathway engineering by using CRISPRi system. **J. Lee**, W. Song, S. Seo, B. Kim

BIOL 96. Probing the mechanism of viral inhibition by the radical SAM enzyme, Viperin. **S. Ghosh**, C. Makins, G.D. Román-Meléndez, A.B. Dumbrepatil, A. Patel, E.G. Marsh

BIOL 97. Structure-activity relationships for activation of *Arabidopsis thaliana* cytokinin receptors by analogs of N^6 -benzyladenine. **D.I. Osolodkin**, E.M. Saveleva, D.S. Karlov, S.N. Lomin, S.N. Mikhailov, G.A. Romanov

BIOL 98. Investigation of inhibitor-protein interactions in plants & mammals from EVV 2DIR data. **S. Sim**, H. Sowley, N. Kidley, L. Barter, D. Klug

BIOL 99. Withdrawn.

BIOL 100. Curious (unexpected?) behavior of bovine Cu/Zn superoxide dismutase on SDS-PAGE: Formation of multimeric assemblies with discrete mol. wts. that retain enzymatic activity. Similar behavior of Cu/Zn SOD in the hemolymph of mussels. **M.G. Hamilton**

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- BIOL 101.** Mutational analysis of human ghrelin O-acyltransferase. **M. Ashkar**, M. Campana, J. Houglund
- BIOL 102.** New insight on polystyrene biodegradation by two different *Tenebrio molitor*s. **B. Peng**
- BIOL 103.** Characterization of bifunctional peptides: Porphyrin binding and antimicrobial activity. **D.J. Shirley**, G.A. Caputo
- BIOL 104.** Determination of the fatty acid/lipid profiles in a mouse model of Alzheimer's disease. **L.S. Webb**, B. Genovese, D. Mitrano, H.J. Grau, R. Quinlan
- BIOL 105.** Effects of Alpha-synuclein uptake on cellular viability, morphology, and localization. **S. Lacy**, J.D. Flynn, J.C. Lee
- BIOL 106.** Conserved ion pairs between the barrel and hatch domain of BtuB are required for vitamin B₁₂ transport and/or during transmembrane signaling. **T. Nilaweera**, D.S. Catiso
- BIOL 107.** Influence of ionic liquids on detergent mediated denaturation of myoglobin. **E.M. Kohn**, T.D. Vaden, G.A. Caputo
- BIOL 108.** Effect of divalent metal cations on catalytic activity of Rv0045c esterase from *M. tuberculosis*. **I. Bowles**, R. Johnson, G.C. Hoops
- BIOL 109.** Global substrate specificity of mycobacterial serine hydrolases. **R. Johnson**, B. Bassett, B. Waibel, A. Koelper, G.C. Hoops
- BIOL 110.** Fatty acids analysis of outer membrane vesicles from *Escherichia coli* harboring the *pks island*. **Y. Morales-Lozada**, G. Baez Bravo, R. Gómez-Moreno, A. Baerga-Ortiz
- BIOL 111.** Examining the effects of thioamides on proteolysis. **T. Barrett**, X. Chen, J. Wang, C. Liu
- BIOL 112.** Photoinduced interaction of ubiquitin binding domains with genetically encoded *p*-Benzoyl-L-phenylalanine monomeric ubiquitin and polyubiquitin chains. **C. Braxton**, E. Quartner, T.A. Cropp, D. Fushman
- BIOL 113.** Enzyme function prediction, discovery, and characterization in an undergraduate biochemistry lab. **S.F. O'Handley**, J. Mills, K. O'Donovan, A. DiCola, M. Cattalani, A. Fadden, A. Flavin, C. Mcnamara, A. Murphy Shaw, J. Pierce, K. Wilson, T. Wolf, P. Craig
- BIOL 114.** New natural product analog of blasticidin S reveals cellular uptake facilitated by the NorA multidrug efflux pump. **J.R. Davison**, K. Lohith, S. Mandadapu, J. Piotrowski, H. Smith, C.A. Bewley
- BIOL 115.** Mechanism of an antimicrobial surface agent and virucidal efficiency. **N. Zhan**, Q. Chang, K. Yeung, J. Kwan
- BIOL 116.** Supramolecular organization and function of cartilage extracellular matrix. **F. Horkay**, E. Dimitriadis, I. Horkayne-Szakaly, P.J. Basser
- BIOL 117.** Impacts of protein oxidation conditions on structure and function. **G.A. Heinzl**, D. Kryndushkin, V. Rao
- BIOL 118.** Lysozyme-Catalyzed polymerization of an ionically conductive polyacetylene. **D. Morris**, A.P. Zampino, L. Crandall, A. Taraboletti, T. Leeper, C.J. Ziegler
- BIOL 119.** Study of the oligomerization process of IAPP using GaNPs derivatives. **A.S. Delgado Carrión**, A. Melendez, I. Ramos, R. Oyola
- BIOL 120.** Bioisosteric 5-oxa/aza analogues of ipomoeasin F uncover an H-bonding activity cliff and more. **G. Zong**, **Z. Hu**, X. Sun, R. Bhakta, L. Whisenhunt, W. Shi
- BIOL 121.** Studies on the radical S-adenosylmethionine (SAM) thiazole C-methyltransferase involved in thiomuracin biosynthesis. **N. Mahanta**, Z. Zhang, G.A. Hudson, W.A. Van Der Donk, D.A. Mitchell
- BIOL 122.** Computational study of butyrylcholinesterase inhibition by aryl alkyl cholanyl phosphorous derivatives. **N. Humphrey**, M. Sanchez, E.J. Sorin
- BIOL 123.** Evaluation of anti-obesity effects based on dynamics of a transcription factor network in the adipogenic differentiation. **K. Choi**, M. Lee
- BIOL 124.** DNA methyltransferase DNMT1 activity in the presence of oxidized and extended forms of 5-methylcytosine. **J. Fernandez**, C. Seiler, D. Kotandeniya, Z. Koeperich, M. Andersen, N.Y. Tretyakova
- BIOL 125.** Method for the quantification of levels of phosphorylation and phosphorylated sugar moieties in the glycans of recombinant proteins. **S.A. Ketcham**, M. Ashraf, C. Madhavara
- BIOL 126.** Oysters from locations in the Elizabeth River show elevated heavy metal concentrations. **B.F. Lasseter**, R.P. Burke, S. Bailey
- BIOL 127.** Reversible DNA-protein cross-linking at epigenetic DNA marks. **S. Ji**, N.Y. Tretyakova
- BIOL 128.** Discovery of dihydroxy fatty acids as major components of the seed oil of the brassicaceae *Orychophragmus violaceus* suggests a variant mode of elongation. **A.M. Teitgen**, X. Li, W. Zhang, C. Zhang, E. Cahoon, **R.E. Minto**
- BIOL 129.** Withdrawn.
- BIOL 130.** Synthesis and screening of a β -amino acid bisintercalator library. **E. Gratton**, B.L. Iverson
- BIOL 131.** Developing novel biosensors for the "cross-chiral" detection of structured RNAs. **B. Young**, J. Szczepanski
- BIOL 132.** Overexpressing SIT in osteoblasts. **G. Petkov**, T. Owen
- BIOL 133.** Phosphoprotein Enriched in Astrocytes 15 (PEA-15) changes confirmation upon phosphorylation & interaction with FADD. **J.P. Marrero**
- BIOL 134.** Monooxygenase reaction: revisit of tyrosinase and its application. **B. Kim**
- BIOL 135.** *In vitro* evolution of L-ribonucleases capable of cleaving structured D-RNA targets. **N. Kundu**, J. Szczepanski
- BIOL 136.** Withdrawn.
- BIOL 137.** Interaction of cationic single-chain and gemini surfactants with hen egg white lysozyme: A spectroscopic and computational study. **R. Patel**
- BIOL 138.** Sugars and pathogens: Avenues for targeting infections. **A. Sarkar**
- BIOL 139.** Atypical split inteins mediated two proteins specific labeling in a mixed system. **X. Li**, Q. Meng
- BIOL 140.** Biomimetic spinning of artificial spider silk from a chimeric minispidroin. **Q. Jia**, M. Andersson, Q. Meng, J. Johansson
- 10:50 BIOL 151.** Formulation of industrial relevant enzymes. **G. Baier**, Y. Lan, S. Kuebelbeck, F. Runge
- 11:10 BIOL 152.** Reductive mobilization of iron cations from ferritin by flavins in the presence of oxygen and chaotropic agents. **A. Melman**, F. Bou-Abdallah
- 11:30 BIOL 153.** Active water transport controls blood pressure: Selenium nutrition prevents thromboses, breast and colon cancers. **M.T. Deans**

Impact of Materials, Surface Chemistry & Modifications on Biofilm Formation in Environmental Remediation & Engineering Applications

Sponsored by ENVR, Cosponsored by BIOL

Experimental & Computational Advances in Understanding Enzyme Specificity & Promiscuity

New Strategies to Expand the Scope of Enzyme Engineering

Sponsored by PHYS, Cosponsored by BIOL and CCMF

Many Colors of Copper

Contributed Talks

Sponsored by INOR, Cosponsored by BIOL

WEDNESDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 145B

Chemical Biology of Infectious Disease

E. Derbyshire, Organizer, Presiding

1:00 Introductory Remarks.

1:05 BIOL 154. Drug resistance reveals a new family of metabolic regulators in malaria parasites. **A. Guggisberg**, A. Gandhi, **A.R. Odum**

1:40 BIOL 155. Target-specific phenotypic screening for rapid and scalable antimalarial drug discovery. **J.C. Niles**, S. Dey, S. Smick

2:15 BIOL 156. A chemical biology approach reveals ubiquitin signaling in *Plasmodium*. **R. Raphemot**, A.L. Eubanks, J. Totzke, D. Gurbani, D.A. Carlson, S. Westover, T.A. Haystead, **E. Derbyshire**

2:50 Intermission.

3:05 BIOL 157. Hit-to-lead studies and pharmacophore identification within a novel class of anti-trypanosomal agents. **L. Ferrins**, R. Diaz, M. Navarro, M.P. Pollastri

3:40 BIOL 158. Novel antibacterial chemical tools through machine learning. **J.S. Patel**, X. Wang, A.L. Perryman, S. Kandasamy, S. Ekins, **J.S. Freundlich**

Section B

Walter E. Washington Convention Center Room 147B

Graduate Student & Postdoctoral Fellow Symposium

Cosponsored by PROF

L. Hedstrom, Organizer

C. L. Grimes, Presiding

1:00 Introductory Remarks.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

1:05 BIOL 159. Bio-electronic membrane to investigate the gut brain microbiome axis. **P. Ramiah Rajasekaran**, D.N. Quan, A. Chapin, W.E. Bentley, J. Herberholz, R. Ghodssi

1:20 BIOL 160. Emerging metabolic pathways overcome metabolic blocks. **S. Pontrelli**, S. Teoh, W. Laviña, R.C. Fricke, S. Fitz-Gibbon, S. Prama Putri, A. J Jaeger, C. Chen, P. Lin, M. Chung, G. Saldanha, M. Morselli, M. Pellegrini, E. Fukusaku, J. Liao

1:35 BIOL 161. Biochemical and structural analysis of a novel toxin-antitoxin module. **F. Piscotta**, A. Link

1:50 BIOL 162. Metals and acylhomoserine lactone: Disruption of quorum sensing and reduced toxicity of *Chromobacterium violaceum*. **E. McGivney**, K.E. Jones, B. Weber, J.M. Vanbriesen, K.B. Gregory

2:05 Intermission.

2:20 BIOL 163. Distinctions between bacterial and human thymidylate synthases. **I. Gurevic**, Z. Islam, T. Strutzenberg, A. Ghosh, T. Iqbal, A. Kohen

2:35 BIOL 164. Dual labeling of bacterial peptidoglycan and tubulin FtsZ to study bacterial cell division. **H. Liang**, C.L. Grimes

2:50 BIOL 165. Identifying the cellular targets of antibiotics using T7 phage display. **S. Tirunagari**, J. Vo, P. Karuso, A. Piggott

3:05 BIOL 166. Facile labeling of bacterial pathogens via diazaborine formation of semicarbazide. **S. Cambray**, A. Bandyopadhyay, J. Gao

3:20 BIOL 167. Self-assembly of trimeric receptor complex for the *Clostridium perfringens* enterotoxin. **F.J. Irudayanathan**, N. Wang, X. Wang, S. Nangia

3:35 BIOL 168. Investigating distinct structural features that promote flavin transfer in FMN-dependent two-component systems. **D.L. Forbes**, H.R. Ellis

Impact of Materials, Surface Chemistry & Modifications on Biofilm Formation in Environmental Remediation & Engineering Applications

Sponsored by ENVR, Cosponsored by BIOL

Many Colors of Copper

Contributed Talks

Sponsored by INOR, Cosponsored by BIOL

WEDNESDAY EVENING

Trace Organic Contaminants (TrOCs) in Aquatic Systems: Advancements in Monitoring & Remediation

Sponsored by ENVR, Cosponsored by ANYL and BIOL

THURSDAY MORNING

Section A

Walter E. Washington Convention Center Room 145B

Graduate Student & Postdoctoral Fellow Symposium

Cosponsored by PROF

L. Hedstrom, *Organizer*

R. A. Maillard, *Presiding*

8:30 Introductory Remarks.

8:35 BIOL 169. Computationally-aided revelation of the counteracting forces mediating OmpG loop dynamics. **M.A. Fahie**, A. Perez-Rathke, J. Liang, M. Chen

8:50 BIOL 170. Prodrug-mediated elimination of tumorigenic human pluripotent stem cells using antibody-guided virus-like particles. **S.N. Crooke**, M.K. Preininger, R. Jha, L. Ding, P. Spearman, C. Xu, M. Finn

9:05 BIOL 171. Ghrelin processing and maturation: Developing a molecular-level framework for hormone activation and biological function. **E. Cleverdon**, J. Houglund

9:20 BIOL 172. Solid phase synthesis of all hydrocarbon bis-thioether stapled peptides: Application to developing new inhibitors of the master transcriptional regulator EZH2. **G. Zhang**, F. Barragan, K. Wilson, A. Herskovits, G. Geroná-Navarro

9:35 BIOL 173. Structural effects of thioamide substitution. **D. Szantai-Kis**, E. Petersson

9:50 Intermission.

10:05 BIOL 174. Immobilization of α amylase in polyelectrolyte complexes. **S. Kübelbeck**, G. Baier, J. Mikhael, A. Brunsen

10:20 BIOL 175. Design of fibrin-specific targeting peptide: Implication for the new therapeutic target. **M. Yang**, J. Yu, Y. Nam

10:35 BIOL 176. Withdrawn.

10:50 BIOL 177. Interrogating the thiol-disulfide redox status of the mammalian cell surface by ratiometric fluorescence imaging. **L. Jiang**, C. Thorpe

11:05 BIOL 178. Co-opting a bioorthogonal reaction for oncometabolite detection. **T.T. Zenggeya**, J.L. Meier

Impact of Materials, Surface Chemistry & Modifications on Biofilm Formation in Environmental Remediation & Engineering Applications

Sponsored by ENVR, Cosponsored by BIOL

THURSDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 145B

Graduate Student & Postdoctoral Fellow Symposium

Cosponsored by PROF

L. Hedstrom, *Organizer*

J. L. Meier, *Presiding*

1:00 Introductory Remarks.

1:05 BIOL 179. Inhibition in the face of thiols: Complexities of protein disulfide isomerase inhibitor evaluation. **C. Foster**, C. Thorpe

1:20 BIOL 180. Direct observation of ligand-induced domain communication in an allosteric protein complex. **Y. Hao**, J.P. England, S.S. Taylor, E. Paci, R.A. Maillard

1:35 BIOL 181. Mechanochemistry of peptide thioesters: Uncovering the force-dependency of thioester cleavage and reformation at the single-molecule level. **D. Echelman**, J. Rivas-Pardo, F. Julio

1:50 BIOL 182. Characterizing the functions of structural genomics proteins through computed chemical properties and biochemical validation. **C.L. Mills**, P.J. Beuning, M.J. Ondrechen

2:05 Intermission.

2:20 BIOL 183. Pattern recognition classification of RNA secondary structure and topology. **C.S. Eubanks**, J. Forte, G.J. Kapral, A.E. Hargrove

2:35 BIOL 184. Identification of the molecular origin of disease with single molecule optical tweezers. **J.P. England**, Y. Hao, S.S. Taylor, R.A. Maillard

2:50 BIOL 185. Membrane remodeling by α -synuclein: Tubules, ribbons, discs, and more. **Z. Jiang**, J.C. Lee

3:05 BIOL 186. Structural differentiation of α -synuclein fibril strains by fluorescence spectroscopy. **C. Haney**, T.S. Mihaila, E. Petersson

3:20 BIOL 187. Neutralization of a distributed coulombic switch tunes reflectin assembly and biophotonics. **R. Levenson**, C. Bracken, C. Sharma, C. Arata, D.E. Morse

Impact of Materials, Surface Chemistry & Modifications on Biofilm Formation in Environmental Remediation & Engineering Applications

Sponsored by ENVR, Cosponsored by BIOL

BMGT

Division of Business Development & Management

J. Cohen, *Program Chair*

SUNDAY AFTERNOON

Section A

Marriott Marquis Washington, DC Cherry Blossom

Chemical Angel Network: Chemists Investing in Chemical 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

Building a Safety Culture across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Current State & Future Path

Sponsored by ENFL, Cosponsored by BMGT‡, CEI‡, ENVR, MPPG, PRES, PROF‡, SCHB and WCC

MONDAY AFTERNOON

Building a Safety Culture across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Challenges & Opportunities

Sponsored by ENFL, Cosponsored by BMGT‡, CEI‡, ENVR, MPPG, PRES, PROF‡, SCHB and WCC

TUESDAY MORNING

Understanding the Chemistry of Our Planet

Chemistry's Role in our Earth System

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

Sponsored by CHED, Cosponsored by ANYL, BMGT, CELL, COLL, POLY and PRES

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How to get your First Industrial Job

Sponsored by YCC, Cosponsored by BMGT, PROF and WCC

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization**From Research to Scale-Up**

Sponsored by ENFL, Cosponsored by BMGT, CEI, ENVR, MPPG, PRES, PROF, SCHB and WCC

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

TUESDAY AFTERNOON**GSPPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health**

Sponsored by CHED, Cosponsored by ANYL, BMGT, CELL, COLL, POLY and PRES

Understanding the Chemistry of Our Planet**Human Impacts to our Planet**

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINL, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization**Innovating in Biomass Conversion: Factors for Success**

Sponsored by ENFL, Cosponsored by BMGT, CEI, ENVR, MPPG, PRES, PROF, SCHB and WCC

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

TUESDAY EVENING**Journey to Mars: Materials, Energy & Life Sciences**

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

WEDNESDAY MORNING**Section A**

Marriott Marquis Washington, DC
Magnolia

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Fostering a Quality Culture in Research & Development

Cosponsored by CHED, PROF and SCHB

Financially supported by Society of Quality Assurance (SQA)

J. H. Cohen, P. M. Maldonado, *Organizers, Presiding*

C. Lee, K. Watson, *Presiding*

8:00 Introductory Remarks.

8:05 **BMGT 2.** Widening focus: Improving engagement in non-project specific aspects of research and development. M. Watson, J.G. Joyce, K. Hamaker

8:30 **BMGT 3.** Root Cause Analysis (RCA) success story: \$2M/Yr Saved as a result customer complaint reductions. R. Latino

8:55 **BMGT 4.** Overview of ECBC's Environmental Monitoring Laboratory accreditation experience for testing Chemical Warfare Agents (CWA). J. Schwarz

9:20 **BMGT 5.** Principles of good documentation practices, data integrity, and ethics. L. Sanghani

9:45 **BMGT 6.** Quality system standards: The family tree. K. Watson, K. Daigle

10:10 **BMGT 7.** Development of Standard Operating Procedures (SOPs) and effective SOP management system-practical tools of GLP. L. Sanghani

10:35 **BMGT 8.** Klimisch approach to evaluating quality data. M. Coyle Rees, C. Lee, T. White-Barkalow, C. Bens

11:00 **BMGT 9.** Data integrity and ethics. M.J. Smith

11:25 **BMGT 10.** OECD Application of GLP principles to computerised systems. C. Wubbolt

11:50 Discussion.

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

WEDNESDAY AFTERNOON**Journey to Mars: Materials, Energy & Life Sciences**

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

CARB**Division of Carbohydrate Chemistry**

N. Snyder, *Program Chair*

SUNDAY MORNING**Section A**

Grand Hyatt Washington
Constitution A

Glycomimetics as Antibiotic-Sparing Therapeutics for Infectious Disease**Targeting P. Aeruginosa Bacterial Lectins & Other Anti-Virulence Strategies**

Cosponsored by MEDI

Financially supported by Glycomimetics and Carbosynth

J. W. Janetka, *Organizer*

M. Anderluh, J. L. Magnani, A. Titz, *Presiding*

8:30 Introductory Remarks: Preface honoring Nathan Sharon, 1925-2011.

8:45 **CARB 1.** Glycomimetic antagonist (GMI-1387) of PA-IL and PA-IIL virulence factors of *Pseudomonas aeruginosa* promotes survival in an acute lung infection model. W.E. Fogler, T. Grandjean, B. Guery, J.L. Magnani

9:15 **CARB 2.** Carbohydrate-binding proteins as targets for anti-infectives: *Pseudomonas aeruginosa* and its Lectin LecB. A. Titz

9:45 **CARB 3.** Blocking bacterial toxins and lectins with multivalent carbohydrates. R.J. Pieters

10:15 **CARB 4.** Glycopeptide dendrimers as *Pseudomonas aeruginosa* biofilm inhibitors. T. Darbre

10:45 Intermission.

11:00 **CARB 5.** Human milk oligosaccharides exhibit antimicrobial and anti-biofilm properties against Group B *Streptococcus*. D.L. Ackerman, S.D. Townsend

11:30 **CARB 6.** Understanding the Molecular Recognition of Carbohydrates by the *C. albicans* Adenylyl Cyclase, CYR1p. J. Burch, D. Wykoff, C.L. Grimes

12:00 Concluding remarks.

Section B

Grand Hyatt Washington
Arlington/Cabin John/Roosevelt

Carbohydrate-Based Vaccines & Adjuvants

Cosponsored by CELL

Financially supported by Pfizer, Wyatt Pharmaceuticals

A. Krishna Prasad, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 **CARB 7.** Entirely carbohydrate-based immunotherapies targeting cancer. P.R. Andrea

9:05 **CARB 8.** Defining carbohydrate antigenicity: How are flexible molecules recognized by the immune system? R.J. Woods

9:35 **CARB 9.** Exploring the capsule biosynthesis machinery of *Neisseria meningitidis*: Suitability for *in vitro* vaccine production. F. Berti

10:05 Intermission.

10:20 **CARB 10.** Therapeutic and prophylactic approaches for pneumococcal infection. F. Avci

10:50 **CARB 11.** Biochemical assay development for a *Neisseria meningitidis* capsule polymerase. P.C. McCarthy

11:20 **CARB 12.** Multicomponent glycoconjugate vaccines: Development challenges. A. Krishna Prasad

11:50 Concluding Remarks.

Recent Advances towards the Bioeconomy

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

SUNDAY AFTERNOON**Section A**

Grand Hyatt Washington
Constitution A

Glycomimetics as Antibiotic-Sparing Therapeutics for Infectious Disease**Targeting Uropathogenic E. Coli Bacterial Adhesins & Other Anti-Virulence Strategies**

Cosponsored by MEDI

Financially supported by Fimbrion and Carbosynth

J. W. Janetka, *Organizer, Presiding*

B. Ernst, R. J. Pieters, *Presiding*

1:30 Introductory Remarks.

1:35 **CARB 13.** Rational design and optimization of C-glycoside bacterial lectin antagonists as oral therapeutics for urinary tract infection. L. McGrane

2:05 **CARB 14.** Biophysical basis and glycomimetic inhibition of receptor recognition by uropathogenic *E. coli* adhesins. V. Kalas, J.W. Janetka, S.J. Hultgren

2:35 **CARB 15.** Conformational variability of the bacterial lectin FimH: Which conformation represents the therapeutic target? B. Ernst

3:05 **CARB 16.** E.coli antiadhesives as potential therapeutics for Crohn's disease. D. Alvarez-Dorta, T. Chalopin, A. Sivignon, D. Deniaud, N. Barnich, J. Bouckaert, S.G. Gouin

3:35 Intermission.

3:50 **CARB 17.** Highs and lows of DC-SIGN inhibitors design. M. Anderluh

4:20 **CARB 18.** Seeking antibiotic leads from glycan biosynthesis inhibitors. L.L. Kiessling

4:50 **CARB 19.** Glycomimetics of maltose-1-phosphate as inhibitors of the glycoside hydrolase-like enzyme *Streptomyces coelicolor* GlgEI-V279S. S. Kapil, C. Pettit, D.R. Ronning, S.J. Sucheck

5:20 Concluding Remarks.

Section B

Grand Hyatt Washington
Arlington/Cabin John/Roosevelt

Carbohydrate-Based Vaccines & Adjuvants

Cosponsored by CELL

Financially supported by Pfizer, Wyatt Pharmaceuticals

A. Krishna Prasad, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 **CARB 20.** Toward a bivalent synthetic carbohydrate-based vaccine candidate against shigellosis. Z. Hu, J. Cornil, C. Ligeour, F. Thouron, S. Hoos, C. Guerreiro, A. Phalipon, L.A. Mulard

2:05 **CARB 21.** Small but Bright: μ SEC-MALS characterizes conjugated proteins with light scattering and UHPLC. E. Seymour

2:35 CARB 22. Synthesis of multi-component anti-tumor vaccine using strain promoted azide alkyne cycloaddition (SPAAC) and enhancement of immune response using human anti-rhamnose antibodies. **A. Vartak, S.J. Sucheck, K.A. Wall**

3:05 CARB 23. Preclinical studies on new proteins as carrier for glyco-conjugate vaccines. **M. Romano**

3:35 Concluding Remarks.

Recent Advances towards the Bioeconomy

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

Science Communications: The Art of Developing a Clear Message

Sponsored by PRES, Cosponsored by BIOL, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, CTA, DAC, I&EC, INOR, ORGN, PROF, SCHB and YCC

SUNDAY EVENING

Section A

Walter E. Washington Convention Center Hall D

General Posters

N. L. Snyder, *Organizer*

6:00 - 8:00

CARB 24. Development and study of the substrate specificities of lipid II analogues against MurJ flippase via an *in vitro* liposome-based assay. **C. Guo, W. Cheng**

CARB 25. Important of carbohydrate in animal production. **T.O. Akinmusire**

CARB 26. Fabrication of well-defined superparamagnetic amylose microparticles. **K. Luo, K. Jeong, J. Lee, Y. Kim**

CARB 27. Cytotoxicity β -glucanase NCBG purified from *Bacillus* sp. screened from Antarctic Sea. **L. Zheng, D. Kang, F. Zhang, R.J. Linhardt**

CARB 28. Effects of chondroitin sulfate and hyaluronic acid supplementation in the chondrogenic differentiation of bone marrow/synovial: Derived mesenchymal stem cells on poly (ϵ -caprolactone) scaffolds towards cartilage repair. **J.C. Silva, C. Moura, G. Borrecho, A. Alves de Matos, J. Sampaio Cabral, R.J. Linhardt, F. Ferreira**

CARB 29. Glycosaminoglycan change in differentiating ReN cells. **F. Ferreira Garrudo, J. Fernandes da Silva, P. Mikael, F. Ferreira, R.J. Linhardt**

CARB 30. Nanocellulose templated growth of ultra-small bismuth nanoparticles for enhanced radiation therapy. **L. Jiao, M. Su, J. Deng**

CARB 31. Synthesis and gelation properties of a series of 4,6-O-alkylidene protected monosaccharides. **K.E. Bashaw, L. Samakumara, G. Wang**

CARB 32. Synthesis and study of sugar derived molecular gelators and their applications for enzyme immobilization. **J.Y. Morris, G. Wang**

CARB 33. Enzymatic hydrolysis and ion exchange fractionation of sulfated polysaccharides extracted from *Ulva lactuca* and evaluation of their antioxidant and antitumor activities. **M.M. El-Sayed, D. Fleita, D. Rifaat, N. Abou El Azm**

CARB 34. Development of photodegradable nanoarchitectures for drug/DNA loading and release. **B. Singh, A. Prasad**

CARB 35. Preparation of cross-linked chitosan hydrogel as a drug delivery carrier of podophyllotoxin. **S. Sedaghat**

CARB 36. Developing an HPLC based fluorescent assay for *Neisseria meningitidis* serogroup W capsule polymerase. **S. Ghimire, A. Sharyan, P. McCarthy**

CARB 37. Synthesis and solution structure study of cADPR and three of its analogues. **S. Saatori, S.M. Graham**

CARB 38. Replacement of endogenous isoprenoids with fluorescent probes in bacteria. **C. George, J.M. Troutman**

CARB 39. Stereospecific deuteration of C6 position on the 2-amino-2-deoxy and 2,6-diamino-2,6-dideoxy glucopyranosides derivatives for their side chain conformational analysis. **T. Kato, D. Crich**

CARB 40. Synthesis of multivalent lactose-based dendrimers and their antitumor activity by targeting galectin-3. **P. Wang, Y. Pan, X. Zhang, F. Zhang, R.J. Linhardt**

CARB 41. Synthesis and inhibition studies of substrate and suicide analogs for *Mycobacterium tuberculosis* for trehalose phosphate phosphatase (TPP2). **S. Kapil, S.J. Sucheck, D.R. Ronning, S. Thanna**

CARB 42. Development of a multi-functional neoglycoside linker for applications in glycomic research. **T. Cheewawisuttichai, A. Yu, M. Brichacek**

CARB 43. Characterization of the degree of substitution of sodium carboxymethyl cellulose by conductometric titration. **H. Jacobs, Z.J. Witzczak, T. Hodle**

CARB 44. Thio-click functionalization of carbohydrate exo-cyclic enones via thiol enone Michael addition (TEMA). **W. McLay, Z.J. Witzczak, R. Bielski**

CARB 45. Stereoselective thio-click functionalization of conjugated heterocyclic chalcone synthons with 1-thio-sugars. **E. Kweiba-Yamoah, S. Jang, Z.J. Witzczak**

CARB 46. Synthesis of novel exo-cyclic carbohydrate enones from dihydroxoglucosone via direct aldol condensation with aromatic aldehydes. **R. Hohol, Z.J. Witzczak, D.E. Mencer**

CARB 47. Antioxidant activities of diatom polysaccharides. **S. Lai, Y. Tian, S.P. Wang, M. Wang**

CARB 48. Creation of artificial pectin substrates. **D.T. De Silva, L. Kent, M. Williams**

CARB 49. Characterizing oligosaccharides by SEC with on-line viscometry detection. **A.M. Striegel, M.J. Morris**

CARB 50. Apramycin produced by *Streptoalloteichus tenebrarius* NRRL B-3816. **P. Manitchotipist, M. Bowman, D. Crich, N.P. Price**

CARB 51. Antibacterial liamocins with alternative carbohydrate headgroups. **T. Leathers, N.P. Price, C.D. Skory**

CARB 52. Complex formation of sucrose and calcium additives for durable sawdust pellet. **Y. Song, J. Seo**

CARB 53. Site saturation mutagenesis of *Streptococcus pyogenes* endoglycosidase S and S2 leads to discovery of novel glycosynthases for antibody Fc glycan remodeling. **X. Tong, L. Wang**

CARB 54. C-Glycosyl compounds in the synthesis of analogs of the phytotoxin diplopyrone. **R.M. Giuliano, R. Rosano, N. Lazzara**

CARB 55. Sequence determination of decorin glycosaminoglycan chains. **Y. Yu, H. Zhang, F. Zhang, R.J. Linhardt**

CARB 56. Evidence for the mechanisms of cancer, HIV-AIDS and Parkinson's disease by binding significant proteins to a 3'-sialyl lactose-6'-phosphate, from bovine milk, carbohydrate affinity column. **M.A. Madson, J. Christus**

CARB 57. Utilization of mycobacteria carbohydrate metabolic pathways to develop chemical reporters for detecting and identifying O-mycoloylated proteins in mycobacteria. **H.W. Kavunja, B. Pilligian, T. Fiolek, H. Foley, T. Nathan, B. Swarts**

CARB 58. Glycosaminoglycan composition analysis of human fetal neural cells and their binding interactions with Zika virus envelope protein. **S.Y. Kim, G. Nierode, Y. Yu, J.S. Dordick, R.J. Linhardt**

CARB 59. Synthesis of human milk oligosaccharides and determination of their localization in Group B *Streptococcus*. **K.M. Craft, S.D. Townsend**

CARB 60. Multivalent glucosamine conjugates for targeted image-guided therapy of cancer. **I. Tworowska, N. Wagh, E. Delpassand**

MONDAY MORNING

Section A

Grand Hyatt Washington Constitution A

Derek Horton Award in Industrial Carbohydrate Chemistry

L. Wang, *Organizer, Presiding*

9:00 Introductory Remarks.

9:10 CARB 61. Derek Horton: His impact on carbohydrate science. **D.C. Baker**

9:40 CARB 62. Banded paper: An important example of contemporary industrial carbohydrate chemistry. **J.H. Lauterbach, A. Rahman**

10:10 Intermission.

10:30 CARB 63. Recent trends in the design of carbohydrate-based conjugate vaccines. **F. Berti**

11:15 Concluding Remarks.

Building a Safety Culture Across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Sustainable Design of Polymers from Xylochemicals

Strategic Design of Complex Polymers from the Combination of Xylochemicals

Sponsored by CELL, Cosponsored by CARB, PMSE and POLY

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED \ddagger , CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

MONDAY AFTERNOON

Section A

Grand Hyatt Washington Constitution A

Frontiers in Carbohydrate Synthesis

Cosponsored by CELL

M. A. Walczak, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CARB 64. Chemical promoters for controlling selectivity in glycosylation reactions. **C. Bennett**

1:55 CARB 65. Synthesis of the O-linked pentasaccharide containing β -D-Galp-(1 \rightarrow 2)- β -D-Galp in *Trypanosoma cruzi* mucins. **C. Gallo-Rodriguez, C.R. Cori, G. Kashiwagi, R.M. Lederkremer**

2:15 CARB 66. 4-Aryl-3-butenylthioglycosides: Versatile donors for O-glycosylation. **J.R. Ragains**

2:35 CARB 67. Withdrawn.

2:55 Intermission.

3:10 CARB 68. Studies toward chemical synthesis of homogeneously glycosylated interferon gamma. **S. Dong**

3:30 CARB 69. Chemoenzymatic synthesis of novel heparan sulfate and heparin oligosaccharides. **X. Zhang, R.J. Linhardt, L. Lin, V.L. Schultz, J. Liu, Y. Xu, P. Hsieh**

3:50 CARB 70. Chemoselective strategy for the synthesis of functionalized heparan sulfate oligosaccharides utilizing a [2.2.2] iduronic lactone. **R. Jeanneret, C. Dalton, G. Jayson, J. Gardiner**

4:10 CARB 71. Stereoselective 1,2-cis glycosylation. **H.M. Nguyen**

4:30 Concluding Remarks.

Building a Safety Culture Across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

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Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

MONDAY EVENING

Section A

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

N. L. Snyder, *Organizer*

8:00 - 10:00

27-29, 31-32, 35, 37-38, 40-42, 47-48, 53-55, 57-60. See previous listings.

TUESDAY MORNING

Section A

Grand Hyatt Washington
Constitution A

Advances in Glycan Structure & Dynamics

Host-Pathogen Interactions, Glycan-Based Vaccine Design & Glycan-Protein Interactions

Cosponsored by CELL

Financially supported by Complex Carbohydrate Research Center, JEOL

D. I. Freedberg, *Organizer*

R. J. Woods, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 CARB 72. Attachment of histo blood group antigens to human norovirus coat protein: NMR reveals unexpected complexity of the carbohydrate binding process. T. Peters, A. Mallagaray

9:05 CARB 73. Beyond sweet attractions: Structural insights into host-cell glycan interactions of human pathogens. T. Haselhorst

9:25 CARB 74. Investigating serotype cross-protection in carbohydrate vaccines: A molecular modelling approach. M. Kuttel, N. Ravenscroft

9:45 CARB 75. Structural analysis of peptide and carbohydrate epitopes cleaved by the *Cryptococcus neoformans* catalytic monoclonal antibody 18B7. M. Wear, A. Bowen, R. Cordero, A. Casadevall

10:05 Intermission.

10:25 CARB 76. Bound geometry of glycans using proteins with paramagnetic tags. J.H. Prestegard

10:55 CARB 77. Protein crystallography and molecular dynamics simulations reveal an NOE-silent conformation of the GM1 glycan. B.S. Blaum, M. Frank, T. Stehle

11:15 CARB 78. Molecular basis of Siglec-carbohydrate interaction. M. Schubert

11:35 CARB 79. Substrate presentation and activation in neuraminidase NEU2. O.C. Grant, S. Makeneri, B.L. Foley, R.J. Woods

11:55 Concluding Remarks.

Understanding the Chemistry of Our Planet

Chemistry's Role in our Earth System

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

TUESDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution A

Advances in Glycan Structure & Dynamics

Glycosaminoglycan Structure

Cosponsored by CELL

Financially supported by Complex Carbohydrate Research Center, JEOL

D. I. Freedberg, *Organizer*

R. J. Woods, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CARB 80. Insights into the interactions between synthetic GAG and Growth Factors (FGF-1 and Midkine). M. García-Jiménez, S. Gil-Caballero, J. Muñoz-García, J. de Paz, P.M. Nieto

2:05 CARB 81. GAGs glycomics/ interactome research using SPR. F. Zhang, S. Kim, J. Zhao, R.J. Linhardt

2:25 CARB 82. Withdrawn.

2:45 Intermission.

3:05 CARB 83. Protein-Induced changes in glycosaminoglycan dynamics: A study in pleiotrophin-glycosaminoglycan interactions. X. Wang

3:25 CARB 84. Analysis of the 3D structure of fucosylated chondroitin sulfate from *H. forskali* and its interaction with selectins. C. Panagos, C. Moss, C. Bavington, B. Mulloy, T. Feizi, W. Chai, R.J. Woods, D. Uhrin

3:45 CARB 85. Is there a structural role for 3-O-sulfation in heparan sulfate? A. Green, C. Larive, R. Young, L.J. Mueller

4:05 Concluding Remarks.

Understanding the Chemistry of Our Planet

Human Impacts to our Planet

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

WEDNESDAY MORNING

Section A

Grand Hyatt Washington
Constitution A

Advances in Glycan Structure & Dynamics

Glycoproteins

Cosponsored by CELL

Financially supported by Complex Carbohydrate Research Center, JEOL

R. J. Woods, *Organizer*

D. I. Freedberg, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 CARB 86. Invisible glycoproteins with unusually high carbohydrate content in animal gametic cells. K. Kitajima

9:05 CARB 87. Characterizing asparagine-linked glycoprotein glycans with a rapid NMR-based approach. A.W. Barb

9:25 CARB 88. Unlocking the secrets of asialo-APF: Combining NMR spectroscopy and molecular dynamics to refine the complex structure-activity relationship of a (seemingly) simple antiproliferative glycopeptide. K.M. Adams, S.S. Mallajosyula, A.D. Mackerell, J.J. Barchi

9:45 CARB 89. Separation of oligosaccharide and glycopeptide isomers using ion mobility-mass spectrometry. J. Hofmann, H. Hahn, H. Hinneburg, W.B. Struwe, D. Kolarich, P.H. Seeberger, K. Pagel

10:05 Intermission.

10:25 CARB 90. Modeling the conformational heterogeneity of complex carbohydrates: Enhanced sampling, methods of analyses and towards a polarizable force field. A.D. Mackerell, M. Yang, A. Aytenisu

10:55 CARB 91. Routine microsecond molecular dynamics simulations of carbohydrates and glycoproteins: Prospects and limitations. M. Frank, R. Walker, P. Nyholm

11:15 CARB 92. Characterization of the distinct structural motif of $\alpha(2-8)$ -polysialic acid at the reducing end. H. Azurmendi, M. Battistel, D.I. Freedberg

11:35 Concluding Remarks.

WEDNESDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution A

Advances in Glycan Structure & Dynamics

Conformational Analysis & Less Common Approaches to Structure Determination

Cosponsored by CELL

Financially supported by Complex Carbohydrate Research Center, JEOL

R. J. Woods, *Organizer*

D. I. Freedberg, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CARB 93. Conformational aspects of oligosaccharides and their interactions with proteins. G. Widmalm

2:05 CARB 94. Effects of exocyclic C-O bond conformation on NMR J-couplings in saccharides. A.S. Serianni

2:25 CARB 95. NMR studies on cADPR and cADPR analogs: Conformational analysis and thermodynamics of the N/S equilibrium. S.M. Graham, S. Saatori

2:45 CARB 96. Withdrawn.

3:05 CARB 97. NMR methodology for OH/OH hydrogen bond detection: Diols, networks, and stereochemical assignments. D.J. O'Leary

3:25 Intermission.

3:45 CARB 98. Mannosylated surfaces exhibit self-adhesive and water-structuring properties; model for pathogen surface. K. Perera, P. Chandran

4:15 CARB 99. Atomic-level structure characterization of carbohydrate pre and post lignin treatment: Enhanced solid state NMR. H. Luo

4:35 CARB 100. Simple methods for *de novo* structural determination of glucose-containing underivatized oligosaccharides. C.K. Ni

4:55 Concluding Remarks.

CATL

Division of Catalysis Science and Technology

K. Ramasamy, *Program Chair*

OTHER SYMPOSIA OF INTEREST:

Energy & Fuels Storch Award in Fuel Science: Symposium in Honor of Umit S. Ozkan (see ENFL, Sun, Mon)

5th International Symposium on Mesoporous Zeolites (see ENFL, Wed)

Advanced Nanomaterials Catalysts for Sustainable Energy & Fuels (see ENFL, Sun, Mon, Tue)

Green Chemistry & the Environment (see ENVR, Wed)

Environmental Applications of Liquid-Phase Catalysis for Green Chemical Processes of Renewable Materials (see ENVR, Sun, Mon, Wed)

Nano-Enabled Water Treatment Technologies: Applications & Implications (see ENVR, Mon, Tue, Wed)

BUSINESS MEETINGS:

CATL Business Meeting, 5:30 PM: Mon

SUNDAY MORNING

Section A

Walter E. Washington Convention Center
Room 101

Catalytic Transformation of Renewable Plant Biomass to Enhance Global Economy

Cosponsored by ENFL

N. Yan, X. Zhang, *Organizers, Presiding*

9:00 CATL 1. Nano copper-nickel alloy catalysts for selective hydrothermal conversion of oleic acid into heptadecane with methanol. J. Fu, Z. Zhang, Q. Yang, X. Lu

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

9:20 CATL 2. Selective conversion of cellulose into C2-C4 alcohols on solid catalysts. H. Liu

9:50 CATL 3. Photocatalytic cleavage of lignin into aromatics. F. Wang, N. Luo, T. Hou

10:20 CATL 4. Conversion of bark to bio-based polyols via liquefaction and alkoxylation reactions. N. Yan

10:50 Intermission.

11:05 CATL 5. Biphasic tandem catalytic process for renewable fuel production. H. Lin

11:25 CATL 6. Effect of metal properties on glycerol hydrogenolysis over platinum and ruthenium catalysts. W. Zhou, Z. Yujun, Y. Wang, S. Wang, X. Ma

11:45 CATL 7. High efficiency production of acrylates from lactic acid. T.R. Eaton, N.A. Rorrer, V. Sanchez i Nogue, K. Meek, L. Manker, D. Brandner, M. Biddy, E. Karp, G. Beckham

12:05 CATL 8. Catalyst and process development for the hydroprocessing of fast pyrolysis bio-oil. M.V. Olarte, H. Wang, D. Santosa, J. Frye, P. Meyer, S. Lee, S.B. Jones, C. Drennan, J.S. Choi, A. Zacher

Section B

Walter E. Washington Convention Center Room 102B

Mixed Metal Oxide Catalysis

C. Alvarez-Vasco, R. Fushimi, D. Shekhawat, *Organizers*

K. K. Ramasamy, I. E. Wachs, *Organizers, Presiding*

8:30 CATL 9. Transesterification of glycerol and dimethyl carbonate to glycerol carbonate over mixed metal oxide catalysts. L. Yajin, D. He

8:50 CATL 10. Silica support early transition metal catalysts: Spectroscopic characterization, trends in coordination environment, speciation on the surface and effects on reactivity. N. Peek, S. Klepper, D. Jeffcoat, S.L. Scott, A.E. Stiegman

9:10 CATL 11. Developing perovskite materials for oxidation reactions. J.W. Lekse, S. Natesakhawat, Y. Zhou, D. Tafen, D. Alfonso, C. Gounaris, C. Hanselman, C. Matranga, D. Kauffman, J. Lee

9:30 CATL 12. Understanding of mixed metal oxide anionic clays as solid base catalysts for biofuels production. S.K. Beaumont

9:50 CATL 13. Multi-spectral photocatalysis for improved degradation of recalcitrant contaminants from aqueous systems. E. Asenath-Smith, E. Ambrogi, J. Brame

10:10 Intermission.

10:25 CATL 14. Role of surface and bulk structures of perovskites in catalyzing acid-base reactions. G. Foo, F. Polo Garzon, V. Fung, D. Jiang, Z. Wu

10:55 CATL 15. *Operando* spectroscopy during ethylene polymerization by supported CrO₂/SiO₂ catalysts: Role of promoters. A. Chakrabarti, I.E. Wachs

11:15 CATL 16. Cyclodehydration of 1,4-butanediol to tetrahydrofuran over Zr-Al mixed oxide catalysts. K.T. Li, K. Chen

11:35 CATL 17. Monitoring the adsorption and decomposition of dimethyl methylphosphonate on mesoporous metal oxides. S.M. Holdren, K. Huynh, J. Hu, W. Gibbons, B.W. Eichhorn, M.R. Zachariah

11:55 CATL 18. Stabilizing effects of polyoxoniobates on molecular copper-oxo species in alkaline water for water oxidation catalysis. Q. Yin, Y. Hu, E.N. Glass, S.M. Lauinger, M.D. Nyman, C.L. Hill

Section C

Walter E. Washington Convention Center Room 102A

Metal-Support Interactions in Catalysis: Modeling, Characterization & Design

A. Bruix, T. Duchon, S. D. Senanayake, *Organizers*

A. Baber, *Presiding*

8:30 CATL 19. CO oxidation at the interface between FeO and noble metals: Interface and size effects. F. Yang

9:05 CATL 20. Reactivity of O₂ with single-site, low-valent vanadium in metal-organic chains at surfaces. T. Morris, C.D. Tempas, D. Wisman, B.J. Cook, A.V. Polezhaev, K.G. Caulton, S.L. Tait

9:25 CATL 21. Atomic-scale insight into single atom catalysis. A. Therrien, E.H. Sykes, J. McEwen

10:00 Intermission.

10:15 CATL 22. Au nanoparticle interactions with TiO₂(110) and their modification of the reactivity. G. Thornton

10:50 CATL 23. Au-TiO₂ interfaces in the catalysis of low-temperature oxidation and H₂ photoproduction from water. F. Zeraa

11:25 CATL 24. Theoretical insights on CO oxidation over Au/TiO₂: A comprehensive picture of active sites, catalysts deactivation and moisture effects. Z. Duan, G. Henkelman

11:45 CATL 25. Supported metal nanoparticle catalysts: Predicting how size and support effect metal atom energetics and thus catalytic performance. C.T. Campbell, Z. Mao

Section D

Walter E. Washington Convention Center Room 103B

Cooperative Catalysis at Surfaces & Interfaces: Impact on Chemistry & Energy Frontiers

Electrocatalysis

Cosponsored by ENFL

M. Cargnello, Z. Wu, *Organizers*

S. Zhang, *Organizer, Presiding*

M. Cargnello, *Presiding*

8:30 Introductory Remarks.

8:35 CATL 26. Reaction mechanisms in heterogeneous catalysis and electrocatalysis involving cooperation between different sites from quantum mechanics. W.A. Goddard

9:05 CATL 27. Controlling metal nanoparticle interactions with nanoscale-supports to enhance nanoparticle catalysis for selective CO₂ reduction. S. Sun

9:35 CATL 28. In Situ insight on CO₂ activation on Cu(111) surfaces with subsurface oxide: Fundamental understanding on the first step of CO₂ reduction reaction by APXPS and DFT. C. Zhang, M. Favaro, H. Xiao, T. Cheng, W.A. Goddard, J. Yano, E. Crumlin

9:55 Intermission.

10:10 CATL 29. Energy and fuels from tailored nanomaterials and electrochemical interfaces. E. Coleman, D. Li, H. Lv, R. Wang, D. Strmcnik, P. Lopes, N. Markovic, V. Stamenkovic

10:40 CATL 30. Core-Shell nanostructures in electrocatalysis. L. Wang, C. Wang

11:10 CATL 31. Electrocatalytic reduction of CO₂ by metal/ionic liquid interfaces: Theoretical insights. S. Winikoff, M. Neurock

11:30 CATL 32. Strong metal-oxide and metal-phosphide interactions for enhanced electrocatalysis. H. Wang

12:00 CATL 33. Spatially separated dual cocatalysts supported on semiconductor prepared by atomic layer deposition for efficient photocatalytic hydrogen production. J. Zhang, C. Chaoqiu, Z. Gao, Y. Qin

Section E

Walter E. Washington Convention Center Room 140A

Advanced Electrocatalysis for Energy Conversion & Storage

Oxygen Reduction

N. Danilovic, A. B. Padmaperuma, C. Wang, B. Xu, *Organizers*

A. Holewinski, *Organizer, Presiding*

C. Wang, *Presiding*

8:30 CATL 34. Advancing PGM-free fuel cell catalysts through the ElectroCat (Electrocatalysis) consortium. S.T. Thompson, A.R. Wilson, D. Papageorgopoulos

8:50 CATL 35. Determining the role of the metal in non-precious metal catalysts for the oxygen reduction reaction. J. Varnell, C. Tse, A.A. Gewirth

9:10 CATL 36. Analysis of the mechanism of electrochemical oxygen reduction and development of alloy catalysts for low temperature fuel cells. S. Lincic

9:50 Intermission.

10:10 CATL 37. Electrochemical interfaces, electrocatalysis and green energy. P. Lopes, D. Strmcnik, V. Stamenkovic, N. Markovic

10:50 CATL 38. Perfluorinated alkylamine modified Pt nanoparticles as hyperactive ORR electrocatalyst for fuel cell application. P. Joshi, M. Miyake, K. Miyabayashi

11:10 CATL 39. Enabling sustainable non noble metal electrocatalysts for oxygen reduction reaction. S. Mukerjee, Q. Jia

11:50 CATL 40. Withdrawn.

Section F

Walter E. Washington Convention Center Room 140B

Catalysis at the Sub-Nanometer Scale Activity of Highly Dispersed Catalysts

H. Xin, *Organizer*

A. M. Karim, *Organizer, Presiding*

8:30 CATL 41. Ligand-free sub-nanometer metal clusters for catalysis in organic synthesis. A. Leyva-Perez, A. Corma, M.A. Rivero-Crespo, M. Tejada-Serrano

8:55 CATL 42. Tailoring mesoporous silica nanoparticles for robust immobilization of lipase and biocatalysis. M. Kalantari

9:15 CATL 43. *In-situ* surface/bulk spectroscopic and kinetic investigations of alcohol conversions over metal oxide catalysts. S. Tan, Y. Cheng, L. Daemen, D. Lee, H. Lee, Y. Ma, B. Doughty, D.A. Lutterman

9:40 CATL 44. Infrared spectroscopic studies of propene and propene oxide uptake, binding, and reactivity on TiO₂-SiO₂ binary catalysts. D.M. Driscoll, N.S. Sapiezna, J.R. Morris

10:00 Intermission.

10:20 CATL 45. Conversion of CO₂ into useful fuels using Cu₂/TiO₂ photocatalysts. N.A. Deskins, S. Iyemperumal

10:45 CATL 46. Methanol synthesis from CO₂ over size-selected sub-nanometer copper catalyst: Cluster size vs charge transfer. B. Yang, C. Liu, A. Halder, E. Tyo, S. Seifert, P. Zapol, L.A. Curtiss, S. Vajda

11:10 CATL 47. Pt-Ni nanoscale catalysts synthesized by atomic layer deposition for complete reduction of C=C and C=O bonds in oleic acid without using H₂ and a solvent. J. Fu, H. Chen, X. Lu

Electrochemical Technologies for Water Purification

Sponsored by ENVR, Cosponsored by CATL and CEI

Energy & Fuels Storch Award in Fuel Science: Symposium in honor of Umit S. Ozkan

Sponsored by ENFL, Cosponsored by CATL

SUNDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 101

Catalytic Transformation of Renewable Plant Biomass to Enhance Global Economy

Cosponsored by ENFL

N. Yan, X. Zhang, *Organizers, Presiding*

1:30 CATL 48. What is lignin recalcitrance? A critical analysis of lignins derived from mechanocatalytic biorefining and organosolv process. R. Rinaldi

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2:00 CATL 49. Selective production of arenes via direct lignin upgrading over a niobium-based catalyst. Y. Wang, Y. Shao, S. Yang, Y. Cheng

2:30 CATL 50. Mechanochemical synthesis of nanocatalysts for biomass conversion. R. Luque

3:00 CATL 51. Microwaves and catalysis for the fast and selective valorisation of biomass: From hydrolysis to oxidation and hydrogenation reactions. J.A. Lopez-Sanchez

3:30 Intermission.

3:45 CATL 52. Continuous catalytic production of deoxygenated hydrocarbon fuels from biomass pyrolysis oil. J. Ha

4:15 CATL 53. Hydrotreating of in situ catalytic fast pyrolysis bio-oil. H. Wang, D. Santosa, F.A. Agblevor

4:35 CATL 54. Valorization of nanoscale lignin extracted from agricultural biomass by deep eutectic solvents (DES). R. Lou, X. Zhang

4:55 CATL 55. Stability of heterogeneous heteropolyacids for muconic acid upgrading. A. Settle, J.H. Cooper, L. Berstis, K. Kinley, H. Hu, G. Beckham, R.M. Richards, D. Vardon

Section B

Walter E. Washington Convention Center Room 102B

Mixed Metal Oxide Catalysis

C. Alvarez-Vasco, K. K. Ramasamy, I. E. Wachs, *Organizers*

R. Fushimi, D. Shekhawat, *Organizers, Presiding*

1:30 CATL 56. Tuning the electrochemical activity of layered nickelate oxides for oxygen reduction: Effect of surface termination and composition. E. Nikolla

2:00 CATL 57. Understanding and controlling the activity and stability of Pd/Pt oxide catalysts for methane activation. M. Cargnello, E. Goodman, A. Yang, S. Dai, C. Wrasman, S. Bare, A. Hoffman, G. Graham, X. Pan

2:30 CATL 58. CeO₂/TiO₂(110) and RuO₄/TiO₂(110) as active systems for CO oxidation, the water-gas shift and CO₂ hydrogenation reactions. J. Rodriguez

2:50 CATL 59. Syntheses of high yield MMO catalyst for direct propane oxidation to acrylic acid. J. Xu, L. Bogan

3:10 Intermission.

3:25 CATL 60. Olefin metathesis by supported MoO₃/Al₂O₃ catalysts. A. Chakrabarti, I.E. Wachs

3:45 CATL 61. Catalytic dehydrogenative coupling of amines. D. Ainembabazi, N. Tiedemann, A. Voutchkova

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

4:05 CATL 62. Introducing trace potassium as the electronic and structural modifier to enhance the oxidation of Co₃O₄ catalyst. C. Wang, W. Wang, W. Li, Y. Guo, Y. Guo, G. Lu

4:25 CATL 63. One pot green syntheses of CuO-Cu₂O/g-C₃N₄ nanosheets for enhanced catalysis of nitroarenes. T. Aditya, T. Pal

Section C

Walter E. Washington Convention Center Room 102A

Metal-Support Interactions in Catalysis: Modeling, Characterization & Design

T. Duchon, S. D. Senanayake, *Organizers*

A. Bruix, *Organizer, Presiding*

1:30 CATL 64. Fluxionality and statistical ensemble nature of surface-supported cluster catalysts. A. Alexandrova

2:05 CATL 65. Identifying the active site of the water-gas shift reaction over platinum based catalysts. A. Heyden, E. Walker, S. Ammal

2:40 CATL 66. Computational modeling of catalytic metal/metal-oxide nanostructures. K. Neyman

3:15 Intermission.

3:30 CATL 67. Adsorption energy correlations at the metal-support boundary. P. Mehta, J.P. Greeley, W. Delgass, W.F. Schneider

3:50 CATL 68. Hydrogenation of CO₂ to C1 (CO, CH₄, CH₃OH) molecules on oxide-supported catalysts. S. Kattel, J.G. Chen, P. Liu

4:25 CATL 69. Study of the interface between Al₂O₃ and Pt (111) by DFT calculations and high-resolution TEM. K. Oware Sarfo, A.L. Clauser, Z.D. McClure, M. Santala, L. Arnadottir

4:45 CATL 70. Metal-ceria interactions and the catalytic activity for hydrogen production and methane dry reforming: A theoretical perspective. M. Ganduglia-Pirovano, P. Lustemberg, J. Carey, M. Nolan

Section D

Walter E. Washington Convention Center Room 103B

Cooperative Catalysis at Surfaces & Interfaces: Impact on Chemistry & Energy Frontiers

Photocatalysis & Oxide Catalysis
Cosponsored by ENFL

M. Cargnello, *Organizer*

Z. Wu, S. Zhang, *Organizers, Presiding*

1:30 CATL 71. Coupling solar energy into catalytic organic synthesis. Y. Xiong

2:00 CATL 72. Quantification of acid site densities on zeolites in the presence of solvents via determination of extinction coefficients of adsorbed pyridine. N. Gould, B. Xu

2:20 CATL 73. Beautiful surface chemistry behind efficient catalysis. W. Huang

2:50 CATL 74. Cooperative defect/surface mechanism in deoxygenation reactions over reducible metal oxides. X. Xiao, B. Johnson, H. Bergstrom, C. Hargus, A. Peterson

3:10 Intermission.

3:20 CATL 75. Bifunctional strategy coupling Y₂O₃ catalyzed alkanal decomposition with methanol-to-olefins catalysis for enhanced lifetime. A. Bhan

3:50 CATL 76. Kinetics and mechanism of methanol conversion over anatase titania nanoshapes. G. Foo, G. Hu, Z.D. Hood, M. Li, D. Jiang, Z. Wu

4:10 CATL 77. Fundamental studies on CO₂ hydrogenation and the low-temperature water-gas shift reaction on metal-carbide interfaces. J. Rodriguez

4:40 CATL 78. Support effect in oxide catalysis: Methanol oxidation on vanadia/ceria. T. Kropp, J.A. Paier, J. Sauer

5:00 CATL 79. Cooperativity between acid-base and redox sites on metal oxide surfaces. D.R. Mullins

Section E

Walter E. Washington Convention Center Room 140A

Advanced Electrocatalysis for Energy Conversion & Storage

Oxygen Reduction & Evolution

A. B. Padmaperuma, C. Wang, B. Xu, *Organizers*

A. Holewinski, *Organizer, Presiding*

N. Danilovic, *Presiding*

1:30 CATL 80. Development of electrocatalysts for energy technologies. G.L. Soloveichik

2:10 CATL 81. Withdrawn.

2:30 CATL 82. Iridium on Steroids: using rigid, polycyclic, aliphatic molecules as non-conductive linkers to bind catalytic centers to metal oxide semi-conductors. A. Bloomfield, S. Chaudhuri, S. Hedstrom, V.S. Batista, R.H. Crabtree

2:50 Intermission.

3:10 CATL 83. Understanding the active sites and reaction mechanism for oxygen electrocatalysis on ruthenium dioxide surfaces. R. Rao, Y. Shao-Horn

3:50 CATL 84. Exceptional electrocatalytic oxygen evolution via tunable charge transfer interactions in Ruddlesden-Popper oxides. R.P. Forslund, K.P. Johnston, A.M. Abakumov, A.M. Kolpak, K.J. Stevenson

4:10 CATL 85. Water oxidation in strong acid using cobalt-based POMs as catalysts. M. Tao, Q. Yin, C.L. Hill

4:30 CATL 86. Towards a solar fuels future: Theoretical metrics for photoelectrocatalyst screening. J. Montoya, A. Singh, S. Dwaraknath, K. Persson

Section F

Walter E. Washington Convention Center Room 140B

Catalysis at the Sub-Nanometer Scale

Synthesis, Characterization & Mechanisms

A. M. Karim, *Organizer*

H. Xin, *Organizer, Presiding*

1:30 CATL 87. Highly efficient oxygen reduction electrocatalyst derived from electrospun interconnected Co-N/C nanofiber networks. N. Wenjun

1:50 CATL 88. Electrochemical oxygen reduction by atomically dispersed Pt on sulfur-doped zeolite-templated carbons: Selective production of H₂O₂ instead of H₂O. M. Choi, H. Kim, C. Choi

2:15 CATL 89. Influence of phosphine substitution on the synthesis and properties of gold clusters. G.E. Johnson, J. Laskin, U. Reveles, M. Ligare

2:45 CATL 90. Machine learning guided interpretation of X-ray absorption data for ultradispersed catalysts. J. Timoshenko, D. Lu, S. Yoo, A. Frenkel

3:10 Intermission.

3:30 CATL 91. Spectroscopic signatures and reactivity of CO adsorbed to Pt atoms, Pt oxide clusters, and metallic Pt clusters on anatase TiO₂. P. Christopher

4:10 CATL 92. Insights from global optimization and ab initio thermodynamics on inverse catalysts: The case of Cu-supported ZnO clusters. T. Reichenbach, M. Walter, M. Moseler, B. Hammer, A. Bruix

4:35 CATL 93. Density-functional modeling of materials for single-atom catalysis based on nanostructured ceria. K. Neyman

Electrochemical Technologies for Water Purification

Sponsored by ENVR, Cosponsored by CATL and CEI

Energy & Fuels Storch Award in Fuel Science: Symposium in honor of Umit S. Ozkan

Sponsored by ENFL, Cosponsored by CATL

Environmental Applications of Liquid Phase Catalysis for Green Chemical Processes of Renewable Materials

Sponsored by ENVR, Cosponsored by CATL and ENFL

MONDAY MORNING

Section A

Walter E. Washington Convention Center Room 101

Catalytic Transformation of Renewable Plant Biomass to Enhance Global Economy

Cosponsored by ENFL

N. Yan, X. Zhang, *Organizers, Presiding*

8:30 CATL 94. Recalcitrance: The plant cell wall and cellulosic biofuels. A.J. Ragauskas

9:00 CATL 95. Depolymerization of cellulose by carbon catalysts. A. Fukuoka

9:30 CATL 96. Stabilization with aldehydes for the high yield production of targeted monomer mixtures from lignin during integrated biomass depolymerization. J. Luterbacher

10:00 CATL 97. Catalytic conversion of glucose and industrial-grade sugars derived from corn and wood into 5-HMF in a biphasic continuous-flow tubular reactor. C.C. Xu

10:30 Intermission.

10:45 CATL 98. Catalytic conversion of bioethanol to 1,3-butadiene using bifunctional catalysts: The role of active sites via in situ spectroscopy. W. Taifan, J. Baltrusaitis

11:05 CATL 99. Guerbet ethanol coupling over a stable Cu-MgO-Al₂O₃ catalyst. **K.K. Ramasamy, M. Gray, M. Guo**

11:25 CATL 100. Chemocatalytic production of ethanol from lignocellulose via methyl glycolate. **A. Wang**

11:45 CATL 101. Catalytic conversion of bioderived muconic acid to produce adipic acid and dimethyl terephthalate. **D. Vardon, A. Settle, L. Berstis, S. Christensen, N. Cleveland, K. Kinley, J. Cooper, H. Hu, M.F. Crowley, R.M. Richards, G. Beckham**

Section B

Walter E. Washington Convention Center Room 102B

Mixed Metal Oxide Catalysis

K. K. Ramasamy, I. E. Wachs, Organizers

C. Alvarez-Vasco, R. Fushimi, D. Shekhawat, Organizers, *Presiding*

8:30 CATL 102. Understanding elemental steps in conversion of alcohols and diols on model early transition metal oxide catalysts. **Z. Dohnalek**

9:00 CATL 103. Uniform sites in dispersed metal oxide catalysts for olefin polymerization, metathesis, and oxidation. **S.L. Scott**

9:30 CATL 104. In situ Raman spectroscopic analysis during coal oxidation over hematite and taconite in the chemical looping process. **D. Miller, M.W. Smith, D. Shekhawat**

9:50 CATL 105. Effect of dopants in the support of copper-ceria catalysts on the performance for preferential CO oxidation in H₂-rich stream. **J. Oh, J. Bae**

10:10 Intermission.

10:25 CATL 106. Heterojunction of TiO₂ nanoparticle embedded into ZSM-5 to layer-structured MoS₂ fabricated by pulsed laser ablation and microwave technique in deionized water: Application in drinking water purification. **A. Balati, H.J. Shipley, K. Nash**

10:45 CATL 107. Oxidative dehydrogenation at MoVO_x materials: Understanding the electronic structure from various DFT approaches. **T. Fjermestad, W. Li, G. Rugg, A. Genest, N. Roesch**

11:05 CATL 108. Ternary oxide semiconductor nanostructures for photoelectrochemistry and photocatalysis. **A. Varga, G.F. Samu, K. Rajeshwar, C. Janaky**

11:25 CATL 109. Routes to ternary molybdenum oxide catalysts based on bimetallic complexes. **A.W. Apblett, A.M. Moneeb, A. Bagabas, A. Alabdulrahman**

11:45 CATL 110. Computational studies on the surface structure and reactivity of mixed metal oxide catalysts: VO_x/TiO₂, SrO_x/La₂O₃, and PdO_x/Co₃O₄ for CH₃OH and CH₄ oxidation. **S. Li, S. Wang, N. Li, L. Cong, C. Zhao**

Section C

Walter E. Washington Convention Center Room 102A

Metal-Support Interactions in Catalysis: Modeling, Characterization & Design

A. Bruix, T. Duchon, Organizers

S. D. Senanayake, Organizer, *Presiding*

8:30 CATL 111. Manganese promotion of rhodium-based nanocatalysts. **P.C. Carrillo, M.G. White**

8:50 CATL 112. ¹⁸O and ¹⁶O oxygen exchange on model Rh/CeO₂ and Rh/CeO_xFy systems. **M. Kettner, T. Duchon, P. Kus, V. Nehasil**

9:10 CATL 113. Adsorbate-mediated strong metal-support interactions in supported Rh catalysts. **P. Christopher**

9:45 CATL 114. Low-temperature methane combustion over Pd/H-ZSM-5: Chemical state of Pd modulated by acidic sites of H-ZSM-5. **Y. Guo, J. Ma, Y. Lou, W. Wang, H. Zhao, W. Hu, W. Li, W. Zhan, Y. Guo, P. Hu, G. Lu**

10:20 Intermission.

10:35 CATL 115. Hierarchical catalyst design based on metal-support interactions. **I.I. Slowing**

11:10 CATL 116. Impact of interfacial charge transfer on the performance of Pd/C catalysts. **R.G. Rao, R. Blume, T. Hansen, E. Fuentes, K. Dreyer, D. Hibbitts, Y.J. Chabal, R. Schloegl, J. Tessonier**

11:30 CATL 117. Nanocatalysts for Syngas conversion to higher hydrocarbons using Si-microreactor. **T.L. Davis, R. Abrokwhah, T. Hossain, N. Mohammad, V.G. Deshmane, S. Woosley, S. Aravamudhan, D. Mainardi, D. Kuila**

11:50 CATL 118. Metal-ligand complexation through redox assembly at surfaces characterized by vibrational spectroscopy. **C.G. Williams, M. Wang, D. Skomski, C. Tempas, L.L. Kesmodel, S.L. Tait**

Section D

Walter E. Washington Convention Center Room 103B

Cooperative Catalysis at Surfaces & Interfaces: Impact on Chemistry & Energy Frontiers

Oxide Catalysis

Cosponsored by ENFL

M. Carnello, S. Zhang, Organizers

Z. Wu, Organizer, *Presiding*

M. Carnello, *Presiding*

8:30 CATL 119. Activation of the carbon-hydrogen bond by oxides and halides. **H. Metiu, S. Chretien, H. Kristoffersen**

9:00 CATL 120. Cooperative catalysis at solid-liquid interfaces of non-innocent supports. **I.I. Slowing**

9:20 CATL 121. Single facet nano-shaped materials as model catalysts for alcohol conversion. **Y. Wang**

9:50 CATL 122. K₂O/WO₃/Al₂O₃ catalyst structure for sour natural gas treatment. **B. Li, M. Zhu, J. Jehng, I.E. Wachs, Z. Wu, J. Baltrusaitis**

10:20 Intermission.

10:35 CATL 123. Metal-support cooperativity in dispersed Re catalysts for olefin metathesis. **S.L. Scott**

11:05 CATL 124. Role of Lewis and Brønsted acid sites of alumina in the activation of methyltrioxorhenium (MTO) for olefin metathesis. **F. Zhang, K.C. Szeto, L. Delevoeye, R. Gauvin, M. Taoufik, S.L. Scott**

11:25 CATL 125. Selectivity control of acid-base reaction via surface reconstruction of perovskite catalysts. **F. Polo Garzon, S. Yang, V. Fung, G. Foo, E.E. Bickel, M.F. Chisholm, D. Jiang, Z. Wu**

11:45 CATL 126. Cooperativity between nanoparticles and supports for sintering-resistance catalysts through nanostructured materials. **S. Dai**

Section E

Walter E. Washington Convention Center Room 140A

Advanced Electrocatalysis for Energy Conversion & Storage

CO₂ Reduction & Hydrogen Evolution

A. Holewinski, A. B. Padmaperuma, C. Wang, Organizers

B. Xu, Organizer, *Presiding*

C. Wang, *Presiding*

8:30 CATL 127. Proton reduction using hydrogenase-modified silicon photoelectrodes. **N.C. Anderson, N.R. Neale, P.W. King**

8:50 CATL 128. Giant core/shell quantum dots for efficient and stable photoelectrochemical solar hydrogen production. **R. Adhikari, K. Basu, Y. Zhou, F. Vetrone, D. Ma, S. Sun, F. Vidal, H. Zhao, F. Rosei**

9:10 CATL 129. Water splitting and the making of renewable chemicals. **I. Chorkendorff**

9:50 Intermission.

10:10 CATL 130. Factors affecting the activity and selectivity of Cu for the electrochemical reduction of CO₂. **A.T. Bell**

10:50 CATL 131. Effect of the interlayer spacing and charge of 1T-MoS₂ on the electrocatalytic activity for the hydrogen evolution reaction. **N.H. Attanayake, A.C. Thenuwara, A. Patra, Y. Aulin, H. Chakraborty, E. Borguet, M.L. Klein, J.P. Perdew, D.R. Strongin**

11:10 CATL 132. Electrocatalysts for efficient and selective reduction of CO₂ to ethylene. **P.J. Kenis, S. Verma, A.A. Gewirth**

11:50 CATL 133. Highly dense Cu nanowires for electrochemical conversion of CO₂. **D. Raciti, C. Wang**

Section F

Walter E. Washington Convention Center Room 140B

2017 ACS Catalysis Lectureship for the Advancement of Catalytic Science

V. A. Schmidt, Organizer

D. J. Mindiola, Organizer, *Presiding*

8:00 Introductory Remarks.

8:10 CATL 134. Establishing trends in actinide bonding using redox-active ligands. **S.C. Bart, S.A. Pattenaude, S.S. Galley, T.E. Albrecht-Schmitt**

8:35 CATL 135. Catalytic reactions in complex molecular environments. **S.J. Miller**

9:00 CATL 136. New strategies for catalytic C-H activation via metal-oxo and metal-hydroxo intermediates. **J.T. Groves**

9:25 Intermission.

9:40 CATL 137. Innovation at Merck Process R&D via discovery and development of new catalytic reactions. **R. Ruck**

10:05 CATL 138. Electrocatalytic ammonia splitting at ambient temperatures. **M.R. Smith**

10:30 CATL 139. Radical-type reactivity derived from redox non-innocence in the (dad)Ti(L/X) system. **P.T. Wolczanski, S.P. Hines, S.N. MacMillan, T. Cundari**

10:55 CATL 140. Photosensitization of organometallic catalysis: Switching on new reactions of value to medicinal and process chemists. **D.W. MacMillan**

11:20 CATL 141. Catalysis with earth abundant transition metals: The interplay of electronic structure and applications. **P.J. Chirik**

Energy & Fuels Storch Award in Fuel Science: Symposium in honor of Umit S. Ozkan

Sponsored by ENFL, Cosponsored by CATL

Environmental Applications of Liquid Phase Catalysis for Green Chemical Processes of Renewable Materials

Sponsored by ENVr, Cosponsored by CATL and ENFL

MONDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 101

Advances in Computational Catalysis

G. Mpourmpakis, R. Surendran Assary, Organizers, *Presiding*

1:00 Introductory Remarks.

1:05 CATL 142. In silico prediction of materials for energy applications. **D.G. Vlachos**

1:35 CATL 143. Improving catalysts by unearthing the reactions that hinder catalysis. **P.M. Zimmerman**

2:05 CATL 144. Computational design of advanced nanoalloy materials for catalysis and beyond. **K. Neyman**

2:35 Intermission.

2:50 CATL 145. Kinetic modeling of dual-site catalysts: Limitations and prospects. **M.J. Janik**

3:20 CATL 146. Computational catalysis in complex environments. **K. Johnson, L. Li, J. Ye, N. Vo, A. Bahusetty, D. Lambrecht**

3:50 CATL 147. Insights into Pd-catalyzed aerobic alcohol oxidation via first-principles microkinetic analysis. **J.R. Schmidt**

4:10 Concluding Remarks.

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

Section B

Walter E. Washington Convention Center Room 102B

Emerging Catalytic Processes for Methane Conversion

Cosponsored by ENFL

D. Liu, *Organizer*

E. Hensen, Y. Lei, *Organizers, Presiding*

X. Bao, D. Liu, *Presiding*

1:00 CATL 148. How do Ru and Ni surfaces catalyze methane decomposition? New insights for catalyst design. R.L. Arevalo, S.M. Aspera, M.S. Escano, H. Nakanishi, H. Kasai

1:20 CATL 149. Catalytic transformation of methane to acetic acid under mild conditions. F. Tao

1:50 CATL 150. Partial oxidation of methane to oxygenates using bi- and trimetallic Au/Pd/Cu catalysts. M. Ab Rahim, R.D. Armstrong, S. Freakley, S. Taylor, G. Hutchings

2:20 CATL 151. Direct conversion of natural gas to products: Challenges and opportunities for the field of catalysis. A.T. Bell

2:55 Intermission.

3:10 CATL 152. Simplicity and the complexity of the direct methane to methanol conversion. J. van Bokhoven

3:45 CATL 153. Tailoring conversion and selectivity of non-oxidative activation of methane via hydrogen-permeable tubular membrane reactor. D. Liu, M. Sakbodin, E.D. Wachsman

4:15 CATL 154. Selective oxidation of methane to methanol in zeolites: A window of opportunity. A. Kulkarni

Section C

Walter E. Washington Convention Center Room 102A

Metal-Support Interactions in Catalysis: Modeling, Characterization & Design

A. Bruix, T. Duchon, S. D. Senanayake, *Organizers*

S. Jatib Khatib, *Presiding*

1:30 CATL 155. Growth and surface chemistry of IrO₂. Z. Liang, T. Li, M. Kim, R. Rai, A.R. Asthagiri, J.F. Weaver

2:05 CATL 156. Comparison of growth and sintering of monometallic and bimetallic nanoparticles over reducible CeO₂(111) thin films: Effect of metal-support interactions. J. Zhou

2:40 CATL 157. Catalysis at multiple length scales: Crotonaldehyde hydrogenation at nanoscale and mesoscale interfaces in platinum-cerium oxide catalysts. L. Baker, Y. Mueangnarn, X. Yang, Y. Tang, F. Tao

3:15 Intermission.

3:30 CATL 158. Confined nanocatalysts in nanotubes produced by atomic layer deposition. Y. Qin, Z. Gao, B. Zhang, C. Chen

3:50 CATL 159. Acetaldehyde from Bioethanol oxidation: Describing synergy between metal and supports (ZrO₂ and CeO₂). P.H. Rana

4:10 CATL 160. Electronic metal-support interactions and the production of hydrogen through the water-gas shift and the reforming of alcohols or methane. J. Rodriguez

4:45 CATL 161. Orientation-dependent redox properties of ceria-copper interface. T. Duchon, J. Höcker, J. Hackl, M. Aulicka, K. Veltuska, V. Matolin, J. Falta, S. Nemsak, C.M. Schneider, J. Flege

Section D

Walter E. Washington Convention Center Room 103B

Cooperative Catalysis at Surfaces & Interfaces: Impact on Chemistry & Energy Frontiers

Metal Catalysis

Cosponsored by ENFL

M. Cargnello, S. Zhang, *Organizers*

Z. Wu, *Organizer, Presiding*

M. Cargnello, *Presiding*

1:30 CATL 162. Amine-modified silicates as acid/base bifunctional catalysts and catalyst supports. C.W. Jones

2:00 CATL 163. Investigation of Pd-Ceria catalysts for selective hydrogenation of acetylene in ethylene. W. Xie

2:20 CATL 164. Interfacial chemistry of metal nanocatalysts. N. Zheng

2:50 CATL 165. Influence of co-adsorbates on metal-reducible oxide interfacial sites for selective C-O cleavage reactions. L.V. Herrera, T. Omotoso, N. Briggs, L. Grabow, S. Crossley

3:10 Intermission.

3:20 CATL 166. Engineering the Pt/CeO₂ interface for the development of advanced catalysts. Y. Xia

3:50 CATL 167. *In-situ* transmission electron microscopy with atomic resolution at atmospheric pressure. X. Pan, S. Dai, S. Zhang, G. Graham

4:20 CATL 168. Introducing time resolution to detect Ce³⁺ catalytically active sites at the Pt/CeO₂ interface through ambient pressure x-ray photoelectron spectroscopy. L. Artiglia, F. Orlando, K. Roy, R. Kopelent, O. Safonova, M. Nachtegaal, T. Huthwelker, J. van Bokhoven

4:40 CATL 169. Support-induced control of surface composition in bimetallic catalytic particles. P. Christopher

5:10 CATL 170. Acceptorless dehydrogenation of glycerol by single-site heterogeneous catalysis. M. Finn, J. Heltzel, A. Voutchkova

Section E

Walter E. Washington Convention Center Room 140A

Advanced Electrocatalysis for Energy Conversion & Storage

Electrochemical Conversion of Organic Molecules & other Reactions

A. Holewinski, C. Wang, B. Xu, *Organizers*

A. B. Padmaperuma, *Organizer, Presiding*

C. Wang, *Presiding*

1:30 CATL 171. Low temperature chemical transformations using electrocatalyst. J. Holladay, M. Lilga, A. Padmaperuma, S. Akhade, J. A Lopez-Ruiz, M. Swita, T. Lemmon

2:10 CATL 172. Exploring catalyst for the ethanol oxidation reaction. Y. Liu, C. Wang

2:30 CATL 173. Deposited Au nanoparticles on high-index facets of PtNi concave-nanocubes for high-performance methanol oxidation reaction. L. Yu, Y. Jiang, H. Zhuo, K. Yu, J. Yong, X. Zhang

2:50 Intermission.

3:10 CATL 174. Computational modeling of electrochemical pyrolysis-oil upgrading. D. Cantu, M. Nguyen, S. Akhade, M. Lee, Y. Wang, Y. Yoon, A. Padmaperuma, M. Lilga, V. Glezakou, R. Rousseau

3:50 CATL 175. Inorganic nanocatalysts for the electronic power circulation using alcohol/carboxylic acid redox couples. M. Yamauchi, S. Kitano, M. Sadakiyo

4:10 CATL 176. Zeolitic imidazolate-frames derived nitrogen-doped graphene/cobalt-embedded porous carbon polyhedron hybrid as trifunctional electrocatalyst for oxygen reduction and water splitting. Y. Hou, Z. Wen, S. Cui, J. Chen

4:30 CATL 177. Mechanistic insight into sulfide-enhanced oxygen reduction reaction activity and stability of commercial Pt black: An *in situ* Raman spectroscopic study. Y. Wang, D. Chen, Y. Tong

Section F

Walter E. Washington Convention Center Room 140B

2016 ACS Catalysis Lectureship for the Advancement of Catalytic Science: Honoring Matthias Beller

B. de Bruin, *Organizer, Presiding*

1:30 CATL 178. New developments in homogeneous hydro-generation. J.G. De Vries

1:55 CATL 179. Earth abundant transition metal catalysis for CO₂ and CO conversion. T. Skydstrup

2:20 CATL 180. Reductive iron catalysis and nanocluster formation. A. von Wangelin

2:45 CATL 181. C-N and C-C bond formation *via* selective functionalization of saturated cyclic amines. C. Bruneau

3:10 Intermission.

3:30 CATL 182. Site-Selective oxidation, amination and epimerization reactions of complex polyols enabled by transfer hydrogenation. C.K. Hill, J.F. Hartwig

3:55 CATL 183. Metal ligand cooperation in catalyzed dehydrogenations. H. Grützmacher

4:20 CATL 184. Biocatalytic asymmetric amination and C-C bond formation. W. Kroutil, N.G. Schmidt, S. Payer, L. Hammerer, S. Velikogne, E. Eger, J. Farnberger, M. Fuchs, J. Pletz, J. Schrittwieser, C. Winkler

4:45 CATL 185. Building bridges between homogeneous and heterogeneous catalysis: What can we learn from each other? M. Beller

Intellectual Property Considerations When Entering into a Joint Venture

Sponsored by CHAL, Cosponsored by CATL, CELL, ENFL and SCHB

Eminent Scientist Lecture

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Nano-Enabled Water Treatment Technologies: Applications & Implications

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Energy & Fuels Storch Award in Fuel Science: Symposium in honor of Umit S. Ozkan

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Heterogeneous Catalysis for Environmental & Energy Applications

Sponsored by ENVR, Cosponsored by CATL

MONDAY EVENING

Section A

Walter E. Washington Convention Center Halls D/E

Sci-Mix

K. K. Ramasamy, *Organizer*

8:00 - 10:00

20, 35, 42, 55, 61, 63, 67, 72, 74, 83-85, 105-106, 112, 118, 131, 163, 170, 177. See previous listings.

235-236, 246, 321, 336, 340, 356, 360, 376, 386, 388, 396, 399, 406, 415, 435, 438, 441-442, 444, 447, 451-452, 461, 463, 472, 478. See subsequent listings.

TUESDAY MORNING

Section A

Walter E. Washington Convention Center Room 101

Advances in Computational Catalysis

G. Mpourmpakis, R. Surendran Assary, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 CATL 186. Machine learnt molecular simulation models for catalyst design. B. Narayanan, H. Chan, M. Cherukara, S. Sankaranarayanan

9:05 CATL 187. Machine (&Human!) learning in catalyst discovery. Z. Li, S. Wang, H. Xin

9:35 CATL 188. High-throughput workflows for determining adsorption energies on solid surfaces. J. Montoya, K. Persson

9:55 CATL 189. Developing structure activity relationships in the dehydrogenation of alkanes on oxides. M. Dixit, G. Mpourmpakis

10:15 Intermission.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

‡Cooperative Cosponsorship

10:30 CATL 190. Withdrawn.

11:00 CATL 191. Heterolytic splitting of molecular hydrogen by frustrated and classical Lewis pairs: A unified reactivity concept. G. Skara, F. De Vleeschouwer, P. Geerlings, F.J. De Proft, **B. Pinter**

11:20 CATL 192. Mo₂C catalysts for the upgrading of furan in biooil for fuel applications. **D. Pahls**, B. Narayanan, R.S. Assary, L.A. Curtiss

11:40 CATL 193. Potential energy surface of glucopyranose reactions with hydrogen cation, mechanistic propositions. **M.K. Ghosh**, M.S. Howard, K. Dussan, S. Dooley

12:00 Concluding Remarks.

Section B

Walter E. Washington Convention Center Room 102B

Emerging Catalytic Processes for Methane Conversion

Cosponsored by ENFL

D. Liu, *Organizer*

E. Hensen, Y. Lei, *Organizers, Presiding*

X. Bao, D. Liu, *Presiding*

8:30 CATL 194. Photocatalytic methane steam reforming over defect-rich TiO₂. **A.M. Pennington**, A. Hook, R.A. Yang, F.E. Celik

8:50 CATL 195. Characterization of MoVTeNbO_x catalysts during oxidation reactions using *In situ/Operando* techniques. **A.M. Gaffney**

9:20 CATL 196. Partial oxidation of light alkanes by iodine oxides. **T.B. Gunnoe**, J.T. Groves, W.A. Goddard, N. Schwartz, N. Boaz, R. Fu, R.J. Nielsen, G. Fortman, S.E. Kalman

9:50 CATL 197. New fundamental molecular level insights into oxidative coupling of methane (OCM) by SiO₂-supported tungstate catalysts. **M. Zhu**, Z. Fink, W. Taitan, M. Ford, F. Tielen, J. Baltrusaitis, **I.E. Wachs**

10:25 Intermission.

10:40 CATL 198. Fundamental research on direct methane conversion: An industrial perspective. **S. van Bavel**

11:10 CATL 199. Modular chemical process intensification: Enabler for gas conversion. **J. Bielenberg**

11:40 CATL 200. Direct methane conversion to aromatics. **Y. Liu**, T. Wang, **T. Xu**, Y. Zhang

12:10 CATL 201. Methane dehydroaromatization over Mo/ZSM-5 catalyst: Effect of residual charge on reaction energy profiles of Mo₂C₂ and Mo₂C₆ nanoclusters. **T. Khan**, S. Mishra, S. Balyan, K.K. Pant, **M. Haider**

Section C

Walter E. Washington Convention Center Room 102A

Metal-Support Interactions in Catalysis: Modeling, Characterization & Design

A. Baber, A. Bruix, S. D. Senanayake, *Organizers*

T. Duchon, *Presiding*

8:30 CATL 202. Nanoparticle synthesis via electrostatic adsorption using incipient wetness impregnation. **S. Eskandari**, J.R. Regalbuto

8:50 CATL 203. Unbiased photocatalytic hydrogen generation from pure water on stable Ir-treated In_{0.33}Ga_{0.67}N nanorods. **M. Ebaid**, T. Isimjan, T. Ng, B. Ooi, H. Idriss

9:25 CATL 204. Mechanistic studies of oxidation reactions on supported vanadia catalysts. **E. Weitz**, W. Wu, K. Ding, T. Drake, S. Kwon, P.C. Stair

10:00 Intermission.

10:15 CATL 205. Modifying surface coverage to improve WGS activity and sulfur-dependence of ZrO₂ supported Mo catalysts. **S. Yun**, V.V. Gullants

10:35 CATL 206. Topotactic growth of edge-terminated MoS₂ from MoO₂ nanocrystal surfaces. **M. Brorson**, C. Dahl-Petersen, M. Šarić, P. Moses, J. Rossmeisl, J. Lauritsen, S. Helveg

11:10 CATL 207. Catalytic aromatization of methane: Strategies for improving active chemistry, mitigation of coke formation and sustaining selectivity to benzene. **S. J. Khatib**, M. Rahman, A. Sridhar, J. Tata, L. Harper

11:45 CATL 208. Enhanced higher alcohol synthesis via tuning the metal-support interaction using surfactant-encapsulated polymolybdate precursor. **J. Yong**, X. Luan, X. Dai, H. Qiao, Y. Yang, Y. Zhang, X. Zhang

Section D

Walter E. Washington Convention Center Room 103B

Cooperative Catalysis at Surfaces & Interfaces: Impact on Chemistry & Energy Frontiers

Metal Catalysis

Cosponsored by ENFL

M. Cargnello, Z. Wu, *Organizers*

S. Zhang, *Organizer, Presiding*

M. Cargnello, *Presiding*

8:30 CATL 209. Catalytic action at a distance: Hydrogen spillover over oxidic surfaces. **J.A. Van Bokhoven**

9:00 CATL 210. Identifying the active surface in bimetallic RuSn hydrogenation catalysts and the role of Sn. **V. Vorotnikov**, T.R. Eaton, A. Settle, E. Wegener, C. Yang, J.T. Miller, G. Beckham, D. Vardon

9:20 CATL 211. PdZn catalysts for the direct hydrogenation of CO₂ to methanol. **H. Bahruiji**, M. Bowker, G. Hutchings, W. Jones, D. Morgan, **R.D. Armstrong**

9:50 CATL 212. In situ synthesis of porous graphitic carbon nanosheets with immobilized ultra-fine PtNi intermetallic nanoparticles: Their outstanding catalytic capability for *p*-nitrophenol hydrogenation. **J. Zhang**

10:10 Intermission.

10:25 CATL 213. Promoting aldol addition by cooperative interactions in metal functionalized chitosan. **C. Khoury**, D. Shpasser, **O. Gazit**

10:55 CATL 214. Rational design of nanostructured supported catalysts for environmental and energy applications. **T. Shirman**

11:15 CATL 215. Effects of TiO₂ in low temperature propylene epoxidation using Au/SiO₂ catalysts. **Z. Lu**, Z. Wu, C. Turner, **Y. Lei**

11:45 CATL 216. Tailoring of metal-oxide interface by atomic layer deposition. **B. Zhang**, H. Liang, Y. Qin

12:05 Concluding Remarks.

Section E

Walter E. Washington Convention Center Room 140A

New Paradigm for Catalyst Design: From Enzymatic Function to Functional Mimics

B. Ginovska, M. J. O'Hagan, *Organizers*

S. Rauegi, *Organizer, Presiding*

8:30 CATL 217. Radical mechanism of the nickel enzyme methyl-CoM reductase, which catalyzes the synthesis and activation of methane. **S.W. Ragsdale**, A. Patwardhan, T. Wongnate, B. Ginovska, M. Wolf, L.J. Giles, J. Mock, P. Pimviriyakul, N. Lehnert, S. Rauegi, R. Sarangi

8:55 CATL 218. Insights on the mechanism of H₂ activation by [FeFe]-hydrogenases. **P.W. King**, D.W. Mulder, Y. Guo, M. Ratzloff

9:20 CATL 219. Electrochemical diversity of hydrogenases. **A.K. Jones**, S. Williams, Z. Nazemi, P. Kwan, J. Artz, C. McIntosh, D.W. Mulder, M. Ratzloff, P.W. King, M.W. Adams, J. Peters

9:45 CATL 220. Probing transient states in the catalytic cycle of [FeFe]-hydrogenases. **M. Winkler**, J. Duan, J. Esselborn, L. Kertess, D. Adam, U. Apfel, S.T. Stripp, T. Happe

10:10 Intermission.

10:25 CATL 221. Statistical fluctuations, dynamics, scaffolds, electric fields, and de novo enzyme catalysis. **T.L. Head-Gordon**

10:50 CATL 222. Small molecule activation: Nitrogenase as paradigm. **B.M. Hoffman**

11:15 CATL 223. Modulation of electron transfer in nitrogenase. **L.E. Johnson**, B. Ginovska, S. Rauegi

11:35 CATL 224. Mechanistic insights into energy conservation by flavin-based electron bifurcation. **J. Peters**, C. Lubner, D.P. Jennings, D.W. Mulder, G.J. Schut, O. Zadovornyy, J.P. Hoben, M. Tokmina-Lukaszewska, L. Berry, D. Nguyen, G. Lipscomb, B. Bothner, A.K. Jones, A.F. Miller, P.W. King, M.W. Adams

Section F

Walter E. Washington Convention Center Room 140B

Multimodal Characterization of Functional Energy Materials

Analyses

Cosponsored by ENFL

N. Rajput, *Organizer*

V. Murugesan, L. Trahey, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 CATL 225. Accelerating materials design and optimization for battery materials with a multi-modal approach. **K.T. Mueller**, K. Han, V. Murugesan, J.Z. Hu, N. Rajput, K. Persson

9:05 CATL 226. Structural characterizations with combined x-ray techniques in energy storage material applications. **X. Xiao**, Q. Liu, Y. Sun, C. Sun, Y. Ren, W. Liu, R. Xu, L. Trahey

9:35 CATL 227. Towards understanding and enabling magnesium batteries. **R. Mohtadi**, O. Tutusaus, T.S. Arthur

10:05 CATL 228. Expanding the scope of *in situ* techniques to probe amorphous electrocatalysts. **N. Kornienko**, P. Yang, E. Reisner

10:20 Intermission.

10:35 CATL 229. In-situ/operando multimodal soft x-ray characterization in energy science. **J. Guo**

11:05 CATL 230. *In situ and ex situ* NMR for battery research. **J.Z. Hu**, M. Hu, C. Wan, V. Murugesan, J. Zhang, K.T. Mueller

11:35 CATL 231. Multi-modal *operando* investigations of activities and phase transformations of supported Pd nanocatalysts during ethylene hydrogenation reaction. **Y. Li**, S. Zhao, D. Liu, A. Orlov, R.G. Nuzzo, E. Stach, A. Frenkel

11:50 CATL 232. Chemical imaging of redox active molecules in SEI layer of Li-S batteries using in-situ x-ray photoelectron spectroscopy. **M. Nandasiri**, A.M. Schwarz, V. Shuttthanandan, L.E. Camacho-Forero, P.B. Balbuena, T. Thevuthasan, K.T. Mueller, V. Murugesan

12:05 CATL 233. Magnetically interactive hierarchical assembly of GaFeO_x decorated vertically aligned ZnO nanorod arrays for enhanced visible photocatalytic activity. **R. Kugalur Shanmugam**, N. L. Raveendran, **R. Rajendrakumar**

Nano-Enabled Water Treatment Technologies: Applications & Implications

Sponsored by ENVIR, Cosponsored by CATL

TUESDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 101

Advances in Computational Catalysis

G. Mpourmpakis, *Organizer*

R. Surendran Assary, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 CATL 234. Density functional theory study of oxygen reduction reaction on non-precious transition metal/nitrogen doped carbon catalysts. **K. Liu**, G. Wang

1:35 CATL 235. Dehydrogenation mechanisms on γ -alumina supported platinum subnanometric-clusters: A DFT approach coupled with experimental kinetics study. **W. Zhao**, C. Chizallet, P. Galgouen, J. Verstraete, J. Lavy, P. Sautet, P. Raybaud

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1:55 CATL 236. Elucidating and correcting the unreliability of continuum solvation methods when modeling homogeneous reaction mechanisms. **Y. Basdogan, J.A. Keith**

2:15 CATL 237. Developing iridium-based alloys as effective catalysts by the combination of density functional theory and cluster expansion method. **L. Mehdizadegan Namin, N.A. Deskins, K. Yuge**

2:35 Intermission.

2:50 CATL 238. Theoretical insights into the effects of oxidation and transition metal-doping on the structure and properties of Pt-Ni nanocatalysts. **L. Cao, T. Mueller**

3:10 CATL 239. Engineering ligand-protected Au nanoclusters for CO₂ reduction. **N. Austin, G. Mpourmpakis**

3:30 CATL 240. Reaction mechanism of the selective reduction of CO₂ to CO by a tetraaza [Co^{II}N₄H(MeCN)]²⁺ complex. **A.J. Garza, O.O. Iyola, J.L. Mendoza-Cortez, A.T. Bell, M.P. Head-Gordon**

3:50 CATL 241. DFT study of biomimetic CO₂ hydration over M-C₂₅H₂₆/M-N₃-C₉₂H₂₆ graphene. **M. Verma, P. A. Deshpande**

4:10 Concluding Remarks.

Section B

Walter E. Washington Convention Center Room 102B

Vehicle Emission Control Catalysis: New Era, New Challenges & New Solutions

Cosponsored by ENFL and ENVR

F. Gao, C. H. Peden, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 CATL 242. Challenges and solutions in diesel NOx emission control. **H. Chen**

1:45 CATL 243. Consequences of Cu ion mobility in zeolites for low temperature NOx SCR with ammonia. **C. Paolucci, A. Parekh, I. Khurana, J. Di Iorio, A. Shih, H. Li, S. Li, A. Yezerets, W. Delgass, J.T. Miller, F. Ribeiro, W.F. Schneider, R. Gounder**

2:25 CATL 244. Sulfur poisoning and removal of Cu/SSZ-13 SCR catalyst. **J. Luo**

2:45 Intermission.

3:05 CATL 245. Towards atomic level understanding of the transformation of Cu active sites in Cu/SSZ-13 selective catalytic reduction catalysts during hydrothermal aging. **Y. Wang, J. Song, E.D. Walter, N.M. Washton, D. Mei, L. Kovarik, Y. Wang, F. Gao, C.H. Peden**

3:25 CATL 246. Mechanistic study of S poisoning in Cu-SSZ-13: Responses of Cu²⁺ and CuOH active centers to SO₂ exposure. **Y. Jangjou, D. Wang, A. Kumar, J. Li, W.S. Epling**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

3:45 CATL 247. New insights into NH₃/NO chemisorption properties and NH₃-SCR reaction mechanism over Cu/SAPO-34 as NH₃-SCR catalysts. **L. Wang, W. Li, G. Qi, D. Weng**

4:05 CATL 248. Pt/B-graphene catalyst for low temperature H₂-SCR. **Z. Yao, M. Hu, X. Wang**

Section C

Walter E. Washington Convention Center Room 102A

Advances in Carbon Dioxide Utilization

Cosponsored by ENFL and ENVR

V. Abdelsayed, *Organizer*

F. Jiao, F. Shi, *Organizers, Presiding*

1:00 CATL 249. Molecular heterogeneous electrocatalyst materials for carbon dioxide reduction. **H. Wang**

1:30 CATL 250. High performance CO₂ electrolyzers. **J.P. Baetzold, C. Hartmann-Thompson, M. Kaplun, N. Kunz, K. Lewinski, D. Lutz, L. Nereng, M.J. Pellerite, Z. Liu, H. Yang, R. Masel**

1:50 CATL 251. Li electrochemical tuning of metal oxide for highly selective aqueous CO₂ reduction. **K. Jiang, H. Wang**

2:10 CATL 252. Solid oxide co-electrolysis of steam and CO₂ to unlock a renewable energy based synthetic fuel economy. **J.J. Hartvigsen, S. Elangovan, J. Elwell, L. Frost**

2:30 Intermission.

2:45 CATL 253. Snapshots of the CO₂ electroreduction pathways using effects of electrolyte and pyridine. **I. Chernyshova, P. Somasundaram, M. Goldman, S. Yi Wang, S. Ponnuram**

3:05 CATL 254. Ligand-functionalized gold as versatile and tunable electrocatalysts for CO₂ reduction. **Y. Fang, X. Cheng, Y. Xu, J.C. Flake**

3:25 CATL 255. Withdrawn.

3:45 CATL 256. Cyborg bacteria: Inorganic-biological hybrid organisms for solar-to-chemical production. **K.K. Sakimoto, P. Yang**

4:05 CATL 257. High-selectivity, biocatalytic gas fermentation of CO₂ to ethanol. **R. Conrado**

Section D

Walter E. Washington Convention Center Room 103B

Nanoporous Materials for Catalysis in Global Economy

E. Kyriakidou, Z. Li, D. Liu, H. Wang, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 CATL 258. Ion mobility and site pairing in zeolite catalysis. **W.F. Schneider**

1:40 CATL 259. Copper mobility in zeolite-based SCR catalysts. **M. Skoglundh, S. Shwan, L. Chen, P.N. Vennestrom, T.V. Janssens, L.F. Lundegaard, R.R. Tiruvallam, A. Carlsson, J. Jansson, H. Gronbeck**

2:05 CATL 260. Environmental sensitivity of spectroscopic properties for Cu ions in Cu-SSZ-13: XANES and XES studies from first principles. **R. Zhang, H. Li, K. Groden, J. Szanyi, F. Gao, S.L. Scott, J. McEwen**

2:30 CATL 261. Chemical poisoning of Cu/SSZ-13 used for ammonia selective catalytic reduction. **K. Xie, K. Wijayanti, A. Kumar, R. Kamasamudram, L. Olsson**

2:55 Intermission.

3:15 CATL 262. Low-Temperature Pd/zeolite passive NOx adsorbents: Structure, performance and adsorption chemistry. **F. Gao, Y. Zheng, L. Kovarik, M. Engelhard, J. Szanyi**

3:45 CATL 263. One-step dual template synthesis and catalytic characterization of hierarchical lamellar zeolite composite materials. **D. Liu, L. Emdadi**

4:10 CATL 264. Hydrophilicity/hydrophobicity modulating zeolite synthesis: nanocrystals or hierarchically structured materials. **Z. Hua**

4:35 Concluding Remarks.

Section E

Walter E. Washington Convention Center Room 140A

New Paradigm for Catalyst Design: From Enzymatic Function to Functional Mimics

B. Ginovska, S. Raugé, *Organizers*

M. J. O'Hagan, *Organizer, Presiding*

1:00 CATL 265. Artificial metalloproteins: Developing methods to control the local environments around metal ions. **A. Borovik, S.I. Mann, L. Olshansky**

1:25 CATL 266. Unmasking the interplay of redox-active and hemilabile ligands in proton reduction electrocatalysis: Computationally derived mechanisms. **M.B. Hall**

1:50 CATL 267. Unmasking the interplay of redox-active and hemilabile ligands in proton reduction electrocatalysis: Synthesis and characterization of a matrix of Mn₂S₂-M' complexes. **P. Ghosh, M. Quiroz, S. Ding, M.B. Hall, M.Y. Darensbourg**

2:15 CATL 268. Artificial enzymes: Attaching a protein-like scaffold on molecular catalysis is essential for high efficiency. **A. Dutta, N. Borallugodage, W.J. Shaw**

2:40 Intermission.

2:55 CATL 269. Chemical and electrochemical probes for H₂ and H⁺ in amine-complemented HER catalysts. **T.B. Rauchfuss, N. Lalaoui**

3:20 CATL 270. Structural + functional models of mono-iron hydrogenase featuring an anthracene scaffold ligand. **M.J. Rose, J. Seo, T. Manes, S. Kerns, E. Sullivan**

3:45 CATL 271. New ligand frameworks for catalysis inspired by the active site of enzymes. **J.Y. Yang, J. Khosrowabadi Kotyik, T. Chantarojsiri, A. Reath, J. Barlow, R. Combs**

4:10 CATL 272. Accelerating the first-principles discovery of biomimetic catalysts. **T.Z. Gani, J. Janet, H.J. Kulik**

Section F

Walter E. Washington Convention Center Room 140B

Multimodal Characterization of Functional Energy Materials

Measurement & Modeling

Cosponsored by ENFL

N. Rajput, L. Trahey, *Organizers*

V. Murugesan, *Organizer, Presiding*

R. Rajendrakumar, *Presiding*

1:30 CATL 273. Signatures of inhomogeneous sulfur loading in microporous carbon-based electrodes from molecular dynamics and x-ray absorption spectroscopy. **D. Prendergast, T.A. Pascal, I. Villaluenga, K. Wujcik, X. Jiang, D. Devaux, R. Wang, N.P. Balsara**

2:00 CATL 274. Characterization of solvation and reaction effects at the Li-metal/electrolyte interface. **P.B. Balbuena, L.E. Camacho-Forero, E. Kampiaus, F.A. Soto, V. Murugesan**

2:30 CATL 275. Integrating first principles modeling with multimodal interrogation of hybrid Li-ion/Li-O₂ battery materials. **M. Chan**

3:00 CATL 276. Simultaneous in-situ neutron diffraction and thermogravimetric analysis of iron catalysts under ammonia decomposition conditions. **T. Wood, W. David, J. Makepeace**

3:15 Intermission.

3:30 CATL 277. Exploring electron delocalization on the femtosecond timescale. **N. Govind, A. Andersen, Z. Fox, Y. Zhang, S. Mukamel, M.H. Khalil**

4:00 CATL 278. Multiscale computational studies of solid species formation in chemical transformation batteries. **L. Cheng, L.A. Curtiss, P. Redfern, R.S. Assary, K. Lau**

4:30 CATL 279. Multimodal characterization of solid acid catalyst active sites for hydrocarbon upgrading. **A. Wang, L. Sharma, G.X. Yan, M. Ford, I.E. Wachs, J. Baltrusaitis**

4:45 CATL 280. Predicting mesoscale chain properties of electronically excited conjugated polymers. **B. Wood, Y. Shin, K. Persson**

5:00 CATL 281. Adsorption characteristics of lithium polysulfides Li₂S_x (x=2 to 8) on 2D surfaces. **S. Lakshminipathi, A. Arokianathan, A. Balasubramanian**

New-Enabled Water Treatment Technologies: Applications & Implications

Sponsored by ENVR, Cosponsored by CATL

TUESDAY EVENING

Section A

Walter E. Washington Convention Center Hall D

General Catalysis

S. Subramaniam, *Organizer*

6:00 - 8:00

CATL 282. Size-dependent activity of CrO₃ in catalyzing NO oxidation: From the inert bulk structure to highly efficient supported chain-like CrO₃. **J. Jin, H. Wang, P. Hu**

CATL 283. Octanoic acid catalytic hydrogenation over Ni nanoparticles embed in 3D ordered macroporous ZrO₂: The effect of catalysts structure. **H. Chen**

CATL 284. Formation of novel g-C₃N₄@ZnIn₂S₄ composite heterojunction nanosheet with a outstanding photocatalytic hydrogen evolution activity. **B. Lin**

CATL 285. Studying the roles of transition metals on converting methane to value-added methanol. **C. Zhang**

- CATL 286.** Heterogeneous dephosphorylation of biomolecules via ceria nanocatalysts. M. Manto, P. Xie, W. Liano, C. Wang
- CATL 287.** CO₂ Reduction through dry reforming reaction with methane over supported Fe-Ni bimetallic and Fe-Ni-Mo trimetallic heterogeneous catalysis. A. Tripoli, C. Zhang
- CATL 288.** Liquid-phase partial oxidation of methane into oxygenates with H₂O₂. M. Kim, E. Park
- CATL 289.** Withdrawn.
- CATL 290.** Withdrawn.
- CATL 291.** Novel nanoporous N-doped carbon-supported ultrasmall Pd nanoparticles: Efficient catalysts for hydrogen storage and release. K. Koh, M. Jeon, D. Chevrier, C. Yoon, P. Zhang, T.G. Asefa
- CATL 292.** Influence of different elemental ratios and thermal pretreatment on the aromatization of propane using Ga-Al-MFI catalyst. M.N. Akhtar, S. Asaoka
- CATL 293.** Cost-effective fabrication and improved photodegradation activities of bismuth vanadate/bismuth oxychloride composite. J. Pu, N. Zhang, Y. Chen
- CATL 294.** Design of interface for transfer hydrogenation catalysts. Y. Zhou, Y. Kang
- CATL 295.** Controlled construction of single-atom catalysts via molecular monolayers modification. X. Fu, Y. Kang
- CATL 296.** Enhancing electrocatalytic properties of molybdenum disulfide for hydrogen evolution reaction via anion doping. G. Qu, Y. Kang
- CATL 297.** Effect of catalytic structure on hydrogenolysis of microalgae (*Spirulina sp.*) polysaccharide into polyols over zeolites-supported Platinum catalysts. M. Gu, Z. Shen, W. Dong, Y. Zhang
- CATL 298.** Design of multimetallic alloy catalysts for CO₂ reduction. R. Zhang, Y. Kang
- CATL 299.** Modification of valence band of ceria via anion doping with fluorine. M. Kettner, T. Duchon, M. Wolf, J. Kullgren, P. Kus, K. Sevcikova, Z. Rafaj, K. Hermansson, V. Nehasil
- CATL 300.** Room temperature removal of NO on MnO₂: First principles calculations combined with kinetic analysis. H. Yuan, J. Chen, H. Wang, P. Hu
- CATL 301.** In-situ growth of high-density Zn_{0.2}Cd_{0.8}S/NiS nanoparticles on graphene nanosheets as tandem nanoreactor for efficient hydrogen evolution. C. Xue
- CATL 302.** Structure composition and shape tunable PtAuNi nanoparticles for electrocatalytic oxidation of methanol. A. Lu, D. Peng, D. Zeng, Z. Skeete, H. Zheng, S. Yan, A. Sharma, F. Chang, J. Luo, V. Petkov, C. Zhong
- CATL 303.** Developing new catalytic application of doping-segregation method for selective CO₂ conversion. Q. Wu, B. Yan, J. Cen, E. Stach, A. Frenkel, J.G. Chen, A. Orlov
- CATL 304.** Difunctional magnetic Pd/TiO₂@SiO₂@Fe₃O₄ catalysts and methanol catalytic conversion to formic acid and methyl formate. S. Ji
- CATL 305.** Influence of *OH adsorbates on the potential dynamics of the CO₂ generation during the electro-oxidation of ethanol. G. Yang, N.A. Deskins, X. Teng
- CATL 306.** Epimerization of isosorbide to isosorbide using Ru/NiO-TiO₂ catalyst. J. Hwang, J. Jegal
- CATL 307.** CO₂ reduction through dry reforming reaction with methane over supported Cu-Ni bimetallic and Cu-Ni-Pd trimetallic heterogeneous catalysis. L. Jiao, C. Zhang
- CATL 308.** Dry reforming of CO₂ with methane over supported CoNi bimetallic and CoNiPd trimetallic catalysts. S. Bamonte, C. Zhang
- CATL 309.** CO₂ reduction through dry reforming reaction with methane over supported Ni-Pd bimetallic and Ni-Mo-Pd trimetallic heterogeneous catalysis. S. Mirabelli, C. Zhang
- CATL 310.** Oxidative dehydrogenation of ethane to ethylene over molybdenum-vanadium based catalysts. S. Samangian, B. Kitiyanan, S. Pengpanich, K. Thavornprasert
- CATL 311.** Multimodal approaches to understanding protective barriers in lithium-sulfur batteries. B.C. Wilson, R.A. Nye, R. Lulucci, V. Murugesan, K.T. Mueller
- CATL 312.** CO₂ conversion via nanoporous PS-PVP block copolymer: Revisiting the pyridyl radical. H. Ghebremichael, A. Sidorenko
- CATL 313.** Ag nanoparticles and graphitic carbon nitrides co-decorated TiO₂ nanocomposites for enhanced photocatalytic activity under visible light. H. Tian
- CATL 314.** Hydrolysis of a chemical warfare agent simulant by a Zr-containing polyoxometalate: Rate enhancement in the presence of acetate buffer. D.L. Collins-Wildman, M. Kim, K.P. Sullivan, C.L. Hill
- CATL 315.** Metal-organic frameworks as models of metal oxides supports for catalytic hydrogenation of CO₂. B. An, J. Zhang, K. Cheng, C. Wang, W. Lin
- CATL 316.** Concave Bi₂WO₆ nanoplates with oxygen vacancies achieving enhanced electrocatalytic and photocatalytic activities. M. Dekun
- CATL 317.** Polyoxometalate stabilized ruthenium nanoparticles supported on nanohydroxalcite: Highly efficient nanocatalyst for the oxidation of lignin model compounds. M. Zahmakiran, B. Baguc, M. Celebi
- CATL 318.** Photophysical characterization of photocatalytic Rhodium(I) materials for CO₂ reduction. J. Martin, R.W. Larsen
- CATL 319.** Study of Cu-based catalysts for methane to methanol electro-oxidation reaction. H. Ataee-Esfahani, D. Chen, Y. Tong
- CATL 320.** Homogeneous catalysis of hydrolysis of phosphate esters by Schiff base transition metal complexes. U. Okeke, R.N. Egekenze, R. Butcher, Y. Gultneh
- CATL 321.** Commercially available novel H-bonding catalyst for ring opening polymerization of lactones. N. Dharmaratne, J. Pothupitiya, T.J. Bannin, O.I. Kazakov, M.K. Kiesewetter
- CATL 322.** Probing nanoscale heterogeneous electrode interface using tip-enhanced Raman spectroscopy. G. Kang, M. Mattei, G. Goubert, G.C. Schatz, R.P. Van Duyne
- CATL 323.** Liquid-gas interface explored by ambient pressure x-ray photoelectron spectroscopy. L. Artiglia, F. Orlando, S. Chen, K. Roy, I. Gladich, J.A. Van Bokhoven, M. Ammann
- CATL 324.** Mn(II) complexes, [Mn₂(μ-R₁C₆H₄COO)₂(R₂)₂].2(ClO₄) (R₁:Cl, NH₂, CH₃; R₂:1,10'-phenanthroline or 2,2'-bipyridine): Synthesis, oxidation of alcohols/alkenes and catalase activity. I. Avan, Y. Kilic, I. Kani
- CATL 325.** Homogeneous oxidation of alcohols in water catalyzed by a Cu(II) complex with a triphenyl acetate/bipyridyl ligands. H. Ünver, I. Kani
- CATL 326.** Transition metal-based alloy and core-shell nanowire electrocatalysts for the oxidation of small organic molecules. R. Marquez Valencia, I. Colliard, G. Singh, T.J. Aimola, A. Kassotis, N. Smina, C. Koenigsmann
- CATL 327.** Enhanced electrocatalytic oxygen reduction and methanol oxidation performance in hollow Pt-Ag nanoparticles. G. Singh, T.J. Aimola, S. Chen, S. Thota, J. Zhao, C. Koenigsmann
- CATL 328.** First principle study of optical, electronic, magnetic and catalytic properties of p-elements doped TiO₂ surface. A. Aldakheel
- CATL 329.** DFT simulation of nitrogen-doped graphene as an ORR catalyst in fuel cells. G. Arias, N. Humphrey, W.A. Goddard, T. Yu
- CATL 330.** Withdrawn.
- CATL 331.** Chiral transition metal diphosphine complexes and their applications in asymmetric catalysis. S. Lorraine, P.T. Maragh, T. Dasgupta, K. Abdur-Rashid
- CATL 332.** Important of biotechnological processes. T.D. Komolafe
- CATL 333.** Development of machine-learning chemisorption models for oxide electrocatalysis. Z. Li, H. Xin
- CATL 334.** Withdrawn.
- CATL 335.** Catalyst in poultry nutrition. T.O. Akinmusire
- CATL 336.** General approach to M/Au (M = Fe, Cu) core/shell and Ni/Au core/satellite nanoparticle. X. Liu, G. Lu, S. Dai, H. Zhu

WEDNESDAY MORNING

Section A

Walter E. Washington Convention Center Room 101

Advances in Computational Catalysis

R. Surendran Assary, *Organizer*

G. Mpourmpakis, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 **CATL 337.** Improving solvation models for electrochemistry. K. Schwarz, R. Sundararaman

8:55 **CATL 338.** DFT simulation of edge halogenated nanosheets as an ORR catalyst in fuel cells. N. Humphrey, R. Rodriguez, G. Arias, T. Yu, W.A. Goddard

9:15 **CATL 339.** Theoretical insights into the role of water in heterogeneous catalysis. C. Chang, J. Li

9:35 Intermission.

9:50 **CATL 340.** Assessing the thermodynamic landscape for cobalt catalyzed CO₂ reduction. I.M. Pendleton, P.M. Zimmerman

10:10 **CATL 341.** Comparing the oxygen reduction reaction on armchair and zigzag edges from quantum mechanics. T. Yu, L. Quang, W.A. Goddard

10:30 **CATL 342.** First-principles kinetic Monte Carlo simulation of CO oxidation on PdO(101). M. Kim, A.R. Asthagiri

10:50 **CATL 343.** Deoptimizing oxygen reduction reaction catalysis with doped amorphous Ti oxides. M.C. Groenenboom, J.A. Keith

11:10 **CATL 344.** Developing computational methods to reveal fundamental reaction sequences on surfaces. M. Jafari, P.M. Zimmerman

11:30 Concluding Remarks.

Section B

Walter E. Washington Convention Center Room 102B

Vehicle Emission Control Catalysis: New Era, New Challenges & New Solutions

Cosponsored by ENFL and ENVR

F. Gao, C. H. Peden, *Organizers, Presiding*

8:30 **CATL 345.** Multi-functional structured catalysts for NOx reduction from lean burn vehicles. M.P. Harold

9:10 **CATL 346.** Withdrawn.

9:30 **CATL 347.** Ambient temperature NO oxidation over Cr-based amorphous mixed oxide catalysts: Effects from the second oxide components. A. Wang, Y. Guo, C.H. Peden, F. Gao

9:50 Intermission.

10:10 **CATL 348.** Response characteristics of pre-commercial mixed potential NO_x and NH₃ sensors in diesel engine exhaust. C. Kreller, V.Y. Prikhodko, J. Pihl, S. Curran, K. Ramaiyan, R. Mukundan, J. Parks, E.L. Brosha

10:30 **CATL 349.** *In situ* x-ray absorption spectroscopy of bimetallic gold-nickel nanoparticle catalyst for the CO + NO reaction. S.K. Beaumont

10:50 **CATL 350.** Direct NOx decomposition over oxide catalysts: Advances and perspectives. C.A. Roberts, T.C. Peck, G.K. Reddy, H. Jia

11:10 **CATL 351.** Application of adsorption-compression theory in gas phase heterogeneous catalytic reaction: Promising proof through direct NO decomposition over Cu-ZSM-5. P. Xie, T. Pu, C. Wang

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Section C

Walter E. Washington Convention Center
Room 102A

Advances in Carbon Dioxide Utilization

Cosponsored by ENFL and ENVR

F. Jiao, *Organizer*

V. Abdelsayed, F. Shi, *Organizers, Presiding*

8:30 CATL 352. Novel nanoscale hybrid materials for combined CO₂ capture and conversion. M. Gao, A.A. Park

9:00 CATL 353. Development of catalytic process for CO₂ utilization. H. Lin

9:20 CATL 354. Efficient, small catalytic reactor for CO₂ conversion to value-added chemicals. K. Hawley, C. Junaedi, S. Roychoudhury

9:40 CATL 355. Withdrawn.

10:00 CATL 356. Silica based magnetically retrievable nanocatalysts for CO₂ fixation at ambient conditions. R. Gaur

10:20 Intermission.

10:35 CATL 357. Carbon dioxide as hydrogen vector – the key compounds in storage and delivery: Formic acid and methanol. G. Laurency

10:55 CATL 358. Bimetallic Pd-Cu catalysts for CO₂ hydrogenation to methanol. X. Jiang, N. Koizumi, X. Guo, C. Song

11:15 CATL 359. Withdrawn.

11:35 CATL 360. Carboxylation of propylene oxide to propylene carbonate. P. Bobba, B. Subramaniam, R. Chaudhari

11:55 CATL 361. Influence of Ti/Li/Al-hydroxalocate-like with orientations of crystal growth on its adsorption properties of carbon dioxide. Y. Dong, A. Zhou, D. Lei, T. Kong

Section D

Walter E. Washington Convention Center
Room 103B

Nanoporous Materials for Catalysis in Global Economy

E. Kyriakidou, Z. Li, D. Liu, H. Wang, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 CATL 362. Withdrawn.

9:00 CATL 363. Fabrication of Lewis acid Sn-BEA with tunable hydrophobicity and morphology for cellulosic sugar isomerizations. W. Fan, H. Cho

9:25 CATL 364. Key considerations for designing zeolite catalysts for biomass conversion reactions. T.C. Hoff, D.W. Gardner, R. Thilakarantne, R.C. Brown, J. Tessonnier

9:50 CATL 365. Olefin formation mechanisms of methanol-to-hydrocarbon reactions in H-MFI zeolites. P. Kravchenko, M. DeLuca, D. Hibbitts

10:15 Intermission.

10:35 CATL 366. Resolving zeolite catalysis at the single particle and single turnover level. M. Roelfaers

11:00 CATL 367. Catalytic comparison of nanoporous gold and supported bimetallic gold nanoparticles on a templated nanoporous structure. J. Lattimer, T. Shirman, M. Luneau, R.J. Madix, J. Aizenberg, C.M. Friend

11:25 CATL 368. Naphthalene hydrogenation over noble metal supported on new mesoporous zeolites with high sulfur tolerance. N. Baxter, G. Kuo, S. Wang

11:50 CATL 369. Ambient oxidation of ultrasmall platinum nanoparticles. R. Banerjee, Q. Liu, J. Tengco, J.R. Regalbut

12:15 Concluding Remarks.

Section E

Walter E. Washington Convention Center
Room 140A

New Paradigm for Catalyst Design: From Enzymatic Function to Functional Mimics

M. J. O'Hagan, S. Raugel, *Organizers*

B. Ginovska, *Organizer, Presiding*

8:30 CATL 370. Mutational mimics of allosteric effectors to customize enzyme-substrate affinity. A. Fenton

8:55 CATL 371. Metalloenzyme design. A. Alexandrova

9:20 CATL 372. Coupled dynamics in protein allosteric mechanisms from an atomistic perspective. D. Hamelberg

9:45 CATL 373. Molecular mechanism of splicing: An evolutionary computational journey from ribozymes to the spliceosome. A. Magistrato

10:10 Intermission.

10:25 CATL 374. Catalysis by natural and engineered glycosidases. An atomistic view from QM/MM simulations. C. Rovira Virgili

10:50 CATL 375. Inspiration from biology: Coupling electrons and protons and facilitating tunneling. S. Hammes-Schiffer

11:15 CATL 376. Novel scanning electrochemical microscope based method for studying enzymatic proton-coupled electron transfer. R. Penhallurick, D. Chen, Y. Tong

11:35 CATL 377. Connecting catalysis to light-driven electron transfer in photosynthetic hybrids. D.M. Tiede, L.M. Utschig-Johnson, K.L. Mulfort

Section F

Walter E. Washington Convention Center
Room 140B

Multimodal Characterization of Functional Energy Materials

Exploration of Interfacial Processes

Cosponsored by ENFL

V. Murugesan, N. Rajput, L. Trahey, *Organizers*

A. Devaraj, S. Lakshminpathi, *Presiding*

8:30 CATL 378. Combining tender ambient pressure XPS with theory to unravel the solid/liquid electrochemical interface. E. Crumlin

9:00 CATL 379. Multimodal x-ray characterization of solar fuels catalysts under operation. M. Farmand, J. Feaster, R. Davis, S. Fackler, A. Landers, J. Lin, C. Hahn, T.F. Jaramillo, J. Yano, A. Mehta, W. Drisdell

9:30 CATL 380. Simulation and characterization of aluminum-oxide speciation at the water-Mica interface. M.D. Baer, C.J. Mundy, A. Tuladhar, J. DeYoreo, B. Legg

10:00 CATL 381. Challenges in pulsed field gradient NMR on heterogeneous interfaces: Sequence and field dependent diffusion coefficients. K. Han, E.W. Hagaman, K.T. Mueller

10:15 Intermission.

10:30 CATL 382. Optical, morphological, and electrochemical multimodal characterization of integrated BiVO₄ photoanodes. G. Liu, J. Eichhorn, J. Haber, J. Gregoire, I. Sharp, F. Toma

11:00 CATL 383. Investigating the structural dynamics of the Bi/[BMIM]⁺ interface during electrocatalytic reduction of CO₂. J. Medina Ramos, S. Lee, A. Hubaud, T. Fister, P. Fenter

11:30 CATL 384. Solvation and desolvation in nonaqueous zinc batteries. T. Fister, S. Kim, S. Han, K. Bassett, K. Ta, K.A. See, A. Gewirth, N. Rajput, K. Persson, P. Fenter

12:00 CATL 385. MWCNTs/polyvinyl alcohol based flexible ethanol sensor: Density functional theory study of ethanol interactions at MWCNT-PVA interface. D. Maity, R. Krishnamoorthy, S. Lakshminpathi, R. Rajendrakumar

Green Chemistry & the Environment

Sponsored by ENVR, Cosponsored by CATL and CEI

WEDNESDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Room 101

Advances in Computational Catalysis

G. Mpourmpakis, R. Surendran Assary, *Organizers*

M. Dixit, D. Pahls, *Presiding*

1:00 Introductory Remarks.

1:05 CATL 386. Adsorption free energies using neural network based potential energy sampling. P. Mehta, A. Lehmer, A. Bajpai, K. Frey, W.F. Schneider

1:25 CATL 387. Computational study of the effect of surface-bound disulfide on the oxygen reduction reaction. T.C. Allison, Y. Tong

1:45 CATL 388. Understanding heterogeneous catalyst deactivation by biogenic impurities on Ni (111) surface and bimetallic alloy. M. Gupta, T. Khan, S. Gupta, M. Alam, M. Agarwal, M. Haider

2:05 CATL 389. Elucidating the role of heteronuclear interactions in boosting H₂ production from HCOOH decomposition on bimetallic Pd-M catalysts from first-principles. J. Cho, S. Lee, S. Yoon, J. Han, S. Nam, K. Lee, H. Ham

2:25 CATL 390. SQERTSS for TPR: Dynamic throttling of lattice kinetic monte carlo to increase computational efficiency of spatial chemical kinetics simulations. J.E. Sutton, A. Beste, A. Savara, C. Hin, T. Danielson

2:45 Intermission.

3:00 CATL 391. Effects of secondary coordination sphere of copper(III)-OH complexes on hydrogen atom transfer rates. M. Momeni, B. Dereli, D. Dhar, G. Yee, W.B. Tolman, C.J. Cramer

3:20 CATL 392. Selective hydrogenation of acetylene on graphene supported single-atom Pt catalyst. H. Zhuo, X. Zhang, J. Li

3:40 CATL 393. Kinetic Monte Carlo study of vinyl acetate synthesis from gas-phase ethylene acetoxylation on Pd(100) and Pd/Au(100) from density functional theory based calculations. X. Dong, Y. Huang, H. Jiang, Y. Yu, M. Zhang

4:00 CATL 394. On the mechanism of CO₂ reduction to C₂ products at copper surfaces. A.J. Garza, M.P. Head-Gordon, A.T. Bell

4:20 CATL 395. Can copper be the active site in methanol synthesis? M. Shaban Tameh, A. Dearden, C. Huang

4:40 CATL 396. Design of solid frustrated Lewis pair catalysts by surface oxygen vacancy regulation for hydrogenation reactions. Z. Huang, C. Chang

5:00 Concluding Remarks.

Section B

Walter E. Washington Convention Center
Room 102B

Vehicle Emission Control Catalysis: New Era, New Challenges & New Solutions

Cosponsored by ENFL and ENVR

F. Gao, C. H. Peden, *Organizers, Presiding*

1:00 CATL 397. Methane oxidation over Pd containing catalysts for lean and stoichiometric conditions. N. Sadokhina, O. Mihai, G. Smedler, U. Nylén, M. Olofsson, L. Olsson

1:40 CATL 398. Elucidating the chemical nature of a Pt single site catalyst supported on the '29' Cu surface oxide for low temperature CO oxidation. R. Zhang, A. Hensley, A. Therrien, K. Groden, A. Schilling, E.H. Sykes, J. McEwen

2:00 CATL 399. Highly dispersed Pt-Pd bimetallic catalysts for diesel exhaust treatment. A.P. Wong, T. Toops, J.R. Regalbut

2:20 Intermission.

2:40 CATL 400. Multi-functional nanostructure array integration and manufacturing for emission control and utilization. F. Gao

3:00 CATL 401. Regeneration of bimetallic Pt/Pd methane oxidation catalysts after sulfur exposure. M.S. Wilburn, W. Epling

3:20 CATL 402. Cu-Co-Ce ternary oxide as an additive to conventional Pt/Al₂O₃ catalyst for lean exhaust catalysis. A.J. Binder, T. Toops, J. Parks

3:40 CATL 403. Activity and stability of Co₃O₄-based catalysts for soot oxidation: The enhanced effect of Bi₂O₃ on activation and transfer of oxygen. W. Wang, C. Wang, W. Li, Y. Guo, Y. Guo, G. Lu

4:00 Concluding Remarks.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section C

Walter E. Washington Convention Center
Room 102A

Advances in Carbon Dioxide Utilization

Cosponsored by ENFL and ENVR

F. Shi, *Organizer*

V. Abdelsayed, F. Jiao, *Organizers, Presiding*

1:00 CATL 404. Photocatalytic reduction of CO₂ to CO over the UV-Vis-NIR spectrum on oxygen-deficient ZnO_x/carbon composites synthesized by aerosol routes. L. Lin, S. Kavadiya, Y. Nie, P. Biswas

1:20 CATL 405. Photoreduction of CO₂ by SnO₂/graphene oxide composite particles. Y. Liang, W. Wu, D. Liu, S.H. Ehrman

1:40 CATL 406. Facile development of MOFs-based nanocomposites for enhanced CO₂ photoreduction. X. He, D. Wang, W. Wang

2:00 CATL 407. Converting CO₂ into fuels by graphitic carbon nitride based photocatalysts. L. Zhang

2:20 CATL 408. Stable aqueous photoelectrochemical CO₂ reduction by a Cu₂O dark cathode with improved selectivity for carbonaceous products. X. Chang, T. Wang, J. Gong

2:40 Intermission.

2:55 CATL 409. Withdrawn.

3:15 CATL 410. Production of naphthalene from carbon dioxide and methanol by photocatalysis using nanostructured cobalt. K. Davies, D.K. Ryan

3:35 CATL 411. Glycerol transfer hydrogenation of CO₂ using Ir and Ru carbene organometallics immobilized on hydrotales. J. Heltzel, M. Finn, A. Voutchkova

3:55 CATL 412. Investigation of hydrogenation/disproportionation of formic acid to methanol using iridium catalysts. Y. Himeda, H. Kawanami, G. Laurency

Section D

Walter E. Washington Convention Center
Room 103B

Nanoporous Materials for Catalysis in Global Economy

E. Kyriakidou, Z. Li, D. Liu, H. Wang, *Organizers, Presiding*

1:00 Introductory Remarks.

1:05 CATL 413. Catalytically functionalized nanoporous frameworks and carbons for chemical energy storage. M. Allendorf, J. Brown, J.L. White, V. Stavila, T. Heo, B. Wood, I. Klebanoff

1:40 CATL 414. Computationally-driven design of cation-based catalysts supported in metal-organic frameworks for upgrading of light hydrocarbons. S.L. Pellizzeri, P. Miro, V. Bernales, M. Barona, P. Liao, L. Gagliardi, R. Snurr, R. Getman

2:05 CATL 415. New modified nitrogen-doped graphene (N-G)/metal organic framework (MOF) derived microporous catalyst for oxygen reduction reaction (ORR). S. Zhuang, B. Nunna, E. Lee

2:30 CATL 416. Withdrawn.

2:55 Intermission.

3:15 CATL 417. Mesoporous manganese oxide catalyzed cross dehydrogenative coupling of *N*-aryltetrahydroisoquinolones (sp³ C-H) with indoles (sp² C-H). B. Dutta, S.L. Sui

3:40 CATL 418. Study of the concentration enrichment effects in oxide nanotubes prepared by atomic layer deposition. Z. Gao, M. Wang, Y. Qin

4:05 Concluding Remarks.

Section E

Walter E. Washington Convention Center
Room 140A

New Paradigm for Catalytic Design: From Enzymatic Function to Functional Mimics

B. Ginovska, M. J. O'Hagan, S. Raugei, *Organizers*

R. Koder, *Presiding*

1:00 CATL 419. Novel supramolecular approach for multicatalytic activity of Mn-porphyrin derivative. R. Kubota, H. Kawakami

1:20 CATL 420. Synthesis of hybrid catalysts and their application in alkane oxidation and CO₂ conversion. A.J. Karkamkar

1:45 CATL 421. Assembly of bio-mimetic multienzyme complex on DNA nanoscaffolds. J. Fu

2:05 CATL 422. Rational design of an artificial hydrogen peroxide oxidase and its use as an electron source for artificial reaction centers. R.L. Koder, S.D. Minter, D.J. Vinyard, G.W. Brudvig, J. Preston, E. Andersen, B. Everson, E. Bjerkefeldt, F. Giroud

2:30 Intermission.

2:45 CATL 423. Exploring peptid nanomembranes as platform to mimic natural enzymes. M.D. Baer, C. Chen

3:10 CATL 424. Enzyme inspired catalysts. L. Connal

3:30 CATL 425. Role of anharmonicity in the confinement effect in zeolites: Structure, spectroscopy and adsorption free energy. M. Lee, Y. Wang, V. Glezakova, R. Rousseau

Section F

Walter E. Washington Convention Center
Room 140B

Multimodal Characterization of Functional Energy Materials

Advances In Situ/Operando Microscopy

Cosponsored by ENFL

V. Murugesan, N. Rajput, L. Trahey, *Organizers*
S. Lakshminpathi, M. Nandasiri, *Presiding*

1:30 CATL 426. Operando video microscopy of lithium metal anodes: From dendrite nucleation to cell failure. N.P. Dasgupta

2:00 CATL 427. Correlating structure and electron transfer at nucleation sites on electrode surfaces. K.L. Jungjohann, S. Goriparti, W.M. Mook, G.A. Montano, M. Rush, K. Leung, K.R. Zavadil

2:30 CATL 428. High-resolution characterization of intercalation cathodes for multi-valent battery applications. R. Klie, A. Mukherjee, J. Jokisaari, J.L. Andrews, H. Yoo, S. Banerjee, J. Cabana

3:00 CATL 429. Understanding photocatalytic activity at the nanoscale using correlated electron and fluorescence microscopy. M. Roefsaers, E. Debroye, J. Van Loon

3:15 Intermission.

3:30 CATL 430. Multi-modal approach to understand proton transport mechanisms in Y-doped barium zirconate. R. Unocic, J. Ding, J. Balachandran, X. Sang, W. Guo, J. Ansell, G. Veith, C.A. Bridges, Y. Cheng, C. Rouleau, J. Poplawsky, N. Bassiri-Gharb, P. Ganesh

4:00 CATL 431. Decoding structure-property relationships of energy materials using atom probe tomography and correlative microscopy. A. Devaraj, E. Vo, P. Parikh, V. Murugesan, K.K. Ramasamy, S. Meng, C. Wang, S. Thevuthasan

4:30 CATL 432. Modeling energy materials by integrating large microCT image volumes with data from microscopy, spectroscopy, and scattering. D.Y. Parkinson, I. Zenyuk, K. Harry, K. Higa, D. Devaux, N.P. Balsara, E. Gross

5:00 CATL 433. Rectifying the characterization of carbon supported Pd: Chloride poisoning, carbon decoration, or both? R. Banerjee, J.R. Regalbuto

5:15 CATL 434. Visible light driven photocatalytic properties of vertically aligned ZnO-CuS core-shell nanorod arrays: Importance of the coupling interface by the in situ generated ZnS shell layer. R. Kugalur Shanmugam, D. Ranjith Kumar, R. Rajendrakumar

Green Chemistry & the Environment

Sponsored by ENVR, Cosponsored by CATL and CEI

WEDNESDAY EVENING

Electrochemical Technologies for Water Purification

Sponsored by ENVR, Cosponsored by CATL and CEI

Environmental Applications of Liquid Phase Catalysis for Green Chemical Processes of Renewable Materials

Sponsored by ENVR, Cosponsored by CATL and ENFL

Green Chemistry & the Environment

Sponsored by ENVR, Cosponsored by CATL and CEI

Heterogeneous Catalysis for Environmental & Energy Applications

Sponsored by ENVR, Cosponsored by CATL

Nano-Enabled Water Treatment Technologies: Applications & Implications

Sponsored by ENVR, Cosponsored by CATL

THURSDAY MORNING

Section A

Walter E. Washington Convention Center
Room 101

Catalytic Transformation of Renewable Plant Biomass to Enhance Global Economy

Cosponsored by ENFL

N. Yan, X. Zhang, *Organizers, Presiding*

8:00 CATL 435. Adipic acid production from biomass-derivatized tetrahydrofuran-2,5-dicarboxylic acid via the combination of solid acids and iodide. R. Balakumar, M.J. Gilkey, D.G. Vlachos, B. Xu

8:20 CATL 436. Mechanistic study of the catalytic dehydration of methyl lactate to acrylates over NaY and effect on selectivity control. B.M. Murphy, M.P. Letterio, J. Soreo, B. Xu

8:40 CATL 437. Functionalized cellulose as fuel additive. C. Xia, M. Tu

9:00 CATL 438. Reductive catalytic fractionation of lignocellulose: A lignin-first biorefinery. T. Renders, S. Van den Bosch, W. Schutyser, T. Vangeel, B.F. Sels

9:20 CATL 439. Synthesis of glycerol carbonate from CO₂ and glycerol over CeO₂ catalysts: Effect of crystallite size of CeO₂ and reaction conditions. L. Jiaxiang, D. He

9:40 Intermission.

9:50 CATL 440. Lowering the carbon footprint of the automobile industry through the in-mixing of modified biorefinery lignin for producing durable interior materials in cars. J. Jiang

10:10 CATL 441. Precise deposition of Pt promoter onto silica supported cobalt for Fischer-Tropsch synthesis. F. Almaliki, J. Monnier, J.R. Regalbuto

10:30 CATL 442. Metal-free cleavage of C-O bonds via the combination of hydrodic acid and molecular H₂ in organic acid solvents. M.J. Gilkey, A.V. Mironenko, D.G. Vlachos, B. Xu

10:50 CATL 443. Bio-terephthalic acid synthesis from cross metathesis of bio-sourced unsaturated carboxylic acids and consecutive one-pot cycloaddition and aromatization reactions. E. Saraci, L. Wang, K.H. Theopold, R.F. Lobo

11:10 CATL 444. Enzymatic modification of resveratrol: Green strategies for α -glycosylation. T. Marie, G. Willig, A. Teixeira, A. Gratia, J. Renault, F. Allais

11:30 CATL 445. Valorization of biomass derived lactones into fuels and chemicals. M. Alam, S. Gupta, A. Bohre, E. Ahmad, T. Khan, B. Saha, M. Haider

Section B

Walter E. Washington Convention Center
Room 102B

General Catalysis

D. Liang, R. Ma, A. B. Padmaperuma, *Organizers*

D. Liang, *Presiding*

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8:00 CATL 446. Characterization of iron contamination on equilibrium fluid catalytic cracking catalyst particles. **H. Jiang**, K.J. Livi, S. Kundu, W. Cheng

8:20 CATL 447. Hot electron-driven photocatalytic water splitting. **B. Hou**, L. Shen, H. Shi, R. Kapadia, S. Cronin

8:40 CATL 448. Photocatalytic degradation of methylene blue using vanadosilicate AM-6. **M. Ismail**, J. Mattheisen, E. Hishiya

9:00 CATL 449. Enzyme Immobilization on magnetic nanoparticles for enhancing biocatalysis. **C. Liu**

9:20 CATL 450. Fenton degradation of organic pollutants based on various nanocrystals/biomass composite loaded columns. **D. Liang**

9:40 Intermission.

9:55 CATL 451. Layered double hydroxide supported gold nanoparticles towards lignin depolymerization. **Y. Song**, M. Crocker, K. Wilson, M. Isaacs, A.F. Lee

10:15 CATL 452. Biocementation of soils through calcium carbonate precipitation using microbial catalysis. **R. Pinto Vilar**, T. Hoang, J. Alleman, B. Cetin, K. Ikuma

10:35 CATL 453. TEMPO-oxidized cellulose nanocrystal/ RuCO nanoparticle composite as a catalyst for the reduction of 5-hydroxymethylfurfural to 2,5-dimethylfuran. **J. Zhang**, W. Xie, Q. Liang, Y. Ni

10:55 CATL 454. Shape-selective FeMnK/Al₂O₃@Silicalite-2 core-shell catalyst for Fischer-Tropsch synthesis to lower olefins. **H. Wang**, S. Huang, Y. Wang, X. Ma

11:15 CATL 455. Selective conversion of syngas into light olefins over a cobalt-zeolite bifunctional catalyst. **B. Maddi**, K.K. Ramasamy, M. Gray

Section C

Walter E. Washington Convention Center Room 102A

General Catalysis

D. Liang, R. Ma, A. B. Padmaperuma, *Organizers*

A. J. Karkamkar, *Presiding*

8:00 CATL 456. Preparation of high-surface-area active catalyst supports by atomic layer deposition. **T. Onn**, R.J. Gorte

8:20 CATL 457. Fischer-Tropsch Synthesis over (Fe-Nb₂O₇)-based catalysts. **R.R. Soares**, W. Silva, M. Napolitano, U. Silva

8:40 CATL 458. Synergetic catalysis by copper and iron in oxidation of reduced Keggin heteropolytungstates by dioxygen. **M. Kim**, M. Chamack, C.L. Hill, Y.V. Geletii

9:00 CATL 459. Potential of nanostructured nonequilibrium catalysts for carbon nanomaterials and beyond. **M. Atwater**, L. Guevara, R. Welsh, B. Stone, A. Joy, E. Zurita-Torres

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

9:20 CATL 460. Development of oxamides as general ligands for copper-catalyzed aminations. **J.F. Dropinski**

9:40 Intermission.

9:55 CATL 461. Synthesis and mechanistic study of Pt-based Tri-metal catalysts for the ethanol oxidation reaction. **S. Jilani**, Y. Tong, D. Zager, E. Iyanobor

10:15 CATL 462. Sustainable nanomaterials: Synthesis and applications in catalysis. **M. Gawande**, R.S. Varma, R. Zboril

10:35 CATL 463. Computational and experimental characterisation of solvent effects in hydrogen cation catalysis of ethanol to diethyl ether. **M.S. Howard**, M.K. Ghosh, J.J. Leahy, S. Dooley

10:55 CATL 464. Template based nanostructure MnO₂ catalysts for the mild oxidation organic compounds. **A. Altaf**, A. Badshah, S. Kausar, S. Arshad

Section D

Walter E. Washington Convention Center Room 103B

General Catalysis

D. Liang, A. B. Padmaperuma, *Organizers*

R. Ma, *Organizer, Presiding*

K. Lin, *Presiding*

8:00 CATL 465. Withdrawn.

8:20 CATL 466. Energetics of adsorbed formate and formic acid on Ni(111) by calorimetry. **W. Zhao**, S. Carey, S. Morgan, C.T. Campbell

8:40 CATL 467. Unraveling structure sensitivity in phenol hydrogenation on Pd nanostructures. **M. Haider**, S. Seshadri, S. Gupta, T. Khan, V. Prabhakaran

9:00 CATL 468. Identification of suitable active sites for simultaneous conversion of alpha-MOB and beta-MEMOB into MMA and MAA. **J. Xu**, A. Lemonds

9:20 CATL 469. Effect of aqueous and non-aqueous reaction media on hydrogenation of succinimide to 2-pyrrolidone. **S.R. More**, S.K. Tanielyan, R.L. Augustine, T. Thidarat, C. Ozmeral, K. Roffi, M. Shmorhun, J. Glas

9:40 Intermission.

9:55 CATL 470. Characterization of Bronsted acid sites generated in situ on alkali-metal form zeolites via gas-solid ion exchange. **J. Soreo**, B.M. Murphy, B. Xu

10:15 CATL 471. Withdrawn.

10:35 CATL 472. Activation and stabilization of a silica-supported organochromium(III) complex resembling the union carbide catalyst. **Y. Wang**, X. Wang, B. Peters, S.L. Scott

Section E

Walter E. Washington Convention Center Room 140A

General Catalysis

D. Liang, R. Ma, *Organizers*

A. B. Padmaperuma, *Organizer, Presiding*

A. Raju, *Presiding*

8:00 CATL 473. New bidentate ligands for rhodium-catalyzed branched selective propene hydroformylation. **L. Lu**, M. Janka, K.J. Fontenot, M.L. Clarke

8:20 CATL 474. Withdrawn.

8:40 CATL 475. C-C Bond cleavage of ethanol to form methane and carbon dioxide in liquid phase. **G. Yang**, X. Teng

9:00 CATL 476. Constrained geometry organotitanium catalysts supported on nanosized silica for ethylene (co) polymerization. **K.T. Li**, L. Wu

9:20 CATL 477. Description of adsorption processes by meta-generalized gradient approximations. **A.J. Garza**, A.T. Bell, M.P. Head-Gordon

9:40 Intermission.

9:55 CATL 478. Determination of siting preference of exchanged Fe ions in Fe-SSZ-13 zeolite through density functional theory and ab Initio molecular dynamics. **S. Li**, W.F. Schneider

10:15 CATL 479. In situ titration of carbon-supported electrocatalysts. **J. Egbert**, R.S. Weber

10:35 CATL 480. Interaction of atomic oxygen with Ag(111) and Ag(110) surfaces: Oxygen adsorption and kinetics at surface versus subsurface. **S.B. Isbill**, S. Roy

10:55 CATL 481. DNA-crowded enzyme complex with enhanced activity and stability. **J. Fu**

Section F

Walter E. Washington Convention Center Room 140B

General Catalysis

D. Liang, R. Ma, A. B. Padmaperuma, *Organizers*

W. Wang, *Presiding*

8:00 CATL 482. Plasmonic imaging technique for high throughput catalytic material screening. **X. Shan**, J. Chang

8:20 CATL 483. Photocatalytic activity of sulfated TiO₂ and its application in water treatment. **S.F. Li**

8:40 CATL 484. Novel sulfide based dehydrogenation catalysts. **P.H. Nielsen**, L.J. Lemus-Yegres, R.M. Nielsen

9:00 CATL 485. Redox-auxiliary catalysis for cycling of photo-electro responsive materials. **S.C. Blackstock**, C. Nwankwoala, C. Saint-Louis, D. Warner, K. Strickland, L. Gray

9:20 CATL 486. Mechanistic insights and new applications of palladium catalysts with multi-arylated phosphine ligands for cross-coupling. **H. Jong**, Y. Lim, S.T. Eey, W. Wu, C. Johannes, F. Yong, E.G. Robins, A.M. Mak, M.B. Sullivan

9:40 Intermission.

9:55 CATL 487. CuI-catalyzed aerobic oxidation reaction of secondary alcohols promoted by a novel modified Cr-metal-organic framework ligand. **Y. Luan**, J. Zhao

10:15 CATL 488. Enrichment at nano-interface for enhancing environmental catalytic oxidation. **W. Wang**

10:35 CATL 489. Fundamental investigation of C-C coupling of carbonyl compounds on ceria. **C. Zhao**, A. Savara, Y. Xu

10:55 CATL 490. Multicomponent Mannich reactions catalyzed by layered double hydroxide modified with copper. **Z. Wu**

CELL

Division of Cellulose & Renewable Materials

M. Roman, *Program Chair*

SUNDAY MORNING

Section A

Grand Hyatt Washington
Penn Quarter A/B

Recent Advances towards the Bioeconomy

Cosponsored by AGFD, CARB, ENFL and ENVR

M. Roman, *Organizer*

D. Salas-de la Cruz, *Presiding*

8:00 Introductory Remarks.

8:05 CELL 1. Rapid room temperature solubilization and depolymerization of polymeric lignin at high loadings. **J. Sun**, T. Dutta, N.G. Isern, J.R. Cort, B.A. Simmons, S. Singh

8:30 CELL 2. Investigation of ionic liquid-lignin interactions and its effect on biomass pretreatment. **T. Dutta**, M. Valiev, X. Wang, N.G. Isern, J.R. Cort, B. Simmons, S. Singh

8:55 CELL 3. Deep eutectic solvent fractionation of biomass. **M.B. Foston**

9:20 CELL 4. Kinetic modeling of cellulose fractional pyrolysis. **H. Bannadji**, L. Khachatryan, S.M. Lomnicki

9:45 Intermission.

10:00 CELL 5. Alkane production from biomass: A chemocatalytic liquid phase cellulose-to-naphtha process. **A. Deneyer**, M. Dusselier, B.F. Sels

10:25 CELL 6. Catalytic dehydration of glucose and fructose into 5-hydroxymethylfurfural by aluminum complexes bearing bidentate (aminomethyl)phenolate ligands. **D.S. Saangonyo**, F.T. Ladipo

10:50 CELL 7. Isolation and characterization of cellulose from biomass: Applications in biomedical and food packaging. **N. Shahi**, B. Min, D. Mortley, V.K. Rangari

11:15 CELL 8. Cellulose nanocrystal production by sulfuric acid hydrolysis of wood pulp: What are reasonable yields? **M. Roman**, S. Dong, S. Welborn, S. Oxley, K. Chan, M.J. Bortner

11:40 Concluding Remarks.

Carbohydrate-Based Vaccines & Adjuvants

Sponsored by CARB, Cosponsored by CELL

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Biobased Materials: Industrial Perspectives

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

SUNDAY AFTERNOON

Section A

Grand Hyatt Washington
Penn Quarter A/B

Recent Advances towards the Bioeconomy

Cosponsored by AGFD, CARB, ENFL and ENVR

M. Roman, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 **CELL 9.** Lignocellulosic materials for the sustainable market of energy storage and conversion devices. F. Bella, F. Colò, L. Zolin, J.R. Nair, D. Pugliese, A.M. Stephan, C. Gerbaldi

1:30 **CELL 10.** Processing of silk-worm silk for applications in flexible electronics. Y. Zhang

1:55 **CELL 11.** Characterization and structure-property relationships of microcrystalline cellulose-Mori silk based biomaterials fabricated from ionic liquids. J. Stanton, Y. Xue, P. Pandher, L. Malek, X. Hu, D. Salas-de la Cruz

2:20 **CELL 12.** Acid-dependent cross-linking of xanthan gum in solid state. Y. Li, D. Zhang, A.M. Leone

2:45 Intermission.

3:00 **CELL 13.** Hygroscopic swelling determination of cellulose nanocrystal films by polarized light microscopy digital image correlation. S. Shrestha, D. Jairo, S. Ghanbari, J.P. Youngblood

3:25 **CELL 14.** Amylose inclusion complexes utilized for improved film properties: Production and rheological characterization. W. Hay, G.W. Selling, G.F. Fanta

3:50 **CELL 15.** Superhydrophilic wrinkle-free cotton fabrics via plasma and nanofluid treatment. L. Lao, L. Fu, G. Qi, E.P. Giannelis, J. Fan

4:15 **CELL 16.** Xyloglucan fucosylation in *Arabidopsis thaliana*: A water mediated reaction mechanism. V.S. Bharadwaj, B. Urbanowicz, M.F. Crowley, W.S. York

4:40 Concluding Remarks.

Science Communications: The Art of Developing a Clear Message

Sponsored by PRES, Cosponsored by BIOL, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, CTA, DAC, I&EC, INOR, ORGN, PROF, SCHB and YCC

Carbohydrate-Based Vaccines & Adjuvants

Sponsored by CARB, Cosponsored by CELL

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Developments in Biocatalysts

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

SUNDAY EVENING

Section A

Walter E. Washington Convention Center
Hall D

General Posters

M. Roman, *Organizer*

7:00 - 9:00

CELL 17. Efficient removal of humic acid from aqueous solution through vegetable biomass waste-based hydrogel absorbent. T. Zhou, Y. Zhao

CELL 18. Construction and capacitance performances of cellulose paper-based flexible supercapacitor. J. Yeo, S. Wang, O. Kim, S. Hwang

CELL 19. Efficient ionic liquid pretreatment of cellulose at higher loading. E. Aung, T. Endo, S. Fujii, K. Kuroda, K. Ninomiya, K. Takahashi

CELL 20. Withdrawn.

CELL 21. Preparation of cellulose from soybean dregs by enzyme: Alkali treatment and its application in edible packaging paper. P. Li

CELL 22. Synthesis of cellulose nanowhiskers tethered with iron oxide nanoparticles. L. Chen, R. Tannenbaum, S. Sharma, R. Darienzo

CELL 23. New design of a polar ionic liquid switchable in miscibility with water by CO₂/N₂. Y. Shimada, K. Kuroda, K. Ninomiya, K. Takahashi

CELL 24. Biomass composites from herbaceous-based lignocellulose nano fibers. S. Senda, K. Takahashi, T. Endo, T. Tsukegi

CELL 25. Production of 2-pyrone 4, 6-dicarboxylic acid using algae-hydrolysate as fermentation medium. A. Htet, M. Noguchi, K. Ninomiya, Y. Tsuge, S. Kajita, E. Masai, K. Shikinkaka, K. Kuroda, R. Honda, K. Takahashi

CELL 26. Flexibly tailoring chiral nematic self-assembling behavior by different size and charge group ranges of cellulose nanocrystals via a facile physical approach. L. Jiao, L. Chen, M. Su, H. Dai

CELL 27. Withdrawn.

CELL 28. Ultrafine cellulose nanofibers based high flux thin-film nanocomposite membrane for desalination. K. Liu

CELL 29. Dissolving cellulose in dialkylphosphate ionic liquid solutions. M.F. Thomas, A. Chen, M. Yuan

CELL 30. Chemoselective methylation of phenolic hydroxyl group prevents quinone methide formation and re-polymerization during lignin depolymerization. K. Kim, T. Dutta, E.D. Walter, N.G. Isern, J.R. Cort, B. Simmons, S. Singh

CELL 31. Novel bacteria for improving the efficiency of a microbial fuel cell. R. Chung, G. Hwang, D. Moon, Y. Chang, J. Yoon, G. Lee

CELL 32. Renewable bioenergy production in the consolidated anaerobic digester and microbial fuel cell with cellulolytic rumen fluid inoculation. R. Chung, M. Shin, H. Kim, F. Shen, R. Kang

CELL 33. Extraction and characterization of nanocellulose from (cotton, wheat straw, and *Hibiscus sabdariffa*). M. Alwohaibi

CELL 34. Study of adhesion of different nanoparticles on the surface of cellulose nanocrystal thin films. M. Rivera, V.M. Pantojas

MONDAY MORNING

Section A

Grand Hyatt Washington
Penn Quarter A/B

Sustainable Design of Polymers from Xylochemicals

Strategic Design of Complex Polymers from the Combination of Xylochemicals

Cosponsored by CARB, PMSE and POLY

J. La Scala, G. R. Palmese, J. M. Sadler, *Organizers*

J. F. Stanzione, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 **CELL 35.** Ultralight, highly thermal insulating and fire resistant aerogel by encapsulating cellulose nanofiber with two-dimensional MoS₂. H. Zhu

8:30 **CELL 36.** Novel functional materials from cellulose esters with long aliphatic chains. Y. Wang, K. Zhang

8:55 **CELL 37.** High temperature thermosetting polyimide oligomers and epoxy resins derived from biosynthetic vanillin and resveratrol. M. Savolainen, B.G. Harvey, A. Chafin, M. Garrison, J. Lamb, G. Yandek

9:20 **CELL 38.** Development of methacrylate functionalized resin derived from kraft lignin. E. Krall, D.C. Webster, K. Sutko

9:45 Intermission.

10:00 **CELL 39.** Bio-based intumescent flame retardant coating based on synergistic combination of phytic acid and tannic acid for nylon-cotton blends. Z. Xia, S. Yu, W. Kiratitanavit, J. Kumar, R. Mosurkal, R. Nagarajan

10:25 **CELL 40.** Toughening thermoset resins using grafted epoxidized soybean oil. S. Yadav, J. La Scala, G. Palmese

10:50 **CELL 41.** Multifunctional magnetic cellulose surface imprinted microsphere as highly selective adsorption materials. M. Xu

11:15 **CELL 42.** Production of polyhydroxyalkanoates from anaerobic fermentation under alkaline condition using alkali pretreated rice straw. B. Kim, M. Kim, Y. Choi, K. Nam

11:40 Concluding Remarks.

Building a Safety Culture across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED†, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Chemical Catalytic Routes to Biobased Materials

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

MONDAY AFTERNOON

Building a Safety Culture across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Frontiers in Carbohydrate Synthesis

Sponsored by CARB, Cosponsored by CELL

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED†, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

Intellectual Property Considerations When Entering into a Joint Venture

Sponsored by CHAL, Cosponsored by CATL, CELL, ENFL and SCHB

Green Polymer Chemistry: Biobased Materials & Biocatalysis

New Reaction Strategies & Materials

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

MONDAY EVENING

Section A

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

M. Roman, *Organizer*

8:00 - 10:00

1, 4-7, 15-16, 18-19, 21-25, 29, 31-34, 38. See previous listings.

TUESDAY MORNING

Understanding the Chemistry of Our Planet

Chemistry's Role in our Earth System

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

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Advances in Glycan Structure & Dynamics**Host-Pathogen Interactions, Glycan-Based Vaccine Design & Glycan-Protein Interactions**

Sponsored by CARB, Cosponsored by CELL

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

Sponsored by CHED, Cosponsored by ANYL, BMGT, CELL, COLL, POLY and PRES

Green Polymer Chemistry: Biobased Materials & Biocatalysis**Green Biocatalytic Transformations**

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

TUESDAY AFTERNOON**Advances in Glycan Structure & Dynamics****Glycosaminoglycan Structure**

Sponsored by CARB, Cosponsored by CELL

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

Sponsored by CHED, Cosponsored by ANYL, BMGT, CELL, COLL, POLY and PRES

Understanding the Chemistry of Our Planet**Human Impacts to our Planet**

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINP, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

Green Polymer Chemistry: Biobased Materials & Biocatalysis**Polysaccharide-Based Materials**

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

TUESDAY EVENING**Green Polymer Chemistry: Biobased Materials & Biocatalysis**

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

WEDNESDAY MORNING**Advances in Glycan Structure & Dynamics****Glycoproteins**

Sponsored by CARB, Cosponsored by CELL

Green Polymer Chemistry: Biobased Materials & Biocatalysis**Biobased Thermosetting Resins**

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

WEDNESDAY AFTERNOON**Advances in Glycan Structure & Dynamics****Conformational Analysis & Less Common Approaches to Structure Determination**

Sponsored by CARB, Cosponsored by CELL

Green Polymer Chemistry: Biobased Materials & Biocatalysis**Plant Oils & Ferulate-Based Materials**

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

THURSDAY MORNING**Green Polymer Chemistry: Biobased Materials & Biocatalysis****Therapeutics & Opto-Electronics**

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

Advances in Lignin: Chemicals, Polymers & Materials

Sponsored by POLY, Cosponsored by CELL

THURSDAY AFTERNOON**Green Polymer Chemistry: Biobased Materials & Biocatalysis****Applications of Biobased Materials**

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

CHED**Division of Chemical Education**

D. Wicht, B. Rios McKee and I. Levy, Program Chairs

OTHER SYMPOSIA OF INTEREST:**Making an Impact on Public Perceptions of Chemistry through Outreach** (see SOCED, Sun)**The Nons: Non-Tenure-Track Faculty in a Changing Academic Landscape** (see WCC, Sun)**SOCIAL EVENTS:****High School-College Interface Luncheon** (Tickets required), 12:00 PM: Sun**CHED Division Reception**, 5:30 PM: Sun**SUNDAY MORNING****Section A**

Grand Hyatt Washington Independence D/E

High School Program

Cosponsored by SOCED

M. Murry, Organizer

S. C. Rukes, Organizer, Presiding

8:00 Registration.**8:25** Introductory Remarks.**8:30 CHED 1.** Scientific studies of museum objects: The artist as alchemist. L. Brostoff**9:00 CHED 2.** Paper science and the hydrogen bond. K. Schiedermayer, S.B. Mitchell**9:35 CHED 3.** National historic sites of Washington DC. D. Krone**9:55 CHED 4.** Unusual uses for common items. S.C. Rukes**10:00** Intermission.**10:10 CHED 5.** Chemistry rocks! K.M. Kaleuati**10:45 CHED 6.** Place-based education model for developing climate science literacy in context. G.P. Foy, K.E. Peterman, R.L. Foy, L. Clements**11:05 CHED 7.** Designing inquiry lesson plans using ChemMatters magazine. K. Chesmel**11:30 CHED 8.** Formulating polymer products to beautify your world. D. Haase**11:55** Concluding Remarks.**Section B**

Grand Hyatt Washington Independence B

Research in Chemistry Education

Financially supported by ACS DivCHED Committee on Chemistry Education Research

S. Pazicni, S. C. Ryan, S. M. Underwood, Organizer, Presiding

8:30 Introductory Remarks.**8:35 CHED 9.** Comparison of student and faculty responses to electrophilic aromatic substitution reaction problems. A. Hjerstedt**8:55 CHED 10.** Which macroscopic examples from physics best support student understanding of potential energy in chemistry. M.L. Nagel, B. Lindsey**9:15 CHED 11.** Impact of strategic molecular modeling activities on student mastery, answer sophistication, and knowledge retention of molecular geometry concepts in first semester college chemistry. D.L. Richter-Egger, J. Conrad, C. Cutucache, J. Darr, A. Gift, N. Grandgenett, R. Lomneth, E. Tisko, A. Miller**9:35** Intermission.**9:50 CHED 12.** Insights into ACS membership's ethics concerns and awareness of ethics resources: Opportunities for education and training. P.A. Mabrouk, S.M. Schelble**10:10 CHED 13.** Investigating content and pedagogical knowledge development of academic peer leaders in chemistry courses. M. Emenike, N. Battacharya, S. Katzen, N. Patel, S. Blackwell**10:30 CHED 14.** My voice actually counts...: Students' experiences in the introductory chemistry laboratory. N.S. Stephenson, N. Sadler-McKnight**10:50** Intermission.**11:05 CHED 15.** Student performance improved through immediate answer-until-correct feedback during chemistry testing. J.L. Schneider, K.L. Murphy, P. Kendeou, S. Srinivasan, A. Chatterjee**11:25 CHED 16.** How the high performing student subpopulation responds to flipped vs traditional formats in honors organic chemistry. M. Habel, S. Zaman, I. Tariq, S. Ahmed, K. Zare, L. Williams**11:45** Concluding Remarks.**Section C**

Grand Hyatt Washington Independence C

Advancing Graduate Education: Opportunities & Challenges

Cosponsored by PRES

N. S. Goroff, Organizer

B. Z. Shakhshiri, Organizer, Presiding

8:30 Introductory Remarks.**8:35 CHED 17.** Advancing graduate education: Prospects and expectations. B.Z. Shakhshiri**8:50 CHED 18.** Catalyzing the modernization of graduate biomedical education. J.R. Lorsch**9:20 CHED 19.** Supporting graduate education in the future: Views from the National Science Foundation. W.J. Lewis**9:50 CHED 20.** Key issues in transforming graduate STEM education for the 21st century. A.I. Leshner**10:20** Intermission.**10:35 CHED 21.** Fostering industrial and academic partnerships. K. Watson**11:05 CHED 22.** Building an integrated university/workplace education model. M. Alger**11:35 CHED 23.** Addressing career preparation with foundation tools. V. McGovern**12:05** Concluding Remarks.**New Approaches to Teaching: Strategies, Instrumentation, Standards**

Sponsored by ANYL, Cosponsored by CHED

SUNDAY AFTERNOON**Section A**

Grand Hyatt Washington Independence D/E

High School Program

Cosponsored by SOCED

M. Murry, Organizer

S. C. Rukes, Organizer, Presiding

1:00 Introductory Remarks.**1:05 CHED 24.** The Poisoner's Handbook. D. Blum**1:55 CHED 25.** Flipping the script on the conventional classroom. S. O'Brien, K. Drury**2:15 CHED 26.** Developing project-based cooperative laboratory activities to promote use of the scientific and engineering practices. J.H. Carmel, J.S. Ward, M. Cooper**2:35** Intermission.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

2:45 CHED 27. Analyzing hazards and risks in high school chemistry labs. **I.G. Cesa, D.C. Finster**

3:05 CHED 28. Adapting food chemistry concepts to the high school curriculum. **M.Y. Bee, E.A. Burzynski, G.L. Sacks, S.B. Mitchell**

3:40 CHED 29. Building a periodic table unit plan using American Association of Chemistry Teachers (AACT) resources. **K. Duncan**

4:05 CHED 30. Connecting macroscopic, symbolic, and microscopic through data collection and molecular visualization. **T. Loschiavo**

4:30 Concluding Remarks.

Section B

Grand Hyatt Washington
Independence B

Undergraduate Research Papers

Cosponsored by SOCED

Financially supported by CUR: Council on Undergraduate Research

J. V. Ruppel, Organizer

C. V. Gauthier, N. L. Snyder, Organizers, Presiding

1:30 Introductory Remarks.

1:35 CHED 31. Mutagenesis study of intrinsically difficult-to-replicate tandem DNA sequences implicated in cancer. **D. Jordan, J. Chen, B. Powell, E. Brown, L.A. Yatsunyk**

1:45 CHED 32. Efforts towards the crystal structure of a noncanonical DNA repeat implicated in cancer. **B. Powell, J. Chen, D. Jordan, E. Brown, L.A. Yatsunyk**

1:55 CHED 33. Harnessing drop coat deposition Raman spectroscopy (DCDRS) of blood plasma for cancer diagnosis: Colon cancer, lung cancer, renal cell carcinoma, rheumatoid arthritis. **J. Jabara, A. Niyibizi, S. Potter, M. Sakiyama, C.J. Lahr, C.R. Gomez, R. Lahr**

2:05 CHED 34. Building and optimizing a TIR-Raman spectroscopy system for volatile organic chemical analysis. **P.J. Rentzepis, C.J. Taylor**

2:15 CHED 35. Isolation and characterization of pseudopyronine B from a Western North Carolina *Pseudomonas* sp. and SAR evaluation of synthesized analogs. **L.M. Bouthillette, A.L. Wolfe**

2:25 Intermission.

2:40 CHED 36. Synthesis of stercobilin: A potential biomarker for autism. **J. Coffey, T. Wood, A. Charlebois**

2:50 CHED 37. Alternative synthetic pathway for a cytotoxic compound for lymphocytic leukemia. **D. Belmona, Z. Mariani, S. Scharmach, L. Sanchez**

3:00 CHED 38. Preparation of L- and D-vinylglycine-based building blocks for the synthesis of medically relevant complex molecules. **R. Ford, E. York, L. Sanchez**

3:10 CHED 39. Inhibition of lysyl oxidase in breast cancer cells by small-molecule inhibitors. **K. Johnston**

3:20 Concluding Remarks.

Section C

Grand Hyatt Washington
Independence C

Advancing Graduate Education: Opportunities & Challenges

Cosponsored by PRES

B. Z. Shakhshiri, Organizer

N. S. Goroff, Organizer, Presiding

1:30 CHED 40. Balancing research training with professional skill building: Models for collaborative effort. **N.S. Goroff**

1:50 CHED 41. ACS development and implementation of career resources for graduate students and post-docs. **C. Kuniyoshi, J.L. Wesemann, J. Schlatterer, M.E. Grow-Sadler**

2:10 CHED 42. From the safety beat: Incorporating lab safety into graduate training. **J. Kemsley**

2:30 CHED 43. Is the apprenticeship model in graduate education obsolete? **M.T. Ashby**

2:50 CHED 44. Educating STEM doctoral students for success in a rapidly changing employment landscape. **A.L. Feig**

3:10 Intermission.

3:25 CHED 45. Supporting improved safety practices in graduate chemistry education. **R. Stuart, S.B. Sigmann**

3:45 CHED 46. Conquer the challenge of change by communicating a shared vision of transformative graduate education. **B.J. Natalizio**

4:05 CHED 47. Fostering an inclusive graduate education environment: Promising practices for promoting gender equity. **J.L. Curtis-Fisk, A. Bear**

4:25 CHED 48. Can we accept the idea that the wheel might already have been invented? **G.M. Bodner**

4:45 Concluding Remarks.

The Nons: Non-Tenure Track Faculty in a Changing Academic Landscape

Sponsored by WCC, Cosponsored by CHED, CPT, PROF and SOCED

New Approaches to Teaching: Strategies, Instrumentation, Standards

Sponsored by ANYL, Cosponsored by CHED

SUNDAY EVENING

Section A

Walter E. Washington Convention Center
Hall D

General Posters

T. A. Miller, Organizer

7:00 - 9:00

CHED 49. NSF Graduate Research Fellowship Program for chemistry and chemical engineering students. **T. Kim, D. Rickey**

CHED 50. Perception and experience of pleasure, engagement, and meaning: impacts on success. **M. Plavnik, S.R. Mooring**

CHED 51. Nomenclature: The language of chemistry. **M.D. Mosher, R.A. Yokley, H. Cheng**

CHED 52. Withdrawn.

CHED 53. National Science Foundation programs that support chemistry education. **T. Kim, D. Rickey**

CHED 54. Integrating museum learning into general chemistry: Exploring the chemistry of spaceflight with the National Air and Space Museum. **V.L. Miller**

CHED 55. Evaluating the benefits of a R1/PUI laboratory exchange program related to graduate and undergraduate student learning and professional development. **J.L. Stachowski, L. Bricker, J.B. Johnson, J. Montgomery**

CHED 56. Increasing undergraduate interest in chemistry by introducing inorganic and biochemistry in a general chemistry laboratory. **E.E. Hardy, D.L. Forbes, A.B. Curtiss**

CHED 57. Global society and chemistry: Changes and consequences. **N.N. Tahmazian, D. Wilson**

CHED 58. EPIC science education at James Madison University: Expanding Pathways, Identity and Capacity (EPIC) in secondary education. **B.A. Reisner, K. Cresawn, E. Pyle, S. Paulson, R. Higdon**

CHED 59. Building a community around general chemistry performance expectations. **D.J. Wink, S. Pazoni, A. Donovan, D. Fouillade, N. Ruppender, M. Harbol, J. Ellefson-Kuehn, K. Dailey, D. Yaron, L. Vuocolo, D.F. Moriarty, L.J. Tucker, C.P. Burch, D. Behmke, S. Lee**

CHED 60. Integrated laboratory: A team-taught, interdisciplinary, research based capstone course in the chemistry curriculum. **C.R. Pharr**

CHED 61. Design and development of general chemistry curriculum for STEM education. **P.K. Yuen, C. Lau, E.M. Yen**

CHED 62. Understanding acid-base chemistry of aqueous salt solutions: A general chemistry laboratory experiment. **A.A. Bazzi, J. Bazzi, N. Jomaa**

CHED 63. Teaching leadership in undergraduate chemistry courses: A community service to celebrate National Chemistry Week with local elementary schools and home-school students. **H.C. Maire-Afeli**

CHED 64. MTSU EYH is making an impact on the future workforce in the chemical sciences in Tennessee. **J.M. Iriarte-Gross, R. Marlin, T. Thomas, A. Williams**

CHED 65. Recruiting rural West Virginia for STEM students. **M.W. Fultz, D. Haas, R. Jisr**

CHED 66. Collaborators sought: Transferability of a university-wide teamwork minor. **J.D. Fair, A.E. Kondo, M. Hildebrandt, M. Kosicek, T. Ruffner, M. Schwartz, G. Wilson**

CHED 67. Forensics chemistry in high school STEM. **C. Bhattacharya, A. Benhusen, V.C. Bryant**

CHED 68. Service-Learning STEM course design to advance undergraduate student teaching and learning through K-12 partnerships. **S. Najm, J. Chae, C. Bowman, I. Harkavy, J. Maeyer**

CHED 69. Using an iBook to more effectively matches students' current learning styles. **J. Franco**

CHED 70. TIM Consortium: A dispersed REU site in theoretically interesting molecules. **K. Russell, J.L. Katz, P.M. Iovine, K.A. Nolin, J. Schellinger, E.J. Yezierski, S.M. Biros**

CHED 71. Evidence-based Instructional practice use in postsecondary chemistry education: Results from a national survey. **S. Srinivasan, R. Gibbons, J.J. Reed, E. Laga, J. Vega, K.L. Murphy, J.R. Raker**

CHED 72. Role of testing feedback: A preliminary look through the eyes of first-term general chemistry faculty. **C.J. Luxford**

CHED 73. Pharmaceutical chemistry: An undergraduate elective. **C.A. Sarisky**

CHED 74. Development of new research-based organic chemistry laboratory experiments for undergraduate students. **E. Lucas, S.M. King, J.A. Prescher**

CHED 75. Organic dice: A didactic game in the teaching of chemistry. **C. Rackov, H. Silva de Souza**

CHED 76. Organic chemistry educational resources: Community of organic chemistry educators. **J.L. Muzyka, L. Winfield, J. Houseknecht, A. Leontyev, V.M. Maloney, R.D. Rossi, C. Welder**

CHED 77. Hands-on intensive short course for undergraduate students: State-of-the-art mass spectrometry for point-of-care and other applications. **P.W. Fedick, R.M. Bain, S. Miao, V. Pirro, R.G. Cooks**

CHED 78. Teaching interpretation of ¹H and ¹³C NMR spectra independently of each other can fail to reach insights achieved by considering them together. **D.D. Clarke**

CHED 79. Inquiry-based Grignard reaction using an unknown aldehyde or ketone. **D.C. Haagenson**

CHED 80. Purification and characterization of catalase from mammalian tissue: Development of a multi-week protein purification and characterization project lab for upper division biochemistry and biotechnology laboratory courses. **L.S. Brunauer, J. Nishiguchi, J. Baekey**

CHED 81. Investigation of the health promoting properties of green tea polyphenols using UV/VIS spectroscopy, infrared spectroscopy, and luminometry. **A.M. Fedor, R.A. McCormick**

CHED 82. Incorporation of ethics into chemistry. **K. Kim**

CHED 83. Mentoring system for chemical education. **K. Kim**

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MONDAY MORNING

Section A

Grand Hyatt Washington
Arlington/Cabin John

Using Computational Methods to Teach Chemical Principles

M. S. Reeves, *Organizer*

A. Grushow, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 CHED 84. Using electronic structure calculations to construct the gas-phase ammonia synthesis reaction coordinate diagram. K. Stocker

8:55 CHED 85. Computations in the physical chemistry laboratory: Modeling reaction energies and exploring noble gas chemistry. J.A. Phillips

9:15 CHED 86. How can you measure a reaction enthalpy without going into the lab?: Using computational chemistry data to draw a conclusion. M.S. Reeves, H.L. Berghout, M. Perri, S.M. Singleton, R.M. Whitnell

9:35 Intermission.

9:50 CHED 87. Introducing DFT into the physical chemistry laboratory. T.C. Devore

10:10 CHED 88. Using Walsh's rules to understand molecular bonding. M.D. Ellison, C. Miller

10:30 CHED 89. Using computational chemistry to extend the acetylene rovibrational spectrum to C₂T₂. W.R. Martin, D.W. Ball

10:50 Intermission.

11:05 CHED 90. Enhancing student understanding of hydrogen bonds using a generalized computational approach to describe bonding interactions. H.L. Price

11:25 CHED 91. Withdrawn.

11:45 Concluding Remarks.

Section B

Grand Hyatt Washington
Independence B

Putting CER into Practice: Using Chemistry Education Research to Inform Teaching Strategies

J. R. Vandenplas, *Organizer*

R. S. Cole, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 CHED 92. Designing chemistry labs through CER: Using what we know about student learning in chemistry to develop and assess a cross-curricular biodiesel lab experience (Part 1). K.Y. Neiles, A.S. Koch

8:55 CHED 93. Designing chemistry labs through CER: Using what we know about student learning in chemistry to develop and assess a cross-curricular biodiesel lab experience (Part 2). A.S. Koch, K.Y. Neiles

9:15 CHED 94. Engaging in feedback, part 1: Research on illusory competence and self-assessment. S. Pazićni, B.A. Reisner

9:35 CHED 95. Engaging in feedback, part 2: Considerations for the classroom. B.A. Reisner, S. Pazićni

9:55 Intermission.

10:10 CHED 96. Discovery and concept development in large general chemistry lecture courses: How in-class simulation activities can translate research on inquiry, multimedia, and representations to practice, part 1. E.J. Yezierski, S. Bretz

10:30 CHED 97. Discovery and concept development in large general chemistry lecture courses: How in-class simulation activities can translate research on inquiry, multimedia, and representations to practice, part 2. E.J. Yezierski, S. Bretz

10:50 CHED 98. Investigation of scale in an introductory anatomy and physiology course. V. Fisher, J.M. Trate, A. Blecking, P. Geissinger, K.L. Murphy

11:10 CHED 99. Differential use of study approaches by students of different achievement levels. D.M. Bunce, R. Komperda, S. Lin, M.J. Schroeder, D.K. Dillner, M.A. Teichert, J. Hartman

11:30 Concluding Remarks.

Section C

Grand Hyatt Washington
Independence C

General Papers

S. A. Fleming, *Organizer*

C. Meyet, *Presiding*

8:30 Introductory Remarks.

8:35 CHED 100. Predictability of final course grades based on first examination scores. A.G. Karatjas, J.A. Webb

8:55 CHED 101. Role of gender in grade postdictions in chemistry courses. A.G. Karatjas, J.A. Webb

9:15 CHED 102. Implementation and evaluation of an undergraduate chemistry education certificate program. E.L. Atieh, D.M. York

9:35 Intermission.

9:50 CHED 103. Cultivating graduate student thinking in an undergraduate environment. C. Meyet

10:10 CHED 104. Assessing teamwork-intensive coursework: Laying a framework. J.D. Fair, A.E. Kondo, R. Major, T. Ruffner

10:30 CHED 105. Becoming a chemistry professor at a community college: How to get there and what's in it for you, your students and the community. K.K. Sweimeh

10:50 CHED 106. Empowering students to become creative leaders. B. Kaafarani

11:10 CHED 107. Development of guided inquiry materials, textbook examples, and assignments from recent literature projects. C.P. Schaller, K.J. Graham

11:30 Concluding Remarks.

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Post-Docs

Sponsored by CINF, Cosponsored by CHED, PROF and YCC

MONDAY AFTERNOON

Section A

Grand Hyatt Washington
Arlington/Cabin John

Using Computational Methods to Teach Chemical Principles

A. Grushow, M. S. Reeves, *Organizers*

M. Reeves, *Presiding*

1:30 Introductory Remarks.

1:35 CHED 108. Introduction to computational physical chemistry: Integrating computational method development into the standard undergraduate physical chemistry curriculum. J. Schrier

1:55 CHED 109. Molecular visualization and computation in chemistry classes throughout the undergraduate experience. L. Tribe

2:15 CHED 110. Course in computational chemistry is about chemistry not computers. A. Grushow

2:35 Intermission.

2:50 CHED 111. Chem compute science gateway: Web-based computational job submission for the undergraduate laboratory. M.J. Perri

3:10 CHED 112. Introductory exercises for the integration of computational chemistry into the undergraduate organic chemistry laboratory curriculum using WebMO. B.J. Esselman, N. Hill

3:30 CHED 113. Withdrawn.

3:50 Concluding Remarks.

Section B

Grand Hyatt Washington
Independence B

Putting CER into Practice: Using Chemistry Education Research to Inform Teaching Strategies

R. S. Cole, J. R. Vandenplas, *Organizers*

K. Y. Neiles, *Presiding*

1:30 Introductory Remarks.

1:35 CHED 114. Facilitation matters: Analysis of instructor facilitation strategies and their influences on student argumentation. R.S. Cole, C.L. Stanford

1:55 CHED 115. Improvements in classroom facilitation resulting from others observing my courses, their specific feedback, and my reflection. C.M. Teague

2:15 CHED 116. Incorporating key workplace skills into STEM classrooms and TA training. S.M. Ruder, C.L. Stanford

2:35 CHED 117. Enhancing Learning by Improving Process Skills in STEM (ELIPSS): Development and implementation of interaction rubrics. C.L. Stanford, S.M. Ruder, J. Lantz, R.S. Cole, G. Reynders

2:55 Concluding Remarks.

Section C

Grand Hyatt Washington
Independence C

Engaging Undergraduates with Raman Spectroscopy

M. D. Sonntag, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 118. Raman spectroscopy in forensic chemistry courses and undergraduate research. K.M. Elkins

1:55 CHED 119. Connecting organic and physical chemistry students with Raman spectroscopy. E.R. Hantz, M.D. Sonntag, C. Hamann

2:15 CHED 120. Introducing undergraduates to TIR-Raman spectroscopy for volatile organic compound analysis. P.J. Rentzepis, R. Dodson, C.J. Taylor

2:35 CHED 121. Gaining insight into selection rules by combining vibrational spectroscopy with computational chemistry. M.D. Sonntag

2:55 CHED 122. Integration of Raman spectroscopy in undergraduate instruction and research at Pace University. E.E. Mojica

3:15 Concluding Remarks.

Section D

Grand Hyatt Washington
Lafayette Park

Materials that Impact our Daily Lives & the Global Economy: Bring Practical Applications into the Chemistry Classroom

Cosponsored by CHED, PMSE, POLY and RUBB

Financially supported by IPECC

S. C. Rukes, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 123. Materials, materials, materials: The chemistry of solids. S.C. Rukes, A. Nydam, E.J. Escudero

2:00 CHED 124. Composites: Creating new materials. S.C. Rukes, E.J. Escudero, D. Goodwin

2:30 CHED 125. Airplanes: Looking at material selection and practical application to chemistry. E.J. Escudero, S.C. Rukes, A. Nydam

3:00 CHED 126. Teaching chemistry with the practical application of cars. A. Nydam, S.C. Rukes

3:25 Intermission.

3:30 CHED 127. Polymers in museums challenge: Preservation of museum objects as a high school project. M.T. Baker

4:00 CHED 128. Sustainable textiles: Threads that connect us all. K. Anderson, M.C. Enright, T. Natoli

4:35 CHED 129. Cosmetic chemistry: Lotions, potions and scrubs. S.C. Rukes

5:00 CHED 130. Use of nanotechnology in the global economy. S.C. Rukes

5:15 Concluding Remarks.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section E

Walter E. Washington Convention Center
Hall D

Undergraduate Research Posters

Agricultural & Food Chemistry

Cosponsored by AGFD and SOCED

N. Di Fabio, *Organizer*

2:00 - 4:00

CHED **131.** Investigation of the correlation of chemical and sensory analysis of Rosé wines. V. Trujillo, N.M. Szczepanski, B. Beam

CHED **132.** Elemental analysis of food using inductively coupled plasma-mass spectrometry at the Food and Drug Administration (FDA), Northeast Region laboratories in Jamaica, NY. M. de los Santos, L. Aleo, D. Stutts, P.D. Svoronos

CHED **133.** Determination of pesticide residues by the Food and Drug Administration using the QuEChERS extraction method in conjunction with liquid and gas chromatography. H. Kim, M. Viner, P.D. Svoronos

CHED **134.** Cherry cordial perfection: Kinetics of sucrose inversion. H.M. Tucci, P.A. Brletic

CHED **135.** Tasty taffy: Viscosity and sweetness of corn syrups. K.D. Roderick, P.A. Brletic

CHED **136.** Chewy caramels: Maillard reaction between glycine and various sugars. D. Miller, P.A. Brletic

CHED **137.** GC-MS analysis of unprecipitated whiskey flavors including Chinese baijiu flavored as American bourbon. V. Gardner, R. Silvestri

CHED **138.** Effect of sample preparation method on the quantitation of glucosinolates in broccoli and kale cultivars using LC-MS. E. Nelson, A.E. Witter

CHED **139.** Quantitative analysis of caffeine in kola nut. D. Essumang, R.F. Tunisi

CHED **140.** Flavor constituents in hops (*Humulus lupulus*) as a function of temporal and geographic characteristics of plant growth. A. Ruiz, A. Vuong, C. Shinn, D. Clark, J.A. Trischman

Section E

Walter E. Washington Convention Center
Hall D

Undergraduate Research Posters

Analytical Chemistry

Cosponsored by ANYL and SOCED

N. Di Fabio, *Organizer*

2:00 - 4:00

CHED **141.** Determination of toxic and essential elements in baby formula using flame and graphite furnace atomic absorption spectroscopy. F. Alashkar, J. Bazzi, A.A. Bazzi

CHED **142.** Coconut oil: Comparison of fatty acid content. M. Tardif, D. Liskin, N. L'Italiano

CHED **143.** Analysis of electronic cigarettes using HPLC and GC. T. Oberman, J. Williams, M. Miller, A. Schmittou, L. Hiatt, M.K. Mann

CHED **144.** Microbial chemical ecology: Molecular interactions between *Batrachochytrium dendrobatidis* and *Janthinobacter lividum*. M. Guagenti, T.P. Umile

CHED **145.** Determination of gallic acid present in juice and tea beverages using high performance liquid chromatography. M. de los Santos, J. Leong, S. Svoronos, P.D. Svoronos

CHED **146.** Determination of the total amount of antioxidants present in commercially available beverages via the Folin-Ciocalteu visible microspectrophotometric analysis. J. Leong, M. de los Santos, S. Svoronos, P.D. Svoronos

CHED **147.** Determination of the ionization constant of carboxylic acids using freezing point depression measurements. D. Kwun, E. Mera, P.D. Svoronos

CHED **148.** Analysis of nicotine and flavorings in e-juices used for vaping. M. Malvoisin, K.S. Wendling

CHED **149.** Evaluation of patterned structures in plastic microfluidic devices. A.S. Chalasani, T.M. Faust, J.M. Karlinsey

CHED **150.** Spectroscopic characterization of cresyl violet. M. Esposito, C. Kubow, A.F. Charlebois

CHED **151.** Analysis of caffeine and theobromine in cocoa beans from unique sources in Africa. L. Lupin, K.S. Wendling

CHED **152.** Tautomerization in drug design: Study of an imine-amine pair using spectroscopy, chemometrics, and quantum theory. S.E. Porter, K.L. Colley

CHED **153.** Refractive index of oxalic acid measured by zoom-in method and extension method. H. Kim, J.H. Shin

CHED **154.** Assessing the impact of chemotherapeutic agents on the zebrafish brain through bioanalytical methods. J.F. Loomis, T.M. Field, M. Shin, M.A. Johnson, T. Williams

CHED **155.** Comparison of measurements of sulfate levels in west Texas groundwater by conductometric titration and SulfaVer methods. R. Srinivasan, W. Grumbles, J. Garcia, L.D. Schultz

CHED **156.** Forensic analysis of opiates in urine by LC-MS. K. Rimmer, S. Neely, C.B. Brennan

CHED **157.** Efficacy of borate buffers in sustaining electroosmotic flow in capillary electrophoresis. T.M. Faust, A.S. Chalasani, J.M. Karlinsey

CHED **158.** Analysis of ancient Chinese pottery using portable XRF and portable diffuse FTIR spectroscopy. V.C. Bradley, M.C. Tojo, C.C. Deibel, M. Deibel

CHED **159.** Capillary electrophoresis: Effective teaching experience for undergraduates. J. Fletcher, T. Gamble, C.B. Brennan, W.L. Hutcherson

Section E

Walter E. Washington Convention Center
Hall D

Undergraduate Research Posters

Biochemistry

Cosponsored by BIOL and SOCED

N. Di Fabio, *Organizer*

2:00 - 4:00

CHED **160.** Role of amot coiled-coil homology domain residues in lipid binding specificity. R. Thakkar, A.C. Kimble Hill

CHED **161.** Trafficking and immunological studies of polymer-labeled virus-like particles. S.M. Guldberg, S.N. Crooke, C.J. Higginson, M. Finn

CHED **162.** Determining structure alteration of allosterically inhibited Rv0045c by transition metals through recrystallization. E.K. Lawson, M. Macbeth, G.C. Hoops

CHED **163.** Homology modelling and docking studies of nucleotide-bound HSP70 from the marine cyanobacterium *Synechococcus* WH5701. N. Frumento, A.A. Smith

CHED **164.** Characterization of alanine racemase from *Mycobacterium Tuberculosis*. R. Barnhart, S. Majumdar

CHED **165.** Characterization of alanine dehydrogenase from *Streptomyces Coelicolor*. R. Cook, S. Majumdar

CHED **166.** Effect of metal cations on LipN from mycobacterium ulcerans. E.H. Pool, R. Johnson, G.C. Hoops

CHED **167.** Desmoplakin mutations' effect on structure and stability within the SH3 domain. T. Albertelli, N. Wright, M. Ackermann

CHED **168.** Obscurin's Ig57 domain and its interaction with the Ig58/59 domain. J. Whitley, N. Wright

CHED **169.** Employing unnatural amino acids towards therapeutic bioconjugates. Z. Nimmo, D.D. Young

CHED **170.** Delivery of siRNA using cationic polymeric nanoparticles to understand the localization and function of GABAergic neurotransmission in planaria. K. Klases, S. Shankar, H. Ginter, L. Ramakrishnan

CHED **171.** Role of loop 6 in cyclic-di-GMP specific phosphodiesterase in *Shewanella woodyi*. M. de los Santos, D. Williams, E.M. Boon

CHED **172.** Labeled α -synuclein for cellular pathology studies. T.S. Mihaila, C. Haney, R.J. Karpowicz, V.M. Lee, E. Petersson

CHED **173.** Oligomeric state of *Mycobacterium tuberculosis*' alanine racemase is highly dependent on buffering ion as well as pH. S. Stirling, J.C. Ford, J. Ko, S. Majumdar

CHED **174.** Interaction of quadruplex DNA with small molecule binders as an anticancer strategy. Y. Lin, I. Xiang, A. Gao, L.A. Yatsunyk

CHED **175.** Investigation of the dual functions in catalysis and membrane binding of a flexible loop in acyl protein thioesterase 2. I. Gieck, R. Johnson

CHED **176.** Study of the antioxidant properties of polyphenol derivatives using luminometry. R.A. McCormick, A.M. Fedor, C.F. Saladino

CHED **177.** Structure and function of a key flexible loop in controlling the biological function of acyl protein thioesterase 1. I. Altieri, R. Johnson

CHED **178.** Investigating the effects of tunicamycin on proteins in yeast cells via liquid chromatography-tandem mass spectrometry. J. Leong, J. Smeekens, R. Wu

CHED **179.** Hydrocarbon intercalants in the lipid bilayer: Effect on water permeability. M. Lopez, G. Di Domizio, J. Denver, S. Lee

CHED **180.** Probing ion and intercalant effect on phospholipid membranes using differential scanning calorimetry. A. Jagarnath, B. O'Sullivan, E. Miller, S. Lee

CHED **181.** Simulations of the effect of water permeation through a synthetic monoglyceride bilayer. M. Njie, G. Maier, S. Lee, R.E. Versace

CHED **182.** Membrane-drug interactions: Effect on water permeability. M.J. Morales, B. O'Sullivan, M. Wood, E. Miller, S. Foley, S. Lee

CHED **183.** Surface behavior of monoglycerides at the water-oil interface. A. Gayapa, S. Foley, S. Lee

CHED **184.** Electrophysiological studies of model lipid bilayers. A.M. Armetta, M.E. McGlone, J. Warner Clement, S. Lee

CHED **185.** Quantitative Raman microspectroscopy at nanoliter aqueous microdroplets. S. Braziel, K. Sullivan, J. Giancaspro, S. Lee

CHED **186.** Effects of ions on biological membranes: Presence and absence of cholesterol. S. Evangelista, B. O'Sullivan, A. Jagarnath, S. Lee

CHED **187.** Enthalpic effects of chain length and unsaturation on water permeability across droplet bilayers of homologous monoglycerides. M. Lopez, S. Evangelista, S. Lee

CHED **188.** Effects of structural isomerization on lipid membrane properties. A.M. Armetta, J. Denver, S. Lee

CHED **189.** Characterizing the interactions between the Gag polyprotein and dimeric RNA in HIV-1 viral assembly. S. Basappa, U. Mbaekwe, H.M. Frank, C. Quasney, N. Kuo, A. Waller, P. Ding, S. Keane, M. Summers

CHED **190.** Exploring structural changes in the *Saccharomyces cerevisiae* Srs2 helicase C-terminal domain resulting from interactions with Rad51 recombinase. L. Dominguez, K. Shaley, J. Mullholand, J.L. Villemain

CHED **191.** Investigating the effects of phosphorylation on the Srs2 helicase C-terminal domain structure. H. Snider, J.L. Villemain

CHED **192.** Protein-catalyzed capture agents targeting misfolded superoxide dismutase 1. B.S. Atsavarane, D.N. Bunck, K. Mueseth, D. Vander Velde, J.R. Heath

CHED **193.** Enrichment of small molecule representation in the RCSB protein data bank. R. Ahmad, J. Westbrook, M. Sekharan, M. Zhuravleva, L. DiCostanzo, Y. Liang, C. Zardecki, H.M. Berman, S. Burley

Section E

Walter E. Washington Convention Center
Hall D

Undergraduate Research Posters

Biotechnology

Cosponsored by BIOT and SOCED

N. Di Fabio, *Organizer*

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2:00 - 4:00

CHED **194.** Implantable and biodegradable biobattery. **H. Hawkins**, L. Filardi, E. Ellis, A. Lawless-Gattone, J. Pletscher, M. Istrefi, L. Boyd, A. Kapetanakis, C. Jacobucci, I. Noshadi

CHED **195.** Fiber technology for fixed-bed bioreactor design. **L. Boyd**, H. Hawkins, H. Bukhari, J. Petit-Homme, C. Jacobucci, R. Phillips, I. Noshadi

Section E

Walter E. Washington Convention Center Hall D

Undergraduate Research Posters

Chemical Education

Cosponsored by SOCED

N. Di Fabio, *Organizer*

2:00 - 4:00

CHED **196.** Analysis of flipped vs traditional formats for organic chemistry: The high performing student subpopulation. **S. Zaman**, M. Habel, I. Tariq, S. Ahmed, K. Zare, L. Williams

CHED **197.** Effect of protease supplementation on protein hydrolysis: Where chemistry and biology meet. **A. Briceno**, R. Shakya

CHED **198.** Paying tribute to peer-led team learning: A sustainable model. **J.A. Cody**, T.G. Goudreau Collison, **R. Bogart**

CHED **199.** Undergraduate research as fundamental mechanism towards a higher education. **Y. Cruz**, A.D. Tinoco

CHED **200.** Reformed experimental activities (REActivities): Design, implementation, and evaluation of a novel organic chemistry lab delivery at both four-year and two-year institutions. **M. Jackson**, F. Armezcu, T.G. Goudreau Collison, D.L. Newman, J.A. Cody, W. Marmor

CHED **201.** Using small laccase protein to teach protein expression, purification, and characterization. **D. Hannon**, S. Majumdar

CHED **202.** Designing an organic chemistry mid-semester capstone. **C.P. Hankinson**, J.D. Fair, A.E. Kondo, C. LeBlond, S. Majumdar

CHED **203.** Addition of HPLC analysis and validation to a painkiller extraction: Undergraduate organic experiment. **N. Akanda**, J. Zhang

CHED **204.** Where does the phenyl go? Undergraduate organic chemistry laboratory investigating regiochemistry. **J.K. Murray**, **S.M. Lyle**

CHED **205.** Spectrophotometric determination of salivary lactate concentrations. **S. Gaughan**, R.C. Nangreave

CHED **206.** Simple and fractional distillation optimization in the educational organic chemistry laboratory. **M. Wall**, R. Coltharp, D. Liskin

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section E

Walter E. Washington Convention Center Hall D

Undergraduate Research Posters

Computational Chemistry

Cosponsored by COMP and SOCED

N. Di Fabio, *Organizer*

2:00 - 4:00

CHED **207.** Examination of lipid bilayer mixtures containing sphingomyelin and cholesterol by molecular dynamics simulation. **E. Wang**, J.B. Klauda

CHED **208.** Ultem thermoplastic-based 3D-printed orthoses: A comparative study on the efficacy of using polymer-based 3D-printed orthoses. **J. Viraj**, J. Wee, T. Rahman

Section E

Walter E. Washington Convention Center Hall D

Undergraduate Research Posters

Environmental Chemistry

Cosponsored by ENVR and SOCED

N. Di Fabio, *Organizer*

2:00 - 4:00

CHED **209.** Determination of water hardness: Contemporary samples of public and residential water samples from local New Jersey municipalities. **S.b. Balouga**, G. Garavito

CHED **210.** Determination of emerging organic pollutants in water samples from selected urban streams in Nigeria. **N.O. Offiong**, E. Inam, S. Kang, E. Udosen, I.B. Nwoko, **I. Okure**

CHED **211.** Characterization of the cross-flow filtration flux. **D.H. Bajracharya**, R.C. Daniel, P. Schonewill, K.L. Jones, Y. Fennell

CHED **212.** Determination of the total amount of oxygen consumption in effluent via carbonaceous biochemical oxygen demand (CBOD) and biochemical oxygen demand (BOD). **J. Hwang**, J. Leong, A. Negatu, F. Jacques, P. Meleties, P.D. Svoronos

CHED **213.** Treatment of wastewater samples at the New York City-Department of Environmental Protection (NYC-DEP). **J. Leong**, J. Hwang, F. Jacques, P. Meleties, P.D. Svoronos

CHED **214.** Heavy metal levels in college drinking water. **C.P. Celani**, P.A. Brletic

CHED **215.** Detection of pesticides in locally produced honey. **V. Kompanijec**, J. Charlebois

CHED **216.** Monitoring soil and water quality at Confluence Park in San Antonio, TX. **N. Faris**, S. Plummer Oxley, D. Turner

CHED **217.** Comparing solution state Raman spectra and theoretical vibrational properties of sucralose. **E. Skekel**, G.M. Bowers

CHED **218.** Effect of quantum dot structure on the viability of *Danio rerio*. **A. Laranang**, D. Williams, Z. Rosenzweig, R. Brewster

CHED **219.** Water quality of Ecuador following the earthquake of 2016. **D. Coffman**, A.H. Coffman

Section E

Walter E. Washington Convention Center Hall D

Undergraduate Research Posters

Green Chemistry & Sustainability

Cosponsored by CEI and SOCED

Financially supported by I&EC Green Chemistry; Green Chemistry Institute

N. Di Fabio, *Organizer*

2:00 - 4:00

CHED **220.** Dye-sensitized photovoltaic cells using fruit juices: Construction and characterization. **M. Pietratti-Bedzrah**, T. Chen

CHED **221.** Green chemistry method for isoxazoline synthesis in a one-pot reaction with SDS. **T.W. Price**, D.M. Solano

CHED **222.** Solvent free and template free synthesis of ordered mesoporous resin for green chemistry. **A. Christon**, B. Black, R. Justin, A. Lawless-Gattone, S. Rittweger, K. Milne, S. Meagan Katie, I. Noshadi

CHED **223.** Porous graphene-like carbon solid acid for biomass transformation. **E. Kuhlman**, W. Gray, A. Hesketh, C. Breyta, J. Reilly, H. Work, I. Noshadi

CHED **224.** Metal oxides as protective barriers for lithium-sulfur batteries. **R. Nye**, B.C. Wilson, R. Iuliucci

CHED **225.** Green synthesis of dithiocarbamates. **G.W. Bell**, M.E. Railing

CHED **226.** Synthesis of dithiocarbamates. **I. Hammer**, M.E. Railing

CHED **227.** Relay catalysis approach for the synthesis of 3-ethoxy-1-H-isoindoles. **J.E. Aguilar-Romero**, S.B. Munoz, V. Krishnamurti, G.S. Prakash

CHED **228.** Identification of oxygen evolution complexes using a dis-solved oxygen optical probe. **J. Guevara**, G. Renteros, Y.M. Badiel

CHED **229.** Green esterification: Organic chemistry laboratory exercise. **K. Jenkins**, Y. Lin

CHED **230.** Synthesis and characterization of anilinium based ionic liquids. **B. Baker**, A. Cardenas, B.M. Weichbrodt

CHED **231.** Desulfurization of model oil with ionic liquid-functionalized polymer. **M. Finnerty**, J. Borovilas, C. Carrie, I. Noshadi

Section E

Walter E. Washington Convention Center Hall D

Undergraduate Research Posters

Inorganic Chemistry

Cosponsored by INOR and SOCED

N. Di Fabio, *Organizer*

2:00 - 4:00

CHED **232.** Photochemistry and radiation chemistry of cosmic ice analogs. **A. Hay**, C. Nowak, M. Arumainayagam, P. Hodge, C.R. Arumainayagam

CHED **233.** Probing multiple site covalent binding interactions of Ru(II)Pt(II) bimetallic complexes with DNA. **K. Estes**, A. Hagelgans, A. Jain, A. Jain

CHED **234.** Synthesis of thiosemi-carbazones with functionalized pendant amines. **A. Davis**, C.A. Calvary, C.A. Grapperhaus

CHED **235.** Synthesis and characterization of cobalt(II) SNS pincer model complexes for liver alcohol dehydrogenase. **E.M. Almanza**, J.R. Miecznikowski, S.C. Bonitatibus, J.P. Jasinski

CHED **236.** Investigating the mechanochemical oxidation of ferrocene with transition metal salts. **S. Rahman**, N.C. Boyde, T.P. Hanusa

CHED **237.** Titanium dioxide sensitized with iron catalysts for the photocatalytic generation of hydrogen. **B.A. Barden**, M.E. Screen, N.A. Race, W.R. McNamara

CHED **238.** Synthesis of iron dicarbonyl-dithiocarbamate ligands using a ball mill. **S. Hansknecht**, J. Fuller

CHED **239.** Iron polypyridyl monophenolate complexes for photocatalytic hydrogen generation. **M.E. Screen**, B.A. Barden, N.A. Race, W.R. McNamara

CHED **240.** Iron complexes containing pendant amines for hydrogen generation. **S. Xi**, J.L. Tubb, T. Liu, W.R. McNamara

CHED **241.** Synthesis, characterization, electrochemical, and spectroelectrochemical investigation of Group 8 metal-hydroxamate complexes. **B. Ross**, A. Patel, A. Warhausen

CHED **242.** Exploring the coordination mode and redox properties of d⁸-metal hydroxamate complexes. **A. Patel**, B. Ross, A. Warhausen

CHED **243.** Synthesis of a series of highly quadrupolar liquid crystals derived from the [closo-B₁₂H₁₂]²⁻ cluster. **J.C. Lasseter**, J.G. Pecyna, P. Tokarz, A.C. Friedli, P. Kaszynski

CHED **244.** Synthesis of highly polar pyridinium liquid crystals derived from the [closo-1-CB₁₁H₁₁]⁻ anion. **M.O. Ali**, A. Hajhusein, B.D. Lukaskik, A.C. Friedli, P. Kaszynski

CHED **245.** Chromium(III) polypyridyl chromophores as photoredox catalysts for the oxidative coupling of aryl-trifluoroborates with various substrates. **W.B. Wiggins**, B.M. Lovaasen

CHED **246.** Synthesis and characterization of chromium(III) complexes of 2,6-bis(2-carboxypyridyl)pyridine. **J.C. Barbour**, B.M. Lovaasen

CHED **247.** Synthesis and characterization of boron-sulfur frustrated Lewis pairs. **B.M. Weichbrodt**, B. Baker, A. Cardenas

Section E

Walter E. Washington Convention Center Hall D

Undergraduate Research Posters

Medicinal Chemistry

Cosponsored by MEDI and SOCED

N. Di Fabio, *Organizer*

2:00 - 4:00

CHED **248.** Characterizing RNA: Protein interactions that nucleate HIV-1 viral assembly. **U. Mbaekwe**, H.M. Frank, J. Santos, C. Quasney, S. Basappa, A. Waller, N. Kuo, P. Ding, M.F. Summers

CHED **249.** Optimization of a high-content screen for autophagy modulators. **M. Krmenc**, A. Korkmaz, M. Oleksyuk, L.N. Aldrich

CHED **250.** Exploring the antibacterial properties of polyynes. **D. Uthappa**, D.D. Young

Section E

Walter E. Washington Convention Center Hall D

Undergraduate Research Posters
Nanochemistry

Cosponsored by SOCED

N. Di Fabio, *Organizer*

2:00 - 4:00

- CHED **251.** Electric field control of ion motion through carbon nanotube nanopores. **J. Stoeber, C. Hergenrother, M.D. Ellison**
- CHED **252.** G-quadruplex-hemin complexes as biomimetic catalysts. **D. Harraz, J. Davis**
- CHED **253.** Size-dependent effect of gold nanoparticles on the lifespan of *Caenorhabditis elegans*. **K. Schultz, A. Thomas, J. Thomas**
- CHED **254.** Polyaniline nanofibers as a scaffolding material for ruthenium nanoparticles. **K. Kim, D.M. Sarno**
- CHED **255.** Congo red dye degradation using single-walled carbon nanotube-ruthenium nanoparticles catalyst. **N. Carrero, R. Sumner, T. Hemraj-Benny**
- CHED **256.** Microwave irradiation of ruthenium chloride in anhydrous ethanol. **L. Pimentel, N. Carrero, T. Hemraj-Benny**
- CHED **257.** Graphene oxide as a delivery agent to antibiotic-resistant bacteria. **N. Normil, A. Lee, C. Yhap, M.D. Ellison**
- CHED **258.** Single-walled carbon nanotubes as a delivery agent to antibiotic-resistant bacteria. **R. Rathi, C. Maley, M.D. Ellison**
- CHED **259.** Au-carbon electronic interaction mediated selective oxidation of styrene. **A. Lopes, B. Liu, P. Wang, L. Jin, W. Zhong, Y. Pei, S.L. Suib, J. He**
- CHED **260.** Characterization of the mechanical stability of chemically functionalized carbon nanotubes by scanning probe microscopy. **I. Akano, J. Armas, M. de Silva, G.E. Scott**

Section E

Walter E. Washington Convention Center Hall D

Undergraduate Research Posters
Organic Chemistry

Cosponsored by SOCED

N. Di Fabio, *Organizer*

2:00 - 4:00

- CHED **261.** Withdrawn.
- CHED **262.** Chemotherapeutic agents from natural product templates: Design and synthesis of alpha-methylene indanone, coumarin, and quinolin-2-one analogues. **N. Bentz, N. McIntire, M.F. Mechelke**
- CHED **263.** Application of differential scanning calorimetry in an organic chemistry laboratory course: Development of a binary phase diagram of cis/trans 1, 2-dibenzoyl ethylene. **B. Johnson, S. Mazumder, R.P. D'Amelia**
- CHED **264.** Synthesis of a family of conjugated carbazole derivatives for applications in OLED technology. **L. Palys, C.R. Pharr**

- CHED **265.** Regiocontrol of selective substitution of 5-amino tetrazoles as possible CNS agents. **R.T. Blough, M.J. Castaldi, J.K. Murray**
- CHED **266.** Towards a bioorthogonal exchange reaction based on an inverse-electron-demand Diels-Alder (IEDDA) cycloaddition. **A.R. Van Dyke, D. Gatazka, M. Hanania**
- CHED **267.** Sulfamation of tethered aminoalkenes using *in situ* generated hypervalent iodine. **D.S. Davidson, J.M. Carney, D. Liskin**
- CHED **268.** Synthesis of monofluorometric and difluorometric cross-membrane molecular probes for studying amphipathic systems. **T. Zimmermann, A. Cartaya, T.G. Goudreau Collison, D. Raymond**
- CHED **269.** Synthesis and biological evaluation of 1,2,4-oxadiazoles: Applications to undergraduate organic lab courses. **C. Salin, P.M. Pelphrey**
- CHED **270.** Fischer esterification of 4-methyl-2-pentanol. **W.L. Hutcherson, F.J. Matthews**
- CHED **271.** Interesting results of hydrogenation reaction in the conversion of bilirubin into stercobilin: A potential biomarker for childhood autism. **A. Vadas, J. Coffey, A. Charlebois**
- CHED **272.** Syntheses of N-hydroxyphenyltrichloroacetamide derivatives by microwave reactor: Possible precursor to polycarbamate. **H. Yun, J.H. Shin**
- CHED **273.** Nickel catalyzed 4+4 cycloaddition of dienes. **E. Kativhu, G.E. Greco**
- CHED **274.** Convenient and relatively efficient total synthesis of avenic acid. **P.A. Beasley, M.G. Stocksdale**
- CHED **275.** Synthesis of the organic borazine derived from 2-aminophenol using sodium borohydride and boron trifluoride-etherate. **Y. Cruz Rivera, M. De Jesus Flores, M. Ortiz-Marciales**
- CHED **276.** Optimizing cyclization of LamD derivatives in preparation for bioassays of *Lactobacillus plantarum*. **J.W. Nadraws, J. Le, M.A. Bertucci**
- CHED **277.** Synthesis of aryl oxetanes from the enantioselective reduction of 2-halogenated ketones with EG-DPP. **J.E. López Hernández, J.M. Garcia Rodríguez, B. Quiñones Díaz, S. Espinosa-Díaz, K.M. Santiago, M. Ortiz-Marciales**
- CHED **278.** Effects of modifying carbon number and structure of hydrophobic amino acid residues on CSP-1, a key quorum sensing peptide in *S. pneumoniae*. **R.A. Hillman, M.A. Bertucci, Y. Tal-Gan**
- CHED **279.** Synthesis of the enantiopure 2-ferrocenyl oxetane. **S.M. Rivera Torres, M. Ortiz-Marciales, L.E. Pinero-Santiago**
- CHED **280.** Synthesis and structural characterization of distyryl β -keto- iminate boron difluoride complexes. **C. Moore, L.M. Stevens, D. Chase**
- CHED **281.** Synthesis of polycationic amphiphilic polyviologens. **M. Khafaji Zadeh, A. Nguyen, B. Noor, S. Sharpes, K. Seifert, K.L. Caran**
- CHED **282.** Methodology for the synthesis of a new generation of spiroamino borate. **B. Vargas Rivera, M. Ortiz-Marciales, L.E. Pinero-Santiago**
- CHED **283.** Synthetic studies toward altersolanol derivatives. **T.C. Bentzel, B.L. Frey, S.M. Kennedy**

CHED **284.** Withdrawn.

- CHED **285.** Development of a dithiepin framework for novel host molecules. **K.E. Russelburg, R.G. Hopf, E.O. Wade**
- CHED **286.** Determination of antibacterial properties of novel disubstituted 1,3,4-oxadiazoles. **C. Dorton, P.M. Pelphrey**
- CHED **287.** Metal-free intermolecular chloroamination of alkenes. **M. Ralston, D.S. Davidson, J.M. Carney, D. Liskin**
- CHED **288.** Electrophilic aromatic bromination of hydroxybenzoic acids and methoxybenzoic acids. **C. Collie, J. Aruma, O. Oluwagbemila, A. Popoola, O. Oladimeji, E. Ikechukwu, R. Langley, A.S. Tung**

Section E

Walter E. Washington Convention Center Hall D

Undergraduate Research Posters
Physical Chemistry

Cosponsored by SOCED

N. Di Fabio, *Organizer*

2:00 - 4:00

- CHED **289.** Computational design of single molecule electronic devices. **J.T. Brumfield, B. Topham**
- CHED **290.** Role of low-energy (< 20 eV) electrons in astrochemistry. **A. Caldwell-Overdier, L. Widdup, C.R. Arumainayagam**
- CHED **291.** Experimental and theoretical spectroscopic studies of mid and near infrared detection of methane tracers in the environment. **S. Hines, W.K. Gichuhi**
- CHED **292.** Cooperativity in cation- π interaction. **R. Spinelle, A. Rosario, B.U. Emenike**
- CHED **293.** Molecular dynamics simulations of small molecule diffusion in polyelectrolyte solutions. **Z. He, P.K. Walhout**

Section E

Walter E. Washington Convention Center Hall D

Undergraduate Research Posters
Polymer Chemistry

Cosponsored by PMSE, POLY and SOCED

N. Di Fabio, *Organizer*

2:00 - 4:00

- CHED **294.** Preparation and characterization of novel biorenewable polymers for removing organic pollutants from aqueous environments. **L. Purser, A.M. Baijia**
- CHED **295.** Porous microspheres of polyaniline and its derivatives prepared from W/O/W double emulsions. **J. Hwang, D.M. Sarno**
- CHED **296.** Synthesis and characterization of superhydrophobic fibrous membranes. **A. Dotivala, C. Tang**
- CHED **297.** Silicones in undergraduate research: Examining the surface and material properties of silicones at interfaces. **K.M. Ryan, W.Y. Bender, T.B. Longenberger, J.W. Krumpfer**
- CHED **298.** Examining the steric forces of bacterial lipopolysaccharides using atomic force microscopy. **N. Rigaud, J. Fortado, A. Criollo, M.A. Ferguson**
- CHED **299.** Molecular dynamics simulations of small molecule diffusion in a polyelectrolyte symplect gel. **K. Whiteside, P.K. Walhout**

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED \ddagger , CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

Chemistry & Culture: How Native American Chemists Impact Their Community

Sponsored by CMA, Cosponsored by CHED and PROF

Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Post-Docs

Sponsored by CINF, Cosponsored by CHED, PROF and YCC

Materials that Impact our Daily Lives & the Global Economy: Bring Practical Applications into the Chemistry Classroom

Cosponsored by CHED, PMSE, POLY and RUBB

MONDAY EVENING

Section A

Walter E. Washington Convention Center Halls D/E

Sci-Mix

I. J. Levy, *Organizer*

8:00 - 10:00

- 10, 32, 35-36, 49, 52, 56-57, 59, 69, 84, 90, 119.** See previous listings.
- 314, 323, 325-326, 366, 378, 390, 401, 412.** See subsequent listings.

Section A

Walter E. Washington Convention Center Halls D/E

Successful Student Chapters

N. Di Fabio, *Organizer*

8:00 - 10:00

- CHED **300.** ACS student affiliates chapter of Seattle Pacific University. **N. Buzitis, S. Bass, A. Mencke, J. Campbell, K.M. Pierce**
- CHED **301.** Student affiliate American Chemical Society chapter at Indiana University of Pennsylvania. **J. Simposon, N.R. Mc Elroy**
- CHED **302.** University of Maryland, Baltimore County: Sharing STEM with the community. **I. Entzinger, T.S. Carpenter**

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

- CHED 303.** Accomplishments of the UMD American Chemical Society student affiliates chapter. H. Vivanco, S. Cohen
- CHED 304.** Chemistry beyond the classroom. C. Nwigwe, C. Anaemeh, N.H. Marashi
- CHED 305.** ACS student affiliate chapter and Natural Sciences and Discovery Club provide venues for science outreach. R. Rawat-Prakash, M. Reitano, S. Sambasivan

TUESDAY MORNING

Section A

Grand Hyatt Washington
Independence D/E

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

Cosponsored by ANYL, BMGT, CELL, COLL, POLY and PRES

Financially supported by POLY Industrial Advisory Board (IAB)

R. J. Mondschein, *Organizer*

C. Powell, *Organizer, Presiding*

B. L. Nichols, S. Talley, *Presiding*

9:00 Introductory Remarks.

9:10 **CHED 306.** Instrumentation and methods for the identification and sequence analysis of (1) intact proteins on a chromatographic time-scale and (2) characterization tumor specific phosphopeptides for immunotherapy of cancer. D.F. Hunt

9:50 **CHED 307.** Putting photochemistry to work: Strategies for uncaging small molecule bioregulators. P.C. Ford

10:30 Intermission.

10:40 **CHED 308.** Living and learning from inspiration and innovation. P.T. Hammond

11:20 **CHED 309.** Imaging mycobacterial cell envelope assembly and division. L.L. Kiessling

12:00 Concluding Remarks.

Section B

Grand Hyatt Washington
Independence B

Innovations in Undergraduate Biochemistry Education

C. B. Abrams, P. L. Daubenmire, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 **CHED 310.** Implementation of optimum course content and key process skills in a one-semester undergraduate biochemistry course as preparation for taking the medical college admission test (MCAT). N.J. Ronkainen

8:55 **CHED 311.** Toxicity and adverse outcome pathways as a connecting concept between toxicology and undergraduate biochemistry. M.A. Fisher

9:15 **CHED 312.** Strategies to deliver biochemistry content in general chemistry. J.P. Ellis

9:35 **CHED 313.** Relating chemistry concepts to healthcare: Introducing cultural competencies in the lab. P.L. Daubenmire, G. Clark

9:55 Intermission.

10:10 **CHED 314.** Molecular origami for biochemistry: Modelling protein-DNA interactions with paper models. C.B. Abrams

10:30 **CHED 315.** Computers in medicinal chemistry - a toolbox approach to biochemical research and education: Understanding enzyme mechanisms. C. Reidl, D.P. Becker

10:50 **CHED 316.** Implementation of a semester-long laboratory project investigating the roles of amino acids important to the catalytic activity of 5,10-methylenetetrahydrofolate synthetase (MTHFS). C.A. Sarisky, T. Johann

11:10 **CHED 317.** Simple approach for teaching 2D NMR to undergraduate biochemistry students. K.R. Willian

11:30 Concluding Remarks.

Section C

Grand Hyatt Washington
Independence C

Increasing Retention of Under-Represented Students in Chemistry

Cosponsored by CHED

S. G. Cessna, *Organizer*

T. L. Kishbaugh, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 **CHED 318.** UWM STEM CELL: Accelerating the pace to academic success in STEM. A. Blecking, K. Swanson, K.L. Murphy, P. Geisinger

8:50 **CHED 319.** Cohort program to increase recruitment and retention of under-represented students in STEM. E.J. McIntee, K.J. Graham

9:05 **CHED 320.** Supporting STEM students through attachment theory. B.M. Fetterly

9:20 Intermission.

9:30 **CHED 321.** Evaluation of effects of an intervention aimed at broadening participation in STEM while conveying science content. M. Wyer, J.N. Schinske, H. Perkins

9:45 **CHED 322.** Improving retention through teaching strategies and peer tutoring. T.L. Kishbaugh, S.G. Cessna

10:00 **CHED 323.** Studio format general chemistry: A method for increasing chemistry success for students from underprivileged backgrounds. J.B. Greco

10:15 **CHED 324.** Applying innovations in teaching to general chemistry. W. Hollinsed

10:30 **CHED 325.** Improving the success rate for domestic students of color and first generation college students in the second year—focus upon organic chemistry and cell and molecular biology. J.E. Swartz

10:45 Intermission.

10:55 **CHED 326.** Effective strategies to improve academic success and retention in underrepresented STEM students. P.K. Kerrigan, A. Ribeiro, P. Grove

11:10 **CHED 327.** Employing minoritized students as tutors to increase retention in STEM. K.J. Graham, A.F. Raigoza, L. Caitlin, C. Bohn-Gettler

11:25 **CHED 328.** Building STEM teaching pathways and peer support with a learning assistant program. C.P. Schick

11:40 **CHED 329.** Hierarchical mentoring model for enhancing diversity among undergraduate students in STEM. I.M. Warner, M. Crawford, S.E. McGuire, G. Thomas, Z. Wilson-Kennedy

11:55 Concluding Remarks.

Increasing Retention of Under-Represented Students in Chemistry

Cosponsored by CHED

TUESDAY AFTERNOON

Section A

Grand Hyatt Washington
Independence D/E

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

Cosponsored by ANYL, BMGT, CELL, COLL, POLY and PRES

Financially supported by POLY Industrial Advisory Board (IAB)

C. Powell, *Organizer*

R. J. Mondschein, *Organizer, Presiding*

L. Anderson, K. Arrington, *Presiding*

1:15 Introductory Remarks.

1:20 **CHED 330.** Broad spectrum, biodegradable macromolecular antimicrobials with high selectivity. J. Hedrick

2:00 **CHED 331.** Translational chemistry. P.S. Baran

2:40 Intermission.

2:50 **CHED 332.** Dynamically tunable hydrogels through bio-click reactions and their applications in regenerative biology. K.S. Anseth

3:30 **CHED 333.** Engineering hydrogels for musculoskeletal tissue repair. J.A. Burdick

4:10 Concluding Remarks.

Section B

Grand Hyatt Washington
Independence B

Metacognition in Chemistry Education: Connecting Research & Practice

Cosponsored by CHED

S. Anthony, M. T. Dianovsky, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 **CHED 334.** Metacognition in chemistry education: Connecting research and practice. M.T. Dianovsky, S. Anthony

2:05 **CHED 335.** Promoting metacognitive strategies with the science writing heuristic during the lab session and beyond. P.L. Daubenmire, M.T. van Opstal

2:35 **CHED 336.** Metacognitive monitoring judgments across diverse chemistry contexts and tasks. S. Anthony

3:05 Intermission.

3:25 **CHED 337.** Using learning objectives and study guides to promote metacognition in general chemistry. T.S. Carpenter

3:55 **CHED 338.** Metacognition and conceptual change. M.T. Dianovsky

4:25 **CHED 339.** Promoting metacognitive practices in faculty and students. P. Varma-Nelson, T. Tarr, A. S.Rao

4:55 **CHED 340.** Metacognition across the STEM disciplines. M.L. Miller, S. Vestal, L. Browning

5:25 Concluding Remarks.

Section C

Grand Hyatt Washington
Independence C

Advances in E-Learning

C. J. Foley, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 **CHED 341.** Development and quality matters assessment of an online preparatory chemistry course. M.A. Erdmann, J.R. Prado, J. March

1:55 **CHED 342.** Delocalized learning: Resonating with organic chemistry students in a Canadian university. H. Kouyoumdjian, D.A. Jackson

2:15 **CHED 343.** Poor man's electronic lab notebook. C.M. Bump, E.N. Ndip, G.C. Nwokogu, M.K. Waddell

2:35 Intermission.

2:50 **CHED 344.** Comparative assessment of student learning outcomes of introductory chemistry course delivered via hybrid (blended) and traditional modalities. S. Sambasivan, D. Williams, C.J. Foley

3:10 **CHED 345.** PubChem as a cheminformatics education resource. S. Kim, E. Bolton, S.H. Bryant

3:30 **CHED 346.** Cultivating digital literacy with mobile devices: Digital laboratory notebooks and orienting undergraduates to ACS national meetings. A.R. Van Dyke

3:50 **CHED 347.** Investigating student misconceptions in applying resonance concepts in undergraduate organic chemistry courses using various formative and summative assessment tools. M. Chatterjee, H. Shaaban, L. Katz

4:10 Concluding Remarks.

Metacognition in Chemistry Education: Connecting Research & Practice

Cosponsored by CHED

WEDNESDAY MORNING

Section A

Grand Hyatt Washington
Independence D/E

Green Chemistry: Theory & Practice

Cosponsored by CEI and ENVR†

E. J. Brush, J. E. Wissinger, *Organizers*

M. Berger, L. A. Welch, *Presiding*

8:30 Introductory Remarks.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

†Cooperative Cosponsorship

8:35 CHED 348. Using a cell phone in lab exercise for an assay of total phenolic compounds. C. Saenjium, W. Wongwilai, K. Kiwfo, C.H. Bergo, K. Grudpan

8:55 CHED 349. Down scaling lab exercise for colorimetric determination of nitrate using a smart phone as a detector: A green analytical chemistry. P. Jaikang, C.H. Bergo, K. Grudpan

9:15 CHED 350. Undergraduate chemistry laboratory to study the catalytic oxygen evolution reaction using a Dissolved-Oxygen Optical Probe (DOOP) to appreciate artificial photosynthesis. Y.M. Badiei, G. Renderos, J. Guevara

9:35 CHED 351. Integration of environmental research into the teaching laboratory. M. Berger, R. Gurney, L. Lobel, J.L. Goldfarb

9:55 CHED 352. Development of an undergraduate research program in renewable energy: A recruitment and retention tool. L.A. Welch

10:15 CHED 353. Using current literature to understand the chemistry of climate and habitat change as an in-depth course. A.A. Peterson, C.M. Strollo

10:35 Intermission.

10:50 CHED 354. Introducing green chemistry concepts to science and non-science majors in college. A.E. Shinnar, J.M. Newman

11:10 CHED 355. Case studies and flipped classroom approach to green chemistry. F.A. Etkorn

11:30 CHED 356. Top 10 ethics & policy reasons to practice green chemistry. F.A. Etkorn

11:50 CHED 357. Making the connection: Green chemistry and social and environmental justice. E.J. Brush

12:10 CHED 358. Green chemistry education roadmap: Progress report. J. MacKellar, J.E. Hutchison, D.J. Constable, M.M. Kirchhoff

12:30 Concluding Remarks.

Section B

Grand Hyatt Washington
Independence B

General Papers

S. A. Fleming, *Organizer*

D. A. Katz, *Presiding*

8:30 Introductory Remarks.

8:35 CHED 359. Improving thermodynamics teaching for chemistry students. T. Yu

8:55 CHED 360. Industrial and engineering processes: An in-depth level course for the new chemistry curriculum. A. Fazal

9:15 CHED 361. Impact of first year intervention in student engagement and retention at Universidad Metropolitana. G.A. Infante, L. Fuentes-Claudio, D. Gomez, M.B. Santiago-Berrios, L. Vazquez

9:35 Intermission.

9:50 CHED 362. Bohr model for hydrogen – revised. P. Wepplo

10:10 CHED 363. Peer-mentorship program using general chemistry labs: Impact on retention rates. F. Damkaci, K. Gublo, T. Braun

10:30 CHED 364. Alternate assessment in general chemistry classes. D.A. Katz

10:50 CHED 365. Adventures with energy and fuels. D.A. Katz

11:10 CHED 366. Silicones at the crossroads: Uniting physical and chemical properties with the artistic and material. T.B. Longenberger, K.M. Ryan, W.Y. Bender, J. Kreidler, J.W. Krumpfer

11:30 Concluding Remarks.

Section C

Grand Hyatt Washington
Independence C

Integration of STEM & the Liberal Arts

C. J. Foley, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 CHED 367. Scientific computing to enrich the freshman chemistry curriculum. A.K. Sharma

8:55 CHED 368. Engaging science and non-science major students in scientific inquiry through common experiences. M. Yuen

9:15 CHED 369. Measurement of the mastery of learning outcomes for integrated coursework between a humanities and a science course. A.L. Nickel, J.K. Farrell, A. Domack, G. Mazzone

9:35 Intermission.

9:50 CHED 370. Teaching chemistry/physics in an interdisciplinary undergraduate course using young adult literature. K.S. Wendling

10:10 CHED 371. Designing a university-wide teamwork minor for STEM fields. J.D. Fair, A.E. Kondo, M. Hildebrandt, M. Kosicek, T. Ruffner, M. Schwartz, G. Wilson

10:30 CHED 372. Science in the popular novel. I. Black

10:50 Concluding Remarks.

Fostering a Quality Culture in Research & Development

Sponsored by BMGT, Cosponsored by CHED, PROF and SCHB

WEDNESDAY AFTERNOON

Section A

Grand Hyatt Washington
Independence D/E

Process Oriented Guided Inquiry Learning (POGIL)

R. S. Moog, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 373. POGIL and the POGIL project. R.S. Moog

1:55 CHED 374. POGIL philosophy and flexible seating promotes student learning in organic chemistry at Adelphi University. M.A. VanAlstine-Pariss

2:15 CHED 375. What do students think is the most important concept? D.B. King

2:35 Intermission.

2:45 CHED 376. Implementation of Process Oriented Guided Inquiry Learning (POGIL) in an engineering chemistry course in Hyderabad, India. K. Madhavi, P. Kakumanu, K.E. Butler

3:05 CHED 377. Mirror images: Promoting students' assessment skills through reflection. M.D. Perry

3:25 CHED 378. Developing a POGIL-type workbook for inorganic chemistry. J.M. Keane

3:45 Panel Discussion.

Section B

Grand Hyatt Washington
Independence B

General Papers

S. A. Fleming, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHED 379. Science recovery after the devastating 2016 West Virginia floods. M.W. Fultz

1:55 CHED 380. Withdrawn.

2:15 CHED 381. Fabricate functional solar panels using household ingredients. S. Patwardhan, G.C. Schatz

2:35 Intermission.

2:50 CHED 382. Modern techniques in biochemistry education: Analysis of bovine pancreatic trypsin inhibitor using HPLC. M. Steinsaltz

3:10 CHED 383. Transforming the organic lab experience: REActivities and assessment of their implementation at a four-year institution. T.G. Goudreau Collison, J.A. Cody, D.L. Newman

3:30 CHED 384. Transforming the organic lab experience: REActivities and assessment of their implementation at a two-year institution. J.P. Anderson, B.L. Edlbach

3:50 CHED 385. Development, implementation, and evolution of a unique and reciprocal summer research exchange program with China. H.V. Jakubowski, J. Xie, Y. He

4:10 Concluding Remarks.

Section C

Grand Hyatt Washington
Independence C

Games & Active Learning Techniques to Help Students Understand Chemistry

K. K. Bagga, D. B. King, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 CHED 386. Incorporation of Jeopardy! Games into general chemistry lecture. M. Shahu

1:55 CHED 387. KembroX™: Model kit for ionic compounds. B. Aurian-Blajeni

2:15 CHED 388. Using LEGOs to help students understand kinetics and equilibrium concepts. J. Xian, D.B. King

2:35 Intermission.

2:50 CHED 389. CHEMCompete-I: A chemistry card game for substitution and elimination reactions of alkyl halides. D. Jaber

3:10 CHED 390. Game based activities as chemistry teaching tools. M.T. Soper-Hopper, A. Lozoya Colinas, A. McKee, C. Parsons

3:30 CHED 391. Using scratch cards as formative and summative assessments. D.B. King

3:50 CHED 392. Application of electrostatic potential maps to predict reactivity: A card game approach. K.K. Bagga

4:10 Concluding Remarks.

THURSDAY MORNING

Section A

Grand Hyatt Washington
Independence D/E

Citizens First!

Cosponsored by CEI

C. Maguire, R. D. Sheardy, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 CHED 393. Introduction to environmental issues as a chemistry for non-science majors course. M.E. Railing

8:30 CHED 394. Value of using retired scientists in the classroom: Connecting chemistry to the real world. R. Thomas, M.T. Baker, M. Miehli, M.C. Cross

8:55 CHED 395. Sustainability across learning outcomes: Preparing our students to the new challenges of our global economy. H.C. Maire-Afeli

9:20 Intermission.

9:30 CHED 396. Incorporating cross-cultural and global competencies into postsecondary education programming. H. MacCleoud

9:55 CHED 397. TWU pollinator garden project: Citizen science in the real world. R.D. Sheardy, C. Maguire

10:20 CHED 398. Assessing citizenship. S. Carroll

10:45 Discussion.

Section B

Grand Hyatt Washington
Independence B

Chemistry in the Age of Cheap Computing

Cosponsored by ANYL

R. M. Burks, J. Ory, *Organizers, Presiding*

C. Sorensen-Unruh, *Presiding*

8:00 Introductory Remarks.

8:05 CHED 399. WinPSSP: An educationally-g geared software for crystal structure determination of organics from powders. S. Pagola, A. Polymeros, N. Kourkoumelis

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

8:25 CHED 400. Low cost portable cyclic voltammetry using arduino. A.B. Helms, C. Prince, D. Nelson

8:45 CHED 401. Internet of things: Introducing students to problem solving through Raspberry Pi. E.C. Bucholtz

9:05 Intermission.

9:15 CHED 402. Ready, set, action! Using Go-Pro videos to connect instrumentation with students and faculty. C. Sorensen-Unruh

9:35 CHED 403. Changing roles for changing times: Social media and the evolution of the supplemental instructor. E. Alden

9:55 CHED 404. Freely available online tools for communicating chemistry through social media. A.J. Williams

10:15 CHED 405. Radical awakenings: A new teaching paradigm using social media. C. Sorensen-Unruh

10:35 Concluding Remarks.

Section C

Grand Hyatt Washington Independence C

Assessment Instruments for the ACS-Accredited Degree Program

S. Lin, M. A. Teichert, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 CHED 406. Matching the evaluation plan to the question. D.M. Bunce

8:25 CHED 407. Assessing your assessments. R. Komperda

8:45 CHED 408. ACS Exams: Making measurements for classroom and programmatic assessment. J.J. Reed, S. Srinivasan, J.R. Flaker, K.L. Murphy

9:05 CHED 409. Customized ACS Exams for the assessment of non-traditional courses. T.N. Jones

9:25 Intermission.

9:40 CHED 410. Rubrics for assessing student skills in drawing reaction mechanisms and reaction coordinate diagrams in organic chemistry. S. Lin, J.J. Urban

10:00 CHED 411. Assessing student knowledge of chemical bonding. M.A. Teichert, S. Lin

10:20 CHED 412. Enhancing learning by assessing process skills in STEM courses. R.S. Cole, S.M. Ruder, C.L. Stanford, J. Lantz, G. Reynders

10:40 CHED 413. Surprises from closing the loop in program evaluation. J.L. Stewart

11:00 Discussion.

11:15 Concluding Remarks.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

CHAS

Division of Chemical Health and Safety

D. Decker, J. Pickel and F. Wood-Black, *Program Chairs*

OTHER SYMPOSIA OF INTEREST:

Building a Safety Culture across the Chemistry Enterprise (see PRES, Mon)

Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Postdocs (see CINF, Mon)

BUSINESS MEETINGS:

CHAS Business Meeting, 8 AM: Sun

SUNDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 209C

Division of Chemical Health & Safety Awards

Cosponsored by CCS

D. B. Walters, *Organizer, Presiding*

D. M. Decker, *Presiding*

1:30 Introductory Remarks.

1:35 CHAS 1. Make safety habits by finding your cues, routines, and rewards for safety! R.H. Hill

2:00 CHAS 2. Chemical Safety: The state of the arts. M. Rossol

2:25 CHAS 3. Stanford's laboratory safety culture - from chemistry to the campus - Part 1: Department of Chemistry Teaching Laboratories. C.T. Cox, S. Chan, M. Dougherty

2:50 CHAS 4. Stanford's laboratory safety culture - from chemistry to the campus - Part 2: Advancing institutional safety culture throughout the campus. L.M. Gibbs, R. Furr, M. Dougherty

Section A

Walter E. Washington Convention Center Room 209C

Soft Skills in Training & Interactions

Cosponsored by CCS

R. M. Izzo, *Organizer, Presiding*

3:25 Introductory Remarks.

3:30 CHAS 5. Elements of leveraging soft skills. K. Angjelo

3:55 CHAS 6. Be prepared: Things to do before EHS interactions with lab. R.M. Izzo

4:20 CHAS 7. Developing and maintaining relationships with research: Who, how, and why? B.S. Chance

4:45 CHAS 8. Supporting development of chemical risk assessment skills. R. Stuart

MONDAY MORNING

Building a Safety Culture Across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

MONDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 209C

Cannabis Processing: Innovations & Legal Protections

Cosponsored by CCS

Financially supported by CANN

J. Marcu, E. M. Pryor, *Organizers, Presiding*

1:30 Introductory Remarks.

1:40 CHAS 9. Purification strategies for removing undesirable natural components and contaminants from cannabis extracts. M.J. Wilcox, J. Marcu

2:05 CHAS 10. Traditional cannabis processing: Protecting indigenous knowledge. K.S. Hylton

2:30 CHAS 11. Cannabis data: Analysis to analytics. S. Sguera

2:55 Intermission.

3:10 CHAS 12. Cannabis grow facilities: Identification of hazardous wastes found at a cannabis grow facility; the problem and a proposed solution for environmental health departments. D. Keenan

3:35 CHAS 13. Terpenes and terpenoids in cannabis: A medical review. M. Troiani

4:00 Panel Discussion.

4:10 Concluding Remarks.

Building a Safety Culture Across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

MONDAY EVENING

Section A

Walter E. Washington Convention Center Halls D/E

Sci-Mix

J. M. Pickel, *Organizer*

8:00 - 10:00

CHAS 14. Mapping laboratory risk assessment resources. R. Stuart

CHAS 15. Division of Chemical Health and Safety Information Poster. J.M. Pickel

CHAS 16. Catching up with Runaway HotPlates. J.M. Pickel, K.J. Bush, M. Mathews

CHAS 17. Improving safe use of pressure systems in chemistry laboratories. J.M. Pickel, K.B. Jeskie

CHAS 18. Chiral/achiral analysis of naturally occurring cannabinoids using a new sub-2 μm chiral stationary phase with ultra high performance SFC-MS. M.J. Wilcox, S. Anderson, G. Mazzocanti, F. Gasparini, O. Ismail, A. Ciogli, C. Villani

TUESDAY MORNING

Section A

Walter E. Washington Convention Center Room 209C

Chemophobia: Communicating Chemistry

Cosponsored by CCS

E. Sweet, *Organizer*

R. Stuart, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 CHAS 19. Chemicals: The good, the bad, and the ugly. S.B. Sigmann

8:35 CHAS 20. The good, The bad and the uncertain: Public perception of the chemical enterprise. M.E. Jones

9:05 CHAS 21. Role communications play in laboratory safety. S. Morrissey

9:35 CHAS 22. Developing design principles for "lessen learned" laboratory safety videos. H. Weizman

10:05 Intermission.

10:15 CHAS 23. It's no accident that many journalists don't write clearly about lab safety incidents. B. Benderly

10:45 CHAS 24. Hazmat event reporting in the media. R. Stuart

11:15 CHAS 25. Risk communication for the non-chemist (and chemist). R.M. Izzo, K. Angjelo, S. Elwood

11:45 Panel Discussion.

TUESDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 209C

Building a Safety Culture Across the Chemical Enterprise

Cosponsored by CCS

J. Palmer, *Organizer*

J. M. Pickel, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHAS 26. Challenges and opportunities of building and promoting safety culture with a federal agency. R. Meidl

2:00 CHAS 27. How can we build sustainable safety culture? Safety training vs safety education? N. Bharti

2:25 CHAS 28. Challenges and rewards in enforcing laboratory safety and training: First year on the job. R. Malaisamy

2:50 CHAS 29. Safety guidelines for the chemistry professional. K.P. Fivizzani

3:15 Intermission.

3:30 CHAS 30. Partnering with faculty and staff towards improved safety culture. S. Elwood, R.M. Izzo, K. Angjelo

3:55 CHAS 31. Development and implementation of a researcher oriented chemical-safety support program at a 1st tier academic research institution. J.G. Palmer

4:20 CHAS 32. Establishing a sustainable safety culture in academic research labs. **K.A. Miller**

4:45 Concluding Remarks.

WEDNESDAY MORNING

Section A

Walter E. Washington Convention Center Room 209C

Building a Safety Culture Across the Chemical Enterprise

Cosponsored by CCS[‡] and PROF

J. Palmer, *Organizer*

J. M. Pickel, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 CHAS 33. Safe operating cards (SOCs): Open communication helps best practices from industry move to academia. **A.J. Miller, I. Tonks, C.L. Pitman**

9:00 CHAS 34. GHS information integration in PubChem. **J. Zhang, P. Thiessen, A. Gindulyte, E. Bolton**

9:25 CHAS 35. Pharmaceutical industry best practices in lessons learned: ELN implementation of Merck's reaction review policy. **R.A. Sayle, J.W. Mayfield**

Section A

Walter E. Washington Convention Center Room 209C

Emerging Trends in Research Operations

Cosponsored by CCS

J. M. Pickel, *Organizer*

C. D. Incarvito, *Organizer, Presiding*

10:00 Introductory Remarks.

10:05 CHAS 36. Framingham State University: Science Building. **J. Blount**

10:30 CHAS 37. Safe and appropriate application of filtered fume hoods. **K. Crooks**

10:55 CHAS 38. iLab operating software materials management. **C. Lopes**

11:20 CHAS 39. Monitoring VOCs within flammable liquid chemical storage cabinets for laboratory safety. **A.E. Norton, K. Brown, W.B. Connick, A. Doepke, F. Nourain**

11:45 Concluding Remarks.

Analytical, Environmental & Regulatory Challenges with Legalized Cannabis

Sponsored by AGRO, Cosponsored by CHAS[‡]

WEDNESDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 209C

Emerging Trends in Research Operations

Cosponsored by CCS

J. M. Pickel, *Organizer*

C. D. Incarvito, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CHAS 40. Multidisciplinary research institutes and the challenges they bring. **S. Elwood, R.M. Izzo, K. Angielo**

2:00 CHAS 41. Convergence of research operations and safety: A mutually beneficial partnership. **K. Heard**

2:25 CHAS 42. Role of the EHS Professional in laboratory design. **M.B. Koza**

2:50 CHAS 43. Taking safety management to the next level: Moving from assumptions to reality. **S. Schwartz-Hinds, N. Watson**

3:15 Intermission.

3:30 CHAS 44. Designing and operating facilities to support the safe conduct of research activities. **J.M. Pickel, K.B. Jeskie**

3:55 CHAS 45. Personal chemical exposure sensor with indoor positioning and robotics for laboratory safety. **K. Brown, A. Brandes, A.E. Norton, P.B. Shaw, D.T. Neu, R. Voorhees**

4:20 CHAS 46. Hydrogen gas lab servers provide many advantages to laboratory operations. **J. Speranza**

4:45 CHAS 47. Achieving a balance between expansion and cost control: Yale University West Campus Research Operations. **C.D. Incarvito**

CINF

Division of Chemical Information

E. Alvaro, Program Chair

OTHER SYMPOSIA OF INTEREST:

Advancing Graduate Education: Opportunities & Challenges (see CHED, Sun)

Building a Safety Culture Across the Chemical Enterprise (see CHAS, Tue, Wed)

Drug Design (see COMP, Wed, Thu)

SOCIAL EVENTS:

Luncheon, 12:00 PM: Tue

Reception, 6:30 PM: Sun

Skolnik Award Symposium Reception, 6:30 PM: Tue

BUSINESS MEETINGS:

Business Meetings, 12:30 PM & 3:00 PM: Sat

SUNDAY MORNING

Section A

Washington Marriott at Metro Center Junior Ballroom 1

Open Structures: Current Issues & Future Plans

Financially supported by CSA Trust, InChI Trust, IUPAC CPCDS, RDA CRDIG

M. G. Hicks, H. A. Lawlor, D. Martinsen, L. McEwen, *Organizers, Presiding*

8:15 Introductory Remarks.

8:20 CINF 1. Caution! Normalization can be hazardous to your data health. **E. Bolton**

8:50 CINF 2. Three degrees of interpretation: Why structure searches fail and how to maximize success. **J.N. Currano**

9:20 CINF 3. Everything you know is wrong: The battle between e-chemists and 127 years of chemical structure drawing tradition. **G.M. Banik, K. Nedwed, K. Kunitsky, M. D'Souza, T. Abshear**

9:50 Intermission.

10:05 CINF 4. InChI and standard for chemical structures. **S.R. Heller**

10:30 CINF 5. Representing molecules with minimalism: A solution to the entropy of informatics. **A. Clark**

10:55 CINF 6. Open semantic chemical structures: Ideas on the use of JSON-LD for representation of chemical entities. **S.J. Chalk**

11:20 CINF 7. Enhancing scholarly literature with compound information. **M. Cleeren, T. Hoctor**

11:45 Discussion.

Section B

Washington Marriott at Metro Center Junior Ballroom 2

What do Synthetic Chemists Want from Their Reaction Systems?

Cosponsored by COMP, INOR, MEDI and ORGN

W. A. Warr, *Organizer*

D. Evans, *Organizer, Presiding*

8:40 Introductory Remarks.

8:45 CINF 8. Applying machine learning to synthesis design: Prediction of organic reaction outcomes. **C.W. Coley, R. Barzilay, T.S. Jaakkola, W.H. Green, K.F. Jensen**

9:10 CINF 9. Applications of machine learning methods for chemical reaction databases. **V. Tkachenko, B. Sattarov, A. Korotcov, D.M. Lowe, R. Nugmanov, T.I. Madzhidov, A. Varnek**

9:35 CINF 10. Retrosynthesis and reaction prediction with deep neural networks. **M. Segler, M. Waller**

10:00 Intermission.

10:20 CINF 11. International Chemical Identifier for Reactions (RInChI): What is RInChI and how does it revolutionize the handling of reaction databases? **G. Blanke, J.M. Goodman, G. Grethe, H. Kraut**

10:45 CINF 12. Better synthesis for the next molecule. **J.M. Goodman**

11:10 CINF 13. Pistachio: Search and faceting of large reaction databases. **J.W. Mayfield, D.M. Lowe, R.A. Sayle**

11:35 CINF 14. Computational approach to the history of chemical reactivity: Exploring Reaxys database. **E.J. Llanos, W. Leal, G. Restrepo, P. Stadler**

SUNDAY AFTERNOON

Section A

Washington Marriott at Metro Center Junior Ballroom 1

Open Structures: Current Issues & Future Plans

Financially supported by CSA Trust, InChI Trust, IUPAC CPCDS, RDA CRDIG

M. G. Hicks, H. A. Lawlor, D. Martinsen, L. McEwen, *Organizers, Presiding*

1:20 Introductory Remarks.

1:25 CINF 15. Experiences with chemical database merger and migration: The art to surviving detail hell (or the devil is in the details). **G. Blanke**

1:50 CINF 16. Challenges representing the chemistry of crystal structures: How current initiatives could help. **I. Bruno, S. Vyas**

2:15 CINF 17. Comparing CIP implementations: The need for an open CIP. **J.W. Mayfield, D.M. Lowe, R.A. Sayle**

2:40 CINF 18. We need to talk about kekulization, aromaticity and SMILES. **N. O'Boyle, J.W. Mayfield**

3:05 Intermission.

3:20 CINF 19. HELM: An open standard for biomolecule structure representation and exchange. **T. Zhang, S.H. Rotstein**

3:45 CINF 20. Living in a world of federated knowledge: Challenges, principles, tools and solutions. **R. Zakharov, V. Tkachenko**

4:10 CINF 21. Research in the chemical sciences as a global social machine. **J.G. Frey**

4:40 Discussion.

Section B

Washington Marriott at Metro Center Junior Ballroom 2

What do Synthetic Chemists Want from Their Reaction Systems?

Cosponsored by COMP, INOR, MEDI and ORGN

D. Evans, *Organizer*

W. A. Warr, *Organizer, Presiding*

1:30 CINF 22. From search tool to research partner: Changing the role of computers in chemical development. **O. Ravitz, R. Threlfall, D.W. Flanagan**

1:55 CINF 23. Supporting synthetic research with SciFinder-n. **J. Taylor, J. Schloss, K. Zielenbach**

2:20 CINF 24. Renaissance of reaction classification and visualization: History, definition and new use cases. **V. Eigner Pitto, H. Kraut, Z. Meza-Renken, C. Oppawsky, A. Orta, H. Saller**

2:45 CINF 25. ReaxysTree for reactions. **J. Swienty Busch**

3:10 Intermission.

3:30 CINF 26. Analyzing reaction pathways in Reaxys. **M. Clark, F. van den Broek**

3:55 CINF 27. Any electron withdrawing group will do: Introducing specific ambiguity into reaction searches. **J.N. Currano**

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4:20 Panel Discussion.
4:45 Concluding Remarks.

Science Communications: The Art of Developing a Clear Message

Sponsored by PRES, Cosponsored by BIOL, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, CTA, DAC, I&EC, INOR, ORGN, PROF, SCHB and YCC

SUNDAY EVENING

Section A

Grand Hyatt Washington
Farragut Square/Lafayette Park

CINF Scholarships for Scientific Excellence: Student Poster Competition

S. J. Chalk, *Organizer*

6:30 - 8:30

CINF 28. Evaluation of three retention time prediction models: 1) logP, 2) ACD/ChromGenius, and 3) a quantitative structure retention relationship model. **A.D. McEachran**, K. Mansouri, S. Newton, B. Beverly, J.R. Sobus, A.J. Williams

CINF 29. REAL fragments: A database of synthetically accessible fragment-like molecules. **O. Gavrylenko**, A. Chupryna, T. Matviyuk, Y. Moroz

CINF 30. Analysis of X-Chem DNA-encoded chemical libraries. **L. Xue**, E.A. Sigel, Y. Zhang

CINF 31. Comparative chemoinformatic analysis of DNA methyltransferase inhibitors. **O. Palomino-Hernandez**, J.L. Medina-Franco

CINF 32. Cheminformatic approach to identify antiviral components of humic substances. **A. Orlov**, A.Y. Zherebker, A.A. Eletskaya, L.I. Kozlovskaya, V.A. Palyulin, D.I. Osolodkin, I.V. Perminova

CINF 33. Cheminformatics approach to exploring and modeling trait-associated metabolic profiles. **J. Ash**, M.A. Kuenemann, D. Fourches

CINF 34. Performance improvements, new functionalities and applications of the 3D structure generator CORINA Classic. **B. Bienfait**, T. Kleinodner, C. Schwab, **A. Mostrag**, A. Tarkhov, J. Rathman, C. Yang

CINF 35. Using publicly available resources to build a comprehensive knowledge-base of chemical information. **B. Sattarov**, R. Zakharov, V. Tkachenko

CINF 36. Predicting drug-target interactions by dual-network integrated logistic matrix factorization. **M. Hao**, S.H. Bryant, Y. Wang

CINF 37. Machine learning approach for fast and accurate prediction of optical properties of organic molecules. **M.F. Afzal**, J. Hachmann, C. Cheng

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

CINF 38. First-principles insight into catalytic process of iodotyrosine deiodinase: A thyroid hormone. **S. Tah**

CINF 39. Ascertaining binding constant error when modeling spectrophotometric titration data. **N. Kazmierczak**, **D.A. Vander Griend**

CINF 40. PKS enumerator to enumerate the chemical space of macrolides. **P. Kyaw Zin**, D. Fourches

MONDAY MORNING

Section A

Washington Marriott at Metro Center
Junior Ballroom 1

Government(-Funded) Chemical Databases & Open Chemistry

L. McEwen, *Organizer*

E. Bolton, M. C. Nicklaus, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 CINF 41. Mining PubChem for solubility data. **S.J. Chalk**

9:00 CINF 42. COSMOS database as a tool for ontology-driven data mining, in silico modeling and read-across. **C. Yang**, J. Rathman, **A. Mostrag**, C. Schwab, A. Tarkhov, J. Liu, M. Cronin, J. Madden, A. Bassan, E. Fioravanzo

9:25 CINF 43. US FDA's chemical evaluation and risk estimation system. **K. Arvidson**, P. Volarath, L. Holt, M. Garg, D. Mehta

9:50 CINF 44. Globalizing FDA's Substance Registration System. **F.L. Switzer**, L. Callahan, Y. Borodina, T.A. Penya

10:15 Intermission.

10:30 CINF 45. PubChem: An open chemistry database. **J. Zhang**, P. Thiessen, A. Gindulyte, E. Bolton

10:55 CINF 46. Hazardous Substances Data Bank: Recent features and enhancements. **S. Jordan**, G. Fonger, G.F. Hazard

11:20 CINF 47. Harmonization and exchange of government data on chemical(plus) substances. E. Schmid, S. Winfield, Y. Borodina, J. Harman

11:45 CINF 48. FDA/CDER Chemical Informatics Program's Chemical Dictionary. **M.T. Kim**, N. Kruhlak

Section B

Washington Marriott at Metro Center
Junior Ballroom 2

Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Post-Docs

Cosponsored by CHED, PROF and YCC

E. Alvaro, J. R. Garritano, *Organizers, Presiding*

8:20 CINF 49. Getting a grip on STEM: Conducting a needs assessment of graduate student needs through focus groups. **D. Zwicky**, N. Johnson

8:40 CINF 50. NSF Research Traineeship (NRT) Program: STEM graduate training and strong professional skill development. **L. Regassa**, N. Riddick

9:00 CINF 51. Advancing inclusive excellence for trainees from the top down. **R. Hernandez**, D. Stallings, S. Iyer

9:20 Intermission.

9:30 CINF 52. Expand career support for STEM graduate students with the Graduate Career Consortium. **A. Globes**, N. Lundsteen

9:50 CINF 53. Career pathways and resources for professional development. **S. Nichols**

10:10 CINF 54. Professional development and career resources: The past, present, and future of ACS on Campus. **S. O'Reilly**, M. Qiu

10:30 CINF 55. Science communication and education network (SCeNe) professional development workshops. **C.B. Monroe**, S. Rodriguez Martinez, D.J. Steinberg

10:50 Intermission.

11:00 CINF 56. Data carpentry in the Caltech libraries. **D. Wrublewski**, G. Clement, T. Morrell

11:20 CINF 57. Case studies in educating scientists in patent information. **R.M. Kaminecki**

11:40 CINF 58. Professional skill set development: Research operations management. **J.M. Pickel**

Building a Safety Culture across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

MONDAY AFTERNOON

Section A

Washington Marriott at Metro Center
Junior Ballroom 1

Government(-Funded) Chemical Databases & Open Chemistry

L. McEwen, *Organizer*

E. Bolton, M. C. Nicklaus, *Organizers, Presiding*

1:35 Introductory Remarks.

1:40 CINF 59. Building a model organism metabolome database. **C. Steinbeck**, M.R. Viant

2:05 CINF 60. Pharos: Putting targets in context. **D. Nguyen**, T. Sheils, G. Mandava, N. Southall, **R. Guha**

2:30 CINF 61. Chemical databases and other open-chemistry resources provided by the NCI CADD Group. **H. Patel**, Y. Pevzner, D. Dhaked, M.L. Peach, M.C. Nicklaus

2:55 CINF 62. Jmol: The evolution of a powerful molecular visualization tool enhanced by US public databases. **O.S. Rothenberger**, R.M. Hanson

3:20 Intermission.

3:35 CINF 63. ZINC: A free database of commercially available compounds for virtual screening and ligand discovery. **J.J. Irwin**

4:00 CINF 64. Chemistry Development Kit v2.0. **J.W. Mayfield**, E.L. Willighagen

4:25 CINF 65. Open Chemistry: Rich, open source tools for chemical data on the web and desktop. **M.D. Hanwell**

4:50 CINF 66. Open chemistry registry and mapping platform based on open source cheminformatics toolkits. **V. Tkachenko**, D. Slenker, N. Jeliazkova, A. Gaulton, A.J. Williams, C. Steinbeck, C. Evelo, E.L. Willighagen

Section B

Washington Marriott at Metro Center
Junior Ballroom 2

Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Post-Docs

Cosponsored by CHED, PROF and YCC

E. Alvaro, J. R. Garritano, *Organizers, Presiding*

1:20 CINF 67. Importance of skills development in the ACS certified bachelor's degree in chemistry. **T.J. Wenzel**

1:40 CINF 68. Fostering collaboration for success: How NSF CCLs train students for STEM leadership. **D. Watt**

2:00 CINF 69. Facilitating broader impacts: Disseminating knowledge to facilitate new and traditional careers in chemistry. **K. Deards**

2:20 Intermission.

2:30 CINF 70. Assessment of information literacy skills of students in large undergraduate chemistry courses. **S.P. Baykoucheva**, M. Koppel, S. Rastogi

2:50 CINF 71. Connecting organic chemistry to the real world with Chemistry Class Advantage™. **M. Pozenel**

3:10 CINF 72. Withdrawn.

3:30 CINF 73. Collaborative efforts between faculty and embedded safety professionals to improve critical thinking skills of undergraduates. **S.B. Sigmann**

3:50 Intermission.

4:00 CINF 74. Data management: A skill for all chemists. **M. Sheffield**, M. Savidakis-Dunn

4:20 CINF 75. Tell your story your way: Why chemistry professionals should understand bibliometrics and altmetrics. **R. Borchardt**

4:40 CINF 76. Five years of helping chemists to create an online presence using freely available resources. **A.J. Williams**

Building a Safety Culture across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

MONDAY EVENING

Section A

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

E. Alvaro, *Organizer*

8:00 - 10:00

8, 14, 17, 29-35, 39-40. See previous listings.

CINF 77. Keeping up and keeping organized: Alerting services and personal bibliographic databases. C.F. Huber

80, 113, 142. See subsequent listings.

TUESDAY MORNING

Section A

Washington Marriott at Metro Center
Junior Ballroom 1

Informatics & Chemical Biology: Identifying Targets & Biological Pathways

Cosponsored by BIOL and MEDI

R. J. Bienstock, *Organizer, Presiding*

8:00 CINF 78. Data harmonization and quality assurance in metabolomics for biological pathway identification. D.A. Sheen, W. Fortunado de Carvalho Rocha, D. Bearden, K.A. Lippa

8:25 CINF 79. Withdrawn.

8:50 CINF 80. Exploring opioid receptor-ligand binding patterns, as a fingerprint to identify potential biased agonists. K. Martinez Mayorga, A. Madariaga-Mazon, C.R. Garcia-Jacas

9:15 Intermission.

9:25 CINF 81. Development of a search engine for chemical biology and drug discovery. D.W. Selinger, A.P. Sukharevsky

9:50 CINF 82. Design and analysis of biologically annotated libraries for phenotypic screening deconvolution. A.M. Wassermann

10:15 CINF 83. Way2drug cheminformatics platform for drug repurposing. V. Porokov, D. Druzhilovskiy, A. Rudik, P. Pogodin, D. Filimonov, A. Lagunin, G. Sastry

10:40 Intermission.

10:50 CINF 84. Towards the use of bioassays as predictors of adverse events in clinical trials. M. Clark, M. Shkrob, A. Yuryev

11:15 CINF 85. Mechanism-of-action elucidation using deep convolutional neural networks. A. Heifets, I. Wallach, K.T. Nguyen

11:40 CINF 86. Using deep neural networks with heterogeneous chemical data to support phenotypic assay campaigns. A. de la Vega de Leon, V.J. Gillet

Section B

Washington Marriott at Metro Center
Junior Ballroom 2

Markush 360: Current & Future of Generic Structures in Chemical Patent Creation, Search & Analysis

Á. Figyelmesi, *Organizer, Presiding*

8:00 Introductory Remarks.

8:10 CINF 87. Understanding linguistic Markush expressions in chemical patents. L. Weber, M. Irmer, C. Bobach

8:40 CINF 88. Everlasting challenge: Markush indexing, searching and display in modern retrieval systems. V. Eigner Pitto, H. Kraut, H. Matuszczyck, F. Ailer

9:10 CINF 89. Advanced Markush technologies: Automatic generation, non-hit visualization and overlap analysis. P. Kovács, Á. Figyelmesi, G. Botka, J. Kendi

9:40 CINF 90. Challenges and successes in machine interpretation of Markush descriptions. D.M. Lowe, J.W. Mayfield, R.A. Sayle

10:10 Intermission.

10:25 CINF 91. Challenges in extracting Markush structure data from structure depictions and related text. A.T. Valko, P. Johnson

10:55 CINF 92. MARPAT: CAS's database of Markush structures. P. Blasi

11:25 CINF 93. Markush enumeration to manage, mesh and manipulate substances of unknown or variable composition. A.J. Williams, C. Grulke, A.D. McEachran, E. Schymanski

11:55 Concluding Remarks.

Journal of Agricultural & Food Chemistry Best Paper Award & Young Scientist Award Symposium

Sponsored by AGFD, Cosponsored by AGRO, CINF and PROF

Understanding the Chemistry of Our Planet

Chemistry's Role in our Earth System

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

TUESDAY AFTERNOON

Section A

Washington Marriott at Metro Center
Junior Ballroom 1

Herman Skolnik Award Symposium

E. Alvaro, D. Winkler, *Organizers*

E. Davis, *Presiding*

1:45 Introductory Remarks.

1:50 CINF 94. Approaching reality: Simulating electronic devices. T.R. Clark

2:15 CINF 95. Applications of machine learning to materials and chemical property prediction. A. Tropsha

2:40 CINF 96. Nanoinformatics platform for environmental impact assessment of manufactured nanomaterials. Y. Cohen, M. Bilal, P. Church, H. Liu, R. Liu

3:05 CINF 97. Accurate and interpretable nanoQSAR models from genetic programming-based decision tree construction approaches. C. Oksel

3:30 Intermission.

3:45 CINF 98. Self-organizing neural networks in chemistry. J. Gasteiger

4:10 CINF 99. Understudied proteins: Time to shift the paradigm. T.I. Oprea

4:35 CINF 100. Sparse QSAR modelling methods for therapeutic and regenerative medicine. D.A. Winkler, F.R. Burden, H. Autefage, M. Stevens, E. Gentleman, A. Hook, P. Williams, M. Alexander

5:10 Award Presentation.

Section B

Washington Marriott at Metro Center
Junior Ballroom 2

Why Open Data? Effective Use Cases & Exemplars for Open Data & Citizen Science

T. Hanna, D. P. Henderson, L. McEwen, *Organizers, Presiding*

1:45 Introductory Remarks.

1:50 CINF 101. Benefits of making data from the EPA National Center for Computational Toxicology available for reuse. A.J. Williams, K. Mansour, V. Tkachenko, K. Blinov, C. Grulke

2:15 CINF 102. Environmental protection belongs to the public: Citizen science at EPA. A. Parker

2:40 CINF 103. Solar Army: Incorporating real-time research into outreach efforts. J.D. Schuttlefield Christus, M. DeBoever

3:05 CINF 104. Hunting for people: Building public engagement with your science. J. Ranganathan

3:30 Intermission.

3:45 CINF 105. Solving biomolecular puzzles with citizen science. S. Cooper

4:10 CINF 106. Reliability of data: A meaningful and comprehensive assessment. A. Kazakov, A. Bazyleva, E. Paulechka, V. Diky, K. Kroenlein

4:35 CINF 107. For reproducibility, we need the methods behind the open data. L. Teytelman

5:00 CINF 108. PubChem and open data. S. Kim, E. Bolton

Understanding the Chemistry of Our Planet

Human Impacts to our Planet

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

WEDNESDAY MORNING

Section A

Washington Marriott at Metro Center
Junior Ballroom 1

Government(-Funded) Chemical Databases & Open Chemistry

L. McEwen, *Organizer*

E. Bolton, M. C. Nicklaus, *Organizers, Presiding*

9:05 Introductory Remarks.

9:10 CINF 109. ViralChEMBL: Purification and enhancement of antiviral activity data from ChEMBL. D.I. Osolodkin, A.A. Nikitina, A. Orlov

9:35 CINF 110. ChemDB: A database of structure and biological activity data for pre-clinical compounds tested against HIV, *Mycobacterium tuberculosis*, and opportunistic infections. L. Sumner, M. Rush, M. Whiting, G. Noble, D. Huffman, M. Nasr

10:00 CINF 111. ChemIDplus at NLM: History and capabilities. S. Jordan, G.F. Hazard, M. Miller

10:25 Intermission.

10:40 CINF 112. PubChem as a biologics database. N. O'Boyle, R.A. Sayle, E. Bolton

11:05 CINF 113. ScrubChem: Cleaning of PubChem BioAssay data to create diverse and massive bioactivity datasets for use in modeling applications. J.B. Harris, J.C. Harris, O. Isayev, A. Tropsha, R. Judson

11:30 CINF 114. Adding value to public data using the BioAssay Express: Using semantic web axioms and machine learning to support annotation. H. Kucuk-McGinty, J.E. Kranz, B.A. Bunin, A. Clark

Section B

Washington Marriott at Metro Center
Junior Ballroom 2

Drug Discovery: Cheminformatic Approaches

Cosponsored by COMP

E. Davis, *Organizer, Presiding*

9:15 Introductory Remarks.

9:20 CINF 115. Assay Central: A new approach to compiling big data and preparing machine learning models for drug repurposing. K.M. Zorn, M.A. Lingerfelt, A. Clark, S. Ekins

9:45 CINF 116. Integrated cheminformatics to guide drug discovery. M.D. Segall, E. Champness, P. Hunt, T. Mansley

10:10 CINF 117. CSD-driven conformer generation: Finding missing rings and a large-scale validation. P. Sanschagrin, M.G. Read, P. McCabe, J. Cole, O. Korb, R. Taylor

10:35 Intermission.

10:50 CINF 118. Autonomous model building with a preponderance of well annotated assay protocols. A. Clark

11:15 CINF 119. Meeting the ever changing demands of synthetic chemistry: A chemical workbench for biopolymers. J. Bishop

11:40 CINF 120. *In silico* pharmacology: Predicting pharmacokinetic and toxic properties. P. Schyman, R. Liu, V. Desai, A. Wallqvist

Drug Design

Sponsored by COMP, Cosponsored by CINF

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WEDNESDAY AFTERNOON

Section A

Washington Marriott at Metro Center
Junior Ballroom 1

Government-(Funded) Chemical Databases & Open Chemistry

L. McEwen, *Organizer*

E. Bolton, M. C. Nicklaus, *Organizers, Presiding*

1:20 Introductory Remarks.

1:25 CINF 121. EPA Comptox Chemistry Dashboard: Web-based data integration hub for environmental chemistry and toxicology data. A.J. Williams, C. Grulke, A.D. McEachran, A. Richard, J. Smith, R. Jolley, J. Dunne, E. Edmiston, J. Edwards

1:50 CINF 122. Need and benefits for structure standardization to facilitate integration and connectivity between government databases. V. Tkachenko, C. Grulke, A.J. Williams

2:15 CINF 123. Materials project: Milestones, challenges, and opportunities in high-throughput computational chemistry. J. Montoya, M. Persson

2:40 CINF 124. WebFF: Ontology based force-field repository for organic and soft materials. F.R. Phelan, H. Sun

3:05 Intermission.

3:20 CINF 125. Management and distribution of chemical data in the PDB. J. Young

3:45 CINF 126. PDB-Chem: A sub-atomic resolution database and resolution extension tool. R.E. Cachau, I.A. Topol, J. Zhu, A. Podjarny, M.L. Peach, M.C. Nicklaus

4:10 CINF 127. Publishing reference data on the Internet. P. Linstrom

4:35 CINF 128. Building a high quality reference tandem mass spectral library for comprehensive compound identification. X. Yang, P. Neta, S. Stein

Section B

Washington Marriott at Metro Center
Junior Ballroom 2

Drug Discovery: Cheminformatic Approaches

Cosponsored by COMP

E. Davis, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 CINF 129. Characterizing the chemical space of kinase inhibitors using molecular descriptors computed from molecular dynamics trajectories. J. Ash, D. Fouches

2:00 CINF 130. Splitting the difference - with confidence. R.D. Clark, M. Waldman

Technical program information
known at press time.

The official technical program for
the 254th ACS National Meeting
is available at www.acs.org/WDC2017

2:25 CINF 131. Development and comparison of deep learning toolkit with other machine learning methods. A. Mitrofanov, A. Korotcov, V. Tkachenko, S. Ekins

2:50 Intermission.

3:05 CINF 132. Stopping Zika virus: Computational search for deactivating agents. N. Sizochenko, J.R. Leszczynski

3:30 CINF 133. Fragment promiscuity and binding mode variability. M.N. Drwal, G. Bret, J. Desaphy, C. Perez, E. Kellenberger

3:55 CINF 134. Chemical-biological space exploration for discovery of novel anti-HIV agents. V. Poroikov, D. Filimonov, D. Druzhilovskiy, Y. Pevzner, M.C. Nicklaus

4:20 CINF 135. Ensemble machine learning to improve scoring functions. X.S. Wang

Drug Design

Sponsored by COMP, Cosponsored by CINF

THURSDAY MORNING

Section A

Washington Marriott at Metro Center
Junior Ballroom 1

General Papers

E. Alvaro, *Organizer, Presiding*

8:45 CINF 136. Towards linking chemical-disease and chemical-gene/protein information in PubChem. L. Zaslavsky, D.M. Lowe, E. Bolton

9:00 CINF 137. Platform for unified molecular analysis (PUMA). M. González-Medina, J.L. Medina-Franco

9:15 CINF 138. Structural isosteres of phosphate groups in the protein data bank. A. Borrel, Y. Zhang, L. Ghemto, L. Regad, G. Boije af Gennas, A. Camproux, J.T. Yli-Kauhala, H. Xhaard

9:30 CINF 139. Exploration of REAL arrays for initial hit finding. O. Savich, O. Vasylenko, A. Chupryna, M. Platonov, Y. Moroz

9:45 CINF 140. Optimization of dangerous parameters in global analysis of spectrophotometric titration data: Information beyond the binding constant. D.A. Vander Griend, N. Kazmierczak

10:00 CINF 141. Pesticide quantitative biodegradability-structure relationships. D. Cirovic, M. Hastings, K. Lynn, R. Rasoulpour, S. Gehen, D. Tomandl

10:15 Intermission.

10:30 CINF 142. Activity landscape plotter: An open web-based server to assess structure activity relationships. M. González-Medina, O. Méndez-Lucio, J.L. Medina-Franco

10:45 CINF 143. Practical and effective: Strategies to engage chemistry undergraduate students into library information literacy training. S. Guo

11:00 CINF 144. CAS Registry: A unique identifier of chemical substances. E.N. Cheeseman

11:15 CINF 145. Search for highly strained disulfide bonds in the Protein Databank. D. Riccardi

11:30 CINF 146. Intentional diversification of molecular library. Y. Kwon, S. Kang, I. Kim, K. Kim, J. Yoo, H. Lee, J. Shin

11:45 CINF 147. Integrated *in silico* approaches to design power conversion efficient solar cells: Renewable energy for future. S. Kar, J.R. Leszczynski

Drug Design

Sponsored by COMP, Cosponsored by CINF

TOXI

Division of Chemical Toxicology

T. Spratt, *Program Chair*

OTHER SYMPOSIA OF INTEREST:

Analytical Toxicology in the 21st Century (see ANYL, Sun)

Pfizer Award in Enzyme Chemistry (see BIOL, Tue)

Off Targets No More: CYP450 Enzymes as Drug Discovery Targets (see MEDI, Mon)

Ecological & Human Health Impacts of Emerging Environmental Contaminants (see ENVR, Sun, Mon, Wed)

Food-Borne Toxicants: Formation, Analysis & Toxicology (see AGRO, Wed, Thu)

Arthur C. Cope Award Symposium (see ORGN, Tue)

SOCIAL EVENTS:

Dinner, 6:30 PM: Tue

Award Ceremony, 9:00 PM: Tue

BUSINESS MEETINGS:

Business Meeting, 8:30 PM: Tue

SUNDAY MORNING

Section A

Marriott Marquis Washington, DC
Georgetown University

Chemical Research in Toxicology Young Investigators Award

H. Ai, *Organizer, Presiding*

S. S. Hecht, T. M. Penning, *Presiding*

8:00 Introductory Remarks.

8:10 TOXI 1. Targeted quantitative proteomic approaches for interrogating the human kinome. W. Miao, Y. Xiao, L. Guo, Y. Wang

8:55 TOXI 2. Sequence-specific covalent capture for detection of disease-derived nucleic acid sequences. K.S. Gates, A. Gu, M. Imani Nejad, R. Shi, X. Zhang

9:40 Intermission.

9:55 TOXI 3. Dynamic visualization of signaling molecules in living cells. J. Zhang

10:40 Award Presentation.

10:50 TOXI 4. Seeing is believing: Fluorescent biosensors for redox signaling and oxidative stress. H. Ai

Analytical Toxicology in the 21st Century

Sponsored by ANYL, Cosponsored by TOXI

SUNDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Georgetown University

Founders' Award

I. A. Blair, *Organizer, Presiding*

1:00 Founders' Award Presentation.

1:10 Introductory Remarks.

1:15 TOXI 5. Biochemical and toxicological applications of mass spectrometry. F.P. Guengerich

1:55 TOXI 6. Human aldo-keto reductases and aryl hydrocarbon activation. T.M. Penning

2:35 TOXI 7. Chemical biology of DNA damage by α,β -unsaturated aldehydes. L.J. Marnett

3:15 Intermission.

3:30 TOXI 8. S-Nitrosation is a systems-wide regulatory process. S.R. Tannenbaum

4:10 TOXI 9. Systems pharmacology approach to the study of mitochondrial dysfunction. I.A. Blair, Q. Wang, L. Guo, L. Weng, A. Salimatiipour, W. Hwang, D. Lynch, C. Mesaros

MONDAY MORNING

Section A

Marriott Marquis Washington, DC
Georgetown University

TOXI Young Investigators

Cosponsored by YCC

T. Spratt, *Organizer*

B. Ma, U. Sarkar, *Presiding*

8:00 TOXI 10. Effect of statins on HMG-CoA reductase pathway and apolipoprotein A-I production in Friedreich's ataxia. L. Guo, Q. Wang, C.J. Strawser, L.A. Hauser, W. Hwang, D. Lynch, C. Mesaros, I.A. Blair

8:20 TOXI 11. Mechanism of bioactivation of the cooked meat carcinogen 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine (PhIP) in human prostate. M. Bellamri, R.J. Turesky

8:40 TOXI 12. Novel class of hydroxyl radical scavenging antioxidants prevents oxidative DNA damage in fibroblast cells exposed to trivalent arsenic. S. Abdul Salam, E.J. Merino, H. Zhu, P.N. Gurjar

9:00 TOXI 13. Replicative bypass and mutagenic properties of alkylphosphotriester lesions in *Escherichia coli*. J. Wu, P. Wang, Y. Wang

9:20 TOXI 14. Abasic and oxidized abasic lesion bypass by DNA polymerase theta yields one- and two-nucleotide deletions. D.J. Laverty, M.M. Greenberg

9:40 Intermission.

10:00 TOXI 15. Characterization of the 2,6-diamino-4-hydroxy-*N*⁶-(methyl)-formamidopyrimidine DNA lesion. S. Bamberger, H. Pan, R. Bowen, C. Malik, T. Johnson-Salyard, C. Rizzo, M.P. Stone

10:20 TOXI 16. Engineering a replicative DNA polymerase for specific damage bypass capability. T.A. Coulther, M.J. Ondrechen, P.J. Beuning

10:40 TOXI 17. Mechanism of ribonucleotide incorporation by human DNA polymerase Eta. **Y. Su, M. Egli, F.P. Guengerich**

11:00 TOXI 18. Independent generation of 2'-deoxyadenosine-N6-yl radical and its reactivity in DNA. **L. Zheng, M. Griesser, D.A. Pratt, M.M. Greenberg**

11:20 TOXI 19. Investigation into the reactivity of a C5'-uridyl radical. **M. Ellis, A.C. Bryant-Friedrich**

11:40 TOXI 20. Arsenite binds to the RING finger domain of FANCL E3 ubiquitin ligase and inhibits DNA interstrand cross-link repair. **Y. Wang, J. Jiang**

MONDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Georgetown University

Biological Targets of Botanical Supplements

Cosponsored by AGFD

J. L. Bolton, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 TOXI 21. Pharmacokinetic interactions between drugs and licorice botanical dietary supplements used by menopausal women. **R.B. Van Breemen**

2:15 TOXI 22. Intestinal UGTs as targets for pharmacokinetic natural product-drug interactions. **M. Paine**

2:55 TOXI 23. KEAP1 and done? Targeting the NRF2 pathway with sulforaphane. **T. Kensler**

3:35 Intermission.

3:50 TOXI 24. Comparing general and specific biological targets for assessing sufficient similarity of related botanical dietary supplements. **C.V. Rider, S. Smith-Roe, S.S. Ferguson**

4:30 TOXI 25. Botanicals modulate estrogen metabolism through multiple targets. **J.L. Bolton**

MONDAY EVENING

Section A

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

T. Spratt, *Organizer*

8:00 - 10:00

18. See previous listings.

41, 43, 45-46, 48-50, 54-55, 61, 63, 68, 70, 73-75, 77, 82, 84.
See subsequent listings.

TUESDAY MORNING

Section A

Marriott Marquis Washington, DC
Georgetown University

Crosslink DNA Repair

Cosponsored by BIOL

O. Scharer, Y. Wang, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 TOXI 26. Mechanisms of replication-coupled repair. **J.C. Walter**

8:40 TOXI 27. Interstrand DNA crosslinks derived from abasic sites in duplex DNA. **K.S. Gates**

9:15 TOXI 28. Replication and repair of DNA interstrand cross-link lesions in human cells. **N. Price, S. Liu, K.S. Gates, Y. Wang**

9:50 Intermission.

10:05 TOXI 29. Lesion proximal FANCD2 is required for replication independent repair of interstrand crosslinks. **M. Paramasivam, M. Bellani, J. Gichimu, H. Gali, M. Seidman**

10:40 TOXI 30. Hydrogen peroxide activated DNA cross-linking agents and their biomedical application. **X. Peng, W. Chen, Y. Wang, H. Fan**

11:15 TOXI 31. Constitutive role of Fanconi anemia D2 gene in protecting cell from crosslinking DNA damage. **L. Li**

TUESDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Georgetown University

Toxicological Considerations in Antibody Drug Conjugate Design & Development

Cosponsored by MED1

F. Guengerich, W. G. Humphreys, N. A. Meanwell, *Organizers, Presiding*

1:00 Introductory Remarks.

1:10 TOXI 32. Antibody drug conjugates: Design considerations for improving efficacy and safety. **P. Trail**

1:55 TOXI 33. ADC linker immolation and cell killing activity. **D. Zhang**

2:40 Intermission.

2:55 TOXI 34. Development of next generation calicheamicin ADCs. **O.K. Ahmad**

3:40 TOXI 35. Potent antibody-based conjugates for cancer therapy: From early stage research to a clinically approved drug. **P.D. Senter**

TUESDAY EVENING

Section A

Marriott Marquis Washington, DC
Liberty Salon N-P

Keynote Lecture

N. E. Geacintov, *Organizer, Presiding*

5:00 TOXI 92. Understanding hepatotoxicity: Man to mouse to computer. **P.B. Watkins**

Section A

Walter E. Washington Convention Center
Ballroom C

General Posters

T. Spratt, *Organizer*

7:00 - 9:00

TOXI 36. Pentachlorophenol alters secretion of interleukin 6 (IL-6) from human immune cells. **T. Martin, M. Whalen**

TOXI 37. Analysis of methylated and ethylated peptides in human hemoglobin by liquid chromatography mass spectrometry: Association with cigarette smoking. **H.C. Chen, S. Ip, F. Lin**

TOXI 38. Simultaneous determination of a major peroxidation-derived DNA adduct, M,dG and its oxidized metabolite 6-oxo-M,dG, in human leukocyte DNA by liquid chromatography nanoelectrospray-high resolution tandem mass spectrometry. **B. Ma, C. Ruszczak, P.W. Villalta, O.R. Wauchope, L.J. Marnett, I. Stepanov**

TOXI 39. Pyridylhydroxybutyl, pyridyloxobutyl and methyl DNA phosphate adduct formation in rats treated chronically with enantiomers of 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanol. **B. Ma, A.T. Zarth, E. Carlson, P.W. Villalta, P. Upadhyaya, I. Stepanov, S.S. Hecht**

TOXI 40. Evidence for indole-3-methyl isothiocyanate formation upon human consumption of Brussels sprouts. **P. Upadhyaya, A.T. Zarth, N. Fujioka, V. Fritz, S.S. Hecht**

TOXI 41. Qualitative analysis of the pyrolysis of cocaine and methamphetamine. **S. Raso, O. Dodd, S. Bell**

TOXI 42. *Drosophila melanogaster* fatty acid amide production in the presence of Diminazene aceturate. **G. Suarez, K.C. Prins, B.S. Meyer, R.L. Anderson, D.J. Merkler**

TOXI 43. Site-specific incorporation of *N*-(2'-deoxyguanosine-8-yl)-6-aminochryseno adduct in DNA and its replication in human cells. **K.R. Rebello, A. Chatterjee, P. Pandey, A.K. Basu**

TOXI 44. Absolute quantification of plasma fibulin-3 as a biomarker for asbestos exposure by immunoprecipitation-high resolution mass spectrometry. **Q. Wang, L. Weng, C. Mesaros, I.A. Blair**

TOXI 45. Synthesis and *in vivo* quantitation of 2'-deoxyadenosine adducts resulting from bioactivation of 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanol and 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanol. **E.S. Carlson, P. Upadhyaya, S.S. Hecht**

TOXI 46. Lesion recognition in nucleotide excision repair: Relationship between the structural properties of adducts and initial binding of XPC to the damaged site. **H. Mu, N.E. Geacintov, Y. Zhang, S. Brody**

TOXI 47. Accurate quantification of serum protein mesothelioma biomarkers. **L. Weng, C. Mesaros, I. Blair**

TOXI 48. Nrf2-Keap1 signaling and implications for the metabolic activation of nitroarenes. **J. Murray, M. Huang, C. Mesaros, V. Art, K. El Bayoumy, I.A. Blair, T.M. Penning**

TOXI 49. Toward genome-wide mapping of O(6)-methylguanine damage and repair in a human cell line. **M. McKeague, I.A. Trantakis, J. Döhning, P. Steinberg, S.J. Sturla**

TOXI 50. Role of PARP-1 in the base excision repair of chromatin substrates. **Y. Zeng, D.R. Banerjee, C. Deckard, J.T. Sczepanski**

TOXI 51. DNA cross-linking by the anticancer prodrug PR-104A in oligonucleotides. **S. Danielli, A. Stornetta, S.J. Sturla**

TOXI 52. Investigation of the presence in human urine of mercapturic acids derived from phenanthrene. **G. Cheng, A.T. Zarth, P. Upadhyaya, P.W. Villalta, S. Balbo, S.S. Hecht**

TOXI 53. Arsenite binds to the zinc finger domains of TIP60 histone acetyltransferase and induces its

degradation via the 26S proteasome. **L. Tam, J. Jiang, P. Wang, L. Li, Y. Wang**

TOXI 54. Substituent effects of bifunctional agents on photo-induced DNA interstrand cross-link formation. **H. Fan, X. Peng**

TOXI 55. Estrogenic activity of polycyclic aromatic hydrocarbon ortho-quinones in human endometrium. **I.G. Lee, C. Mesaros, T.M. Penning**

TOXI 56. Deep learning methods applied to physicochemical and toxicological endpoints. **B. Sattarov, A. Korotcov, V. Tkachenko, C. Grulke, A.J. Williams**

TOXI 57. Total synthesis of site-specific oligonucleotides containing 2'-deoxyadenosine adduct formed by 6-nitrochryseno and their biological studies. **B.V. Powell, A.K. Basu**

TOXI 58. Determination of heavy metal acceptable concentration using fixed monitoring benchmarks in river system and soil pore-water in S.Korea. **B. Jeong, J. An, G. Yu, K. Nam**

TOXI 59. Determination of the ecotoxicological threshold concentration of Cu in soil pore water in Korea with biotic ligand model and species sensitivity distribution. **G. Yu, B. Jeong, K. Nam**

TOXI 60. Versatile method to construct model DNA-protein crosslinks (DPCs). **S. Pujari, M. Zhang, S. Ji, M.D. Distefano, N.Y. Tretyakova**

TOXI 61. Modified deaza-adenosine mimics ad DNA minor groove alkylation probes. **L.J. Weselinski, V. Begoyan, S. Xia, A. Ferrier, M. Tanasova**

TOXI 62. Development of rapid, high throughput labeling methods for measuring aldehydes from P450 reactions. **A.M. Hanson, D.A. Barnette, G.P. Miller**

TOXI 63. Bypass efficiency and mutagenesis assays of site-specific arylamine DNA adducts in cell. **K. Bian, F. Chen, Q. Tang, D. Li**

TOXI 64. Comprehensive kinetic study of ALKBH2 and related family enzymes. **M. Vittori, K. Bian, F. Chen, Q. Tang, D. Li**

TOXI 65. Expression of a fragment of DNA polymerase zeta from *Dictyostelium discoideum*. **S.K. Mauldin, D. He**

TOXI 66. Replication and repair of 8-methoxypsoralen-derived DNA-DNA interstrand cross-links in human cells. **N.E. Price, Y. Wang, K.S. Gates**

TOXI 67. Polymerase bypass of DNA-protein and DNA-peptide crosslinks. **S. Ji, O. Scharer, N.Y. Tretyakova**

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TOXI 68. Conformational and configurational equilibria of a 2'-deoxyribosylurea adduct in single strand and duplex DNA. **A.H. Kellum**, M.P. Stone, A.K. Basu, J. Vijay

TOXI 69. Terbinafine bioactivation pathways to liver toxicity assessed using predictive modeling and experimental approaches. **D.A. Barnette**, L. Dang, T. Hughes, S. Swamidass, G.P. Miller

TOXI 70. Sequence-dependent repair of 1, N6-ethenoadenine by the AlkB family DNA repair enzymes. **Q. Tang**, F. Chen, K. Bian, D. Li

TOXI 71. Independent generation of neutral purine radicals involved in DNA damage. **L. Zheng**, M.M. Greenberg

TOXI 72. Importance of the glutathione and its degradation by γ -glutamyl transferase in lung tumor development. **R.B. Penney**, N.S. Kowalkowski, E.R. Siegel, **G. Boysen**

TOXI 73. Mitochondrial M₁dG levels linked to oxidative stress and mitochondrial dysfunction in disease. **O.R. Wauchope**, **M.M. Mitchener**, W.N. Beavers, J. Galligan, P. Kingsley, H. Shim, T. Blackwell, T. Luong, M. deCaestecker, J.P. Fessel, L.J. Marnett

TOXI 74. Mechanisms of recognition of bulky DNA lesions by the DNA damaging sensor XPC. **K.M. Feher**, K.D. Walsh, N.E. Geacintov

TOXI 75. Mitochondrial DNA adducts of lipid peroxidation products with rotenone. **K.P. Gillespie**, I.A. Blair

TOXI 76. Temporal impact of toxic exposures on cellular recovery. **J.A. Mouch**, A. Han, J.V. Miller, N. Prince, M.S. Prediger, J.W. Boyd

TOXI 77. Withdrawn.

TOXI 78. Characterization of a domoic acid-producing diatom. **M. Wang**, S. Lai, P. Lin, H. Lai

TOXI 79. Withdrawn.

TOXI 80. Development of a threshold of toxicological concern framework based on chemoinformatics. **M. Cheeseman**

TOXI 81. Evidence of bioactivation of the anti-HIV drug etravirine to reactive metabolites *in vitro* and *in vivo*. **A.L. Godinho**, C.C. Jacob, S.A. Pereira, **M.S. Marques**, A. Antunes

TOXI 82. Chemistry of independently generated thymidine radical cation: DNA hole transfer and other competing processes. **H. Sun**, M.M. Greenberg

TOXI 83. Histone protein tails inhibit depuration of N7-methylated deoxyguanosine and form DNA-protein crosslinks with alkylated DNA in nucleosome core particles. **K. Yang**, M.M. Greenberg

TOXI 84. Degradation from C5' oxidation and its adducts as potential biomarkers. **S.H. Cho**, A.C. Bryant-Friedrich

TOXI 85. Functional characterization of glutathione S-transferases by photoreactive and mechanism-based activity-based probes. **E. Stoddard**, B. Killinger, R.N. Nair, N. Sadler, J. Smith, R. Corley, A.T. Wright

TOXI 86. Using medaka embryos coupled with a whole sediment exposure strategy to assess copper bioavailability and toxicity in sediment. **W. Li**, P. Chen

TOXI 87. Histones are targets for modification by the glycolytic by-product methylglyoxal. **J. Galligan**, J.A. Wepy, M. Streeter, P. Kingsley, M.M. Mitchener, O.R. Wauchope, W.N. Beavers, K. Rose, T. Wang, D.A. Spiegel, L.J. Marnett

TOXI 88. Wide selected ion monitoring (SIM)/MS² data independent acquisition method for DNA adduct omics analysis. **J. Guo**, P.W. Villalta, R.J. Turesky

TOXI 89. Investigation of environmental fate and toxic mechanisms of monovalent and trivalent thallium. **C. Yang**, P. Chen

TOXI 90. Biological uptake, distribution and depuration of radio-labeled graphene in adult zebrafish. **L. Mao**

TOXI 91. Bringing it all together: A web-based database for chemical and biological data to support environmental toxicology. **A.J. Williams**, C. Grulke, J. Smith, S. Watford, R. Jolley, J. Dunne, E. Edmiston, J. Edwards

WEDNESDAY MORNING

Section A

Marriott Marquis Washington, DC
Georgetown University

General Papers

T. Spratt, *Organizer*

G. P. Miller, L. Zhao, *Presiding*

8:00 TOXI 93. Chemistry and biology of N⁶-alkyl-fapy-dG damage in DNA. **M.P. Stone**, M. Egli, R.S. Lloyd, A. Mc Cullough, C. Rizzo, R.J. Turesky

8:20 TOXI 94. Aldehydes increase the tumorigenic properties of tobacco specific nitrosamines in rodent tumor models. **L.A. Peterson**, M.K. Oram, M. Flavin, D. Seabloom, W.E. Smith, I. Cornax, M. O'Sullivan, P. Upadhyaya, L. Zhang, S.S. Hecht, S. Balbo, T.S. Wiedmann

8:40 TOXI 95. Unwinding kinetics of carcinogenic adducts: Correlation with processing by nucleotide excision repair machinery. **V. Shafirovich**, A.Y. Epie, V. Zheng, M. Kolbanovskiy, N.E. Geacintov

9:00 Intermission.

9:10 TOXI 96. Structural insights into the post-chemistry steps of nucleotide incorporation catalyzed by a DNA polymerase. **Z. Suo**

9:30 TOXI 97. Central role of PCNA in promoting replication of damaged DNA. **G. Moldovan**

9:50 TOXI 98. Lucidin-derived N⁶-guanine DNA lesion is not a major contributor to the mutagenicity of lucidin. **L. Zhao**

10:10 TOXI 99. Spore photoproduct within DNA is a surprisingly poor substrate for its designated repair enzyme: The spore photoproduct lyase. **L. Li**, L. Yang, S. Peter

10:30 Intermission.

10:40 TOXI 100. Real-time prediction of physicochemical and toxicological

endpoints using the web-based CompTox Chemistry Dashboard. **A.J. Williams**, T. Martin, V. Tkachenko, C. Grulke, K. Mansouri

11:00 TOXI 101. Reaction of the antiepileptic drug carbamazepine with bionucleophiles: Bioactivation is not required. **I.L. Martins**, J.P. Telo, **M.S. Marques**, A. Antunes

11:20 TOXI 102. Programed release of nitric oxide, via oxidative metabolism, in animals and humans from clinical candidate MK-8150. **K. Mitra**

11:40 TOXI 103. Can pipe tobacco be characterized for regulatory purposes without a puff of pipe smoke? **J.H. Lauterbach**

Advances in Analytical Forensic Chemistry & Toxicology

Sponsored by ANYL, Cosponsored by TOXI

WEDNESDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Georgetown University

Advanced Mass Spectrometric Techniques in Toxicology

Cosponsored by ANYL

Financially supported by Thermo Fischer Scientific

S. Balbo, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 TOXI 104. Advances in mass spectrometry techniques for metabolism, pharmacology and toxicology. **J. Josephs**

1:45 TOXI 105. Capillary electrophoresis for trace-level detection: Metabolites and proteins. **P. Nemes**, R.M. Onjiko, C. Lombard-Banek

2:25 TOXI 106. Exposing the exposure: Utilizing global metabolomics to characterize toxicant exposure and effect. **B. Warth**

3:05 Intermission.

3:20 TOXI 107. Probing stress-induced effects on RNA and posttranscriptional modifications by LC-MS. **B. Addepalli**, C. Sun, P. Limbach

4:00 TOXI 108. Advances in human biomonitoring of heterocyclic aromatic amines by high resolution accurate mass spectrometry. **J. Guo**, S. Xiao, Y. Wang, B. Yun, P. Murugan, C.J. Weight, K.K. White, L.R. Wilkens, L. Le Marchand, K. Dingley, M.A. Malfatti, K. Turteltaub, P.W. Villalta, R.J. Turesky

4:40 Concluding Remarks.

CHAL

Division of Chemistry and the Law

K. Bianco and **J. Kennedy**, *Program Chairs*

SOCIAL EVENTS:

Luncheon, 12 PM: Mon

Reception, 6 PM: Mon

BUSINESS MEETINGS:

Business Meeting, 5 PM: Sun

SUNDAY MORNING

Ecological & Human Health Impacts of Emerging Environmental Contaminants

Sponsored by ENVR, Cosponsored by AGRO and CHAL

SUNDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Room 148

Strengthening Your Patent Rights in Light of Recent Federal Circuit Court Decisions

A. Berks, X. Pillai, *Organizers, 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

Ecological & Human Health Impacts of Emerging Environmental Contaminants

Sponsored by ENVR, Cosponsored by AGRO and CHAL

MONDAY MORNING

Section A

Walter E. Washington Convention Center
Room 148

Recent Developments Regarding Post-Grant Challenges at the United States Patent & Trademark Office

K. E. Bianco, *Organizer, Presiding*

9:00 CHAL 2. Interplay between patent office post-grant challenges and district court patent infringement cases. **J.J. Hasford**, E.M. Sommers

10:00 CHAL 3. Recent developments in post-grant review proceedings. **K.E. Bianco**, K. Officer

Ecological & Human Health Impacts of Emerging Environmental Contaminants

Sponsored by ENVR, Cosponsored by AGRO and CHAL

MONDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Room 148

Intellectual Property Considerations When Entering into a Joint Venture

Cosponsored by CATL, CELL, ENFL and SCHB

K. E. Bianco, *Organizer, Presiding*

2:30 CHAL 4. Options for protecting your intellectual property and IP trends in renewable energy. **M. Hlinka**

3:10 CHAL 5. Better together? How to avoid common pitfalls in joint ventures. **C. Collins-Chase**

3:50 CHAL 6. Practical considerations for patent portfolio management. **K.E. Bianco**

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

MONDAY EVENING

Section A

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

K. E. Bianco, *Organizer*

8:00 - 10:00

CHAL **7.** National Inventors Hall of Fame 2017. H.M. Peters, S.B. Peters

CHAL **8.** Chocolate: Food of the gods. H.M. Peters, S.B. Peters

TUESDAY MORNING

Section A

Walter E. Washington Convention Center
Room 148

Patent Specification Requirements: What's in Common & What's Different in the U.S., Europe & Southeastern Asia?

Cosponsored by SCHB

J. L. Kennedy, *Organizer, Presiding*

9:00 CHAL **9.** Considerations and standards for US patent specifications and claims. J.L. Kennedy

9:45 CHAL **10.** Considerations and standards for EU patent specifications and claims. H. Tostmann

10:30 CHAL **11.** Considerations and standards for patent specifications and claims in Southeastern Asia. J. Gledhill, J. Landells

TUESDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Room 148

Beyond the Bench: Careers in Intellectual Property

Cosponsored by PROF, SCHB and YCC

K. E. Bianco, *Organizer, Presiding*

2:00 CHAL **12.** Careers in patent law. K.E. Bianco, E.M. Sommers, J. Cho, T. Siepmann, J.G. Contrera

WEDNESDAY MORNING

Section A

Walter E. Washington Convention Center
Room 148

The Many Faces of CHAL: Where Chemistry Meets the Law

J. L. Kennedy, *Organizer*

K. E. Bianco, *Organizer, Presiding*

9:00 CHAL **13.** International perspective: What US companies should consider when drafting a patent application for prosecution worldwide. D.C. McNab, K. Gordon

9:45 CHAL **14.** Process patent protection via analysis of stable isotope ratios. J.P. Jasper, A. Pearson, A.D. Sabatelli

10:30 CHAL **15.** How to avoid written description problems with your chemical genus patent claims. R. Micheletti

11:00 CHAL **16.** Providing access to the world's chemical information. E.N. Cheeseman

Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation

Sponsored by ENVR, Cosponsored by CEI and CHAL

WEDNESDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Room 148

The Many Faces of CHAL: Where Chemistry Meets the Law

J. L. Kennedy, *Organizer*

K. E. Bianco, *Organizer, Presiding*

1:00 CHAL **17.** Secret prior art: Time for another look. A. Berks

1:30 CHAL **18.** Update on patentable subject matter in the life sciences. A. Berks

2:00 CHAL **19.** Regulating evergreening: The FDA's role in the creation of balanced rights for pharmaceutical improvements. D. Karshtedt

2:30 CHAL **20.** Intersection between traditional cannabis processing knowledge and legal protection of indigenous groups. K.S. Hylton

Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation

Sponsored by ENVR, Cosponsored by CEI and CHAL

WEDNESDAY EVENING

Advances in Environmental Analytical Methods for EPA Compliance Reporting & Exposure Risk Assessment

Sponsored by ENVR, Cosponsored by AGRO and CHAL

Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation

Sponsored by ENVR, Cosponsored by AGRO, CEI and CHAL

Ecological & Human Health Impacts of Emerging Environmental Contaminants

Sponsored by ENVR, Cosponsored by AGRO and CHAL

THURSDAY MORNING

Advances in Environmental Analytical Methods for EPA Compliance Reporting & Exposure Risk Assessment

Sponsored by ENVR, Cosponsored by AGRO and CHAL

Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation

Sponsored by ENVR, Cosponsored by CEI and CHAL

COLL

Division of Colloid and Surface Chemistry

R. Nagarajan, *Program Chair*

OTHER SYMPOSIA OF INTEREST:

Advances in Wettability & Adhesion (see POLY, Sun, Mon, Tue)

Nanotechnology & Single Cell Analysis in Biology & Medicine (see ANYL, Sun, Mon)

Oxidative Stress & Antioxidants: Measurement Tools & Analytical Challenges (see ANYL, Sun)

Polyelectrolyte Coacervates, Precipitates & Multilayers (see PMSE, Tue, Wed)

Self-Assembly & Non-Covalent Interactions: The Fundamental Science of Supramolecular Materials (see ANYL, Mon)

Two-Dimensional Materials for Energy & Fuels (see ENFL, Mon, Tue, Wed, Thu)

SOCIAL EVENTS:

Social Hour with Poster Session, 6:00 PM: Sun

COLL Luncheon, 12:00 PM: Tue

BUSINESS MEETINGS:

COLL Business Meeting (Open), 5:30 PM: Sun

COLL Program & Executive Committee Meeting, 4:00 PM: Sat

SUNDAY MORNING

Section A

Walter E. Washington Convention Center
Room 147A

Basic Research in Colloids, Surfactants & Nanomaterials

Colloids

R. Nagarajan, *Organizer*

M. Tsianou, *Presiding*

8:30 COLL **1.** Colloidal stability of reacting system for visbreaking in different conditions. J. Li

8:50 COLL **2.** Liquid crystal phase transitions and collective behaviors of bent colloidal rods. Y. Yang, A. Gyedu, K. Liu, Z. Nie

9:10 COLL **3.** Molecular dynamics investigation of the electrical double layer at the silica/water interface: structure, surface potential, and electrokinetic phenomena. S. Chen, S.J. Singer

9:30 COLL **4.** Surfactant effects on colloidal stability of silver nanowires from hydrothermal synthesis. T. Kuo, B. Mukherjee, J. Goss, G. Athens, P. McGough, T. Calverley

9:50 COLL **5.** Crystallization kinetics of calcium oxalate: A constant composition study. G. Mallam, C. Moore, M. Tsianou

10:10 COLL **6.** Discovery of metal-lustrous low-molecular-weight organic crystals. Y. Kondo

10:30 COLL **7.** Withdrawn.

10:50 COLL **8.** Withdrawn.

11:10 COLL **9.** Direct control of acetaminophen nucleation via functional, biocompatible crystalline substrates. T.K. Wijethunga, F. Baftizadeh, J. Stojakovic, A.S. Myerson, B.L. Trout

11:30 COLL **10.** New optical transduction methods of liquid colloid particles for sensor applications. L. Zeininger, T.M. Swager

11:50 COLL **11.** High throughput screening of nanoparticle flotation collectors. C. Abarca, R.H. Pelton

Section B

Walter E. Washington Convention Center
Rooms 208A/B

Responsive, Programmable Assembly of Active Colloids for Functional Materials

Financially supported by JULABO USA Inc.

C. D. Keating, L. D. Zarzar, *Organizers*

R. Hickey, *Organizer, Presiding*

8:30 COLL **12.** Modular peptide amphiphile micelles for immuno-stimulation. M.V. Tirrell, J. Barrett

9:00 COLL **13.** Responsive polypeptide-based star and triblock copolymer assemblies: Shape change materials for delivery applications. I. Smith, C. Machado, B. Barnes, D.A. Savin

9:30 COLL **14.** Efficient CRISPR delivery via plasmid DNA (or ribonucleoprotein, RNP) packaged in mesoporous silica nanoparticles through cationic vesicle fusion. K. Butler, R. Serda, A. Noureddine, A. Muniz, D.Y. Sasaki, O. Negrete, C. Brinker

10:00 COLL **15.** Stimuli-responsive materials on the basis of compartmentalized particles. J. Lahann

10:30 COLL **16.** Janus 2D nanosheets: Synthesis and interfacial activity. A.C. de Leon, B. Rodier, C. Hemmingsen, E. Pentzer

11:00 COLL **17.** Self-assembling nanocomposite tectons. R. Macfarlane

11:30 COLL **18.** Dynamic nanostructures fabricated by DNA self-assembly. S. Park, T. Shim, J. Crocker, D. Lee, C. Kim

12:00 COLL **19.** Colloidal crystal engineering with DNA. C.A. Mirkin

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Section C

Walter E. Washington Convention Center
Room 150B

Self-Assembly of Synthetic & Biological Surfactants: Translating Fundamentals to Applications

V. T. John, S. R. Raghavan, *Organizers, Presiding*

- 8:30 COLL 20.** Aqueous lyotropic liquid crystalline phase behavior of gemini alkyl phosphonate surfactants. T.J. Mann, S. Kim, M.K. Mahanthappa
- 8:50 COLL 21.** Experiment and simulation to develop an accurate computational model for nonionic surfactants. W.C. Swope, A. Duff, M. Johnston, G. Alva, J. McDonagh, R. Anderson
- 9:10 COLL 22.** Effect of Hofmeister series counterions on the colloidal and antimicrobial properties of triple-headed cationic amphiphiles. K.L. Caran, K. Thompson, E. Rogers, K. Seifert
- 9:30 COLL 23.** Withdrawn.
- 9:50** Intermission.
- 10:10 COLL 24.** Wormlike micelles: Boost applications in hostile environment. Y. Feng, H. Yin, J. Wang
- 10:40 COLL 25.** Novel photo-switchable surfactant molecular assemblies- micelles, worm-like micelles, and admicelles. H. Sakai, T. Suzuki, M. Aakamatsu, K. Sakai
- 11:10 COLL 26.** Tuning viscoelastic properties of wormlike surfactant micelles. O. Philippova, A. Shibaev, V. Pletneva, V. Molchanov

Section D

Walter E. Washington Convention Center
Room 150A

Nanotheranostics for Cancer Applications

Financially supported by Francis College of Engineering, University of Massachusetts

P. Rai, *Organizer*

S. Morris, *Organizer, Presiding*

8:30 Introductory Remarks.

- 8:35 COLL 27.** Active targeting and small molecule delivery to individual leukemia cells utilizing mesoporous silica nanoparticle-supported bilayers (protocells). K. Butler, P.N. Durfee, W. Wharton, A. Noureddine, D.T. Teachey, I. Chen, C.L. Willman, C. Brinker
- 9:05 COLL 28.** Fluorescent silica nanoparticles for selective detection of small ovarian tumors during surgery. T. Haber, S. Aramburo, L. Flores, A. Liu, P. Cao, T. Dellinger, E. Han, K. Aboody, J.M. Berlin

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

- 9:25 COLL 29.** Impact of host germline variation and tumor microenvironment on plasmonic nanoparticle based photo-thermal therapy. A. Joshi

- 9:55 COLL 30.** Intercellular transport of nanoparticles in myeloid and cancer cells. R.E. Serda, J. De La Cerda, H. Suami, C. Brinker

10:25 Intermission.

- 10:40 COLL 31.** Spherical nucleic acids as potent immunostimulatory agents in cancer. C.A. Mirkin

- 11:10 COLL 32.** Imaging and therapy induced by acoustic stimulation of condensed fluorocarbon droplets. A.P. Goodwin

- 11:40 COLL 33.** Magnetically responsive nanocarriers for cancer theranostics. Z. Nie, K. Yang

- 12:10 COLL 34.** Withdrawn.

Section E

Walter E. Washington Convention Center
Room 209B

Noble Metal Nanoparticles for Bioimaging, Sensing & Actuation

Nanoparticles for Imaging & Sensing

R. Levy, Z. Nie, *Organizers*

N. M. Khashab, *Organizer, Presiding*

- 8:30 COLL 35.** Enhancing T₁ magnetic resonance imaging contrast with internalized Gadolinium(III) in a multilayer nanoparticle. N.J. Halas
- 9:00 COLL 36.** Towards biocompatible surface enhanced Raman spectroscopy (SERS). L. Sagile, W. Lum, I. Bruzas, J. Reifsteck, Z. Gorunmez, J. He

- 9:20 COLL 37.** Non-resonant large format SERS substrates for selective detection and quantification of xylene isomers. N.M. Khashab

- 9:40 COLL 38.** Using plasmonic sensing to monitor the self-assembly of anisotropic nanoparticles in polymer nanocomposite. Z. Fakhraai, C. Li, M. Vettelton, E. Glor, R. Ferrier, R.J. Composto

- 10:00 COLL 39.** Multimodal stem cell imaging and tracking. S. Ashraf, M. Barrow, J. Comenge, A. Taylor, J. Sharkey, P. Murray, B. Wilm, A. Plagge, H. Poptani, M. Rosseinsky, R. Levy

10:20 Intermission.

- 10:30 COLL 40.** Fluorescent gold nanoclusters on/in cells visualized by fluorescence lifetime imaging microscopy. M. Mutas, T. Hadler, C. Strelow, T. Kipp, A. Mews

- 10:50 COLL 41.** Imaging dynamic surface chemistry on plasmonic nanoparticles. K.A. Willets

- 11:20 COLL 42.** Liposome templated hollow metal nanoshells for biocompatible SERS. I. Bruzas, W. Lum, Z. Gorunmez, L. Sagile

- 11:40 COLL 43.** Monitoring the oxidation kinetics and size evolution of sapphire-immobilized hemispherical Ag nanoparticles at aqueous interfaces. T. Duong

- 12:00 COLL 44.** Plasmonic nanostructured biosensors and organic photovoltaics. Z.H. Kafafi, F.J. Bartoli

Section F

Walter E. Washington Convention Center
Room 209A

Colloidal Metal & Semiconductor Nanostructures: Theory, Synthesis & Application

Optical Processes in Plasmonic Materials

Financially supported by Department of Chemistry, University of Connecticut; Department of Chemistry, University of Central Florida

A. J. Haes, S. Zou, *Organizers*

J. Zhao, *Organizer, Presiding*

- 8:30 COLL 45.** Polymer-enabled SERS sensing. C.L. Haynes

- 9:00 COLL 46.** Efficient hot electron transfer by plasmon induced interfacial charge transfer transition. T. Lian

- 9:30 COLL 47.** Different mechanisms for the enhanced transmission in a nanoparticle array. S. Zou, Y. Zhou

10:00 Intermission.

- 10:30 COLL 48.** New insights into SERS/TERS/FSRS mechanisms. G.C. Schatz

- 11:05 COLL 49.** Interfacial ligand dynamics and chemistry on highly curved Au nanoparticle surfaces: A plasmon-enhanced spectroscopic study. H. Wang

- 11:35 COLL 50.** How molecular protonation promotes adsorption and SERS enhancements. H.T. Phan, A.J. Haes

- 11:55 COLL 51.** Gold nanoparticle oligomers for surface-enhanced femtosecond stimulated Raman spectroscopy. B. Negru, E. Sprague-Klein, T. Ueltschi, M.O. McAnally, G.C. Schatz, R.P. Van Duyne

Section G

Walter E. Washington Convention Center
Room 204C

Emulsions, Foams & Dispersions: Symposium in honor of Dominique Langevin at 70

R. Nagarajan, D. A. Weitz, *Organizers*

K. J. Stebe, *Organizer, Presiding*

- 9:00 COLL 52.** Effect of star polymer composition and morphology on adsorbed layers formed at fluid interfaces. Y. Huang, K. Matyjaszewski, R.D. Tilton

- 9:25 COLL 53.** Dimer crystallization of proteomimetic colloids by shape-designed chiral pathway selection. T.G. Mason, P. Wang

- 9:50 COLL 54.** Swelling kinetics of starch suspensions. G. Narsimhan

- 10:15 COLL 55.** Stable silicon/carbon anodes for lithium-ion batteries prepared by emulsion-templating. Y. Zhang, B.L. Lucht, A. Bose

10:40 Intermission.

- 10:50 COLL 56.** Stimuli-driven delivery and release systems using liquid marbles. S. Fujii, H. Kawashima, M. Paven, H. Mayama, H. Butt, Y. Nakamura

- 11:15 COLL 57.** Depletion with big and small colloids studied in microgravity. M. Lynch, T.E. Kodger

- 11:40 COLL 58.** Micelles and microemulsions: Interplay of ideas from surfactants and block copolymers. R. Nagarajan

Section H

Walter E. Washington Convention Center
Room 155

Basic Research in Colloids, Surfactants & Nanomaterials

Aggregates & Nanoparticles

R. Nagarajan, *Organizer*

M. Dutt, *Presiding*

- 8:30 COLL 59.** Three scenarios of macroion-counterion interaction demonstrated by the change of hydration shells of macroions. H. Li, J. He, P. Yang, F. Haso, J. Wu, U. Kortz, T. Liu

- 8:50 COLL 60.** Flow-induced shape reconfiguration, phase separation and rupture of bio-inspired vesicles. X. Chu, X. Yu, J. Greenstein, F. Aydin, G. Uppaladadiam, M. Dutt

- 9:10 COLL 61.** Effect of solution viscosity on multi-electron transfer from repeated collisions of a single Ag nanoparticle on a Au electrode. D.A. Robinson, Y. Liu, M.A. Edwards, H.S. White

- 9:30 COLL 62.** Investigation of water interactions with silk using INS. C.A. Crain

- 9:50 COLL 63.** Calculation of free-energy of solvation for self-assembled systems: SWCNT-ssDNA hybrids in water/alcohol mixtures. K. Hinkle, F.R. Phelan

- 10:10 COLL 64.** Amphiphilic quaternary ammonium chitosans as biocompatible biofilm-binding antimicrobial agents. J. Jung, Y. Sun

- 10:30 COLL 65.** Long acting injectable formulations of atovaquone for malaria prophylaxis. A.C. Savage, L.M. Tatham, R.P. Bakshi, A.K. Tripathi, G. Mlambo, T. Shapiro, A. Owen, S. Rannard

- 10:50 COLL 66.** *Shewanella oneidensis* MR-1 toxicity studies with CdSe and ZnSe quantum dots. D.N. Williams, S. Pramanik, C.L. Haynes, Z. Rosenzweig

- 11:10 COLL 67.** Enthalpy of formation of wormlike micelles involving TTAB and halogen derivatives of benzoate. M.Z. Jora, E. Sabadini

- 11:30 COLL 68.** New method to obtain viscoelastic properties at the nanoscale. L. Li, F. Zypman, S.J. Eppell

Nanotechnology & Single Cell Analysis in Biology & Medicine

Sponsored by ANYL, Cosponsored by BIOL, COLL and PHYS

SUNDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Room 147A

Basic Research in Colloids, Surfactants & Nanomaterials

Nanoparticles

R. Nagarajan, *Organizer*

J. L. Liu, *Presiding*

- 2:00 COLL 69.** Modulation of morphology and optical properties of surfactant-free plasmonic branched nanoparticles. S. De Silva Indrasekara, T. Vo-Dinh

- 2:20 COLL 70.** DNA-encoded control of morphologies of bimetallic nanoparticles. N. Satyavolu, L. Tan, Y. Lu

2:40 COLL 71. Study of structural and electronic changes in zirconia as a function of temperature. J.R. Soliz, A. Klevitch, C. Harris, J. Rossin, A. Ng, R. Stroud, A.J. Hauser, G. Peterson

3:00 COLL 72. Polyanmonium cations in conjunction with metal nanoparticles: Functionalization and recognition. T.K. Misra, R. Choudhury

3:20 COLL 73. Oxidation-induced transformation of eight-electron gold nanoclusters: $[Au_{25}(SR)_{18}]^+$ to $[Au_{25}(SR)_{20}]^0$. T. Higaki, C. Liu, Y. Chen, S. Zhao, C. Zeng, N.L. Rosi, R. Jin

3:40 COLL 74. Green colloidal chemistry-derived nanocomposite of silver-modified titania used for disinfectant. J.L. Liu, S. Bashir

4:00 COLL 75. One-dimensional carrier confinement in giant CdS/CdSe excitonic nanoshells. M. Zamkov

4:20 COLL 76. Microwave-assisted hydrothermal synthesis of plasmonic nanomaterials. P.N. Njoki

4:40 COLL 77. Withdrawn.

5:00 COLL 78. Oxidation state measurements of cerium dioxide nanoparticles: The role of measurement parameters and *in situ* observations. A.C. Johnston-Peck

5:20 COLL 79. Non-locality driven circular dichroism of isotropic metal nanoparticles. J. Park

Section B

Walter E. Washington Convention Center Rooms 208A/B

Responsive, Programmable Assembly of Active Colloids for Functional Materials

Financially supported by JULABO USA Inc.

R. Hickey, C. D. Keating, *Organizers*

L. D. Zarzar, *Organizer, Presiding*

2:00 COLL 80. Responsive inorganic nanoparticle assemblies for cancer imaging and therapy. Z. Nie, K. Yang

2:30 COLL 81. Responsive polymers gated magnetic colloidosomes as multifunctional microreactors for programming bimolecular activity. G. Cheng, S. Zheng

2:50 COLL 82. Dual-stimuli responsive injectable nanogel/solid drug nanoparticle nanocomposites for release of poorly soluble drugs. A. Town, R. Gurjar, M. Giardiello, M.E. Briggs, R. Akhtar, M. Siccardi, T. McDonald

3:10 COLL 83. Surface modified nanozymes as biosensors. J. Liu

3:40 COLL 84. Responsive, programmable assembly of 2D materials into 3D structures for biosensing. W. Xu, J. Pagaduan, Q. Jin, D.H. Gracias

4:00 COLL 85. Target-induced disassembly of GO-Peptide assemblies for the turn-on fluorescence detection of MMP-2. J. Yang, S. Jeon, J. Ju, H. Kim, Y. Lee, J. Kim

4:20 COLL 86. Biomimetic artificial organelles with *in vitro* and *in vivo* reduction triggered activity. C. Palivan

4:50 COLL 87. Photothermally triggered actuation of hybrid materials as a new platform for *in vitro* cell manipulation. T. Shirman, A. Sutton, J. Timonen, M. Kolle, L.D. Zarzar, J. Aizenberg

5:10 COLL 88. Photo-responsive polymeric nanocarriers for gene therapy and wound healing applications. T.H. Epps

Section C

Walter E. Washington Convention Center Room 150B

Self-Assembly of Synthetic & Biological Surfactants: Translating Fundamentals to Applications

V. T. John, S. R. Raghavan, *Organizers, Presiding*

2:00 COLL 89. Probing water structure next to lipid monolayers using vibrational sum frequency spectroscopy. S. Pullanchery, P.S. Cremer

2:20 COLL 90. Precisely controlled 2D free-floating nanosheets of amphiphilic molecules through frame-guided assembly. Y. Zhang

2:40 COLL 91. Platonic micelles part 1: Monodisperse sulfonatocalix[4]arene-based micelles with discrete aggregation numbers. S. Fujii, R. Takahashi, K. Sakurai

3:00 COLL 92. Platonic micelles part 2: Thermodynamic and kinetic consideration of the micelles with the discrete aggregation numbers and mono-dispersity. K. Sakurai, R. Takahashi, T. Narayanan, S. Fujii

3:20 Intermission.

3:40 COLL 93. Complexes of surfactant with chitosan derivatives: Structural control and potential for application. L. Chiappisi, B. Dai, S. Prevost, I. Grillo, M. Gradzielski

4:10 COLL 94. Stabilization of spherical nanoparticles of iron (III) oxy-hydroxides by wormlike micelles. T. Destefani, G. Onaga, A. Percebom, E. Sabadini

4:40 COLL 95. Conduction through temperature sensitive conducting viscoelastic gel. R.G. Shrestha, T. Nakayama, R. Higuchi

Section D

Walter E. Washington Convention Center Room 150A

Nanotheranostics for Cancer Applications

Financially supported by Francis College of Engineering, University of Massachusetts

S. Morris, *Organizer*

P. Rai, *Organizer, Presiding*

2:00 Introductory Remarks.

2:05 COLL 96. Mono- vs. multi-core magnetic iron oxide nanoparticles as dual agents for imaging and treatment of glioblastoma. G. Hemery, C. Genevois, F. Couillaud, S. Lacomme, E. Gontier, S. Lecommandoux, E. Garanger, O. Sandre

2:25 COLL 97. Multifunctional biomaterials for on-demand cancer therapy. N. Artzi

2:55 COLL 98. Image-guided radiotherapy with novel trimodal optical/MR/x-ray contrast nanoconstructs enhance the radiation response of head and neck tumor xenografts. G. Sharma, A.K. Parchur, J.M. Jagtap, B. Fish, B. Carmen, M.M. Medhora, M.J. Flister, A. Joshi

3:15 COLL 99. Self-assembled aptamer-nanomedicine for both target chemotherapy and gene therapy. Z. Nianxi, Z. Zeng, Y. Zu

3:45 COLL 100. Targeted nanoparticles for detection, targeting, and thermal ablation of metastatic colorectal cancer *in vivo*. E.E. McCabe, B.D. McCarthy, M. Peterson, A. Brown, T.L. Brown, N.H. Levi-Polyachenko

4:05 Intermission.

4:20 COLL 101. Magnetic nanostructures (MNS) as theranostic agents for early stage prostate cancer. S. Ryoo, V. Nandwana, A. Singh, V.P. Dravid

4:40 COLL 102. Porphyrin-phospholipid liposomes for theranostic chemophototherapy. J. Lovell

5:10 COLL 103. Biomimetic magnetic nanostructures as targeted theranostics for lymphoma. A. Singh, V. Nandwana, T.H. Chen, V.P. Dravid

5:30 COLL 104. Withdrawn.

5:50 Concluding Remarks.

Section E

Walter E. Washington Convention Center Room 209B

Noble Metal Nanoparticles for Bioimaging, Sensing & Actuation

Nanoparticles for Therapy: Preparation & Biological Fate

N. M. Khashab, R. Levy, *Organizers*

Z. Nie, *Organizer, Presiding*

2:00 COLL 105. How much variability do we have in nanoparticle synthesis? C.J. Murphy

2:30 COLL 106. How do shape and size matter in the stability of nanoparticles? A.J. Haes

2:50 COLL 107. Withdrawn.

3:10 COLL 108. Withdrawn.

3:30 COLL 109. Biogenic silver nanoparticles for surface enhanced Raman scattering based biosensing. S. Rajput, M.T. McDermott

3:50 Intermission.

4:00 COLL 110. Advanced optical detection of carbon nanoparticulates to measure exposure in a biomedical setting. C. Steuwe, H. Bové, M. Ameloot, M. Roeyffers

4:20 COLL 111. Bimetallic nanostructures and their assemblies for chemical sensing. S.E. Skrabalak

4:50 COLL 112. Gold nanoparticle-enabled blood test for acute viral infection detection. T. Zheng, C. Parrett, Y. Li Sip, K. McKinstry, Q. Huo

5:10 COLL 113. Liver-directed photothermal therapy in metastatic colorectal cancer using novel trimodal optical/MR/x-ray contrast nanoconstructs. A.K. Parchur, J.M. Jagtap, G. Sharma, V. Gogineni, M.J. Flister, S.B. White, A. Joshi

5:30 COLL 114. Multi-functional nanoparticles for image-guided photothermal therapy. C. Li

Section F

Walter E. Washington Convention Center Room 209A

Colloidal Metal & Semiconductor Nanostructures: Theory, Synthesis & Application

Synthesis of Metal Nanoparticles

Financially supported by Department of Chemistry, University of Connecticut; Department of Chemistry, University of Central Florida

A. J. Haes, J. Zhao, S. Zou, *Organizers*

J. Chen, *Presiding*

2:00 COLL 115. Crystal phase-controlled synthesis of novel noble metal nanomaterials. H. Zhang

2:30 COLL 116. Observing the overgrowth of a second metal on silver cubic seeds in solution by surface-enhanced Raman scattering. D. Qin, Y. Zhang, Y. Wu

3:00 COLL 117. Seeded growth of copper-platinum-ruthenium multi-metal nanostructures as active electrocatalysts. J. Chen

3:30 COLL 118. Synthesis of colloidal metal nanoparticles: A case study in copper. S.K. Beaumont, L.M. Bingham

3:50 Intermission.

4:10 COLL 119. Experimental quantification of nanoparticle photon extinction, scattering, and on-resonance fluorescence cross-sections. D. Zhang

4:40 COLL 120. Reversibly reconfigurable colloidal plasmonic nanomaterials. D.S. Ginger

5:10 COLL 121. Thin-film nanofluorides for single-particle analysis. B.I. Karawdeniya, Y.D. Bandara, J.W. Nichols, R.B. Chevalier, J.R. Dwyer

5:40 COLL 122. Formation of Au nanorings array via particle lithography for applications in plasmonics. M. Negrito, A. Pravitasari, M.T. Sheldon, J.D. Batteas

Section G

Walter E. Washington Convention Center Room 204C

Emulsions, Foams & Dispersions: Symposium in honor of Dominique Langevin at 70

R. Nagarajan, K. J. Stebe, D. A. Weitz, *Organizers*

L. Walker, *Presiding*

2:00 COLL 123. Evaporation of thin films on patterned substrates. B. Kazmierski, L. Yang, D. Walker, L. Tan, C.D. Bain

2:25 COLL 124. Nanobubbles in bulk solution. W.A. Ducker, Z. Zhang

2:50 COLL 125. Dynamics of stratification in micellar freestanding films. Y. Zhang, S. Yilixiati, V. Sharma

3:15 COLL 126. Solid particles, fluid interfaces, and new opportunities for functional materials. T. Dinsmore, N. Senbil, W. He

3:40 Intermission.

3:50 COLL 127. Films of bacteria at interfaces. K.J. Stebe, L. Vaccari, T. Herman Niepa, M. Moaeli, M. Gouliani, D. Lee, R. Leheny

4:15 COLL 128. Dynamic adhesion by hydrogen bonding in flowing and swimming colloidal systems. M.M. Santore

4:40 COLL 129. Functional membranes via interfacial complexation in aqueous two phase systems. S. Hann, K.J. Stebe, D. Lee

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5:05 COLL 130. Lattice gas model for asphaltene adsorption at water/oil interface. **V. Pauchard**, C. Maldarelli, S. Darjani

Section H

Walter E. Washington Convention Center
Room 155

Basic Research in Colloids, Surfactants & Nanomaterials

Surface Science

R. Nagarajan, *Organizer*
A. Baber, *Presiding*

2:00 COLL 131. Comparative thermodynamic and modeling study of the adsorption of cyclopentane and cyclohexane on MgO(100), hBN and graphite basal plane. **F. Wahida**, J.Z. Larese

2:20 COLL 132. Heterogeneity of surface coverage of organic ligands on single facets of gold nanoparticles due to inhomogeneous metal-molecule interactions. **J. Park**

2:40 COLL 133. Identifying the adsorption sites of atomic oxygen on Ru(0001)-supported graphene. **M. Nguyen**, Z. Novotny, F. Netzer, V. Glezakou, R. Rousseau, Z. Dohnalek

3:00 COLL 134. Understanding surface reaction pathways and the role of chemical functionality in the initial stages of copper and silver deposition in CVD and ALD processes. **A.V. Tepyakov**

3:20 COLL 135. Adsorption, decomposition and geometry of toxic chemicals adsorbed on TiO₂(110). **Y.P. Cardona-Quintero**, R. Nagarajan

3:40 COLL 136. Determining the optimum surface conditions of TiO₂/Au(111) for the selective oxidation of ethanol to acetaldehyde. **A. Baber**, D.T. Boyle, J.A. Wilke, V.H. Lam

4:00 COLL 137. First electronic transition and hydrogen bonding state of interfacial water on alpha-alumina surface studied by far-ultraviolet spectroscopy. **T. Goto**, T. Kinugasa, Y. Ozaki

4:20 COLL 138. Altering the surface structure of SAMs through the adsorption of octanethiol and decyl thiocyanate on Au(111). **A.F. Raigoza**, R. Ginther, D. Zoltek

4:40 COLL 139. Insights into water adsorption on ZnO(10-10) surfaces: An IRRAS study. **x. Yu**, C. Yang, L. Schöttner, S. Heißler, A. Nefedov, C. Woell, Y. Wang

5:00 COLL 140. Interaction of water with the Fe₂O₃(0001) surface. **L. Schöttner**, A. Nefedov, Y. Wang, C. Woell

5:20 COLL 141. Impact of atmospheric adsorbates on chemical warfare agent simulat decontamination. **R. Balow**, D. Barlow, J. Lundin, I. Iordanov, W.O. Gordon, C. Knox, V.M. Bermudez, J.H. Wynne, G. Peterson, C.J. Karwacki, P. Pehrsson

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

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Oxidative Stress & Antioxidants: Measurement Tools & Analytical Challenges

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SUNDAY EVENING

Section A

Walter E. Washington Convention Center
Halls A/B

Fundamental Research in Colloids, Surfaces & Nanomaterials

R. Nagarajan, *Organizer*

6:00 - 8:00

COLL 142. Self-adjustable synthetic nano-clay/polyacrylamide hydrogel system containing methyl cellulose via ammonium persulfate induced polymerization. **J. Pu**, B. Bai, J. Geng, N. Zhang

COLL 143. Paramagnetic gold nanorods for combined magnetic resonance imaging and photo-thermal therapy. **A. Pitchaimani**, T. Nguyen, S. Aryal

COLL 144. Biocompatible and label-free microfluidic separation of cancer cells from blood in ferrofluids. **W. Zhao**, R. Cheng, S. Lim, J.R. Miller, L. Mao

COLL 145. Six year manufacturing to human clinical trial programme for the first oral dosed HIV nanomedicines. **M. Giardiello**, T. McDonald, N. Liprott, P. Martin, D. Smith, M. Siccardi, R. Gurjar, A. Owen, S. Rannard

COLL 146. Effective exfoliation of transition metal dichalcogenides in aqueous solution. **T. Kang**, S. Jeon, H. Kim, S. Lee, I. Hwang, J. Han, J. Kim

COLL 147. Liquid biopsies for cancer detection: The good, the bad, and the costly? **S.H. Bossmann**, H. Wang, M. Kalubowilage, A.P. Malalasekera, C.T. Culbertson, D.L. Troyer, G. Zhu

COLL 148. Biodegradable magnetic vesicles of iron oxide nanoparticles for imaging-guided drug delivery. **K. Yang**, Z. Nie

COLL 149. Albumin/asparaginase capsules prepared by ultrasound to retain ammonia. **A. Tinoco**, A. Cavac-Paulo

COLL 150. Topological control of polystyrene-silica core-shell microspheres. **Z.M. Grady**, A.Z. Arthur, P.I. Tiemsin, C. Wohl

COLL 151. Effect of TiO₂/Au(111) surface preparation on oxidation state and the water-gas shift reaction. **J.A. Wilke**, D.T. Boyle, V.H. Lam, D.A. Schlosser, A. Baber

COLL 152. Liposome-based silver nanoparticle on mirror construct exhibiting high SERS enhancement. **W. Lum**, I. Bruzas, Z. Gorunmez, T.L. Beck, L. Sagle

COLL 153. Earth-abundant nanomaterials for future energy storage. **N. Elathram**, J.C. Poler

COLL 154. Mussel-inspired surface modification of fluorescent nanodiamond for biomedical applications. **H. Jung**, K. Cho, P. Roche, K. Neuman

COLL 155. Bioinspired transparent graphene-enabled superhydrophobic surfaces with various robust. **S. Zhai**, H. Zhao

COLL 156. Perfluoro-functionalized flavin and its effect on stability of flavin helices around single-walled carbon nanotubes. **E. Karunaratne**, M. Mollahoseini, F. Papadimitrakopoulos

COLL 157. Plasmonic nanoparticles as sensors to probe the kinetics of polymer brush formation on two-dimensional nanoparticles. **A. Khan**, C. Scroggs, D. Hicks, G. Liu

COLL 158. Synthesis and characterization of hyperbranched CdS1-xSx nanocrystals. **M. Yazdanparast**, E.J. McLaurin

COLL 159. Particle and structural characterization of whey protein microgels as affected by fabrication pH and heating duration: Promising candidate as emulsifier. **S. Zamani**, A. Madadlou, N. Malchione, A. Abbaspourrad

COLL 160. β -Galactosidase Langmuir monolayer at air-subphase interface. **S.K. Sharma**

COLL 161. Improvement of photo-efficiency and reliability of light-emitting diode fabricated with K₂SiF₆:Mn⁴⁺ phosphor through surface modification. **I. Jang**, J. Kim, J. Kim

COLL 162. Stability of limonene in oil-in-water emulsion and microcapsule after freezing and thawing. **T. Ishigaki**, Y. Watanabe

COLL 163. Diamond shape formation by spontaneous aggregation of silver clusters in gels. **Q. Lin**, Y. Han, J. Li, W. Lin

COLL 164. Functionalized graphene oxide for selective sensing of SKBR3 CTC cells. **A.K. Singh**

COLL 165. Azobenzene-based periodic mesoporous organosilica nanoparticle, dual azoreductase triggered and degradable platform for drug delivery. **H.W. Omar**, B. Moosa, K. Alamoudi, N.M. Khashab

COLL 166. Core-shell microparticles for the enrichment and discovery of cationic antimicrobial peptides (CAMPs). **Y. Zhu**, B. Ueberheide, B. Bishop

COLL 167. Sorption of carbamazepine to humic substances determined through fluorescence quenching. **D. Cairnie**, C. Aijan, G.D. Foster

COLL 168. Research of superhydrophobic surface fabricated by interfacial polymerization. **X. Xiao**, H. Yang, X. Tantai, N. Yang, L. Zhang

COLL 169. Towards an understanding of azobenzene intramolecular isomerization reaction kinetics at ZrO₂ nanoparticle thin film interfaces. **D.C. Achey**, C. Pointer

COLL 170. Preparation of adlay oil based nanoemulsion gel as novel delivery system for topical application. **H. Yin Ting**, Y. Ting

COLL 171. Wettabilities of different faces of the same crystal. **Y. Deng**, X. Huang, H. Lu

COLL 172. Surface modification for DNA studies. **J.R. Pyle**, J. Chen

COLL 173. Modularly designable vesicle for sequentially multiple loading. **Y. Zhang**

COLL 174. Economical way to construct mesoporous liquids: Hydrolysing liquid medium on the surface of hollow structure. **P. Li**, J. Zhang, S.M. Mahurin, S. Dai

COLL 175. Regulation of α -thrombin enzymatic activity through interactions with gold nanoparticles. **A.L. Lira**, R.J. Torquato, M.L. Oliva, A.S. Tanaka, A.A. Sousa

COLL 176. Toward novel nanomaterials for 19F magnetic resonance imaging (MRI) contrast agents. **J.L. Steinbacher**, A.J. Berardi, S.T. Caico, L.E. Rudin

COLL 177. Modification of inorganic oxide surfaces via vapor-solid ring-opening polymerizations of cyclic siloxanes. **K.M. Ryan**, J.W. Krumpfer

COLL 178. Engineering Ru nanoframes with fcc crystal structure and enhanced catalytic activities. **H. Ye**, X. Xia

COLL 179. Detecting single-nucleotide polymorphisms in DNA with ultrathin film field-effect transistors. **K.M. Cheung**, J.M. Abendroth, N. Nakatsuka, B. Zhu, Y. Yang, A.M. Andrews, P.S. Weiss

COLL 180. Development of modified polyol process for synthesis of tetrahedrite. **G. Kunkel**, A. Ochs, D. Weller, D. Stevens, C. Holder, D. Morelli, M.E. Anderson

COLL 181. Plasmon-enhanced spectroscopy with shell-isolated mode. **J. Li**

COLL 182. Effect of extreme cold treatment on morphology and behavior of hydrogel microparticles. **E. Hirst**, E. Anderson, P. D'Angelo

COLL 183. Site-selective deposition of Pt atoms on Ag nanocubes for the generation of bifunctional Ag-Pt core-frame nanocrystals. **Y. Zhang**, X. Sun, D. Qin

COLL 184. Photochemical patterning of surface charges in fluidic channels. **K. Sy Piecco**

COLL 185. Correlating carrier densities with composition and surface ligands in Cu_xSe nanoparticles. **X. Gan**, L.E. Marbella, D.C. Kaseaman, J. Millstone

COLL 186. Controlled surface chemistry for the directed attachment of copper(I) sulfide nanocrystals. **E.H. Robinson**, M. Turo, J. Macdonald

COLL 187. Efficient releaser based on the As-synthesized mesoporous silica. **M. Wan**, X. Dong, S. Li, Y. Wang, J. Zhu

COLL 188. Molecular self-assembly and redox assembly of quinone derivatives on Au(100). **T. Morris**, I.J. Huerfano, C.D. Tempas, D.L. Wisman, N.A. Maciulis, A.V. Polezhaev, K.G. Caulton, S.L. Tait

COLL 189. Towards selective molecular biosensing: Fundamental investigation of polymeric filtering effect on field-effect transistor biosensor. **S. Nishitani**, T. Sakata

COLL 190. Withdrawn.

COLL 191. Evaluation of stress-grown carbon nanotubes for optically-active hybrid mixtures. **M.S. Lowry**

COLL 192. Synthetic mechanism of Janus Au-silica particle in aqueous phase. **Y. Luo**

COLL 193. Modeling of the interfacial behaviors in demulsification of crude oils. **D. Yu**, J. Mendenhall

COLL 194. Engineering hybrid nanosystem as a novel sustainable tool for Zika vector Aedes aegypti control. **L. Pokhrel**

- COLL 195.** Ligand mediated evolution of size dependent magnetism in cobalt nanoclusters. **M. Hartmann, J. Millstone**
- COLL 196.** Controlled release perivascular drug delivery from graphene oxide-hybridized HA hydrogels. **P. Maturavongsadit, Q. Wang, T. Cui**
- COLL 197.** Dispersions of carbon black in aqueous medium: Rheological and electrical study. **F. Kamand, M.I. Magzoub, M.S. Nasser, M. Youssry**
- COLL 198.** Size-tunable plasmonic nanoparticles using block copolymer lithography. **A. Cutri, K.A. Willets**
- COLL 199.** New DelPhi feature for modeling electrostatic potential around proteins: Role of bound ions and implications for zeta-potential. **A. Chakravorty, Z. Jia, L. Li, E. Alexov**
- COLL 200.** Universal linker enabling enzyme-mediated attachment of ligands to nanoparticle surfaces. **J. Santiana, S. Gudipati**
- COLL 201.** Functionalization of single-walled carbon nanotubes for use in supercapacitors. **J. Zuczek, J.C. Poler**
- COLL 202.** Unconventional synthesis of semiconductor nanotetrapods using core/shell CdSe/CdS as seeds. **X. Wang, S. Chen, J. Zhao**
- COLL 203.** Enantiomeric separation of chiral pharmaceuticals using chirally modified Au nanoparticles with high-index facets. **A.A. Pradhan, A.V. Nagarajan, N. Shukla, A.J. Gellman**
- COLL 204.** Catechol-conjugated hydroxyethyl chitosan as a tissue adhesive. **Y. Peng, X. Peng, B. Han, R.J. Linhardt**
- COLL 205.** Effect of film deposition conditions on the properties of multilayer films of a dual responsive block copolymer micelle. **D. Gündoğdu, V. Butun, I. Erel-Goktepe**
- COLL 206.** Electrostatic self-assembly of EGF and DOTAP liposomes into multi-lamellar complexes. **B. Koo, M. Yang, S. Jo, Y. Nam**
- COLL 207.** Single pot reduction, nucleation, and growth of Au nanoparticles with peptides. **C.J. Munro, Z.E. Hughes, T.R. Walsh, M.R. Knecht**
- COLL 208.** Withdrawn.
- COLL 209.** ALD preparation of SiO₂ protected Pd-MnO_x nanoparticles supported on TiO₂: Highly efficient nanocatalyst for the dehydrogenation of formic acid. **N. Caner, M. Yurderi, A. Bulut, M. Zahmakiran**
- COLL 210.** Sum frequency generation vibrational spectroscopy study of lead(II) adsorbed on functionalized magnesium ferrite nanoadsorbent. **J. Nonkumwong, S. Ananta, L. Srisombat, K.A. Cimatu**
- COLL 211.** Protecting the paint: Topcoats for improved decontamination of painted surfaces. **B.J. Johnson, B.J. Melde, B.D. Martin**
- COLL 212.** Osmolytes to ions: Elucidating the effects of preorganization on ion-ion interactions. **C.I. Drexler, S. Lee, B. Rogers, T. Yang, P.S. Cremer**
- COLL 213.** Using nuclear magnetic resonance (NMR) techniques to study noble metal-transition metal nanoparticle alloys. **E.A. Eikey, L.E. Marbella, A. Smith, J. Millstone**
- COLL 214.** Combined high stretchability and gas barrier in hydrogen-bonded multilayer nanobrick wall thin films. **S. Qin, Y. Song, J.C. Grunlan, M. Floto**
- COLL 215.** Bovine serum albumin adsorption on metal oxide nanoparticles: Effects of pH, nanoparticle surface, and co-adsorbed oxyanions on protein-surface interactions and protein structure. **Z. XU, B. Givens, V.H. Grassian**
- COLL 216.** Influence of nanoparticle surface functional groups on the function of gramicidin A (gA) in a suspended bilayer. **I.U. Foreman-Ortiz, X. Zhang, C.J. Murphy, J.A. Pedersen**
- COLL 217.** Role of polyvinylpyrrolidone on the shape and size of hydrothermally synthesized cobalt oxide particles. **X. Xia, M. Becker, B.D. Vogt**
- COLL 218.** Synthesis of highly stereoregulated poly-(3-hexylthiophene) within a porous material. **M. Mukai, T. Hirai, M. Nishibori, K. Kamitani, A. Takahara**
- COLL 219.** Directed contraction of microgrooved nanosheets powered by engineered myotubes under electrical stimulation. **A. Hasebe, L. Vannozzi, T. Mazzocchi, L. Ricotti, S. Takeoka, T. Fujie**
- COLL 220.** Measuring the plasmon to exciton energy transfer via sample-transmitted excitation photoluminescence spectroscopy. **H.E. Eckard, M. Zamkov, P. Moroz**
- COLL 221.** Single-particle correlated studies of electrodeposition on plasmonic nanoparticles. **A. Kumar, E. Villarreal, E. Ringe**
- COLL 222.** Reversing the odd-even effects in self-assembled monolayers using UPD silver. **M.D. Marquez, D. Rodriguez, O. Zenasni, T. Lee**
- COLL 223.** Polymer mimics using cyclohexyl-terminated derivatives as organic thin films. **T. Yu, M.D. Marquez, O. Zenasni, T. Lee**
- COLL 224.** Sum frequency generation spectroscopy of terminally fluorinated self-assembled monolayers on UPD silver and bare gold substrates. **D. Rodriguez, M.D. Marquez, O. Zenasni, S. Baldelli, T. Lee**
- COLL 225.** Dectin-1 targeting delivery of a therapeutic oligonucleotide with a beta-1,3-glucan carrier for cancer treatment. **N. Fujiwara, H. Izumi, S. Mochizuki, K. Sakurai**
- COLL 226.** Cell membrane-attractive deformable polymeric micelles for enhanced transdermal delivery. **D. Park, K. Shin, J. Kim**
- COLL 227.** Simple microwave-assisted synthesis of fluorescent carbon quantum dots from polyamidation monomer set. **Y. Choi, I. In**
- COLL 228.** Catalytic activation of amphiphilic Janus microparticles at the oil-water interface. **J. Cho, H. Kim, J. Cho, J. Kim**
- COLL 229.** Withdrawn.
- COLL 230.** Withdrawn.
- COLL 231.** Development of double action probes based on Zn- and Co-doped iron oxide nanoparticles. **S. Bram, J. Dittmar, B. Stein, M. Pink, Y. Losovyj, L. Bronstein**
- COLL 232.** Reconfigurable electric field directed nanoparticle assembly. **N. Famularo, S.J. Boehm, X. Guo, L. Kang, C.D. Keating, T.S. Mayer, D. Werner**
- COLL 233.** Simple route to prepare sub-100 nm plasmonic vesicles for drug delivery. **K. Yang, Z. Nie**
- COLL 234.** Binary mixed self-assembled monolayers derived from ammonium-terminated adsorbates on gold for oligonucleotide immobilization. **J. Hoang, C. Park, H. Lee, P. Gunaratne, T. Lee**
- COLL 235.** Pressure-induced hetero-dimer and hetero-rods formation through intraparticle coalescence of QD-Au satellite nanocrystals. **H. Zhu, Z. Wang, R. Li, O. Chen**
- COLL 236.** Development of efficient hyperthermia/drug delivery agents based on functionalized superparamagnetic nanoparticles. **P. Price, K. Carlson, J. Dittmar, A. Voronov, A. Kohut, L. Bronstein**
- COLL 237.** Two-dimensional nanosheet antioxidants. **D. Yim, H. Kim, T. Kang, J. Yang, J. Kim**
- COLL 238.** Multiple-patterning nanosphere lithography for periodic 3D hierarchical nanostructures. **N. Wattanatorn, X. Xu, Q. Yang, C. Zhao, S.J. Jonas, P.S. Weiss**
- COLL 239.** Quantum dot absorptive filter array based shortwave infrared miniaturized spectrometer. **J. Yoo, J. Carr, J. Caram, M.G. Bawendi**
- COLL 240.** Fabrication and characterization of hybrid particles with CeO₂ core and polymer brushes. **A. Hamada, M. Nishibori, Y. Konishi, K. Kamitani, T. Hirai, K. Kojo, A. Takahara**
- COLL 241.** Characterization of polymer thin film by tender x-ray reflectivity. **K. Kamitani, M. Nishibori, Y. Konishi, A. Hamada, T. Hirai, K. Kojo, A. Takahara**
- COLL 242.** Chemotherapeutic drug delivery system based on gold nanoparticle carriers for cancer treatment. **L. Running, R. Espinal, R.S. DeVaux, J. Herschkowitz, M.R. Hepel**
- COLL 243.** Isothermal reversible softening and hardening of polymer gels and networks based on a photo-triggered repeatable macromolecular architectural transformations. **S. Honda, N. Tanaka, T. Toyota**
- COLL 244.** Characterizing molecular diffusion through nanopores using nanoporous anodic alumina waveguides. **A. Sousa, J. Dostalek, K. Lau**
- COLL 245.** Carbon nanotubes decorated with fluorophores as photothermal agents for efficient killing of antibiotic resistant bacteria. **B. Altin, H. Unal**
- COLL 246.** Novel wax dispersant for single emulsion phase stabilization of simulated waxy crude oil. **M. Lukkanasiri, A. Charoensaeng, U. Suriyapraphadilok**
- COLL 247.** Second harmonic generation spectroscopy of substrate-based surfactant free gold and silver nano-hemispheres. **T. Marshall, Y. Aulin, K. Gilroy, S. Neretina, E. Borguet**
- COLL 248.** Characterization of polymer/inorganic-nanoparticles composite by using small-angle x-ray scattering and x-ray absorption spectroscopy. **M. Nishibori, T. Takahashi, Y. Ushio, K. Suematsu, K. Kamitani, T. Hirai, A. Takahara**
- COLL 249.** Two-component micelle with mixing dialuoyl phosphocholine(DLPC) and deoxycholic acid(DA) and its delivery of proteins into the cytosol on the pH responsiveness. **N. Miyamoto, S. Fujii, K. Sakurai, K. Koivai, N. Sakaguchi**
- COLL 250.** Developing a tunable copper indium sulfide (CIS) nanocrystal synthesis using thiourea precursors. **S. Hughes, A. Cohen, M. Maust**
- COLL 251.** Surface catalyzed C-C bond formation through dehydrogenation and dehydrocyclization pathways. **C.G. Williams, M. Wang, C. Tempas, T. Morris, D. Wisman, L.L. Kesmodel, S.L. Tait**
- COLL 252.** High density covalent functionalization of graphene from hyper-stage-1 graphite intercalation compound. **I. Jeon, B. Yoon, M. He, T.M. Swager**
- COLL 253.** Hierarchical self-assembly of novel tubular nanoparticles and surface-attached nanoscaffolds from modified Tobacco mosaic virus capsid protein. **A. Brown, J.N. Culver**
- COLL 254.** Colloidal synthesis of Si nanoparticles and their chemical transformation into orthorhombic lithium silicate nanowires. **E. Eladgham, I.U. Arachchige**
- COLL 255.** Hierarchical self-assembly of novel tubular nanoparticles and surface-attached nanoscaffolds from modified Tobacco mosaic virus capsid protein. **A. Brown, J.N. Culver**
- COLL 256.** Formation of monodisperse microemulsions using elastin-like polypeptide surfactants. **R.J. Schmitt, A. Maraschky, I. Tsupur, D. Terrano, K.A. Streltzyk, N.B. Holland**
- COLL 257.** Facile method for construction of folate targeted fluorescent magnetic beads. **W.A. Henne, V. Schmitz, H. Ledbetter**
- COLL 258.** Solvent mediated dye encapsulation into resorcin-arene cavitand nanocapsules. **S. Allmon, K. Mahadevan, B. Ramjee**
- COLL 259.** IR study of the particle-polymer interface in MOF mixed matrix membranes. **X. Chen, A.P. Odegard, J.C. Moreton, S. Cohen, L.B. Benz**
- COLL 260.** Designing sterically stable peptide nanostructures with target morphologies. **S. Mushnoori, M. Dutt**
- COLL 261.** Laser crystallization of inkjet-printed aluminum doped zinc oxide and indium tin oxide nanomaterials for highly transparent conductive electrodes. **O.K. Ranasingha, K. Jayawardana, Q. Nian, S. Kepelner, C. Yapp, J. Bailey, G.J. Cheng, M. Callahan**

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- COLL 262.** Covalent attachment of phthalocyanine and cobalt metalation on chlorine terminated Si(111) surface. C. He, A.V. Teplyakov
- COLL 263.** pH-sensitive antimicrobial agent. Y. Nelson, J. Sun
- COLL 264.** Tuning upconversion in Nd(III)-sensitized core-shell nanoparticles for excitation with biobeneficial wavelength. C. Arboleda, S. He, A. Stubelius, A. Almutairi
- COLL 265.** Compositional tuning of hybrid organic-inorganic lead halide perovskite nanocrystals through solid-liquid-solid cation exchange. K. Hills-Kimball, Y. Nagaoka, O. Chen
- COLL 266.** Wearable personal thermal management through silver nanowire-coated textiles. P. D'Angelo, E. Hirst, E. Anderson
- COLL 267.** Temperature-programmed desorption (TPD) and density functional theory (DFT) study comparing the adsorption of ethyl halides on the Si(100) surface. J. Zhao, B.W. Noffke, K. Raghavachari, A.V. Teplyakov
- COLL 268.** Nanoparticles (-)-epicatechin-loaded chitosan induced apoptosis in breast cancer: in vivo and in vitro study. A. Perez Ruiz, I. Olivares Corichi, F. Ganem Rondero, J. García Sánchez
- COLL 269.** Effect of temperature and surface topology on supported lipid bilayer lateral diffusion. C. Henderson, A. Sendeck, P.S. Cremer
- COLL 270.** Asymmetric plasmonic nanoparticle array on flexible substrate. J. He, J. Reifsteck, I. Bruzas, L. Sagie
- COLL 271.** Novel light-mediated walking and sensing device via integration of assembled plasmonic film and hydrogel. H. Guo, Z. Nie
- COLL 272.** XPS study of the surfaces of metal organic frameworks following post-synthetic ligand exchange. J. Low, L.B. Benz, J.C. Moreton, S. Cohen
- COLL 273.** Immiscible polymer blend nanoparticles formed by nanoprecipitation. C. Zhao, T. Li, X. Zhang, R. Nieuwendael, E. VanKeuren
- COLL 274.** Investigating relative binding strengths of various attachment chemistries to titania surfaces for potential use in dye sensitized solar cells. G.J. Smith, B. Harvey
- COLL 275.** Controlled protonation of transition metal substituted heteropolytungstates in nonpolar solvents. S.H. Szczepankiewicz, J. Canavan
- COLL 276.** Biosensor based on Au-UCNP for dynamic detection of glucose. K. Shrestha, A. Rafiei, H.H. Richardson

- COLL 277.** Adenosine-functionalized biodegradable PLA-b-PEG nanoparticles for osteoarthritis blocking in rats. X. Liu, A. Ulman, B.N. Cronstein
- COLL 278.** Preparation of fabric with differentiated water-transport ability. L. Lao, D. Shou, Y. Wu, J. Fan
- COLL 279.** Development of sepiolite supported-nano TiO₂ composites as high performance photocatalysts. L. Liao, J. Feng
- COLL 280.** Remediating interior building surfaces contaminated by methamphetamine: Methods development. K.R. Caldwell
- COLL 281.** Colloidal metal and semiconductor nanostructures: Theory, synthesis, and application. S. Atta
- COLL 282.** Improvement of methane hydrate formation kinetics with activated carbon, tetrahydrofuran, and sodium dodecyl sulfate. A. Siangsai, K. Inkong, P. Rangsunvigit
- COLL 283.** Preparation of pure and decorated metal oxide materials for energy applications using novel physical deposition methods and their characterization. D. Paradiso, J.Z. Lares
- COLL 284.** Adsorption site determination for oxygenates on TiO₂/Au(111). M.Z. Gillum, J.A. Wilke, D.T. Boyle, A. Baber
- COLL 285.** Concentration dependence and applications of mixed self-assembled azide-terminated monolayers. R.M. Mandel, A.V. Teplyakov, M. Williams
- COLL 286.** Formation of bioactive hydrogels through the cross-linking of thermally responsive polypeptide micelles. A. Mistry, H. Celik, N.B. Holland
- COLL 287.** Investigating surMOF thin film growth for sensing and storage applications. A. Trojniak, L. Brower, M. Ohnsorg, M.E. Anderson
- COLL 288.** Exploring fabrication and gas adsorption for HKUST-1 thin films and powders. L. Brower, A. Trojniak, B. Bowser, M.L. Ohnsorg, M.E. Anderson
- COLL 289.** Synthesis of gold-silica core-shell nanostructures. J. Jeffries, S. Nasser, K. Ruta, O. Altahan, K. Bandyopadhyay
- COLL 290.** Generation of Au-Pd bimetallic nanoparticles and anisotropic structure of gold on functionalized surfaces. A. Peer, K. Bandyopadhyay
- COLL 291.** Dopamine biosensor using two dimensional assemblies of palladium nanoparticles. M. Osto, C. Dodge, K. Bandyopadhyay
- COLL 292.** Two dimensional assemblies of gold nanoparticle as non-enzymatic glucose biosensor. A. Bitar, K. Bandyopadhyay
- COLL 293.** Seed mediated growth of highly monodisperse spherical gold nanoparticles. R. Darienzo, O. Chen, M. Sullivan, R. Tannenbaum
- COLL 294.** Determination of optimal probe density and salt concentration for fast and complete DNA melting. N. Le, A. Chin, R. West

MONDAY MORNING

Section A

Walter E. Washington Convention Center Room 147A

Basic Research in Colloids, Surfactants & Nanomaterials

Colloidal Assembly

R. Nagarajan, *Organizer*

S. L. Tait, *Presiding*

- 8:30 COLL 295.** Assembly mechanism of polymer-grafted nanocubes. B.H. Lee, G. Arya
- 8:50 COLL 296.** Bottom-up design and self-assembly of supracolloidal molecules made from binary metallic nanoparticles. C. Yi, Z. Nie
- 9:10 COLL 297.** Understanding the temporal and spatial dynamics of surface assembly. K.M. Carroll, C. Rawlings, Y. Zhang, S.R. Marder, A. Knoll, H. Wolf, U. Duerig
- 9:30 COLL 298.** Thermo-mechanical behavior of self-assembled nanoparticle membranes. H. Chan, B. Narayanan, Y. Wang, X. Lin, H. Jaeger, S. Sankaranarayanan
- 9:50 COLL 299.** Tunable random laser emission via reconfigurable particle assembly. P. Donahue, C. Zhang, N. Nye, C. Wang, J. Miller, D. Christodoulides, Z. Liu, C.D. Keating
- 10:10 COLL 300.** Aggregation of conjugated polymer nanowires studied by atomic force microscopy and kelvin probe force microscopy. S. Guo
- 10:30 COLL 301.** Effective interactions between colloids induced by attractive reversibly adsorbed polymers. A. Chervanyov
- 10:50 COLL 302.** Dynamic supramolecular assembly at surfaces: Impact of guest, solvent, and STM bias. S.L. Tait
- 11:10 COLL 303.** Gold nanoparticle self-assembly in mixed lipid nanodiscs: Molecular dynamics simulations. H. Sharma, E. Dormidontova
- 11:30 COLL 304.** Designing and tuning self-assemblies towards the single chirality enrichment of single-walled carbon nanotubes. E. Karunarathne, M. Mollahosseini, F. Papadimitrakopoulos

Section B

Walter E. Washington Convention Center Rooms 208A/B

Responsive, Programmable Assembly of Active Colloids for Functional Materials

Financially supported by JULABO USA Inc.

R. Hickey, C. D. Keating, *Organizers*

L. D. Zarzar, *Organizer, Presiding*

- 8:30 COLL 305.** Microrobots at interfaces. D. Wong, I. Liu, S. Das, E. Steager, M. Hsieh, V. Kumar, K.J. Stebe
- 9:00 COLL 306.** Collective behavior of self-powered single molecules and nano/microparticles. A. Sen
- 9:30 COLL 307.** Tuning the hydrodynamics and collective behaviors of active colloidal motors via a chemical approach. N. Wu, X. Yang
- 10:00 COLL 308.** Spatiotemporal dynamics of filamentous bacteria near and on affinity substrates. J. Jahnke, J. Terrell, A. Smith, X. Cheng, D.N. Stratis-Cullum

10:20 COLL 309. Surface-bound enzymatic reactions organize microcapsules and protocells in solution. O.E. Shklyav, H. Shum, A. Sen, A. Balazs

10:50 COLL 310. Engineering of shape-changing and motile colloidal assemblies: Magnetically reconfigurable clusters and self-propelling microbots. O.D. Velev

11:20 COLL 311. New generation of remotely AC-field-powered self-propelling active particles with on-demand assembly and propulsion. U. Ohiri, K. Han, C.W. Shields, T. Tyler, O.D. Velev, N.M. Jokerst

11:40 COLL 312. Shaped-directed dynamics of active colloids. K.J. Bishop, A. Brooks, S. Sabrina

Section C

Walter E. Washington Convention Center Room 150B

Self-Assembly of Synthetic & Biological Surfactants: Translating Fundamentals to Applications

V. T. John, S. R. Raghavan, *Organizers, Presiding*

- 8:30 COLL 313.** Surface functionalized biodegradable polymersome for targeted drug delivery. S. Roy, M. Nallani
- 8:50 COLL 314.** Patchy and degradable polymersomes enabled by a miktoarm star terpolymers and polypeptides. J. Gaitzsch, V. Chudasama, R. Luxenhofer, G. Battaglia, W. Meier
- 9:10 COLL 315.** Self-assembly of peptide bolaamphiphiles into nanostructures for siRNA delivery. Z. Guan, A. Eldredge, D. Yang
- 9:30 COLL 316.** Peptide insertion into lipid bilayer creating membrane pores. R. Nagarajan
- 9:50 Intermission.**
- 10:10 COLL 317.** Pyrrolidone diblock copolymers nano-objects: From bulk to interface. J. Dong
- 10:40 COLL 318.** Aqueous self-assembly of AnK peptides. U. Olsson
- 11:10 COLL 319.** Effect of pH of skincare and cleansing products on the stratum corneum barrier function. K. Ananthapadmanabhan

Section D

Walter E. Washington Convention Center Room 150A

Targeted Nanosystems for Therapeutic Applications: New Concepts, Dynamic Properties, Efficiency & Toxicity

K. Sakurai, *Organizer*

M. A. Ilies, *Organizer, Presiding*

- 8:30 COLL 320.** Targeting precision nanomedicines to the tumor micro-environment. D.A. Heller, Y. Shamay, A. Haimovitz-Friedman, M. Scalfriti
- 9:00 COLL 321.** Targeting lung adenocarcinoma using fibrin-specific short linear peptide motif. J. Yu, M. Yang, Y. Nam
- 9:30 COLL 322.** Dectin-1 targeting delivery of a YB-1 antisense oligonucleotide with a beta-1,3-galucan carrier. N. Fujiwara, H. Izumi, S. Mochizuki, K. Sakurai
- 10:00 Intermission.**

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

- 10:15 COLL 323.** Glycopolypeptide self-assembled nanomaterials as efficient delivery systems with multi-valent properties. S. Lecommandoux
- 10:45 COLL 324.** Aptamer micelles targeting cancer cells expressing the chemokine fractalkine. M.A. Harris, T.R. Pearce, T. Pengo, H. Kuang, C. Forster, E. Kokkoli
- 11:15 COLL 325.** Carbonic anhydrase IX targeted nanosystems for hypoxic tumor detection and treatment. M.A. Ilies

Section E

Walter E. Washington Convention Center Room 209B

Colloidal Metal & Semiconductor Nanostructures: Theory, Synthesis & Application

Metal Nanoparticle: Synthesis & Spectroscopy

Financially supported by Department of Chemistry, University of Connecticut; Department of Chemistry, University of Central Florida

J. Zhao, S. Zou, *Organizers*

A. J. Haes, *Organizer, Presiding*

- 8:30 COLL 326.** Aluminum nanocrystals: Size control and SERS applications. N.J. Halas
- 9:05 COLL 327.** Chemistry at the ends of gold nanorods. C.J. Murphy
- 9:40 COLL 328.** Controlling and exploiting nanoscale curvature in gold nanostars. T.W. Odom
- 10:15 COLL 329.** Probing charge delocalization in plasmonic gold nanoparticles via a molecular reporter using ultrafast surface-enhanced Raman spectroscopy. E. Keller, R.R. Frontiera
- 10:35** Intermission.

11:00 COLL 330. Two-photon photoluminescence and biomedical applications of hollow gold nanospheres (HGNs). J.Z. Zhang

11:30 COLL 331. Super-resolution imaging of hybrid organic-plasmonic nanostructures. K.A. Willets

12:00 COLL 332. Probing formation and transformation of colloidal nanoparticles with in-situ synchrotron x-ray scattering. Y. Sun

Section F

Walter E. Washington Convention Center Room 209A

Photoresponsive Nanoparticles: From Fundamentals of Excitation to Applications

Photocatalysis

B. G. DeLacy, Y. Han, *Organizers*

Y. Sun, *Organizer, Presiding*

H. Fan, *Presiding*

- 8:30 COLL 333.** Synthesis of shape-defined Ta₃N₅ and SrTaO₂N nanostructures for photocatalysis. S.E. Skrabalak
- 9:00 COLL 334.** Interfacial self-assembly of hierarchically structured nanocrystals with photocatalytic activity. H. Fan

9:30 COLL 335. Oxygen-insensitive hydrogen evolution sites coated by Cr and Mo species for overall water splitting. K. Takanabe

10:00 Intermission.

10:20 COLL 336. Nanostructures and their influence upon outer sphere electron transfer rates. M. Spitler

10:50 COLL 337. Withdrawn.

11:10 COLL 338. Quantum-sized metal nanoparticles for photoinduced chemical transformations. Y. Sun

11:30 COLL 339. Balancing near-field enhancement, absorption, and scattering for effective antenna-reactor plasmonic photocatalysis. P. Christopher

Section G

Walter E. Washington Convention Center Room 204C

Emulsions, Foams & Dispersions: Symposium in honor of Dominique Langevin at 70

R. Nagarajan, K. J. Stebe, D. A. Weitz, *Organizers*

B. Binks, *Presiding*

- 8:30 COLL 340.** Temperature-dependent assembly of thermosensitive cationic diblock copolymers in water and on interfaces. F.M. Winnik, P. Claesson
- 8:55 COLL 341.** Complexes of oppositely charged polyelectrolytes and microemulsion droplets: An investigation of structure and dynamics. M. Simon, L. Nofirez, I. Hoffmann, M. Gradzielski
- 9:20 COLL 342.** Adsorption of colloid-surfactant complexes at fluid-fluid interfaces and impact on mechanical properties. S.M. Kirby, S.L. Anna, L. Walker
- 9:45 COLL 343.** Correlating the attractive interactions between polymer-surfactant coated droplets measured via AFM to collisions in microfluidic channels. R.R. Dagastine, C. Fewkes, E. Jamieson, J.D. Berry
- 10:10** Intermission.
- 10:20 COLL 344.** Withdrawn.
- 10:45 COLL 345.** Eco-friendly surfactant herders for the remediation of maritime oil spills. C. Maldarelli, H. Zhou, G. John
- 11:10 COLL 346.** Protein diffusion in a bicontinuous microemulsion: sub-diffusion by tunable soft confinement. T. Hellweg
- 11:35 COLL 347.** Lipid droplets: The interaction of amphipathic α -helix model protein with an oil/buffer interface. E. Mann, M.S. Mirheydari, E.E. Kooijman

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Self-Assembly & Non-Covalent Interactions: The Fundamental Science of Supramolecular Materials

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MONDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 147A

Basic Research in Colloids, Surfactants & Nanomaterials

Bio Amphiphiles & Colloids

R. Nagarajan, *Organizer*

G. Narsimhan, *Presiding*

- 2:00 COLL 348.** Exploring the mechanisms of liquid-liquid phase separation in concentrated protein solutions. B.A. Rogers, K.B. Rembert, M.F. Poyton, H.I. Okur, T.S. Yang, J. Zhang, P.S. Cremer
- 2:20 COLL 349.** Identification and characterization of novel peptide domains, which exhibit binding affinities for electroactive materials. A. Winton, S.J. Riley, M.A. Allen
- 2:40 COLL 350.** Multivalent presentation of precision glycomacromolecules on soft microgels for specific lectin binding studies. F. Jacobi, H. Wang, A. Camaleño de la Calle, S. Schmidt, L. Hartmann
- 3:00 COLL 351.** Pore formation by aggregates of antimicrobial peptides in DMPC liposomes. Y. Lyu, M. Fritiyanti, X. Zhu, G. Narsimhan
- 3:20 COLL 352.** Transmembrane difference in colloidal osmotic pressure affects the lipid membrane fluidity of liposomes encapsulating a concentrated protein solution. H. Sakai
- 3:40 COLL 353.** Studies of the interactions between Cu²⁺ and sphingosine-1-phosphate. A.J. Baxter, T. Yang, P.S. Cremer
- 4:00 COLL 354.** Functionalization of living bacterial cells with metallic nanoparticles mediated by surface-displayed peptides. H. Dong, D.A. Sarkes, D.N. Stratis-Cullum

4:20 COLL 355. Interaction of cationic poly (oxonorborene) coated gold nanoparticles with model membranes. Z. Zheng, Y. Zhang, B. Zhi, L.U. Foreman-Ortiz, D. Boschert, R.J. Hamers, C.L. Haynes, J.A. Pedersen, K. Lienkamp, Z. Rosenzweig

4:40 COLL 356. Cellular and particle dynamics in blood flow with rigid red blood cells. M. Gutierrez, O. Eniola-Adefeso

5:00 COLL 357. Investigation of the adsorption properties of dipeptides: A thermodynamic, inelastic neutron scattering and modeling study. D. Paradiso, J.Z. Larese

Section B

Walter E. Washington Convention Center Rooms 208A/B

Self-Assembly of Synthetic & Biological Surfactants: Translating Fundamentals to Applications

V. T. John, S. R. Raghavan, *Organizers, Presiding*

2:00 COLL 358. Linking gene expression with phospholipid membrane formation. A. Bhattacharya

2:20 COLL 359. Chemoselective assembly and modification of lipids for use in model and live-cell systems. A.K. Rudd, R. Brea Fernandez, N.K. Devaraj

2:40 COLL 360. New insights into the diffusion of fluorescently labeled lipid probes in phospholipid membranes by FRAP: Identification of multiple diffusing populations and their origins. C.M. Smith, K.R. Griffin, S. Herman, S.S. Saavedra

3:00 COLL 361. Near infrared responsive gold-layersome nanoshells. A. Abbasi, G.D. Bothun, A. Bose

3:20 Intermission.

3:40 COLL 362. Steering an enzymatic reaction with vesicles. P. Waide, S. Luginbühl, G. Čirić-Marjanović

4:10 COLL 363. Lipidic templates and coatings for designing nanotheranostics. G.D. Bothun

4:40 COLL 364. Can vesicles transform into helical tubules in a system based on achiral surfactants? S.R. Raghavan

5:00 COLL 365. Amphiphilic polypeptoids and their hydrophobic interactions with lipid bilayers: Fundamentals and translation to drug delivery systems. V.T. John, Y. Zhang, M. Omarova, D. Zhang, T. Yu, S. Xuan

Section C

Walter E. Washington Convention Center Room 150B

Targeted Nanosystems for Therapeutic Applications: New Concepts, Dynamic Properties, Efficiency & Toxicity

K. Sakurai, *Organizer*

M. A. Ilies, *Organizer, Presiding*

2:00 COLL 366. Bi-CTAB composite photocatalytic nanomaterial for antibacterial applications. S. Li, C. Lu, K. Yu, S. Wong, M. Goh

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2:30 COLL 367. Particle modulus as a key parameter of vascular-targeted drug delivery *in vitro* and *in vivo*. **M. Fish**, C. Fromen, T.F. Scott, R. Adili, M. Holnstat, O. Eniola-Adefeso

3:00 COLL 368. Molecular design of non-toxic polymeric inhibitors as novel anti-thrombotics and antidotes for anticoagulants. **M. Kalathottukaren**, S. Abbina, C.A. Haynes, **J.N. Kizhakkedathu**

3:30 Intermission.

3:45 COLL 369. Cationic amphiphiles designed to mimic antimicrobial peptides exhibit marked activity against planktonic bacteria and biofilms. **A.E. Moretti**, R. Weeks, M. Chikindas, K.E. Uhrich

4:15 COLL 370. Withdrawn.

4:45 COLL 371. Polymer therapeutics and stem cell therapies as a combinatorial approach for the treatment of chronic spinal cord injuries. **V.J. Nebot**, R. Requejo-Aguilar, A. Armiñan, O. Zagorodko, A. Alastrue-Agudo, V. Moreno-Manzano, **M.J. Vicent**

Section D

Walter E. Washington Convention Center Room 150A

Photoresponsive Nanoparticles: From Fundamentals of Excitation to Applications

Novel Synthesis

B. G. DeLacy, Y. Han, *Organizers*

Y. Sun, *Organizer, Presiding*

D. Qin, *Presiding*

2:00 COLL 372. Plasmon-driven anisotropic growth of gold nanoparticles: Cooperative action of surfactants with light. **W. Wei**

2:30 COLL 373. Gold nanoboxes with plasmonic absorption at near infrared wavelength. **D. Qin**, X. Sun, J. Kim, J. Ahn

3:00 COLL 374. Multifunctional nanomaterials and their photo- and magneto-thermal applications. **S. Hunyadi Murph**

3:20 COLL 375. Using gold nanoparticle surface chemistry to control electronic behavior: Towards energy transfer applications. **S. Crawford**, C.M. Andolina, A. Smith, J. Millstone

3:40 Intermission.

4:00 COLL 376. Molecular plasmons: A new take on an old molecule with new applications. **N.J. Halas**

4:30 COLL 377. Plasmonic field and heat from gold nanorods. **C.J. Murphy**

5:00 COLL 378. Atomically precise metal nanoparticles: Fundamentals and opportunities. **R. Jin**

Section E

Walter E. Washington Convention Center Room 209B

Colloidal Metal & Semiconductor Nanostructures: Theory, Synthesis & Application

Theory

Financially supported by Department of Chemistry, University of Connecticut; Department of Chemistry, University of Central Florida

A. J. Haes, **J. Zhao**, *Organizers*

S. Zou, *Organizer, Presiding*

2:00 COLL 379. Strong plexcitonic interactions in colloidal solutions containing hybrid metal nanoparticle/dye systems. **R. Thomas**, A. Thomas, R. Swathi, **S.K. Gray**, K.G. Thomas

2:30 COLL 380. Optical and energy-related phenomena in metal nanocrystal chains with hot spots: Coherent transfer of plasmons, hot electrons and heat generation. **A. Govorov**

3:00 COLL 381. Electron- and photon-driven optical responses in metallic, alloyed, and semiconducting nanostructures. **D.J. Masiello**

3:30 COLL 382. Designing nanoparticle solar cells without defect states and with enhanced charge transport using ab initio simulations. **M. Voeroes**, N. Brawand, F. Giberti, G.A. Galli

3:50 Intermission.

4:10 COLL 383. Electron density dependent core-shell model in simulation optical properties of metallic nanoparticles. **S. Li**, C. Chen

4:40 COLL 384. Atomistic electro-dynamics simulations of plasmonic nanoparticles. **L. Jensen**

5:10 COLL 385. Low dimensional nanomaterials: Insights from the established, exotic, and imaged. **P.A. Brown**, **K.L. Shuford**

5:40 COLL 386. Optical properties of self-assembled supracolloidal nanostructures for metamolecules. **Z.A. Benson**, M. Dias, C. Gong, M.S. Leite

Section F

Walter E. Washington Convention Center Room 209A

Emulsions, Foams & Dispersions: Symposium in honor of Dominique Langevin at 70

K. J. Stebe, **D. A. Weitz**, *Organizers*

R. Nagarajan, *Organizer, Presiding*

2:00 COLL 387. Oil foams stabilised by surfactant or fat crystals. **B. Binks**, E.J. Garvey, I.P. Marinopoulos

2:25 COLL 388. Arresting bubble coarsening with surface elasticity. **A. Salonen**, C. Gay, A. Maestro, W. Drenckhan, E. Rio

2:50 COLL 389. Foams and dispersions at high salinity. **K.P. Johnston**, M. Iqbal, J. Lee, C. Dandamudi, S. Alzobaidi, E. Moaseri, B. Chang, C. Da

3:15 COLL 390. Encapsulation in double emulsions: Fabrication and time stability of the capsules. **M. Nollet**, M. Mercé, E. Laurichesse, **V. Schmitt**

3:40 Intermission.

3:50 COLL 391. New directions in the science and engineering of particle-containing foams: Responsive materials and bioreactor operations. **O.D. Velev**

4:15 COLL 392. Stability of flowing foams under confinement. **S.L. Biswal**

4:40 COLL 393. Border-crossing model for the diffusive coarsening of wet foams. **D. Durian**

5:05 COLL 394. Emulsions, foams and dispersions. **D. Langevin**

Section G

Walter E. Washington Convention Center Room 204C

Basic Research in Colloids, Surfactants & Nanomaterials Metal & Semiconductor Nanomaterials

R. Nagarajan, *Organizer*

J. A. Hollingsworth, *Presiding*

2:00 COLL 395. Gas and vapor dependent photoluminescence changes and surface chemistry of zinc oxide nanoparticles. **S. Kim**, R. Somaratne, S.K. Sengupta, J.E. Whitten

2:20 COLL 396. Watching submonolayer deposition of platinum on colloidal silver nanocrystals with a molecular probe. **Y. Zhang**, D. Qin

2:40 COLL 397. Enhanced emission of nanocrystal solids featuring slowly diffusive excitons. **N.N. Kholmicheva**

3:00 COLL 398. Plasmon enhanced multiexciton emission of single quantum dots. **J. Zhao**, S. Dey, S. Zou

3:20 COLL 399. Au exchange or Au deposition: Control of morphology in Au-CsPbBr₃ heterostructure nanoparticles. **B. Roman**, M.T. Sheldon

3:40 COLL 400. Thermochemical measurements of cation exchange in cadmium selenide nanocrystals using isothermal titration calorimetry. **S. Jharimune**, A. Sathe, R.M. Rioux

4:00 COLL 401. Catalytic applications of Cu₂-xSe nanoparticles in redox reactions. **M. Richard**, X. Gan, J. Millstone, E. Borguet

4:20 COLL 402. Fate of photoexcited charge carriers in lead-free perovskite nanocrystals for excitonic solar cells. **C. Liu**, K. Zheng, D.J. Gosztola, S. Canton, X. Zhang

4:40 COLL 403. Sensitivity of plasmonic metal nanoparticles and their potential in plasmonic polymer nanocomposites. **A. Khan**, G. Liu

5:00 COLL 404. Dye-loaded core-shell Au-SiO₂ nanoparticles for cancer theranostics. **F.M. Roland**, Q. Zhang, B.D. Smith, R. Roeder

Grassroots Approaches to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Nanotechnology & Single Cell Analysis in Biology & Medicine

Sponsored by ANYL, Cosponsored by BIOL, COLL and PHYS

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED#, CINF, COLL, COMSCI, CPRC, DAC, GEOCC, IAC, PRES and SCHB

Transformative Research & Excellence in Education Award

Sponsored by COMSCI, Cosponsored by BIOL, COLL, COMP, ENFL, INOR, PHYS and PRES

Self-Assembly & Non-Covalent Interactions: The Fundamental Science of Supramolecular Materials

Sponsored by ANYL, Cosponsored by COLL

MONDAY EVENING

Section A

Walter E. Washington Convention Center Halls D/E

Sci-Mix

R. Nagarajan, *Organizer*

8:00 - 10:00

142, 157-158, 166, 178-179, 183, 185-188, 194-196, 199-205, 207, 211, 213-215, 221-223, 231-234, 236, 238-239, 244, 251-252, 254-256, 258-260, 264, 266, 270-273, 278, 281, 283-286, 294. See previous listings.

TUESDAY MORNING

Section A

Walter E. Washington Convention Center Room 147A

Basic Research in Colloids, Surfactants & Nanomaterials

Emulsions & Gels

R. Nagarajan, *Organizer*

A. V. Mallia, *Presiding*

8:30 COLL 405. Double emulsion for the encapsulation of reactive lipophilic components. **M. Stasse**, V. Heroguez, V. Schmitt

8:50 COLL 406. Structure and dynamics of solid-like ion gels with high ionic conductivity. **Z. Yu**, Y. He, Y. Wang, L.A. Madsen, R. Qiao

9:10 COLL 407. Food-grade dispersants for remediation of oil spills: Insights from colloid science. **N. Agrawal**, S.R. Raghavan

9:30 COLL 408. Structure-property relationships and mechanotropic properties of molecular gels based on simple fatty acid based gelators. **A.V. Mallia**, B. Matel

9:50 COLL 409. Investigating the crosslinking of Pickering nanoemulsions stabilised by epoxy-functional diblock copolymer nanoparticles. **F. Hatton**, K. Thompson, S.P. Armes

10:10 COLL 410. Modified two-step emulsion solvent evaporation technique for fabricating biodegradable rod-shaped drug carriers. **H. Safari**, O. Eniola-Adefeso

10:30 COLL 411. Stabilization of lipase in polymerized high internal phase emulsions through interfacial assembly. **S. Andler**, J.M. Goddard

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

10:50 COLL 412. Solid drug nanoparticles synthesised using water-in-oil emulsion templating and nanoprecipitation: From proof of concept to *in vitro* validation of long acting depot. **J.J. Hobson**, P. Curley, A. Al-Khouja, C.L. Meyers, C. Flexner, A. Owen, S. Rannard

11:10 COLL 413. Exploration and tunability of the aggregation and gelation process of tripeptides. **D.M. DiGiuseppi**, L. Thursch, N. Alvarez, R. Schweitzer-Stenner

11:30 COLL 414. Withdrawn.

Section B

Walter E. Washington Convention Center Rooms 208A/B

In-Situ Investigation of Energy Systems using Ambient-Pressure X-Ray Photoelectron Spectroscopy

E. Crumlin, H. Ogasawara, I. Waluyo, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 COLL 415. Revisiting CO oxidation on Pt(110) surface with ambient pressure XPS. **B.S. Mun**

9:15 COLL 416. Diluted alloys based on noble metals as selective catalysts for oxidation and (de)hydrogenation. **M. van Spronsen**, B. Eren, N. Janvelyan, C. Wu, B. Zugic, M. Salmeron, R.J. Madix, C.M. Friend

9:35 COLL 417. *In situ* XPS as a tool to unravel surface chemistry in C-H reforming reactions. **S.D. Senanayake**, Z. Liu, R.M. Palomino, D. Grinter, I. Waluyo, J. Rodriguez

10:15 Intermission.

10:35 COLL 418. Dissociative adsorption of CO₂ on Cu(100). **B. Hagman**, A. Schaefer, C. Zhang, M. Shipilin, L.R. Merte, E. Lundgren, A.P. Borbon, H. Gronbeck, J. Gustafson

11:15 COLL 419. *In-situ* investigation of water dissociation on NiOx/CeO₂ (111) surfaces using ambient-pressure XPS. **Z. Liu**, R.M. Palomino, J. Rodriguez, S.D. Senanayake

11:35 COLL 420. Ethanol reactivity over Ti-modified CeOx(111) mixed oxide surfaces from UHV conditions to elevated pressures. **J. Zhou**

Section C

Walter E. Washington Convention Center Room 150B

Responsive, Programmable Assembly of Active Colloids for Functional Materials

Financially supported by JULABO USA Inc.

C. D. Keating, L. D. Zarzar, *Organizers*

R. Hickey, *Organizer, Presiding*

8:30 COLL 421. Active colloids and liquid crystals. **N.L. Abbott**

9:00 COLL 422. Self-assembly of nanoparticles in droplets of colloidal cholesteric liquid crystals. **Y. Li**

9:20 COLL 423. Withdrawn.

9:40 COLL 424. Surprises in self-assembly dynamics at the nanoscale. **Q. Chen**

10:10 COLL 425. Hybrid quantum dots-based flexible films with tailored mono-type microdomains by ligand interactions of tethered polymers. **J. Zhang**, J. Lee, D. Luo, Z. Wang, J. Yan, K. Matyjaszewski, M.R. Bockstaller

10:30 COLL 426. Tuning the dielectrophoretic assembly of dielectric and semiconducting particles through surface functionalization. **N.D. Burrows**, C.D. Keating

10:50 COLL 427. Controlling anisotropic colloidal assembly in external fields. **M.A. Bevan**

11:20 COLL 428. Assembly of amphiphilic hyperbranched polymeric ionic liquids in aqueous media at different ionic environments. **V. Korolovych**, A.J. Erwin, A. Stryutsky, E. Mikan, V. Shevchenko, L. Bulavin, V.V. Tsukruk

11:40 COLL 429. Hierarchical assembly of amphiphilic supracolloids with tunable patterns. **S. Zhang**, C. Yi, J. He, Z. Nie

12:00 COLL 430. Directed self-assembly and crystallization of colloids. **M. Weck**

Section D

Walter E. Washington Convention Center Room 150A

Targeted Nanosystems for Therapeutic Applications: New Concepts, Dynamic Properties, Efficiency & Toxicity

M. A. Ilies, *Organizer*

K. Sakurai, *Organizer, Presiding*

8:30 COLL 431. Bionanoparticles via self-assembly induced by complexation of nucleic acid with double hydrophilic block copolymer. **R. Nagarajan**

9:00 COLL 432. Histone-targeted gene nanocarriers enable 100-fold reductions in BMP-2 dosing for bone regenerative applications. **E. Munsell**, M.O. Sullivan

9:30 COLL 433. Delivering RNAi therapeutics: From discovery to applications. **M. Manoharan**

10:00 Intermission.

10:15 COLL 434. ssDNA nanotubes targeting glioblastoma multiforme. **M.A. Harris**, M. Shiao, H. Kuang, W. Low, E. Kokkoti

10:45 COLL 435. Nucleic acid nanocapsules: A hybrid biomaterial for controlled drug delivery. **J.L. Rouge**

11:15 COLL 436. Tunable degradability of disulfide-functional poly(amido amine)s as gene carriers. **R. Elzes**, N. Akeroyd, J.M. Engbersen, J.M. Paulusse

Section E

Walter E. Washington Convention Center Room 209B

Photoresponsive Nanoparticles: From Fundamentals of Excitation to Applications

Assembled Plasmonic Nanostructures

Y. Han, *Organizer*

B. G. DeLacy, Y. Sun, *Organizers, Presiding*

8:30 COLL 437. Nanoparticle superlattices in 2D and 3D. **G.C. Schatz**

9:00 COLL 438. Understanding the lasing mechanism of plasmonic nanoparticle arrays. **T.W. Odom**

9:30 COLL 439. Site-specific surface encoding for programmable self-assembly of colloidal nanoparticles. **G. Chen**

10:00 Intermission.

10:20 COLL 440. Ultrafast dynamics of plasmonic nanostructures. **S. Link**

10:50 COLL 441. Lead halide perovskite nanostructures for fundamental photophysical studies and optoelectronic applications. **S. Jin**, Y. Fu

Section F

Walter E. Washington Convention Center Room 209A

Colloidal Metal & Semiconductor Nanostructures: Theory, Synthesis & Application

Theory

Financially supported by Department of Chemistry, University of Connecticut; Department of Chemistry, University of Central Florida

J. Zhao, S. Zou, *Organizers*

A. J. Haes, *Organizer, Presiding*

8:30 COLL 442. Geometrical singularities in metal nanostructures for enhanced biosensor sensitivity and selectivity. **A. House**, M. Mursalat, **S. Basuray**

9:00 COLL 443. Electrically modulated localized surface plasmon around self-assembled-monolayer-covered nanoparticles. **M. Su**

9:30 COLL 444. Development of plasmonic nanostructures toward surface-enhanced Raman scattering detection in point-of-care settings. **N. Wu**

10:00 COLL 445. Symmetry broken nanostructures: Anisotropic and multi-component nanoparticles. **A. Kossak**, B. Stephens, Y. Tian, M. Chen, **T.J. Kempa**

10:20 Intermission.

10:40 COLL 446. Plasmonic biosensors with ultrastable biorecognition elements. **C. Wang**, J. Morrissey, E. Kharasch, R.R. Naik, **S. Singamaneni**

11:10 COLL 447. Biocompatible, lipo-some-based surface enhanced Raman spectroscopy (SERS) substrates. **L. Sagle**, W. Lum, I. Bruzas, Z. Gorunmez

11:40 COLL 448. Surface coding of nanoparticles for self-assembly and plasmonic bioapplications. **Y. Weizmann**

12:10 COLL 449. Controlling enzyme activity in enzyme-nanoparticle conjugates through selective ligand choice. **S. Diaz**, S. Sen, C. Brown, E. Oh, K. Susumu, M.H. Stewart, J. Bregor, L.D. Field, P. Kral, I. Medintz

Section G

Walter E. Washington Convention Center Room 204C

Bioconjugate Chemistry Lecturer Award Symposium

V. M. Rotello, *Organizer, Presiding*

8:30 COLL 450. Bio-conjugation for designing novel adjuvants for vaccines via multiple reactions: Don't get too attached. **A. Esser-Kahn**, T.J. Albin, J. Tom, A. Burkhardt, A. Gilkes, D.H. Davies, P. Felgner

9:00 COLL 451. Transition-metal catalysis for site-selective protein modification. **Z.T. Ball**

9:30 COLL 452. Cysteine-mediated redox signaling: Chemical tools for biological discovery. **K.S. Carroll**

10:00 COLL 453. Biocompatible chemistries for imaging cellular cross-talk. **J.A. Prescher**

10:30 COLL 454. Making new materials from synthetically modified proteins. **M.B. Francis**

Understanding the Chemistry of Our Planet

Chemistry's Role in our Earth System

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

Sponsored by CHED, Cosponsored by ANYL, BMGT, CELL, COLL, POLY and PRES

Journey to Mars: Materials, Energy & Life Sciences

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TUESDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 147A

Langmuir Lectures, NanoLetters Award Lecture, ACS Materials & Interfaces Award Lecture

R. Nagarajan, *Organizer*

H. Fairbrother, *Presiding*

2:00 Introduction of Langmuir Lecturer Frank Caruso.

2:05 COLL 455. Engineering particles for bio-nano science and beyond. **F. Caruso**

2:50 Introduction of Langmuir Lecturer, Paul Cremer.

2:55 COLL 456. Probing the interactions of anions and cations with phospholipid membranes. **P.S. Cremer**

3:40 Introduction of NanoLetters Lecturer, Liangbing Hu.

3:45 COLL 457. Nanocellulose for nanotechnologies. **L. Hu**

4:30 Introduction of ACS Materials & Interfaces Lecturer, Yanli Zhao.

4:35 COLL 458. Responsive organic nanosystems for targeted bioimaging and therapy. **Y. Zhao**

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

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Understanding the Chemistry of Our Planet

Human Impacts to our Planet

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Journey to Mars: Materials, Energy & Life Sciences

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TUESDAY EVENING

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

WEDNESDAY MORNING

Section A

Walter E. Washington Convention Center Room 147A

Basic Research in Colloids, Surfactants & Nanomaterials

Interface Engineering

R. Nagarajan, *Organizer*

R. M. Espinosa-Marzal, *Presiding*

8:30 COLL 459. Interface engineering for nanoelectronics. **C.A. Hacker**

8:50 COLL 460. Ultra-thin thermo-responsive self-folding 3D graphene. **W. Xu, Z. Qin, C. Chen, H. Kwag, Q. Ma, A. Sarkar, M.J. Buehler, D.H. Gracias**

9:10 COLL 461. Aquatic stability of few-layered black phosphorus: The leading edge of 2-dimensional nanomaterials. **S. Story, L. Guiney, M. Hersam, S.L. Walker**

9:30 COLL 462. Molecular insight into polymer-ionic liquid mediated lubrication. **M. Han, R.M. Espinosa-Marzal**

9:50 COLL 463. Investigation of effect of steric substituents on the organization of methacrylate monomers at air-liquid interface using sum frequency generation spectroscopy. **U.I. Premadasa, K.A. Cimatu, N.M. Adhikari**

10:10 COLL 464. Liquid surfactants for boron nitride nanosheet (BNNS) processing. **T. Habib, D.S. Devarajan, F. Khabaz, D. Parviz, T. Achee, R. Khare, M.J. Green**

10:30 COLL 465. Constrained dewetting of grafted homopolymers for nanolithography. **M. Tebbe, E. Galati, G.C. Walker, E. Kumacheva**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

10:50 COLL 466. Effects of external electric field on spreading of a surfactant on aqueous surface. **S. Tsuchitani, T. Shuto, H. Miki, K. Kikuchi**

11:10 COLL 467. Self-collapse lithography. **C. Zhao, X. Xu, Q. Yang, T. Man, S.J. Jonas, J. Schwartz, P. Chiou, A.M. Andrews, P.S. Weiss**

11:30 COLL 468. Ultra-dense and long-lasting shells for inorganic nanoparticles are based on cyclic polymer brushes. **G. Morgese, B.S. Shaghasemi, E. Reimhult, E. Benetti**

Section B

Walter E. Washington Convention Center Rooms 208A/B

Responsive, Programmable Assembly of Active Colloids for Functional Materials

Financially supported by JULABO USA Inc.

R. Hickey, C. D. Keating, *Organizers*

L. D. Zarzar, *Organizer, Presiding*

8:30 COLL 469. Reconfigurable all-liquid systems using dimensionally confined colloidal nanoparticle-polymer surfactant assemblies at liquid-liquid interfaces. **B. Helms, W. Feng, J.W. Forth, T.P. Russell**

9:00 COLL 470. Competition between ions and nanoparticles during the reversible attachment of nanoparticles to a fluid interface. **M.A. Bevan, J. Frechette**

9:30 COLL 471. Emulsion-based, stimuli-responsive compound micro-lenses. **S. Nagelberg, L.D. Zarzar, N. Nicolas, K. Subramanian, J.A. Kalow, V. Sresht, D. Blankschtein, G. Barbastathis, M. Kreysing, T.M. Swager, M. Kolle**

10:00 COLL 472. Continuous visualization of complex liquid emulsions using on-chip ring resonators. **S. Savagatrup, T.M. Swager**

10:20 COLL 473. Exploiting the fluorophilic phase to readily access multifunctional nanomaterials. **R. Day, D. Estabrook, E.M. Sletten**

10:50 COLL 474. ZIF as efficient acid-sensitive nanoparticles for intelligent anticorrosion coatings. **S. Yang**

11:10 COLL 475. Nanoscale interfacial complexation in emulsions (NICE): From encapsulation and controlled release to protocells. **D. Lee**

11:40 COLL 476. Self-assembled structures using DNA-coated colloids and depletion. **D. Pine**

Section C

Walter E. Washington Convention Center Room 150B

In-Situ Investigation of Energy Systems using Ambient-Pressure X-Ray Photoelectron Spectroscopy

E. Crumlin, H. Ogasawara, I. Waluyo, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 COLL 477. Studies of catalyst surfaces under near-ambient pressure conditions. **G. Held**

9:15 COLL 478. In-operando study of CO oxidation on Pt/TiO₂ nanoparticles to investigate the reaction mechanism: A step towards closing the pressure and materials gap. **R. Galhenage, J. Bruce, D. Ferrah, A. Hunt, I. Waluyo, J.C. Hemminger**

9:35 COLL 479. Application of ambient pressure x-ray photoelectron spectroscopy to studies of catalytic materials. **F. Tao**

10:15 Intermission.

10:35 COLL 480. Bridging the pressure and materials gaps: Methanol oxidation on La_{1-x}Sr_xMnO₃ thin-films and powders. **D.R. Mullins, Y. Zhang, M. Kidder, S.H. Overbury**

11:15 COLL 481. Interface chemistry of H₂O on pure and Ni-modified CoOOH nanowires probed by ambient-pressure x-ray photoelectron spectroscopy. **Z. Chen, C.X. Kronawitter, I. Waluyo, B.E. Koel**

11:35 COLL 482. Surface chemistry and catalysis confined under two-dimensional (2D) materials. **Q. Fu**

Section D

Walter E. Washington Convention Center Room 150A

Targeted Nanosystems for Therapeutic Applications: New Concepts, Dynamic Properties, Efficiency & Toxicity

M. A. Ilies, *Organizer*

K. Sakurai, *Organizer, Presiding*

8:30 COLL 483. In silico modeling of nanodrug: Molecular insight of metallofullerenol Gd@C82(OH)22 in cancer anti-metastasis. **S. Kang**

9:00 COLL 484. Dextran coated iron oxide nanoparticle: Biomimetic catalysts and anti-biofilm agents. **P.C. Naha, Y. Liu, S. Gubara, G. Hwang, D. Kim, V. Jonnakuti, L. Gao, H. Koo, D. Cormode**

9:30 COLL 485. Non-crosslinking aggregation of DNA-modified gold nanoparticles for gene diagnosis and directed assembly. **G. Wang, Y. Akiyama, N. Kanayama, T. Takarada, M. Maeda**

10:00 Intermission.

10:15 COLL 486. Surface chemistry dictates the internalization and cytotoxicity of carbonic anhydrase inhibitor functionalized gold nanoparticles targeting hypoxic tumors. **A. Shabana, M.R. Alam, T. Spoon, U. Mondal, C.A. Ross, M.A. Ilies**

10:45 COLL 487. Spatiotemporal modulation of doxorubicin toxicity via delivery as a nanoparticle-bioconjugate complex. **A. Sangtani, E. Petryayeva, M. Wu, K. Susumu, E. Oh, A. Huston, G. Lasarte-Aragones, I. Medintz, W.R. Algar, J. Delehanty**

11:15 COLL 488. Interaction of gold nanorods with genomic DNA. **J.A. Kretzmann, D. Ho, P. Toshniwal, C.W. Evans, M. Norret, M. Nguyen, J. Veder, H. Jiang, A. Munshi, A.J. Blythe, M. Saunders, M. Archer, M. Fitzgerald, J.A. Keelan, C.S. Bond, L.H. Hurley, M.R. Kilburn, N.M. Smith, K. Iyer**

Section E

Walter E. Washington Convention Center Room 209B

Photoresponsive Nanoparticles: From Fundamentals of Excitation to Applications

Spectroscopy & Imaging

Y. Han, *Organizer*

B. G. DeLacy, Y. Sun, *Organizers, Presiding*

8:30 COLL 489. Tracking photon-induced electron transfers in nanoparticle systems using ultrafast x-ray absorption spectroscopy. **X. Zhang, C. Liu, K. Zheng, A. Hassan, P.T. Snee, J. Huang, S. Canton**

9:00 COLL 490. Mapping carrier dynamics on semiconductor material surfaces and at interfaces using laser spectroscopy and 4D electron microscopy. **O.F. Mohammed**

9:30 COLL 491. Excitation wavelength dependent multiphoton emission of single semiconductor nanocrystal near gold nanoparticles. **J. Zhao**

10:00 COLL 492. Single and multi-exciton energy and electron transfer processes in 2D semiconductor structures. **B. Diroll, C.E. Rowland, P. Guo, I. Fedin, P. Darancet, S.K. Gray, A. Govorov, D. Talapin, R.D. Schaller**

10:30 Intermission.

10:50 COLL 493. Coupled optical and electrochemical measurements for studying nanostructured materials. **K.A. Willets**

11:10 COLL 494. Imaging the photochemical reactions of single nanoparticles with surface plasmon resonance microscopy. **W. Wang**

Section F

Walter E. Washington Convention Center Room 209A

Colloidal Metal & Semiconductor Nanostructures: Theory, Synthesis & Application

Photocatalysis & Photo Processes

Financially supported by Department of Chemistry, University of Connecticut; Department of Chemistry, University of Central Florida

A. J. Haes, S. Zou, *Organizers*

J. Zhao, *Organizer, Presiding*

8:30 COLL 495. Key insights into carbon dioxide photoreduction from single-nanoparticle catalysis studies. **P.K. Jain**

9:00 COLL 496. Hybrid semiconductor-metal nanoparticles as photocatalysts. **U. Banin**

9:30 COLL 497. Colloidal semiconductor nanocrystal photocatalysts: Teaching an old dot new tricks. **T.D. Krauss, J. Caputo, L.C. Frenette, C. Liu, F. Qiu, J.J. Peterson, K.L. Sowers, D.J. Weix**

10:00 COLL 498. Photoinduced charge transfer in chiral nanoparticle assemblies. **D.H. Waldeck**

10:30 Intermission.

10:40 COLL 499. Understanding and manipulating quantum dot photoluminescence lineshapes: Traps, defects and surface states. **J.R. Caram, S.N. Bertram, M.G. Bawendi**

11:00 COLL 500. Detailed balance efficiencies for luminescent solar concentrators with aligned semiconductor nanorods. **M.T. Sheldon**

11:20 COLL 501. Exploiting exciton plasmon coupling to enhance optical transitions in colloidal quantum dots. **K. Dipple, A.K. Tobias, M. Jones**

11:40 COLL 502. Distance- and dye-dependent quenching behavior of magnetic (nickel or iron oxide) core-gold shell nanoparticles. **P. Vakil, G.F. Strouse**

12:00 COLL 503. Mechanical vibrations of metal nanoparticles for sensing applications and fundamental fluid dynamics. **M. Pelton**

Section G

Walter E. Washington Convention Center Room 204C

Frontier of the Interface of Materials & Biology: Click Chemistry Approaches to Bio-Inspired Materials

Q. Wang, *Organizer*

V. O. Rodionov, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 COLL 504. Engineering cell surfaces with synthetic polymers. **H.A. Klok**

9:05 COLL 505. Click chemistry to enable bioinspired polymer nanofibers. **J.K. Pokorski**

9:35 COLL 506. Orthogonal click chemistry allows encapsulation of functional drugs in nanocapsules. **K. Landfester**

10:05 Intermission.

10:20 COLL 507. Thiol-ene photo-addition as versatile tool for biomedical applications. **U.S. Schubert**

10:50 COLL 508. Combined supramolecular and click chemistry approach towards the development of functional biomaterials. **Q. Wang**

11:20 COLL 509. Gel networks as confined microenvironments for photochemical reactions under mild conditions. **D. Diaz-Diaz**

Section H

Walter E. Washington Convention Center Room 155

Multimodal Imaging with Colloids

P. del Pino, J. V. Jokerst, L. Liz Marzan, *Organizers*

W. Parak, *Organizer, Presiding*

8:30 COLL 510. Quantitative particle-cell interaction: Some basic physico-chemical pitfalls. **W. Parak, N. Feliu**

9:00 COLL 511. Simultaneous detection and inhibition of Healthcare-Associated Infections (HAIs) by colloidal gold nanoclusters. **N.M. Khashab**

9:30 COLL 512. Photo/magnetic stimulated nanocargos: Cancer theranostics for MR/CT-imaging-guided magneto-chemotherapy. **N. Thorat, S.A. Tofail, W. Parak**

10:00 COLL 513. Developing endothelial targeted nanotechnologies to wear cancer nanomedicine and bioimaging nanotechnology off the EPR effect. **D. Leong, M.I. Setyawati, C. Tay**

10:30 Intermission.

11:00 COLL 514. Cylindrical graphene nanomaterials for disease assessment and drug development. **D.A. Heller, J. Budhathoki-Uprety, R. Frederiksen, T.V. Galassi, J.D. Harvey, C.P. Horoszkó, P.V. Jena, R.E. Langenbacher, D. Roxbury, J. Shah, Y. Shamay, R.M. Williams**

11:30 COLL 515. Targeting macrophages with multimodal nanomaterials. **A. Smith, K.S. Swanson, E.R. Nelson, W. Dobrucki, T.L. Cross, L. Ma, H. Deng**

12:00 COLL 516. Novel fluorine probes for gold nanoparticle labelling with application in 19F-MRI. **M. Carril**

Journey to Mars: Materials, Energy & Life Sciences

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WEDNESDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 147A

Basic Research in Colloids, Surfactants & Nanomaterials

Polymers

R. Nagarajan, *Organizer*

J. S. Lum, *Presiding*

2:00 COLL 517. Functional approach to solubility parameter computations. **J. Howell, M. Roesing, D.S. Boucher**

2:20 COLL 518. Investigation of functional monomers, polymers, and polymer thin films using sum frequency generation spectroscopy (SFGS) and atomic force microscopy (AFM). **K.A. Cimatut, U.I. Premadasa, N.M. Adhikari, A. Kruse**

2:40 COLL 519. Solubility characteristics of poly(3-hexylthiophene). **M. Roesing, J. Howell, D.S. Boucher**

3:00 COLL 520. Effect of long chain reptation on surface tackiness. **Y. Wang, B. Xia, A. Zhou, X. Wang**

3:20 COLL 521. Cavity ring-down spectroscopy monitoring of thermal degradation of 2D polymer monolayers on fused silica substrates. **S.M. Casey, A.C. Murray**

3:40 COLL 522. Preparation and characterization of PHMB-based multifunctional microcapsules. **J.S. Lum, L.W. Place, S. Gulcius-Lagoy**

4:00 COLL 523. Effect of surfactant system on polyHIPE morphology and mechanical properties. **K. Rohm, V. Karimkhani, D. Feke, I. Manas-Zloczower**

4:20 COLL 524. Covalently bonded thioxanthone-laponite hybrid as photoinitiator for polymerization. **S. Valandro, A.L. Poli, C.C. Schmitt**

4:40 COLL 525. Study early drying stage of latex film using diffusing wave spectroscopy. **L. Wang, A. Van Dyk, J. Derocher**

5:00 COLL 526. Superhydrophobic, infrared transmissive moth eye-like substrates for use in wet conditions. **D.A. Boyd, J.A. Frantz, L.E. Busse, W. Kim, S.S. Bayya, I. Aggarwal, J.S. Sanghera**

Section B

Walter E. Washington Convention Center Rooms 208A/B

Basic Research in Colloids, Surfactants & Nanomaterials

Nanomaterial Functionalization

R. Nagarajan, *Organizer*

J. W. Krumpfer, *Presiding*

2:00 COLL 527. Surface PEGylation to silver nanoparticles: Kinetics of simultaneous surface dissolution and molecular desorption. **D. Tsai, W. Chang**

2:20 COLL 528. Hydrophobization of inorganic oxide surfaces via siloxane equilibration reactions. **K.M. Ryan, W.Y. Bender, J. Kreidler, J.W. Krumpfer**

2:40 COLL 529. Unveiling the internal structure of light-harvesting porphyrin nanoaggregates using phase-sensitive vibrational sum frequency generation spectroscopy. **C.C. Rich, A.T. Krummel**

3:00 COLL 530. Exploring graphene oxide through stable emulsion systems. **H. Kumar, V. Vasu, C.D. Lyanage, T. Francis, D.H. Adamson**

3:20 COLL 531. Schizophyllan-guided cell-specific delivery platform technology loaded with anti-CD40 oligonucleotide induces permanent cardiac allograft acceptance at low dose. **B.N. Alizadeh, A. Uno, H. Ando**

3:40 COLL 532. Chalcogenide nanomaterials in thin-film photovoltaics. **D.R. Radu, C. Lai, M. Liu, P. Hwang, D. Berg, C. Chen, K. Dobson**

4:00 COLL 533. Functionalised silica nanoparticles as fouling resistant surface coatings. **P. Molino, B. Knowles, B. Zhang, M. Higgins, G. Wallace**

4:20 COLL 534. Template-free 3D titanium carbide (MXene) particles crumpled by capillary forces. **S. Shah, T. Habib, H. Gao, P. Gao, W. Sun, M.J. Green, M. Radovic**

4:40 COLL 535. Extremely stretchable coatings for super-repellent flexible electronics. **J.E. Mates, I. Bayer, J. Palumbo, P. Carroll, C. Megaridis**

5:00 COLL 536. Plant-based polyphenol coatings for surface functionalization with proteins and enzymes. **A. Sousa, S. Varghese, T. Li, P. Halling, K. Lau**

Section C

Walter E. Washington Convention Center Room 150B

In-Situ Investigation of Energy Systems using Ambient-Pressure X-Ray Photoelectron Spectroscopy

E. Crumlin, H. Ogasawara, I. Waluyo, *Organizers, Presiding*

2:00 Introductory Remarks.

2:05 COLL 537. Soft and hard x-ray ambient pressure photoelectron spectroscopy of semiconductor/electrolyte interfaces for water splitting applications. **D.E. Starr, M. Favaro, F. Abdi, M. Kanis, H. Bluhm, E. Crumlin, R. Van de Krol**

2:45 COLL 538. Assessing doping effects on surface chemical stability by in situ AP-XPS in barium perovskites, BaCexZr0.9-xY0.1O2.95 (x = 0.9 ; 0.2 ; 0). **A. Jarry, C. Pellegriani, A. Geller, S. Ricote, X. Zhang, I. Takeuchi, E.D. Wachsman, E. Crumlin, B.W. Eichhorn**

3:05 COLL 539. Structure and chemistry of oxide thin films and surfaces revealed by ambient pressure x-ray photoelectron spectroscopy and absorption spectroscopy: Implications for better electrochemical energy conversion and electronic devices. **B. Yildiz**

3:45 Intermission.

4:05 COLL 540. Understanding solid/liquid electrified interfaces using ambient pressure x-ray photoelectron spectroscopy. **M. Favaro, Z. Liu, E. Crumlin**

4:45 COLL 541. Operando AP-XPS evaluation of semiconductor/liquid and associated systems. **M. Lichterman, M. Richter, S. Hu, E. Crumlin, B.S. Brunschwig, A. Lewerenz, N.S. Lewis**

5:05 COLL 542. Operando APXPS studies of electrocatalysis. **A.R. Nilsson**

Section D

Walter E. Washington Convention Center Room 150A

Targeted Nanosystems for Therapeutic Applications: New Concepts, Dynamic Properties, Efficiency & Toxicity

K. Sakurai, *Organizer*

M. A. Ilies, *Organizer, Presiding*

2:00 COLL 543. Anchor peptide enables rapid targeting, loading and capture of exosomes of diverse origins and targets oligonucleotides to muscle in mdx mice. **X. Gao, H. Moulton, H. Yin**

2:30 COLL 544. Targeting the FGFR3-TACC3 fusion: Toward personalized medicine. **B. Parker Kerrigan, S. Yamashita, M. Kronowitz, D. Ledbetter, J. Gumin, L. Phillips, A. Hossain, W. Zhang, F. Lang**

3:00 COLL 545. Immunization with antigenic peptides complexed with β -glucan induces potent cytotoxic T-lymphocyte activity in combination with CpG-ODNs. **S. Mochizuki, H. Morishita, K. Sakurai**

3:30 Intermission.

3:45 COLL 546. Protein mimmcs enable antibody delivery into T-cells. **G.N. Tew**

4:15 COLL 547. Semi-solid pro-drug nanoparticles for long-acting delivery of water-soluble antiretroviral drugs for combination HIV therapies. **J.J. Hobson, A. Al-Khouja, P. Curley, C. Flexner, C.L. Meyers, A. Owen, S. Rannard**

4:45 COLL 548. Refilling drug-eluting depots through systemic administration of inert prodrugs. **Y. Budno, R. Desai, B.J. Kwee, M. Aizenberg, N.S. Joshi, D.J. Mooney**

Section E

Walter E. Washington Convention Center Room 209B

Photoresponsive Nanoparticles: From Fundamentals of Excitation to Applications

Synthesis & Assembly

B. G. DeLacy, Y. Han, Y. Sun, *Organizers*

J. He, S. Neretina, *Presiding*

2:00 COLL 549. Nanostructure synthesis at the liquid-substrate interface: A new strategy for obtaining plasmonic and chemically active surfaces. **S. Neretina, R. Hughes**

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- 2:30 COLL 550.** Porous metals via the oriented attachment of nanoparticles. **Z. Quan**
- 3:00 COLL 551.** Hot carrier up-conversion luminescence in nanocrystal heterostructures. **M.T. Sheldon**
- 3:20 COLL 552.** Photo-triggered N₂-generating submicroparticles for selective cancer cell killing. **W. Tong, H. Li, C. Gao**
- 3:40** Intermission.
- 4:00 COLL 553.** Reversible self-assembly and tunable optical properties of stable photoresponsive nanoparticles. **Z. Lin, Y. Chen, G. Zhang**
- 4:30 COLL 554.** Polymer-assisted co-assembly approach toward mesoporous hybrid metal oxides catalysts for photocatalysis. **B. Liu, S.L. Suib, J. He**
- 5:00 COLL 555.** A customizable class of colloidal-quantum-dot spasers and plasmonic amplifiers. **J. Cui, S.J. Kress, P. Rohner, D.K. Kim, F.V. Antolinez, K. Zaininger, K. McPeak, D. Poulikakos, D.J. Norris**

Section F

Walter E. Washington Convention Center Room 209A

Colloidal Metal & Semiconductor Nanostructures: Theory, Synthesis & Application Synthesis of Semiconductor Nanocrystals

Financially supported by Department of Chemistry, University of Connecticut; Department of Chemistry, University of Central Florida

A. J. Haes, J. Zhao, S. Zou, *Organizers*

O. Chen, *Presiding*

- 2:00 COLL 556.** Monodisperse hexagonal pyramidal and bipyramidal wurtzite CdSe-CdS core-shell nanocrystals. **O. Chen, R. Tan, J. Zhao**
- 2:30 COLL 557.** Correlating carrier density and emergent plasmonic features in Cu₂-xSe nanoparticles. **J. Millstone, L.E. Marbella, X. Gan**
- 3:00 COLL 558.** Correlations between dopants and defects in colloidal metal oxide nanocrystals. **K.R. Kittilstved**
- 3:20 COLL 559.** Controlled dopant migration in CdS/ZnS core/shell quantum dots. **E. Hofman, R. Robinson, Z. Li, B. Dzikowski, W. Zheng**
- 3:40 COLL 560.** Group-V chemistry of semiconductor nanocrystals. **P.T. Snee, A. Das**
- 4:00** Intermission.
- 4:20 COLL 561.** Colloidal III-V nanocrystals: Syntheses, challenges and opportunities. **V. Srivastava, D. Talapin**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

- 4:40 COLL 562.** Blue-emitting multi-shell quantum dots made from ZnSe cores: Synthesis and application for ratiometric pH sensing. **K. Susumu, L.D. Field, E. Oh, M. Hunt, J. Delehanty, A. Huston, I. Medintz**
- 5:00 COLL 563.** Synthesis and characterization of PbS/ZnS core/shell nanocrystals. **J.E. Boercker, D. Woodall, D. Placencia, P.D. Cunningham, C. Ellis, J. Tischler, M. Stewart, T. Brintlinger, R. Stroud**
- 5:20 COLL 564.** Continuous flow platforms for exploring growth mechanisms and ligand exchange reaction kinetics of colloidal quantum dots. **Y. Shen, L. Xie, M. Abolhasani, M.G. Bawendi, K.F. Jensen**

Section G

Walter E. Washington Convention Center Room 204C

Frontier of the Interface of Materials & Biology: Click Chemistry Approaches to Bio-Inspired Materials

V. O. Rodionov, *Organizer*

Q. Wang, *Organizer, Presiding*

- 2:00 COLL 565.** Click chemistry approaches to bio-inspired materials: Well-defined (co)polypeptides bearing pendant alkyne groups. **W. Zhao, Y. Gnanou, N. Hadjichristidis**
- 2:30 COLL 566.** Bioactive nano- and microstructures from self-assembling amphiphilic glycopolymers. **N.R. Cameron**
- 3:00 COLL 567.** Catalysis and complexity: From mechanism to function. **V.V. Fokin**
- 3:30** Intermission.
- 3:45 COLL 568.** Multifunctional and responsive polymersomes through CRP and efficient postfunctionalization. **B. Voit, B. Ilysan, D. Appelhans, J. Gaitzsch, M. Yassin**
- 4:15 COLL 569.** Amphiphilic polysaccharide block copolymers for nanoparticulate drug delivery. **B. Breitenbach, P.R. Wich**
- 4:45 COLL 570.** Soft materials for catalysis and encapsulation: From micelles to complex macromolecular architectures. **V.O. Rodionov**

Section H

Walter E. Washington Convention Center Room 155

Multimodal Imaging with Colloids

J. V. Jokerst, L. Liz Marzan, W. Parak, *Organizers*

P. del Pino, *Organizer, Presiding*

- 2:00 COLL 571.** Hybrid materials based on plasmonic gold nanostars as alternative imaging probes. **D. Jimenez de Aberasturi, M.S. Strozyk, J. Langer, M. Henriksen-Lacey, J. Reguera, L. Liz Marzan**
- 2:30 COLL 572.** Next-generation in vivo optical imaging with short-wave infrared quantum dots. **O. Bruns, T. Bischof, D. Franke, J. Carr, M.G. Bawendi**
- 3:00 COLL 573.** Nanoparticle interactions with proteins. **F. Stellacci**
- 3:30 COLL 574.** Polymer amphiphile stabilized hydrophobic silica nanoparticles for acoustic imaging and site-specific therapy. **A.P. Goodwin**
- 4:00** Intermission.
- 4:30 COLL 575.** Gas-filled microbubbles as contrast agents for targeted (molecular) imaging. **S. Unnikrishnan, Z. Du, G.B. Diakova, A.L. Klibanov**

- 5:00 COLL 576.** Multicompartment microreactors with preserved intracellular activity: A step towards the creation of artificial organelles. **M. Godoy-Gallardo, C. Labay, V.D. Trikalitis, M.M. Jansman, P.K. Ek, P.J. Kempen, J.B. Larsen, T.L. Andresen, L. Hosta-Rigau**

- 5:30 COLL 577.** Thermo-sensitive dye laden polymer nanosheets for ratiometric temperature mapping of living muscle tissues. **T. Fujie, T. Miyagawa, F. Ferdinandus, V. Tat Thang, H. Sato, S. Takeoka**

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YCC†

THURSDAY MORNING

Section A

Walter E. Washington Convention Center Room 147A

Basic Research in Colloids, Surfactants & Nanomaterials

Synthesis of Nanomaterials

R. Nagarajan, *Organizer*

G. Liu, *Presiding*

- 8:30 COLL 578.** Thermodynamic influence of structure-directing agents in shape-controlled nanocrystal syntheses. **X. Qi, K.A. Fichthorn**
- 8:50 COLL 579.** Synthesis of Ag/Au/AgCl nanocubic metal-semiconductor composite via co-reduction method. **J. Joo, J. Lee**
- 9:10 COLL 580.** Synthesis and stabilization of ultrasmall-metal nanoparticles (Ni, Co, Cu) within a polymer matrix via a one-step aerosol spray pyrolysis. **Y. Yang, M. Romano, M.R. Zachariah**
- 9:30 COLL 581.** Controllable synthesis of triangular and circular gold nanorings. **X. Lin, Z. Nie**
- 9:50 COLL 582.** Synthesis of core@shell nanostructures in a continuous flow droplet reactor: Controlling structure through relative flow rates. **J.S. Santana, K.M. Koczur, S.E. Skrabalak**
- 10:10 COLL 583.** Synthesis of porous Ti4O7 nanoparticles as high-efficiency polysulfide mediator for lithium-sulfur batteries. **S. Mei, C.J. Jafra, M.M. Ballauff, Y. Lu**
- 10:30 COLL 584.** Molecular surgery on a 23-gold-atom nanoparticle. **Q. Li, R. Jin**
- 10:50 COLL 585.** Safer, high quality, Cd-free quantum dots- new and improved InP-based quantum dots with excellent optical properties as a viable alternative to Cd-containing quantum dots. **R.P. Brown, Z. Rosenzweig**
- 11:10 COLL 586.** Synthesis of near-infrared light absorbing Ag nanoplates through multiple seed-mediated steps. **A. Khan, J. Krause, Z. Zhou, G. Liu**
- 11:30 COLL 587.** Spectroscopic determination of electronic and structural properties in colloidal synthesized tin chalcogenide nanomaterials. **A.J. Biacchi, B.G. Alberding, S.T. Le, J.A. Hagmann, S. Chowdhury, S. Pookpanratana, C.A. Richter, E.J. Heilwell, A.R. Hight Walker**

Section B

Walter E. Washington Convention Center Rooms 208A/B

In-Situ Investigation of Energy Systems using Ambient-Pressure X-Ray Photoelectron Spectroscopy

E. Crumlin, H. Ogasawara, I. Waluyo, *Organizers, Presiding*

8:30 Introductory Remarks.

- 8:35 COLL 588.** Aqueous interfaces investigated under ambient conditions by XPS. **H. Bluhm**
- 9:15 COLL 589.** Two-dimensional zeolites and their study with surface science tools: Trapping Ar in the nano-cages. **N. Akter**
- 9:35 COLL 590.** In operando PEEM imaging and electron spectroscopy of electrochemical processes and interfaces. **S. Nemsak, E. Strelcov, H. Guo, A. Yulaev, D.N. Mueller, C.M. Schneider, A. Kolmakov**
- 10:15** Intermission.
- 10:35 COLL 591.** Following atomic layer deposition in real time. **J. Schnadt**
- 11:15 COLL 592.** Using ambient pressure-photoelectron spectroscopy as a diagnostic tool for carbon nanotube growth. **J. Carpena-Núñez, J.A. Boscoboinik, S.M. Saber, J. Zhong, E. Stach, D. Zakharov, B. Maruyama**

Section C

Walter E. Washington Convention Center Room 150B

Targeted Nanosystems for Therapeutic Applications: New Concepts, Dynamic Properties, Efficiency & Toxicity

M. A. Ilies, *Organizer*

K. Sakurai, *Organizer, Presiding*

- 8:30 COLL 593.** Capturing reactive oxygen (RO) at modal membrane interface: Ferrocenyl anilines on modal micelle/reverse micelle membrane interfaces. **A. Altaf, A. Badshah, D.C. Crans, P. Chatterjee, S. Kausar**
- 9:00 COLL 594.** Graphene oxide nanosheets stimulate ruffling and shedding of mammalian cell plasma membranes. **C. Sun, D. Wakefield, Y. Han, D. Muller, D. Holowka, B. Baird, W. Dichtel**
- 9:30 COLL 595.** Facile gas-phase self-assembly of noble metal-decorated hybrid nanoparticles for biomedical and photocatalytic applications. **D. Tsai, Y. Chen**
- 10:00** Intermission.
- 10:15 COLL 596.** Highly efficient delivery of potent anticancer iminoquinone derivative by multilayer hydrogel cubes. **B. Xue, W. Wang, V.A. Kozlovskaya, R. Zhang, S.E. Velu, E.P. Kharlampieva**
- 10:45 COLL 597.** Biomimetic growth and control of a pathologic biomineral in hydrogels. **G. Mallam, M. Tsiannou**
- 11:15 COLL 598.** Oral redox nanotherapeutics for treatment of ulcerative colitis and colon cancer. **B. Vong, Y. Nagasaki**

Section D

Walter E. Washington Convention Center
Room 150A

Photoresponsive Nanoparticles: From Fundamentals of Excitation to Applications

Devices

Y. Han, *Organizer*

B. G. DeLacy, Y. Sun, *Organizers, Presiding*

8:30 COLL 599. Low-threshold optical gain and lasing with colloidal semiconductor nanoplatelets. M. Pelton

9:00 COLL 600. Metal halide perovskite nanocrystals: Doping and surface-engineering for efficient optoelectronics. J. Pan, R. Begum, L. Quan, I. Dursun, B. Ooi, E. Sargent, O.F. Mohammed, O.M. Bakr

9:30 COLL 601. Solution-processed nanomaterials for efficient optoelectronic devices. F. Garcia de Arquer, E. Sargent

10:00 Intermission.

10:20 COLL 602. Plasmonic detection of reactions on nanostructures. E. Borguet

10:50 COLL 603. Optically-thin metallic films for high-radiative-efficiency plasmonics. B. Zhen, Y. Yang, O. Miller, C. Hsu, J. Joannopoulos, M. Soljacic

Section E

Walter E. Washington Convention Center
Room 209B

Basic Research in Colloids, Surfactants & Nanomaterials

Interfacial Interactions

R. Nagarajan, *Organizer*

V. Sharma, *Presiding*

8:30 COLL 604. Prediction of membrane breakthrough pressure using multicomponent surface energy models. N. Redeker, K. Greeson, J.R. Alston, A.J. Guenther

8:50 COLL 605. Supramolecular structural forces influence drainage and stratification kinetics in stratifying foam films. S. Yilixiati, R. Rafiq, Y. Zhang, V. Sharma

9:10 COLL 606. Surface tensions of frothers and oil at saltwater-air interfaces: A computational study. L. Chong, Y. Lai, F. Shi, M. Gray, Y. Soong, Y. Duan

9:30 COLL 607. Viscosity of liquids from the transfer function of microcantilevers. S.J. Eppell, P.B. Abel, A.M. Walker, F. Zypman

9:50 COLL 608. Mesoscale structuring of binary liquids and its impact on chemical reactivity probed by photocatalysis. T. Buchecker, S. Krickl, A.U. Meyer, I. Grillo, P. Bauduin, B. König, A. Pflitzner, W. Kunz

10:10 COLL 609. New insights into nanoparticle-protein interactions through measurement of binding kinetics. A.L. Lira, R.S. Ferreira, R.J. Torquato, H. Zhao, M.L. Oliva, P. Schuck, A.A. Sousa

10:30 COLL 610. Quantifying nanoparticle stability and aggregation dynamics as a function of organic coating structure and density. C. Kim, S. Lee, J. Fortner

10:50 COLL 611. Functional groups on carbon nanotubes are not necessary for their covalent attachment to surfaces. M. Williams, F. Gao, I. Ben Dhiab, A.V. Teplyakov

11:10 COLL 612. Withdrawn.

Section F

Walter E. Washington Convention Center
Room 209A

Frontier of the Interface of Materials & Biology: Click Chemistry Approaches to Bio-Inspired Materials

V. O. Rodionov, Q. Wang, *Organizers, Presiding*

8:30 COLL 613. X-ray excited optical luminescence of surface functionalized, hybrid LSO:Ce-fluorophore particles. M.K. Burdette, I. Bandera, E. Zhang, J.N. Anker, J. Weick, S.H. Foulger

8:50 COLL 614. Versatile single chain polymeric nanoparticles via thiol-Michael addition. P. Kröger, J.M. Paulusse

9:10 COLL 615. Bio-functionalizable polymer colloids prepared by radical-mediated thiol-ene click polymerizations. D.V. Chapman, M.N. Argüen, R.D. Beltran, O.Z. Durham, S. Krishnan, D.A. Shipp

9:30 COLL 616. Fluorescent dye loaded resorcinarene cavitand nanocapsules. B. Ramjee, S. Allmon, K. Mahadevan

9:50 COLL 617. Fluorescent functionalization across the quaternary structure of virus-like particles. Z. Chen, J.J. Gassensmith

10:10 COLL 618. Analysis of noble polymer micelle by double hydrophilic block glycopolymer. T. Oh, M. Nagao, Y. Hoshino, Y. Miura

10:30 COLL 619. Solid phase assisted split & combine approach towards branched precision glycomacromolecules. M. Baier, M. Giesler, L. Hartmann

Section G

Walter E. Washington Convention Center
Room 204C

Multimodal Imaging with Colloids

P. del Pino, L. Liz Marzan, W. Parak, *Organizers*
J. V. Jokerst, *Organizer, Presiding*

8:30 COLL 620. Polymeric nanocapsules for theranostics. B. Pelaz

9:00 COLL 621. Targeted delivery of zinc phthalocyanine (ZnPc) using liquid crystal nanoparticle for effective photodynamic therapy. O.K. Nag, J. Naciri, K. Burn, J. Delehanty

9:30 COLL 622. Theragnostic approach for early diagnosis of Alzheimer's disease. M. Rodriguez-Perez, B. Pelaz, P. Aguiar, R. Iglesias-Rey, L. Vazquez-Vazquez, J. Pias-Peleiteiro, J. Aldrey-Vazquez, F. Campos, J. Castillo, P. del Pino, T. Sobrino

10:00 Intermission.

10:30 COLL 623. Cluster-nanocarrier MRI contrast agents. S.L. Stoll, V. Dahanayake, E. VanKeuren, O. Rodriguez, C. Albanese

11:00 COLL 624. Colloidal tetrapyrroles as high contrast, multimodal biomedical imaging agents. J. Lovell

11:30 COLL 625. Hybrid nanocomposites based on nanoMOFs and nanoparticles for theragnostic applications. P. del Pino

Nanoscale Sensing in Foods & Other Complex Media

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THURSDAY AFTERNOON

Nanoscale Sensing in Foods & Other Complex Media

Sponsored by AGFD, Cosponsored by ANYL, COLL, ENVR and INOR

COMP

Division of Computers in Chemistry

H. Woodcock, J. Shen and M. Feig, *Program Chairs*

BUSINESS MEETINGS:

Business Meeting, 3:00 PM: Sat

SUNDAY MORNING

Section A

Washington Marriott at Metro Center
Salon A

Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms

The Exascale Challenge

Cosponsored by PHYS

Y. Alexeev, G. S. Kedziora, P. Kent, A. F. Voter, *Organizers*

F. C. Hill, *Organizer, Presiding*

8:30 Introductory Remarks.

8:40 COMP 1. Exascale applications: Opportunities and challenges. D.B. Kothe

9:10 COMP 2. Seeking a sustainable model for scientific simulation in the exascale era. R.J. Harrison

9:40 COMP 3. 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

10:10 Intermission.

10:25 COMP 4. NWChemEx: Opportunities and challenges in exascale computing. T.H. Dunning, T.L. Windus, R.J. Harrison

10:55 COMP 5. Emerging systems and the super instruction architecture. B.A. Sanders, J. Byrd, B. Simons, A. Pathak, A. Peshne, R.J. Bartlett

11:25 COMP 6. Solving the performance portability issue with Kokkos. C. Trott, S. Plimpton, A.P. Thompson

Section B

Washington Marriott at Metro Center
Salon B

Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding

Cosponsored by PHYS

E. Alexov, R. Luo, *Organizers*

X. Huang, *Presiding*

8:30 COMP 7. Structure-based prediction of protein-protein and protein-ligand interactions on a genomic scale. J.I. Garzon, H. Hwang, F. Dey, D. Murray, D. Petrey, B.H. Honig

9:00 COMP 8. Dock-and-coalesce mechanism for the association of a WASP disordered region with the Cdc42 GTPase. L. Ou, M. Matthews, X. Pang, H. Zhou

9:30 COMP 9. Predicting protein-peptide interactions based on the peptide sequence and the protein structure. X. Zou

10:00 Intermission.

10:15 COMP 10. Special role of the membrane in the allosteric mechanisms of transporter proteins. H. Weinstein

10:45 COMP 11. Effects of homologous proteins on IAPP amyloid aggregation, fibril remodelling, and cytotoxicity. Y. Xing, E. Pilkington, B. Wang, F. Ding, P. Ke

11:15 COMP 12. Structural characterization of the human KCNQ1 voltage-sensing domain by NMR. K. Taylor, H. Huang, C.R. Sanders

Section C

Washington Marriott at Metro Center
Salon C

Computational Studies of Water Interface & Transport Properties

D. J. Sindhikara, *Organizer*

M. R. Jones, *Presiding*

8:30 COMP 13. Withdrawn.

8:55 COMP 14. Behavior of capillary wave fronts and their role in defining interfacial regions of water. T. Zhou, A. McCue, Y. Ghaadrihadr, I. Bakó, A.E. Clark

9:20 COMP 15. Enhanced heterogeneous ice nucleation by special surface geometry. Y. Bi, B. Cao, T. Li

9:45 Intermission.

10:00 COMP 16. Tuning proximal water diffusion via silanol patterning on quartz surfaces. J. Monroe, A. Schrader, S. Han, M. Shell

10:25 COMP 17. Computational modeling tool for the assessment of lead levels in drinking water supply systems. A.A. Abokifa, P. Biswas

10:50 COMP 18. Interfacial behavior of hydrotropes in aqueous solutions. A.A. Novikov, A.P. Semenov, V.N. Kuryakov, V. Monje, J.B. Klauda, M.A. Anisimov

11:15 COMP 19. Coarse-grained modeling of polycrystalline ice in supercooled water. H. Chan, M. Cherukara, B. Narayanan, C. Benmore, S.K. Gray, S. Sankaranarayanan

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Section D

Washington Marriott at Metro Center
Salon D

ACS COMP Symposium in honor of Peter Pulay

Gradients, Properties & Electron Correlation

Cosponsored by PHYS

F. Wang, *Organizer*

S. Hirata, *Organizer, Presiding*

M. Dupuis, F. Evangelista, *Presiding*

8:30 Introductory Remarks.

8:35 COMP 20. Optimized van der Waals parameters for quantum/molecular mechanics calculations. P. Pulay, G. Fogarasi

9:05 COMP 21. Implementation of analytic gradients for CCSD and EOM-CCSD using Cholesky representations of electron-repulsion integrals. A. Krylov

9:35 COMP 22. Analysis of electronic structure by maximal orbital decomposition. M. Dupuis

10:05 Intermission.

10:20 COMP 23. Strategies for accurate computations on excited electronic states of complex molecules. M.S. Gordon, J. Mato, K. Keipert

10:50 COMP 24. Quantum chemistry methods for ground and excited states with tunable accuracy. F.A. Evangelista, J.B. Schriber, T. Zhang

11:20 COMP 25. Perturbative computation of ionization energies. P.J. Knowles

Merck Research Award Symposium

Sponsored by WCC, Cosponsored by BIOL, COMP, MEDI, MPPG, ORGN, PMSE and PROF

What do Synthetic Chemists Want from Their Reaction Systems?

Sponsored by CINF, Cosponsored by COMP, INOR, MEDI and ORGN

Electronic Structure Methods for Complex Chemical Systems

Many-body Perturbation Theory, Random Phase Approximation & Beyond

Sponsored by PHYS, Cosponsored by COMP

Experimental & Computational Advances In Understanding Enzyme Specificity & Promiscuity

Catalytic Promiscuity & the Emergence of New Proteins

Sponsored by PHYS, Cosponsored by BIOL and COMP

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

SUNDAY AFTERNOON

Section A

Washington Marriott at Metro Center
Salon A

Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms

New Architectures

Cosponsored by PHYS

F. C. Hill, G. S. Kedziora, P. Kent, A. F. Voter, *Organizers*

Y. Alexeev, *Organizer, Presiding*

1:30 COMP 26. Electronic structure theory on novel architectures. M.S. Gordon, K. Keipert, S. Leang, A. Rendell

2:00 COMP 27. Modernizing quantum molecular and materials simulations. J. Kim

2:30 Intermission.

2:45 COMP 28. Quantum chemistry on quantum computers? J.E. Rice

3:15 COMP 29. Efficient seminumerical implementation of Coulomb and Hartree-Fock exchange matrix on Intel Phi coprocessor for density functional theory calculations. F. Liu, J. Kong

3:45 COMP 30. Horizontal vectorization of electron repulsion integrals. B. Pritchard, E. Chow

Section B

Washington Marriott at Metro Center
Salon B

Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding

Cosponsored by PHYS

E. Alexov, R. Luo, *Organizers*

G. Li, *Presiding*

1:30 COMP 31. Dynamic recognition in protein-DNA complexes. C.L. Simmerling, A.P. Grollman, D. Zharkov

2:00 COMP 32. Modeling metal ion binding in RNA structure. S. Chen

2:30 COMP 33. Structural analysis and quantitative modeling of protein-DNA interactions. R. Rohs, J.M. Sagendorf, T. Chiu

3:00 Intermission.

3:15 COMP 34. Nucleosome: The very special protein-DNA complex. A.V. Onufriev

3:45 COMP 35. Elucidating molecular recognition mechanisms of miRNA loading into the Argonaute protein by Markov state models. X. Huang

4:15 COMP 36. Roles of noncovalent interactions in base recognition and catalysis in uracil DNA glycosylases. W. Cao

Section C

Washington Marriott at Metro Center
Salon C

Computational Studies of Water Classical & Quantum Approaches

D. J. Sindhikara, *Organizer*

D. Janezic, *Presiding*

1:30 COMP 37. Role of van der Waals interactions in models of liquid water. R. Remsing

1:55 COMP 38. Solvation energy and entropy from 3D-RISM. T. Luchko, C.N. Nguyen, M.K. Gilson, T.P. Kurtzman

2:20 Intermission.

2:35 COMP 39. Incorporating solvation thermodynamic mapping into docking. T.E. Balius, M. Fischer, R. Stein, A. Cruz-Balberdy, C.N. Nguyen, B. Shoichet, M.K. Gilson, T.P. Kurtzman

3:00 COMP 40. Consistent multipole model for aqueous solvation of monovalent ions. C.C. Dhamawardhana, T. Ichiye

3:25 COMP 41. PSO-assisted development of new polarizable and non-polarizable coarse-grained water models. K. Bejagam, S. Singh, Y. An, C. Berry, S. Deshmukh

3:50 COMP 42. DFT investigation facilitating experimental fluorescence: Effect of substituent on photophysical properties of BTEX in water. M.S. Khan, J. Wu, B. Liu, C. Cheng, J. Tang

Section D

Washington Marriott at Metro Center
Salon D

ACS COMP Symposium in honor of Peter Pulay

Gradients, Properties & Electron Correlation

Cosponsored by PHYS

S. Hirata, *Organizer*

F. Wang, *Organizer, Presiding*

S. Li, T. Shiozaki, *Presiding*

1:30 COMP 43. Symmetry projected coupled cluster theory. G.E. Scuseria

2:00 COMP 44. QM/QM embedding scheme for strongly correlated problems. D. Zgid, L. Tran, A. Kananenka, A.R. Welden

2:30 COMP 45. Predictive photodynamics from first principles. T. Shiozaki

3:00 Intermission.

3:15 COMP 46. Some recent advances in energy decomposition analysis of electronic structure calculations. M.P. Head-Gordon

3:45 COMP 47. Fragment-based models for calculating accurate potential energy surfaces and spectroscopic properties of large molecules and nanoscale systems. K. Raghavachari

4:15 COMP 48. Recent developments and applications of generalized energy-based fragmentation approach for large molecules and condensed phase systems. S. Li

What do Synthetic Chemists Want from Their Reaction Systems?

Sponsored by CINF, Cosponsored by COMP, INOR, MEDI and ORGN

Electronic Structure Methods for Complex Chemical Systems

Extended Systems

Sponsored by PHYS, Cosponsored by COMP

Experimental & Computational Advances in Understanding Enzyme Specificity & Promiscuity

Computational Tools for Enzyme Evolution & Functional Annotation

Sponsored by PHYS, Cosponsored by BIOL and COMP

MONDAY MORNING

Section A

Washington Marriott at Metro Center
Salon A

Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms

Large-Scale

Cosponsored by PHYS

Y. Alexeev, F. C. Hill, G. S. Kedziora, P. Kent, A. F. Voter, *Organizers*

W. D. Mattson, *Presiding*

8:30 COMP 49. Large-scale MP2, RPA and GW calculations on pre-exascale HPC systems. M. Del Ben, J. Wilhelm, F.H. da Jornada, A. Canning, J. VandeVondele, J. Deslippe, J. Hutter

9:00 COMP 50. Enabling hybrid density functional theory based *ab initio* molecular dynamics for large-scale condensed-phase systems. R.A. Distasio

9:30 COMP 51. Linear scaling density functional theory in Daubechies wavelets basis: Towards paradigm shifts in large-scale electronic structure calculations. L. Genovese, S. Mohr, L.E. Ratcliff

10:00 Intermission.

10:15 COMP 52. First-principles molecular dynamics: Computing more than a million atoms with over a million cores. J. Fattbert, D. Osei-Kuffuor, T. Ogitsu, E.W. Draeger

10:45 COMP 53. Extreme-scale quantum and reactive molecular dynamics simulations. A. Nakano

11:15 COMP 54. Large scale GW calculations at full scale on pre-exascale HPC systems. J. Deslippe

Section B

Washington Marriott at Metro Center
Salon B

Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding

Cosponsored by PHYS

E. Alexov, R. Luo, *Organizers*

H. Gohlke, *Presiding*

8:30 COMP 55. Residue-specific protein force fields RSFF1 and RSFF2. Y. Wu

9:00 COMP 56. IDP-specific force field ff14IDPSFF improves the conformer sampling of intrinsically disordered proteins. H. Chen, D. Song, R. Luo

9:30 COMP 57. Correlating protein-ligand activity to quantum-mechanics/molecular-mechanics binding energies. A. Crespo

10:00 Intermission.

10:15 COMP 58. Quantitative analysis of hot spots in protein-protein interaction. J.Z. Zhang

10:45 COMP 59. Algorithms for discovering mutations that alter binding specificity. **B. Chen**

11:15 COMP 60. Predicting binding free energy change caused by missense mutations in protein-DNA interactions using modified MM/PBSA method. **Y. Peng, E. Alexov**

Section C

Washington Marriott at Metro Center Salon C

Modeling & Measuring Protein-Ligand Kinetics & Residence Times

Cosponsored by MEDI and PHYS

J. A. Morrone, *Organizer*

W. D. Cornell, *Organizer, Presiding*

8:30 COMP 61. Drug-target residence time model: A 10-year retrospective. **R. Copeland**

9:05 COMP 62. Modulating drug-target residence time, assessing target vulnerability, and predicting *in vivo* drug activity. **P.J. Tonge**

9:40 COMP 63. *In silico* prediction of relative drug-protein residence times. **D.B. Kokh, M. Amaral, J. Bomke, M. Dreyer, M. Frech, M. Lowinski, F. Vallee, M. Bianciotto, A. Rak, R.C. Wade**

10:15 Intermission.

10:30 COMP 64. Drug-target binding through molecular dynamics and enhanced sampling simulations. **A. Cavalli**

11:05 COMP 65. Estimating ligand residence times from simulations and from structure. **A.T. Frank, I. Deb**

11:40 COMP 66. Towards predictive drug unbinding simulations with full atomistic resolution. **P. Tiwary**

Section D

Washington Marriott at Metro Center Salon D

ACS COMP Symposium in honor of Peter Pulay

Gradients, Properties & Electron Correlation

Cosponsored by PHYS

S. Hirata, *Organizer*

F. Wang, *Organizer, Presiding*

A. Szabados, E. F. Valeev, *Presiding*

8:30 COMP 67. Model systems for examining the role of nodal surfaces in diffusion Monte Carlo calculations. **K.D. Jordan, K. Gasperich**

9:05 COMP 68. Quantitative molecular orbital theory. **R.J. Bartlett, D.S. Ranasinghe, Y. Park, P. Verma, Y. Jin, A. Perera**

9:40 COMP 69. Exploiting the pair function nature of UHF. **A. Szabados, D. Földvári, Z. Tóth**

10:15 Intermission.

10:30 COMP 70. Reduced scaling and controlled precision: Extending the reach of many-body electronic structure. **E.F. Valeev, C. Peng, F. Pavosevic**

11:05 COMP 71. Local correlation in molecules and condensed matter: Methods and applications. **E.A. Carter**

Electronic Structure Methods for Complex Chemical Systems

Noncovalent Interactions, Nanosystems & Solvation

Sponsored by PHYS, Cosponsored by COMP

Experimental & Computational Advances In Understanding Enzyme Specificity & Promiscuity

Computational Approaches to Enzyme Design

Sponsored by PHYS, Cosponsored by BIOL and COMP

MONDAY AFTERNOON

Section A

Washington Marriott at Metro Center Salon A

Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms

Electronic Structure

Cosponsored by PHYS

Y. Alexeev, F. C. Hill, G. S. Kedziora, P. Kent, A. F. Voter, *Organizers*

R. Pachter, *Presiding*

1:30 COMP 72. Graph-based linear scaling electronic structure theory for Born-Oppenheimer molecular dynamics. **A.M. Niklasson**

2:00 COMP 73. Accelerating large scale Kohn-Sham density functional theory calculations with semi-local functionals and hybrid functionals. **L. Lin**

2:30 COMP 74. Some recent algorithmic developments in the large scale first principles simulations of complex materials. **A.S. Banerjee, L. Lin, C. Yang, P. Suryanarayana, W. Hu, J. Pask**

3:00 Intermission.

3:15 COMP 75. Quantum Monte Carlo in the exascale era: From algorithms to applications. **A. Benali, Y. Luo, L. Shulenburger, A. Mathuryia, J. Kim, P. Kent**

3:45 COMP 76. Extending the accuracy and scale of first-principles molecular dynamics simulations. **F. Gygi**

4:15 COMP 77. Enabling quantum modeling simulations for biological systems. **A. Pozdnev, V. Weber, T. Laino, F. Zipoli**

Section B

Washington Marriott at Metro Center Salon B

Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding

Cosponsored by PHYS

E. Alexov, R. Luo, *Organizers*

C. Chang, *Presiding*

1:30 COMP 78. New alchemical approaches for the calculation of protein-ligand binding free energies. **C.L. Brooks**

2:00 COMP 79. Diffusional dynamics of proteins under crowded conditions. **M. Feig, G. Nawrocki, I. Yu, P. Wang, Y. Sugita, T. Kigawa**

2:30 COMP 80. Polarizable force field development for cellular membrane lipids and their applications. **G. Li, X. Peng, H. Chu, Y. Zhang**

3:00 Intermission.

3:15 COMP 81. High affinity interaction of calmodulin with K-Ras4B implicating membrane extraction. **H. Jang, R. Nussinov**

3:45 COMP 82. Efficient approximation of configurational entropy changes upon binding to biomolecules. **H. Gohlke, I.Y. Ben-Shalom**

4:15 COMP 83. Studying protein-ligand interactions by integrating data science with mechanism-based modeling. **L. Xie**

Section C

Washington Marriott at Metro Center Salon C

Modeling & Measuring Protein-Ligand Kinetics & Residence Times

Cosponsored by MEDI and PHYS

W. D. Cornell, *Organizer*

J. A. Morrone, *Organizer, Presiding*

1:30 COMP 84. Measuring drug-target residence time and binding kinetics: Why and how? **R. Zhang**

2:05 COMP 85. Combining biophysical, structural and computational studies of GPCR-drug interactions to optimise kinetic parameters. **B. Tehan, A. Dore, J. Errey, E. Segala, A. Zhukov, R. Cooke**

2:40 COMP 86. Toward high-throughput predictive modeling of protein binding/unbinding kinetics. **L. Xie**

3:15 Intermission.

3:30 COMP 87. Modeling ligand-protein binding kinetics using molecular simulations and a novel pathway search method. **C. Chang, W. You, Z. Tang**

4:05 COMP 88. Understanding the influence of drug-target binding kinetics on *in vivo* drug effects. **E.C. de Lange**

Section D

Washington Marriott at Metro Center Salon D

Emerging Technologies in Computational Chemistry

C. L. Simmerling, *Organizer, Presiding*

1:30 COMP 89. Gibbs sampler based λ -dynamics utilizing a Rao-Blackwell estimator for alchemical free energy calculation. **X. Ding, J. Vilseck, R. Hayes, C.L. Brooks**

1:50 COMP 90. Pose prediction using 3D deep convolutional neural networks. **I. Wallach, M. Dzamba, S. Schrödl, L. Rampasek**

2:10 COMP 91. Are we evaluating performance or just overfitting? How to assess the performance of ligand-based algorithms on virtual screening benchmarks. **A. Heifets, I. Wallach**

2:30 COMP 92. Statistical learning of kinetic Monte Carlo models of high temperature chemistry from molecular dynamics. **Q. Yang, C.A. Sing-Long, E. Chen, E. Reed**

2:50 COMP 93. Neural networks learning quantum chemistry: The rise of the machines. **J. Smith, O. Isayev, A.E. Roitberg**

Transformative Research & Excellence in Education Award

Sponsored by COMSCI, Cosponsored by BIOL, COLL, COMP, ENFL, INOR, PHYS and PRES

Electronic Structure Methods for Complex Chemical Systems

Emerging Directions in Electronic Structure

Sponsored by PHYS, Cosponsored by COMP

Undergraduate Research Posters

Computational Chemistry

Sponsored by CHED, Cosponsored by COMP and SOCED

Experimental & Computational Advances in Understanding Enzyme Specificity & Promiscuity

Discovery & Engineering of Industrially Relevant Enzymes

Sponsored by PHYS, Cosponsored by BIOL and COMP

MONDAY EVENING

Section A

Walter E. Washington Convention Center Halls D/E

Sci-Mix

H. L. Woodcock, *Organizer*

8:00 - 10:00

123, 158-159, 169, 172, 183, 187, 197, 203, 206, 209-210, 216- 218, 222-223, 240, 242, 252-253, 266, 268, 270, 272-273, 275, 277, 280-281, 283, 286, 298-302, 304. See subsequent listings.

TUESDAY MORNING

Section A

Washington Marriott at Metro Center Salon A

Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms

Molecular Dynamics

Cosponsored by PHYS

Y. Alexeev, F. C. Hill, G. S. Kedziora, P. Kent, *Organizers*

A. F. Voter, *Organizer, Presiding*

8:30 COMP 94. Leveraging the exascale to extend atomistic simulation timescales. **D. Perez, A.F. Voter**

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

9:00 COMP 95. Overcoming large timescale problem of biological molecular dynamics simulations: Scalable ensemble algorithms on massively parallel computing. **W. Jiang**

9:30 COMP 96. Describing peptide-protein and protein-protein interactions with molecular dynamics simulation. **J.A. Morrone**

10:00 Intermission.

10:15 COMP 97. Recent algorithmic work in LAMMPS for extending accuracy and time scales for materials modeling. **S. Plimpton, A.P. Thompson**

10:45 COMP 98. NAMD: Innovation towards exascale. **J. Phillips, E. Tajkhorshid**

11:15 COMP 99. Atomic-level characterization of protein-protein association. **A.C. Pan**

Section B

Washington Marriott at Metro Center Salon B

Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding

Cosponsored by PHYS

E. Alexov, R. Luo, *Organizers*

M. Feig, *Presiding*

8:30 COMP 100. Are all enzymes molecular motors? An effect of binding and catalysis out of equilibrium. **M.K. Gilson, D. Slochowar**

9:00 COMP 101. Sampling long-timescale dynamics in biomolecular recognition. **W. Yang**

9:30 COMP 102. Calculating protein-ligand binding affinities with MM/PBSA: Improvement and extension. **R. Qi, C. Wang, L. Xiao, W.M. Botello-Smith, D. Greene, R. Luo**

10:00 Intermission.

10:15 COMP 103. Exploring variant nucleosomes: From experiments to modeling and back. **A. Shaytan, D. Landsman, A. Panchenko**

10:45 COMP 104. New hallmarks of protein-small molecule binding: Interfacial rigidity and polarity. **L.A. Kuhn, S. Raschka, A. Wolf, J. Bemister-Buffington**

11:15 COMP 105. Simulation study of integrin alpha-2 I domain activation. **Z. Jia, E. Alexov**

Section C

Washington Marriott at Metro Center Salon C

Modeling & Measuring Protein-Ligand Kinetics & Residence Times

Cosponsored by MEDI and PHYS

J. A. Morrone, *Organizer*

W. D. Cornell, *Organizer, Presiding*

8:30 COMP 106. Shifting the paradigm from *in vitro* potency to non-equilibrium time-dependent drug-target occupancy under *in vivo*-relevant conditions. **R.A. Pearlstein, D. Mckay, G. Selvaggio, A. Golosov**

9:05 COMP 107. *In vitro* and *in vivo* target life for Immucillin transition-state analogs. **V.L. Schramm, S. Gebre, S. Cameron**

9:40 COMP 108. What are the molecular interactions that govern ligand residence time? Insights from molecular dynamics. **A. Dickson, S. Lotz**

10:15 Intermission.

10:30 COMP 109. Towards atomistic simulations of receptor-ligand unbinding kinetics. **L.T. Chong**

11:05 COMP 110. How does benzene recognize the buried cavity in T4 Lysozyme L99A? **J. Mondal, N. Ahaiawat, P. Vallurupalli**

11:40 COMP 111. Rational modulation of the induced-fit conformational change for slow-onset inhibition in *Mycobacterium tuberculosis* InhA. **C.L. Simmerling, P.J. Tonge, C. Lai**

Section D

Washington Marriott at Metro Center Salon D

New Directions in Conformational Sampling Methods

M. Feig, J. Shen, *Organizers*

R. C. Harris, *Presiding*

8:30 COMP 112. New repulsive soft-core potential for accelerated alchemical free energy calculations. **K. Nam**

9:00 COMP 113. Multisite λ dynamics enables accurate and efficient calculation of mutational changes in the folding free energy of T4 lysozyme. **R.L. Hayes, J. Vilseck, T. Wymore, C.L. Brooks**

9:30 COMP 114. ForceGen 3D structure and conformer generation: From small lead-like molecules to macrocyclic drugs. **A.N. Jain, A.E. Cleves**

10:00 COMP 115. How does PubChem generate computational 3-D structures of its compounds? **S. Kim, E. Bolton**

10:30 Intermission.

10:50 COMP 116. Chain-of-states method based dynamical sampling. **H. Zhou, P. Tao**

11:20 COMP 117. WExplore: An enhanced sampling method to study ligand release processes on timescales ranging from milliseconds to minutes. **A. Dickson**

11:50 COMP 118. Coarse-grained directed simulations via adaptive linear biases. **G.M. Hocky, T. Dannenhoffer-Lafage, G.A. Voith**

Electronic Structure Methods for Complex Chemical Systems

Correlated Electronic Structure Methods for Complex Systems

Sponsored by PHYS, Cosponsored by COMP

TUESDAY AFTERNOON

Section A

Washington Marriott at Metro Center Salon A

Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms

Data & Automation

Cosponsored by PHYS

Y. Alexeev, F. C. Hill, G. S. Kedziora, P. Kent, A. F. Voter, *Organizers*

R. Walker, *Presiding*

1:30 COMP 119. Scalable *in situ* analysis for large-scale molecular dynamics simulations on supercomputers. **P. Malakar, V. Vishwanath, C. Knight, T. Munson, M. Papka**

2:00 COMP 120. Use of dataflow-based execution to improve scalability and performance of coupled cluster codes. **T.L. Windus, K. Kowalski, A. Danalis, H. Jagode**

2:30 COMP 121. Exploring reaction mechanisms with heuristics-aided quantum chemistry (HAQC). **D. Rappoport**

3:00 Intermission.

3:15 COMP 122. Machine learnt models for accurate yet efficient materials design. **S. Sankaranarayanan**

3:45 COMP 123. Enhancing QM/MM indirect free energy simulations with intramolecular force matching. **P.S. Hudson, S. Boresch, D.M. Rogers, H.L. Woodcock**

Section B

Washington Marriott at Metro Center Salon B

Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding

Cosponsored by PHYS

E. Alexov, R. Luo, *Organizers*

A. V. Onufriev, *Presiding*

1:30 COMP 124. Topological deep learning of biomolecular structure-function relationships. **G. Wei**

2:00 COMP 125. Understanding the mechanisms of protein-ligand interactions through molecular dynamics simulations and free energy analysis. **J. Wang**

2:30 COMP 126. Calculations of chemical ligand-receptor binding kinetics and thermodynamics using molecular mechanics. **C. Chang, Z. Tang**

3:00 Intermission.

3:15 COMP 127. Importance of protonation states and pH in structure-based drug design: The case of BACE1. **J. Shen, C.R. Ellis, C. Tsai, R.C. Harris**

3:45 COMP 128. Fast, accurate pH dependent alchemical free energy calculations towards rational drug design. **R.C. Walker, C. Lin, D. Mermelstein**

4:15 COMP 129. Martinizing the variational implicit solvent method (VISM): Solvation free energy for coarse-grained proteins. **C. Gravina Ricci, B. Li, L. Cheng, J. Dzubiella, J.A. McCammon**

Section C

Washington Marriott at Metro Center Salon C

Quantum Mechanics

A. E. DePrince, *Organizer*

P. S. Hudson, *Presiding*

1:30 COMP 130. Polarizabilities of π -conjugated chains revisited: Improved results from broken-symmetry, range-separated DFT. **B.M. Wong, M.B. Oviedo, N.V. Ilawe**

2:00 COMP 131. Computational investigation of cell nitroxyl (HNO) fluorescent probe. **H. Xu, A. Lippert, Y. Shao, P. Tao**

2:20 COMP 132. Ionization potential improved local density functional – QTP17-L. **Y. Jin, R.J. Bartlett**

2:40 COMP 133. Note on accuracy of DFT density. **D.S. Ranasinghe, A. Perera, R.J. Bartlett**

3:00 COMP 134. Mechanisms of excitation energy transfer in pigment-protein complexes. **D. Kosenkov, Y. Kholod**

3:20 Intermission.

3:35 COMP 135. Electronic structure from Monte Carlo Green's function. **B. Winograd**

3:55 COMP 136. Reduced scaling Green's function methods for local and non-local correlation. **A. Shee, L. Tran, D. Zgid**

4:15 COMP 137. Calculating electronic g-tensors with density matrix renormalization group wavefunctions. **E. Sayfutyarova, G. Chan**

4:45 COMP 138. Effect of electrode surface structure on electron transport in molecular junctions. **A. Becker, S. Roy**

Section D

Washington Marriott at Metro Center Salon D

Material Science

Nanoparticles & 2D Materials

C. M. Aikens, *Organizer*

F. J. Irudayanathan, *Presiding*

1:30 COMP 139. Electronic structure of silver nanocluster chromophores functionalized by DNA sequences. **Y. Small, D. Nykypanchuk**

1:55 COMP 140. Atomistic scale investigation of plasmon decay in noble metal wires: The (eventually) catalytic role of molecular vibration. **G. Donati, D.B. Lingerfelt, C.M. Aikens, X. Li**

2:20 COMP 141. Quantum dot precursor design strategies from new first-principles discovery techniques. **J. Kim, A.H. Steeves, H.J. Kulik**

2:45 COMP 142. Developing a nanoscale understanding of the growth mechanism of III-V quantum dots. **Q. Zhao, H. Kulik**

3:10 COMP 143. Insights into nanoparticles-based NMR chemosensing via molecular dynamics simulations. **L. Riccardi, L. Gabrielli, X. Sun, F. De Biasi, F. Rastrelli, F. Mancini, M. Devivo**

3:35 Intermission.

3:50 COMP 144. Surface reorganization and x-ray spectra of nitrogen-vacancy containing nanodiamonds. **A. Petrone, D. Williams-Young, R. Beck, X. Li**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

4:15 COMP 145. Inconsistencies in the electronic properties of phosphorene nanotubes: New insights from large-scale DFT calculations. S. Allec, B.M. Wong

4:40 COMP 146. Structural, electronic and optical properties of 2H-TaSe₂ in the charge density wave (CDW) phase. S. Chowdhury, J. Simpson, T.L. Einstein, F. Tavazza, A.R. Hight Walker

5:05 COMP 147. Size and substrate induced phase stability of MoS₂ nanoparticles under varying conditions. A. Bruix, J. Lauritsen, B. Hammer

Section E

Washington Marriott at Metro Center
Salon E

Computational Studies of Membranes & Membrane-Bound Systems

Membrane Bilayers

Cosponsored by PHYS

M. Feig, J. Shen, *Organizers*

J. Huang, *Presiding*

1:30 COMP 148. CHARMM-GUI membrane builder with glycolipids and lipopolysaccharides. W. Im

2:00 COMP 149. Asymmetric models for the trans-Golgi Network and plasma membranes of *S. cerevisiae*, insights from molecular dynamics. V. Monje, J.B. Klauda

2:30 COMP 150. Transport and mechanical properties of membranes. R. Pastor

3:00 Intermission.

3:20 COMP 151. All-atom simulation studies on lipid bilayers, composed of sphingomyelin, glycerophospholipids and cholesterol. I. Bera, J.B. Klauda

3:50 COMP 152. Equilibration of the chemical potential between the lipid leaflets during molecular dynamics simulation. F. Samarjeet, T. Woolf, B. Brooks

4:20 COMP 153. Intrinsic curvature and lipid sorting modulate dynamics of hemifusion diaphragm dissipation. J. Gardner, C.F. Abrams

Electronic Structure Methods for Complex Chemical Systems

Ultra-efficient Electronic Structure Methods & Molecular Dynamics

Sponsored by PHYS, Cosponsored by COMP

Experimental & Computational Advances in Understanding Enzyme Specificity & Promiscuity

Structure-Function Relationships in Enzyme Evolution

Sponsored by PHYS, Cosponsored by BIOL and COMP

TUESDAY EVENING

Section A

Walter E. Washington Convention Center
Hall C

Chemical Computing Group Graduate Student Travel Awards

K. N. Kirschner, C. L. Simmerling, *Organizers*

6:00 - 8:00

COMP 154. First principles Monte Carlo simulations of reactive phase and sorption equilibria. E. Fetisov, M. Shah, C. Knight, J.J. Siepmann

COMP 155. Role of graphene oxidation on physisorption of biomolecules using computational modeling. H. Kim, B.L. Farmer, A.M. Grant, V.V. Tsukruk, Y.G. Yingling

COMP 156. Broadband absorption spectra from time-dependent coupled-cluster theory. D. Nascimento, A.E. DePrince

COMP 157. Novel model reduction algorithm for the efficient evaluation of molecular response properties. D.B. Williams-Young, R. Van Beeuman, C. Yang, X. Li

COMP 158. Environment-perturbed transition state sampling and its applications in chemical and biochemical reactions in condensed media. Z. Yang, C. Doubleday, K.N. Houk

Section B

Walter E. Washington Convention Center
Hall C

Poster Session

H. L. Woodcock, *Organizer*

6:00 - 8:00

COMP 159. New computational methods for excited state time-resolved infrared and Raman scattering spectroscopies. A. Petrone, D. Williams-Young, D.B. Lingerfelt, X. Li

COMP 160. Computational investigations of an unusual unimolecular decomposition pathway for CHF₂CF₃ forming :CF₂ + HCF₃ and analogous molecules of the form CF₃CXF₂ that react to give XCF₃ + :CF₂. B.E. Holmes, B.R. Gillespie, C.A. Smith, G.L. Heard

COMP 161. Computational studies on fluorescence and excited states of benzofuran derivatives. A. Dinescu, J. Jung

COMP 162. Systematic investigation of 15N chemical shift prediction using density functional theory calculations. D. Xin, C.A. Sader, K. Wagner, U. Fischer, P. Jones, K. Fandrick, N.C. Gonnella

COMP 163. Catalysis by montmorillonite on the synthesis of biological RNA polymer surrogates. E. Gordon, L. Tribe

COMP 164. Environmental degradation of 2,4-dinitroanisole (DNAN): A computational investigation of excited state properties and structures. H. McAlexander, M.K. Shukla

COMP 165. Theoretical study on pyrolysis of Jet Propellant-8 components: The behavior of aliphatic and non-aliphatic alkyl rings. D. Belisario-Lara, A.M. Mebel, J.L. Ribeiro

COMP 166. From B atoms to small Bx clusters and beyond. B.T. Catalano, G.M. Curtin, E.K. Snyder, J.R. Rocha

COMP 167. Grand canonical Monte Carlo simulation studies: Working mechanism of polyelectrolyte diode and transistor. D. Lee, R. Chang

COMP 168. Withdrawn.

COMP 169. Discovering polyimides with exceptional optical properties using first-principles modeling, virtual high-throughput screening, and machine learning. M.F. Afzal, C. Cheng, J. Hachmann

COMP 170. Virtual high-throughput infrastructure for the accelerated discovery of organic materials. M.F. Afzal, J. Hachmann

COMP 171. Computational bioluminescence. Y. Liu

COMP 172. Diffusion processes of small hydrocarbons in MOF-74-Mg addressed via CI-NEB periodic calculations. G.D. Degaga, L. Valenzano

COMP 173. Withdrawn.

COMP 174. Molecular dynamics study of ligand-dendrimer interaction: A theoretical approach. J. Stopinski, B. Menot, S. Bouquillon, F. Allais, E. Hénon

COMP 175. Improving workflows via a computational chemistry app store. R. Richard, B. Pritchard, C.D. Sherrill

COMP 176. Consensus diversity plots: A free online web-server to analyze the global diversity of molecular data sets. M. González-Medina, F.D. Prieto-Martínez, J.R. Owen, J.L. Medina-Franco

COMP 177. Zero-norm sparse coding in MSWI bottom ash. L. Lang

COMP 178. Computer in microbiology. T.D. Komolafe

COMP 179. Benefit of computerised in poultry (animal production). T.O. Akinmusire

COMP 180. Automated geometric-based method for analysis of spectral data. N. Sveshnikov, V. Kirmosov

COMP 181. Comparative DFT study on the metallocyclic ring size, stability, and global reactivity indexes of three phenanthrenedithiolato-diironhexacarbonyl complexes. J.K. Agbo, C.A. Mebi

COMP 182. Withdrawn.

COMP 183. Molecular rectification enhancement based on conformational and chemical modifications: Smart design of molecular devices. J. Valdiviezo, J.L. Palma

COMP 184. Structure and phase change properties of confined metals. K.E. Anderson, N. Tran, F. Carlson, J. Davidson, J.I. Siepmann, A. Stein

COMP 185. Density functional theory calculations of adsorption of phosphate to phosphate and phosphonate-rich surfaces for recovery from aqueous environments. C. Jakob, D.R. Talham, L. Tribe

COMP 186. Read-across approach for predicting the toxicity of fragrance materials. M.S. Date

COMP 187. Evidence for singlet fission driven by vibronic coherence in crystalline tetracene. A. Morrison, J. Herbert

COMP 188. Theoretical studies of water splitting catalysts. D. Perera, J.C. Rasaiah

COMP 189. Investigation on ionomer distribution of polymer electrolyte membrane fuel cells. J. Lee, S. Kwon, S. Choi, G. Doo, H. Kim, S. Lee

COMP 190. GPU enabled molecular dynamics simulations of lipid nanodisc templated gold nanoparticle self-assembly. H. Sharma, E. Dormidontova

COMP 191. Density functional theoretical study on the C-F oxidative addition reaction at an Al center. S. Hwang

COMP 192. BS-GEP algorithm for prediction of variation of heavy metal morphology. S. Sun

COMP 193. Deconstructing the confinement effect upon the organization and dynamics of water in hydrophobic nanoporous materials: Lessons learned from zeolites. T. Zhou, P. Bai, J.I. Siepmann, A.E. Clark

COMP 194. Modeling of reactive oxygen species using ab initio methods. U.A. Anene, N. Matsunaga

COMP 195. Hydration of end grafted PEO chains on gold surfaces of varying curvature: An extensive all-atom molecular dynamics simulation using GPU enabled GROMACS-4.6.5. U.R. Dahal, E. Dormidontova

COMP 196. London dispersion contribute to the aggregations of organoplatinum(II) complexes: A theoretical study. M. Xie, W. Lu

COMP 197. Hybrid peptide materials: Linking molecular architecture to nanostructure characteristics. S. Mushnoori, M. Dutt

COMP 198. Effect of a DC electric field on the melting temperature, nucleation and ice growth rate of TIP4P water models. J. Ramirez, J.R. Espinosa, A. Zaragoza, R. Ramos, E. Sanz, C. Valeriani, C. Vega, J. Cobos

COMP 199. Direct simulation of non-adiabatic dynamics in large-scale enzymatic systems. J. Kretschmer, T.F. Miller

COMP 200. Withdrawn.

COMP 201. New extremely efficient conformation search method based on energy evaluation for macrocyclic compounds including peptides size of greater than 10 residues. A. Tomonaga, A. Ueda, A. Matsuura

COMP 202. CHARMM Drude polarizable force field for glycosidic linkages involving furanoses. A. Aytenfis, A.D. Mackerell

COMP 203. Elucidating product specificity in protein arginine methyltransferase 7 (PRMT7) using QM/MM/MD. A. Thakur, B. Caceres, J. Hevel, O. Acevedo

COMP 204. Diffusive tracer dynamics in crowded environments. B.D. Mahala, R. Hernandez

COMP 205. OPLS-AA force field parameters for ionic liquid molecular dynamic simulations. B. Doherty, X. Zhong, O. Acevedo

COMP 206. New approach for detection and visualization of aggregation-prone regions. C. Williams

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- COMP 207.** Computer assisted study of the binding between translesion DNA polymerase zeta from *Dictyostelium discoideum* and DNA decamer containing a thymine-dimer. **D. He, S.K. Mauldin**
- COMP 208.** Computational methods for elucidating mechanisms of substrate transport in membrane transporters. **D. Shukla**
- COMP 209.** Dynamics of solute transport through the blood-brain barrier tight junction pores. **F.J. Irudayanathan, S. Nangia**
- COMP 210.** Parametrization of the drude polarizable force field for halogenated compounds. **F. Lin, A.D. Mackerell**
- COMP 211.** Conformational effects of threonine phosphorylation in proline-rich disordered motifs. **G.A. Lucero, P.S. Nerenberg**
- COMP 212.** Effect of the number of points n on the accuracies of n -point water models. **Y. Xiong, A.V. Onufriev**
- COMP 213.** Coarse-grained model for multiscale enhanced sampling of intrinsically disordered protein conformations. **X. Liu, J. Chen**
- COMP 214.** OPLS-AA force field parameters for dicationic imidazolium-based ionic liquid simulations. **X. Zhong, B. Doherty, O. Acevedo**
- COMP 215.** Metadynamics simulation studies of the interaction between TEX14 and CEP55. **Y. Cho, R. Chang**
- COMP 216.** Explore the structural and dynamics differences between glucose transporter-1 (GLUT1) and GLUT3. **S. Zhang, C. Libby, C.E. Augelli-Szafran, A.B. Hjelmeland, W. Zhang**
- COMP 217.** Unravelling hemicellulose bio-synthesis using molecular simulations. **V.S. Bharadwaj, M.F. Crowley**
- COMP 218.** Phospholipase A2: A unique paradigm of allosteric regulation by membranes. **V.D. Mouchlis, J. McCammon, E.A. Dennis**
- COMP 219.** Phospholipase A2: An ideal system for studying protein-lipid binding and interactions. **V.D. Mouchlis, J. McCammon, E.A. Dennis**
- COMP 220.** Solvation thermodynamic mapping of molecular surfaces in AmberTools: GIST. **S. Ramsey, C.N. Nguyen, R.C. Salomon, R. Walker, M.K. Gilson, T.P. Kurtzman**
- COMP 221.** ΔLogP o/w of between organic compound and corresponding perfluoro compound: A Monte Carlo simulation study. **H. Kim**
- COMP 222.** Implicit solvent/explicit ions GB model for nucleic acid simulations. **I.S. Tolokh, A.V. Onufriev**
- COMP 223.** Constant pH molecular dynamics reveals conformational selection in aspartyl proteases leading to inhibitor selectivity. **J.A. Henderson, R.C. Harris, C.R. Ellis, J. Shen**
- COMP 224.** Development of a refined force field for β -hematin and molecular dynamics study. **J. Becker, F. Wang, P. Sonnet, F. Dupradeau**
- COMP 225.** B-cell epitope discovery using molecular dynamics. **J.S. Grosch, P. Ortoleva**
- COMP 226.** Molecular dynamics simulations of L-RNA involving complexes. **M. Dudek, J. Trylska**
- COMP 227.** Empirical polarizable force field for RNA based on the classical Drude oscillator model. **J.A. Lemkul, A.D. Mackerell**
- COMP 228.** Free energy calculation of the solubility of cellulose oligomers in water. **K. Ueda, Y. Matsubara**
- COMP 229.** Making a splash in implicit solvent: Application of inhomogeneous solvation theory and continuum solvation to protein-ligand affinity predictions. **L.B. Wickstrom, R. Pal, S. Ramsey, T.P. Kurtzman, E. Gallicchio**
- COMP 230.** Parametrization of dissipative particle dynamics: From bottom-up coarse graining to implicit-solvent modelling. **L. Gao, M. Wan, C. Wen**
- COMP 231.** Phosphorylation of deubiquitinase affects its binding with ubiquitin. **L. Zhong**
- COMP 232.** Withdrawn.
- COMP 233.** RPIMapPr: A novel approach to predicting interfacial protein residues in RNA-protein complexes. **M.P. Beck, H. Vashisth**
- COMP 234.** Modeling the atomistic structure and dynamics of the chloroplast signal recognition particles. **M. Benton, M. Moradi**
- COMP 235.** Molecular dynamics simulation study of DNA mismatch recognition by thymine DNA glycosylase. **O. Yoluk, A. Drohat, A.D. Mackerell**
- COMP 236.** Characterizing protein hydration to inform its interactions and assemblies. **A. Patel**
- COMP 237.** NAMD/Q-Chem interface for *ab initio* QM/MM calculations under periodic boundary conditions. **X. Pan, Y. Shao**
- COMP 238.** Correlating individual amino acid residues with protein allostery through rigid residue scan. **P. Tao, H. Zhou, R. Kalescky, B. Zoltowski**
- COMP 239.** Protein evolution analysis integrating different levels of structures and simulations. **Z. Dong, H. Zhou, P. Tao**
- COMP 240.** Structural, dynamic, and electrostatic influences on catalysis in wild type human phosphoglucose isomerase and the Q388A variant. **S.C. Begay, P. Beuning, M.J. Ondrechen**
- COMP 241.** Custom solubility and partition ratio models for more quantitative agreement to experiment. **S.G. Arturo**
- COMP 242.** Structural properties of disordered proteins: A molecular dynamics simulation study using OPC and TIP3P. **P. Seifpanahi, S. Izadi, A.V. Onufriev**
- COMP 243.** Shedding light on the conformational changes leading to intrinsic activation of four night blindness mutations G90D, T94I, A292E, A295V on the human GPCR rhodopsin: A molecular dynamics simulation study. **J. Mohen, C. Wu**
- COMP 244.** Computer modeling of cellulose-based polymers for applications on pharmaceuticals. **C.H. Borca, L.I. Mosquera-Giraldo, X. Meng, K.J. Edgar, L.V. Slipchenko, L. Taylor**
- COMP 245.** All-atomistic simulations of the interaction of the model hydrophobic drug camptothecin with phospholipid membranes. **P.K. Tang, M. Kang, S. Loverde**
- COMP 246.** Hsp70's domains alternating flexibilities enable its chaperone action. **D.R. Merz, R.I. Dima**
- COMP 247.** Conformational landscape of actin monomers and its implications for filament assembly. **G.M. Hocky, B.J. Nolen, G.A. Voith**
- COMP 248.** Rationalization and visualization of non-bonded interactions using extended Hückel theory. **N. Li**
- COMP 249.** Withdrawn.
- COMP 250.** Docking-based virtual screening: Probing its applicability to GPCR models. **A. Cohen, A. Danfora, M. Biederman, S. Costanzi**
- COMP 251.** Scaffold replacement and 3D ligand optimization applied to the discovery of tyrosine kinase inhibitors. **A. Deschènes**
- COMP 252.** Unified framework for computer-aided biologics design. **A. Deschènes**
- COMP 253.** RealityConvert: A tool for preparing 3D models of biochemical structures for AR and VR. **A. Borrel, D. Fourches**
- COMP 254.** Enhancement of grid inhomogeneous solvation theory (GIST) by using polarizable force field: A cucurbit[7]uril study. **A. Cruz-Balberdy, T.P. Kurtzman**
- COMP 255.** Understanding the interaction between graphene oxide and NDPK: A novel low cost approach to treating heart failure. **A. Ray, I.G. Macwan, S. Singh, P.K. Patra, S. Silwal**
- COMP 256.** Analysis of allosteric and cryptic sites. **A. Wakefield, S. Vajda**
- COMP 257.** *In silico* investigation into the structures of lysyl oxidase-like proteins. **L. Booyesen, C. Messier, F. Ryykin**
- COMP 258.** Targeting the *Plasmodium falciparum* folate pathway: Molecular modelling of the affinity sulfonamide derivatives and isoforms of dihydrofolate reductase. **C.D. Mukinay, N.Y. Forlemu**
- COMP 259.** Modeling ligand-protein binding: Explanation of the dynamic processes in the binding between CDK8/CycC and the inhibitors. **W. Chen, Z. Tang, T. Cholko, C. Chang**
- COMP 260.** Small molecule inhibitor identification targeting fatty acid binding protein 5. **Y. Zhou, M. Elmes, J. Sweeney, H. Li, I. Ojima, D.G. Deutsch, R.C. Rizzo**
- COMP 261.** Identification of Ebola virus inhibitors targeting viral-hots membrane fusion by glycoprotein GP2. **C.D. Singleton, H. Yi, M.S. Humbly, R.C. Rizzo, A. Jacobs**
- COMP 262.** Exploring target flexibility for drug design. **D.B. Kokh, A. Stank, M. Horn, E. Sizikova, R. Neil, J. Panecka, S. Richter, R.C. Wade**
- COMP 263.** Computational physics-based broadly neutralizing vaccine design-From epitope identification and assessment to predicted nanoparticle immunogenicity: Zika virus. **D. Biner, J.S. Grosch, A. Ermel, D. Brown, P. Ortoleva**
- COMP 264.** Predicting protein drug binding sites using site identification by ligand competitive saturation method and Drude polarizable force field. **D. Sun, A.D. Mackerell**
- COMP 265.** Withdrawn.
- COMP 266.** Modeling 10,000 antibodies in about an hour: Leveraging the power of the Amazon cloud. **E. Metwally**
- COMP 267.** Incorporating the effect of water molecules into docking programs. **E. Chen, S. Ramsey, T.P. Kurtzman**
- COMP 268.** Computational approach to energetically identify bridging water molecules and to incorporate them in virtual screens. **J. Guo, R.C. Rizzo**
- COMP 269.** Withdrawn.
- COMP 270.** Addressing challenges in drug design through novel computer simulations. **C. Tsai, C.R. Ellis, R.C. Harris, J. Shen**
- COMP 271.** Allosteric modulation model of the mu opioid receptor by herkinorin via docking, molecular dynamics simulations and alchemical free energy calculations. **K. Martinez Mayorga, A.F. Marmolejo-Valencia**
- COMP 272.** Water-based pharmacophore screening of DUD system. **K. Huang, T. Kurtzman**
- COMP 273.** Tumor and organ uptake of Cu-64 labeled amatuximab, an anti-mesothelin antibody, in a nude mouse model bearing a shed antigen tumor by mathematical model simulation. **J. Lee**
- COMP 274.** Computational *de novo* drug design applications: HIV gp41 and FABP. **L. Prentis, R.C. Rizzo**
- COMP 275.** Rational design and evaluation of multi-target ligands at A1R, A2AR and PDE10A with therapeutic potential for neurodegenerative diseases. **L. Kalash, I. Winfield, S. Carvalho, G. Ladds, A. Bender**
- COMP 276.** Computationally designed fluorinated phosphotriesterases for detoxification of chlorpyrifos. **L. Yin, L.A. Halvorsen, A.J. Olsen, R.A. Bonneau, J.K. Montclare**
- COMP 277.** Molecular dynamics investigation in structure-based design of fatty acid synthase (FASN) inhibitors for cancer therapy. **M.A. Saeed**
- COMP 278.** Improved structure-based virtual screening of estrogen receptor alpha with data fusion of pharmacophore and docking methods. **K. Cagasova, J.S. Josan**
- COMP 279.** Discovery and identification of NPC1-derived peptides targeting the GP1-NPC1 protein-protein interaction. **Q. Li, L. Ma, J. Zhou, S. Cen**
- COMP 280.** *In silico* analysis of the interactions of CB ligands with their receptors: Towards the development of a consensus pharmacophore model for synthetic cannabinoids. **R.M. Sears, C. McInnes**
- COMP 281.** Inclusion of halogens as probe molecules in the site-identification by ligand competitive saturation (SILCS) methodology. **W. Jiang, W. Yu, S.K. Lakkaraju, S. Jo, A.D. Mackerell**
- COMP 282.** Homology modeling of class A GPCRs: Probing the impact of agonist-bound and blocker-bound templates. **S. Costanzi, M. Biederman**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

COMP 283. Merck AcceSSible InVentory (MASSIV): In silico synthesis guided by chemical transforms obtained through bootstrapping reaction databases. **T. Knehans**, F. Klingler, H. Kraut, H. Saller, A. Herrmann, F. Rippmann, J. Eiblmaier, C. Lemmen, M. Krier

COMP 284. Using the site-identification by ligand competitive saturation (SILCS) method to explore protein-protein interactions. **W. Yu**, S. Jo, S.K. Lakkaraju, A.D. Mackerell

COMP 285. Withdrawn.

COMP 286. Integrate bioinformatics, cheminformatics and computational modeling methods to identify novel tiam1 inhibitors for prostate cancer therapy. **Z. Tan**, S. Zhang

COMP 287. Aliphatic ferrocenylphenyl ureas: Synthesis, structural elucidation, pharmacological investigation and DFT calculations. **F. Asghar**, A. Badshah, I.S. Butler

COMP 288. Building a library for combination screening starts with single agent profiles. **L. Chen**, K. Wilson, X. Zhang, C. McKnight, P. Shinn, C.J. Thomas, M. Ferrer, R. Guha

COMP 289. Grid-based molecular surface generalized Born (GB) model for single-point calculations of electrostatic solvation free energies. **N. Forouzesh**, S. Izadi, A.V. Onufriev

COMP 290. Rapid evaluation of relative change in binding affinity using single step free energy perturbation (SSFEP). **S.K. Lakkaraju**, S. Jo, A.D. Mackerell

COMP 291. MetaTox: Web resource for prediction of the metabolic network for xenobiotics in the human organism. **A. Dmitriev**, A. Rudik, D. Filimonov, A. Lagunin, V. Porokov

COMP 292. Excipient-protein interactions for enhancing the stability of protein-based therapeutics using the site identification by ligand competitive saturation (SILCS) technology. **S. Jo**, S.K. Lakkaraju, W. Yu, A.D. Mackerell

COMP 293. Application of structural bioinformatics in vaccine and antibody design. **G. Chuang**, R. Rawi, C. Shen, **P.D. Kwong**

COMP 294. Collaboration in a competitive world: Sharing information for building models without sharing data. **P. Gedeck**, S. Skolnik, S. Rodde, R. Vianello

COMP 295. Discovery of novel natural products as potent FXR antagonists by virtual screening. **Y. Diao**, S. Li, H. Li

COMP 296. Discovery and rational design of natural product-derived analogs as novel and long-acting DPP-4 inhibitors for the treatment of type 2 diabetes. **S. Li**, Y. Diao, H. Li

COMP 297. Importance of equilibration time, structure truncation, and membrane lipid type for simulations of ion channels. **N. Guros**, J.B. Klauda, A. Balijepalli

COMP 298. Fe-S cluster-containing NAF-1: Promising target for breast cancer drugs. **F. Bai**, J. Onuchic

COMP 299. Free tools for ligand discovery: An update. **J. Irwin**

Section C

Walter E. Washington Convention Center Hall C

NVIDIA GPU Award

M. E. Berger, C. L. Simmerling, *Organizers*

6:00 - 8:00

COMP 300. Efficient GPU/OpenMM implementation of the AGBNP solvation model for macromolecular binding. **E. Gallicchio**, D. Kilburg, B. Zhang

COMP 301. Systematic analysis of plasmonic resonances using GPU-enabled real-time, time-dependent DFTB. **N.V. Ilawe**, M.B. Oviedo, B.M. Wong

COMP 302. Deep learning on NVIDIA GPUs for QSAR, QSPR and QNAR predictions. **B. Sattarov**, A. Mitrofanov, A. Korotcov, V. Tkachenko

COMP 303. GPU-accelerated molecular dynamics simulations of protein remodeling mediated by AAA+ biological nanomachines. **A. Javidialesaadi**, G. Stan

COMP 304. Understanding the microscopic structure of lyotropic liquid crystal membranes using molecular dynamics simulations. **B. Coscia**, M.R. Shirts

Section D

Walter E. Washington Convention Center Hall C

OpenEye Outstanding Junior Faculty Award

C. L. Simmerling, *Organizer*

6:00 - 8:00

COMP 305. Atomistic modeling of electromechanical spectroscopies in molecular junctions. **I. Franco**

COMP 306. Large-scale complete active space self-consistent field methods. **A.E. DePrince**

COMP 307. Replica exchange envelope distribution sampling (RE-EDS): A robust and accurate method to calculate multiple free energy differences from a single simulation. **D. Sidler**, M. Cristofol-Clough, A. Schwaninger, **S. Riniker**

COMP 308. Determining dispersion coefficients for polarizable force fields using density functional theory. **M. Mohebifar**, E.R. Johnson, **C.N. Rowley**

Section E

Walter E. Washington Convention Center Hall C

Wiley Computers in Chemistry Outstanding Postdoc Award

C. L. Simmerling, *Organizer*

6:00 - 8:00

COMP 309. Computational exploration of Pd(II)-catalyzed C-H activation and functionalization. **Y. Yang**, K.N. Houk

COMP 310. Towards multiconfiguration quantum embedding methods for solids state. **S. Bernales Candia**, H. Pham, G.E. Scuseria, L. Gagliardi

WEDNESDAY MORNING

Section A

Washington Marriott at Metro Center Salon A

Molecular Mechanics

Force Fields

Cosponsored by PHYS

M. Feig, *Organizer*

V. S. Bharadwaj, *Presiding*

8:30 COMP 311. Benchmark free energy calculations using AMOEBA and an approximate non-iterative polarization scheme. **F.C. Pickard**, A.C. Simmonett, J. Rackers, J.W. Ponder, B. Brooks

9:00 COMP 312. Conformational sampling of proteins with the fully polarizable Drude force field. **J. Huang**, A.D. Mackerell

9:30 COMP 313. Evaluating molecular dynamics force fields using computed NMR chemical shifts. **D. Koes**

10:00 Intermission.

10:20 COMP 314. Systematic improvement of ANI deep learned potentials through active learning in conformational and configurational space. **J.S. Smith**, R. Zubatyuk, O. Isayev, A.E. Roitberg

10:50 COMP 315. Comparison and optimization of fixed-point charge and polarizable force fields for the simulation of water-alkane systems. **A. Krämer**, F.C. Pickard, J. Huang, R.M. Venable, D. Reith, K.N. Kirschner, R. Pastor, B. Brooks

11:20 COMP 316. Ionic liquid OPLS-AA force field parameters for imidazolium-based simulations. **O. Acevedo**, B. Doherty, X. Zhong

Section B

Washington Marriott at Metro Center Salon B

Drug Design

Cosponsored by CINF

M. R. Landon, Y. Tseng, *Organizers*

Y. Peng, *Presiding*

8:30 COMP 317. Mathematics for drug design and discovery. **G. Wei**

9:00 COMP 318. Insights into energetic contributions to SAR: Applications of fragment symmetry-adapted perturbation theory (F-SAPT) to drug-protein binding. **D. Sitkoff**, D.L. Cheney, X. Zhu, D. Langley, R.M. Parrish, B.W. Bakr, D. Sirianni, C.D. Sherrill

9:30 COMP 319. Development and testing of *de novo* DOCK. **W.J. Allen**, B.C. Fochtman, T.E. Ballius, **R.C. Rizzo**

10:00 Intermission.

10:15 COMP 320. Fast screening of chemical libraries with solvent mapping derived fake ligands. **D. Hall**, I.J. Enyedy

10:45 COMP 321. New computational tools at the molecular scale for protein-ligand binding in drug discovery. **D. Janezic**, J. Konk

11:15 COMP 322. Study on the efficacy of mesothelin targeting recombinant immunotoxins in a nude mouse model bearing shed antigen tumors by mathematical model simulation. **J. Lee**

Section C

Washington Marriott at Metro Center Salon C

Quantum Mechanics

A. E. DePrince, *Organizer*

J. Larkin, *Presiding*

8:30 COMP 323. Mapping transition metal chemical space with continuous descriptors – feature selection and implications for machine learning models. **J. Janet**, H. Kulik

8:50 COMP 324. Withdrawn.

9:20 COMP 325. Renaissance of semi-empirical methods: Fast computation of 2-electron integrals. **P.E. Lopes**

9:40 COMP 326. Temperature dependent QM/QM embedding using Green's functions. **A.R. Welden**, D. Zgid

10:00 COMP 327. Regional DMET: Efficient and accurate single-fragment embedding of wave functions in Kohn-Sham DFT. **G. Knizia**, J.E. Klein

10:30 Intermission.

10:45 COMP 328. Ring-polymer surface-hopping: Incorporating nuclear quantum effects into non-adiabatic dynamics simulations. **F.A. Shakib**, P. Huo

11:05 COMP 329. Conical intersections found in silicon nanoparticles with a dangling bond defect. **W. Peng**, B. Fales, B.G. Levine

11:25 COMP 330. Understanding entropy of metal-ligand complexes. **A.L. Dewyer**, P.M. Zimmerman

11:45 COMP 331. Toward the accurate simulation of vibrationally-resolved phosphorescence spectra. **J. Bloino**, A. Baiardi, F. Egidi, M. Fusè, V. Barone

Section D

Washington Marriott at Metro Center Salon D

Material Science

Methods for Property Prediction & Computational Screening

C. M. Aikens, *Organizer*

G. D. Degaga, *Presiding*

8:30 COMP 332. Breaking badly: DFT-D2 gives sizeable errors for tensile strengths in bulk solids. **B.M. Wong**, N.V. Ilawe

8:55 COMP 333. Composite thermochemical approach to tin alkyl precursors in hybrid molecular beam epitaxy. **R. Harkins**, W.L. Gladfelter, C.J. Cramer, B. Jalan, T. Wang, A. Prakash

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9:20 COMP 334. High pressure phases of cylo-para-phenylenes: Aromatic vs. quinonoid structures and polymer formation. L. Qiu, M. Kertesz

9:45 COMP 335. Improved isotropic and anisotropic thermal gradient approaches for the quasiharmonic approximation to predict thermodynamic properties of organic crystals. N.S. Abraham, E. Dybeck, N.P. Schieber, M.R. Shirts

10:10 Intermission.

10:30 COMP 336. High-throughput identification and characterization of two-dimensional materials using density functional theory. K. Choudhary

10:55 COMP 337. Data-driven prediction of materials properties in an automated fashion. S. Kwak, T.J. Mustard, D. Giesen, T.F. Hughes, A. Goldberg, S. Dixon, M. Halls

11:20 COMP 338. Chemical and radiation stability of ionic liquids: A computational screening study. N.V. Ilawe, J. Fu, S. Ramanathan, B.M. Wong, J. Wu

11:45 COMP 339. Prediction of regulation toxicological tests applied to high energy molecules. R. Terreux, C. Alliod, R. Denis, J. Chemelle, G. Jacob

Section E

Washington Marriott at Metro Center Salon E

Computational Studies of Membranes & Membrane-Bound Systems

Biology in the Membrane

Cosponsored by PHYS

M. Feig, J. Shen, *Organizers*

L. Riccardi, *Presiding*

8:30 COMP 340. Interplay between lid domain plasticity and lipid flexibility modulates specificity of human monoacylglycerol lipase. L. Riccardi, J.M. Arencibia, L. Bono, A. Amirotti, S. Giotto, M. Devivo

9:00 COMP 341. Connecting molecular structure with cellular function: Membranes allosterically regulate phospholipases A2. V.D. Mouchlis, A.M. Vasquez, J. McCammon, E.A. Dennis

9:30 COMP 342. How do special lipids influence the structures, dynamics, and functions of multi-domain proteins? J. Li

10:00 COMP 343. Photosynthetic energy transfer in purple bacteria: A multiscale view through the computational microscope. A. Singharoy, C. Maffeo, E. Tajkhorshid, K. Schulten

10:30 Intermission.

10:50 COMP 344. Bacterial membrane disruption mechanism of defensins. A. Cho

11:20 COMP 345. Interaction of amyloid β peptides with lipid membrane. N. Xiang, Y. Lyu, X. Zhu, G. Narsimhan

11:50 COMP 346. Modeling the nano-bio interface: Cytochrome c on lipid bilayers. C.R. Allen, E. Melby, R. Hernandez, C.J. Murphy, R.J. Hamers, J.A. Pedersen

Drug Discovery: Cheminformatic Approaches

Sponsored by CINF, Cosponsored by COMP

Experimental & Computational Advances in Understanding Enzyme Specificity & Promiscuity

New Strategies to Expand the Scope of Enzyme Engineering

Sponsored by PHYS, Cosponsored by BIOL and COMP

WEDNESDAY AFTERNOON

Section A

Washington Marriott at Metro Center Salon A

Molecular Mechanics

Nucleic Acids

Cosponsored by PHYS

M. Feig, *Organizer*

L. Prentis, *Presiding*

1:30 COMP 347. Asymmetric breathing motions of nucleosomal DNA and the role of histone tails. K. Chakraborty, S. Loverde

2:00 COMP 348. Computational simulations of RNA containing modified bases. M.C. Nagan

2:30 COMP 349. Improving force field accuracy and structure determination of RNA by a combined computational and experimental approach. C. Bergonzo, R. Acevedo, C.W. Lawrence, A. Grishaev, T.E. Cheatham

3:00 COMP 350. Effect of nucleotide state on the protofilament conformation of tubulin octamers. A. Manandhar, M. Kang, S. Loverde

3:30 Intermission.

3:50 COMP 351. Probing the binding mechanism of BRACO19 to parallel quadruplexes from human telomeric DNA using molecular dynamics simulation with a free ligand. C. Wu, B. Machireddy

4:20 COMP 352. Withdrawn.

4:50 COMP 353. Combining structure-based models and enhanced sampling methods to probe RNA conformational dynamics. R. Jacobs, H. Vashisth

Section B

Washington Marriott at Metro Center Salon B

Drug Design

Cosponsored by CINF

M. R. Landon, Y. Tseng, *Organizers*

A. Thakur, *Presiding*

1:30 COMP 354. Striking the right balance between speed, accuracy and reliability in quantitative ligand binding free energy calculations: A case study of a FXa protein-ligand system. Z. Guo

1:55 COMP 355. Multisite lambda dynamics can compute precise free energies of binding in combinatorially large chemical spaces featuring ligand and protein perturbations. J. Vilseck, K. Armacost, R. Hayes, C.L. Brooks

2:20 COMP 356. Modeling molecular recognition: Free energy calculations for inhibitors binding to protein kinases. W. Chen, Y.M. Huang, Z. Tang, C. Chang

2:45 Intermission.

3:00 COMP 357. Molecular dynamics fingerprints (MDFP): Machine-learning from MD data to predict free-energy differences. S. Riniker

3:25 COMP 358. Large-scale QSAR modeling: Proteochemometrics vs. multitask deep learning. A. Zakharov, T. Zhao, D. Nguyen, N. Southall

3:50 COMP 359. Exploiting submodel diversity in ensemble prediction. P. Daga, M. Waldman, R.D. Clark

4:15 COMP 360. Energy minimization and pose generation with convolutional neural network scoring. D. Koes

Section C

Washington Marriott at Metro Center Salon C

Quantum Mechanics

A. E. DePrince, *Organizer*

D. Chaves Claudino, *Presiding*

1:30 COMP 361. Computational and theoretical studies on electron excitations in several oxyluciferin and curcumin derivatives. V.B. Sataalkar, Y. Shao

2:00 COMP 362. Quantum-based refinement. M. Waller

2:20 COMP 363. Efficient computational screening of transition metal centered dyes. L.A. Fredin, T. Allison

2:40 COMP 364. Improved quantum mechanical model of P450-mediated aromatic oxidation. R. Leth, P. Hunt, M. Segall

3:00 Intermission.

3:15 COMP 365. Effect of ancillary ligands (A) on oxidative addition of CH₄ to MIII complexes: M = Ta, Re; A = B, Al, CH, SiH, N, P using DFT, MP2, CCSD(T) and MCSCF methods. R. Parveen, T. Cundari

3:35 COMP 366. Digging deep: A SAPT study towards a quantitative understanding of non-covalent interactions in receptor-anion complexes. A. Sengupta, A.H. Flood, K. Raghavachari

3:55 COMP 367. Initial applications of a computational chemistry app store to understanding basis-set superposition error. R. Richard

4:25 COMP 368. Correlated Gaussian primitive sets based on energy deviations per electron. D. Chaves Claudino, R.J. Bartlett

Section D

Washington Marriott at Metro Center Salon D

Material Science

Adsorption, Diffusion & Catalysis

C. M. Aikens, *Organizer*

M. F. Afzal, *Presiding*

1:30 COMP 369. Predictive modeling of adsorption and diffusion for zeolite nanosheets and hierarchical zeolites. J.I. Siepmann

1:55 COMP 370. Adsorption and diffusion mechanisms of C1-C4 hydrocarbons in MOF-74-Mg/Zn: A quantum chemical study for selective gas separation applications in petroleum refining industries. G.D. Degaga, L. Valenzano

2:20 COMP 371. Molecular orientation and water transport in carbon nanotube reinforced aromatic polyamide membranes. R. Cruz Silva, T. Araki, Y. Takizawa, J. Ortiz-Medina, A. Morelos-Gomez, S. Inukai, S. Tejima, K. Takeuchi, T. Noguchi, T. Hayashi, T. Kawaguchi, M. Terrones, M. Endo

2:45 COMP 372. Computational investigation of acid-gas induced degradation mechanism of zeolitic imidazolate frameworks. C. Han, C. Zhang, N. Tymniska, D. Sholl, J.R. Schmidt

3:10 Intermission.

3:25 COMP 373. Unveiling atomistic mechanisms of vanadium redox reactions on nitrogen-doped graphene from first principles simulations. K. Klyukin, N.N. Intan, Z. Jiang, V. Alexandrov

3:50 COMP 374. Mechanistic study of oxygen reduction reaction in alkaline solutions: Importance of chemisorbed water. S. Liu, M.G. White, P. Liu

4:15 COMP 375. Combined quantum mechanical and molecular mechanical method for catalyst design on the NU-1000 metal-organic framework. X. Wu, L. Gagliardi, D.G. Truhlar

4:40 COMP 376. Gas-phase hydrolysis of dimethyl methylphosphonate by the cyclic tetramer of zirconium hydroxide. I. Schweigert, L.D. Gunlycke

Section E

Washington Marriott at Metro Center Salon E

Computational Studies of Membranes & Membrane-Bound Systems

Transport Across Membranes

Cosponsored by PHYS

M. Feig, J. Shen, *Organizers*

F. Sameerjeet, *Presiding*

1:30 COMP 377. Interactions between bioorganic molecules and membrane: Passive permeation, membrane defects, and phase behavior. R. Sun, J.M. Swanson, G.A. Voth

2:00 COMP 378. Membrane permeability of gasotransmitters calculated using the solubility-diffusion model. F. Sajadi, E. Awoonor-Williams, C.N. Rowley

2:30 COMP 379. Mechanism of substrate translocation in an alternating access transporter. R.O. Dror

3:00 COMP 380. Binding free energy calculations for inhibitors and HCN ion channels. F. Tofoleanu, B. Brooks

3:30 Intermission.

3:50 COMP 381. Atomistic simulation studies of synthetic channels in biomimetic membranes. D. Barden, H. Vashisth

4:20 COMP 382. Transport of vitamin B12-peptide nucleic acid conjugates through the BtuB outer membrane receptor of E. coli. T. Pienko, J. Trylska

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

4:50 COMP 383. Molecular mechanism of pH-dependent activation of sodium-proton antiporters. **Y. Huang, W. Chen, J. Shen**

Drug Discovery: Cheminformatic Approaches

Sponsored by CINF, Cosponsored by COMP

THURSDAY MORNING

Section A

Washington Marriott at Metro Center Salon A

Molecular Mechanics

Cosponsored by PHYS

M. Feig, *Organizer*

E. Sayfutyarova, *Presiding*

8:30 COMP 384. Testing for physical validity in molecular dynamics. **P.T. Merz, M.R. Shirts**

9:00 COMP 385. MD-binding: Enabling fully dynamic simulation of binding for real-world drug-target systems. **W. Rocchia, A. Spitaleri, S. Decherchi, A. Cavalli**

9:30 COMP 386. Direction-dependent protein remodeling by AAA+ biological nanomachines. **A. Javidialesaadi, G. Stan**

9:50 COMP 387. Finding multiple reaction pathways via global optimization of action. **J. Lee, I. Lee, I. Jeong, J. Lee, B. Brooks**

10:20 Intermission.

10:40 COMP 388. Dynamic hydrogen bonding network in *E. coli* glycineamide ribonucleotide transformylase (GAR Tfase). **P. Gupta, A.E. Roitberg**

11:00 COMP 389. Using constant pH molecular dynamics and free energy perturbation to compute pH-dependent binding free energies. **R.C. Harris, C. Tsai, C.R. Ellis, J. Shen**

11:30 COMP 390. Structure, activity, and chemical recognition of pH and ionic strength induced protein-protein interactions. **M.R. Jones, A.K. Wilson, B. Brooks**

11:50 COMP 391. Machine learning enabled approach to incorporate multi-state information in molecular modeling of dynamic allostery: A case study of the PDZ2 domain. **M. Botlani, A. Siddiqui, S. Varma**

Section B

Washington Marriott at Metro Center Salon B

Drug Design

Cosponsored by CINF

M. R. Landon, Y. Tseng, *Organizers*

L. Kalash, *Presiding*

8:30 COMP 392. Addressing phospholipase A2 selectivity towards phospholipids: An important step for developing potent and selective inhibitors. **V.D. Mouchlis, A.M. Vasquez, J. McCammon, E.A. Dennis**

9:00 COMP 393. Benchmarking methods for virtual screening of match molecular pairs: A PDB-wide and ChEMBL-wide analysis. **M. Baumgartner, D. Evans**

9:30 COMP 394. Duality of protein binding site similarity and cognate ligand similarity. **A.N. Jain, A.E. Cleves**

10:00 Intermission.

10:15 COMP 395. Discovery of multiple fragments binding to different regions of the catalytic pocket of LP-PLA2 and the structure-based rational design towards leads. **V. Berdini**

10:45 COMP 396. Investigating the importance of region1 in the small molecule CD4 mimics (SMCM) through QM/MM and pure QM methods. **F. Moraca**

11:15 COMP 397. Withdrawn.

Section C

Washington Marriott at Metro Center Salon C

Quantum Mechanics

A. E. DePrince, *Organizer*

D. Nascimento, *Presiding*

8:30 COMP 398. MP2 hydration free energies of 20 different salts show excellent agreement with experiments. **F. Wang, J. Li**

9:00 COMP 399. Role of the medium on the stereoselectivity in organic reactions. **V. Aviyente**

9:30 COMP 400. Solubility prediction from first principles: A density of states approach. **S. Boothroyd, A. Kerridge, J. Anwar**

10:00 COMP 401. Computational study of the Criegee intermediate through ozonolysis reaction. **M. Almatarneh, I.A. Elayan, Z. Ahmed**

10:30 COMP 402. Robust Chebyshev filtering for SCF iteration. **A. Breuer, X.C. Wang**

Section D

Washington Marriott at Metro Center Salon D

Material Science

Batteries, Bio-Based Materials & Beyond

C. M. Aikens, *Organizer*

Y. Xing, *Presiding*

8:30 COMP 403. Analysis, design and simulation of nanobatteries: Silicon anodes and beyond. **L.A. Sells, V.H. Ponce, D.E. Galvez-Aranda, L. Benitez, J.M. Seminario**

8:55 COMP 404. First-principles density functional theory modeling of redox potential of organic materials for lithium-ion batteries. **K. Kim, T. Liu, S.W. Lee, S. Jang**

9:20 COMP 405. Theoretical insights into flavin-C60 complexes via molecular mechanics and molecular dynamics. **E. Karunaratne, J. Gascon, F. Papadimitrakopoulos**

9:45 COMP 406. Design and insight into the electronic structure of power conversion efficient arylamine organic dyes for dye-sensitized solar cells (DSSCs): *In silico* approaches. **J.K. Roy, S. Kar, J.R. Leszczynski**

10:10 COMP 407. Density functional theory study of the thermodynamic and mechanical properties of single crystal group (IV) diborides with boron vacancies. **M. Sun, J. Liu**

10:35 Intermission.

10:50 COMP 408. Multiscale modeling of multicompartment micelle nanoreactors. **C.P. Callaway, P. Sood, S. Jang**

11:15 COMP 409. Structure and chirality of supramolecular nanostructures with peptide-drug amphiphiles. **M. Kang, K. Chakraborty, H. Cui, S. Loverde**

11:40 COMP 410. Coarse-grained and statistical mechanics modeling of dynamic, mechanically compliant DNA hinges. **Z. Shi, C. Castro, G. Arya**

12:05 COMP 411. Hybrid peptide-based materials encompassing ultrashort peptides: Molecule to materials. **S. Mushnoori, M. Dutt**

ENFL

Division of Energy and Fuels

D. Heldebrant, *Program Chair*

OTHER SYMPOSIUM OF INTEREST:

Advances & Challenges at the Food-Energy-Water Nexus (see ENVR, Tue, Wed)

Cooperative Catalysis at Surfaces & Interfaces: Impact on Chemistry & Energy Frontiers (see CATL, Sun Mon, Tue)

Emerging Catalytic Processes for Methane Conversion (see CATL, Mon, Tue)

How to get your First Industrial Job (see YCC, Tue)

Recent Advances towards the Bioeconomy (see CELL, Sun)

Understanding the Chemistry of Our Planet (see PRES, Tue)

SOCIAL EVENTS:

Dinner, 6:00 PM: Tue

BUSINESS MEETINGS:

Business Meeting & Social, 12:00 PM: Mon

Executive Committee Meeting, 4:00 PM: Sun

Program Meeting, 1:00 PM: Sun

SUNDAY MORNING

Section A

Walter E. Washington Convention Center Room 143A

Carbon Management: Advances in Carbon Efficiency, Capture, Conversion, Utilization & Storage

CO₂ Conversion

Y. H. Hu, P. K. Koech, *Organizers*

H. Lin, X. Wang, *Organizers, Presiding*

M. Hu, *Presiding*

8:00 ENFL 1. CO₂ conversion to novel solid materials for energy conversion and storage. **Y.H. Hu**

8:50 ENFL 2. Photo-initiated reduction of CO₂ by H₂ on silica. **C. Liu, J.M. Notestein, E. Weitz, K.A. Gray**

9:15 ENFL 3. Bimetallic Fe-Cu catalysts for CO₂ hydrogenation to C₂ hydrocarbons. **W. Wang, X. Wang, X. Jiang, C. Song**

9:40 ENFL 4. Progresses in CO₂ hydrogenation to methanol over In₂O₃ supported Pd catalysts. **C. Liu, N. Rui**

10:20 Intermission.

10:30 ENFL 5. Perovskite nanocomposite as an exceptional CO₂ splitting agent in a hybrid solar-redox scheme. **F. Li**

11:10 ENFL 6. Plasmonic CO₂ conversion to formic acid by cis-Rubpy complex with high selectivity and rate under mild condition. **H. Jun, M. Yang, Y. Nam**

11:35 ENFL 7. Fe-based bimetallic catalysts supported on TiO₂ for selective CO₂ hydrogenation to higher hydrocarbons. **N. Boreriboon, W. Wang, X. Jiang, C. Song, P. Prasassarakich**

Section B

Walter E. Washington Convention Center Room 142

Solar Energy & Solar Cells

Y. H. Hu, R. T. Koodali, *Organizers*

N. Wu, *Presiding*

8:00 Introductory Remarks.

8:05 ENFL 8. Charge transfer and energy transfer from plasmonic metals to semiconductors. **N. Wu**

8:45 ENFL 9. Spectroscopic evolution of graphene oxide/perovskite interfaces for solar energy. **M. Acik, R. Rosenberg**

9:05 ENFL 10. Withdrawn.

9:25 ENFL 11. Imaging photovoltaic functionality of polycrystalline and perovskite solar cells at the nanoscale. **E.M. Tennyson, M.S. Leite**

9:45 Intermission.

9:55 ENFL 12. Plasmon enhanced photocatalysis and solar cells. **D. Ma**

10:35 ENFL 13. Incorporation of inequivalent neodymium cations into perovskite hybrids for boosting device performance of perovskite photovoltaics. **X. Gong**

10:55 ENFL 14. Modelling materials and processes in perovskites solar cells. **F. De Angelis**

11:15 ENFL 15. Progress towards the study of proton-coupled electron transfer reactions via the mixed quantum-classical Liouville approach. **F.A. Shakib, G. Hanna**

11:35 Concluding Remarks.

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

Section C

Walter E. Washington Convention Center
Room 141

Ammonia Economy**Oxidation, Catalytic Cracking & Storage**

Cosponsored by I&EC

M. Jones, M. T. Mock, *Organizers*

J. Makepeace, M. Mock, *Presiding*

8:00 Introductory Remarks.

8:05 ENFL 16. High purity hydrogen generation from ammonia. Y. Kojima

8:45 ENFL 17. Hydrogen production from ammonia using lithium-calcium imide. J. Makepeace, T. Wood, W. David

9:10 ENFL 18. Isotopic studies of the ammonia decomposition reaction using lithium imide catalyst. T. Wood, J. Makepeace, W. David

9:35 ENFL 19. Structure and activation of Ru catalyst on Ca(NH₂)₂: Effect of hydrogen and electron transfer. P. Ong, H. Hosono, P.V. Sushko

10:00 ENFL 20. Electrocatalytic ammonia oxidation with molecular copper catalysts. T.H. Warren, M. Raghbi Boroujeni

10:40 Intermission.

11:00 ENFL 21. Dielectric and structural characterisation of ammonia uptake by metal organic framework materials. M. Jones, R.S. Forgan, A. Porch, M. Barter

11:25 ENFL 22. Alternative ammonia storage materials for SCR of NO_x. A.J. Karkamkar

Section D

Walter E. Washington Convention Center
Room 143B

Energy & Fuels Joint Award for Excellence in Publication

D. Boström, *Organizer*

M. Kidder, *Presiding*

10:30 Introductory Remarks.

10:40 ENFL 23. Ash transformation chemistry during combustion of biomass, theory and technical applications. D. Boström, N. Skoglund, C. Boman, M. Öhman, M. Broström, R. Backman

11:20 ENFL 24. Ash transformation chemistry in biomass fixed beds with focus on slagging and aerosols: 20 years of research and new developments. C. Boman, M. Öhman, M. Broström, N. Skoglund, F. Schmidt, R. Backman, D. Boström

11:50 ENFL 25. Ash transformation reactions for phosphorus-rich biomass and waste streams. N. Skoglund, M. Öhman, D. Boström

12:20 Concluding Remarks.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

‡Cooperative Cosponsorship

Section E

Walter E. Washington Convention Center
Room 143C

Energy & Fuels Storch Award in Fuel Science: Symposium in honor of Umit S. Ozkan

Cosponsored by CATL

E. J. Biddinger, N. A. Brunelli, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENFL 26. Evaluation of processing for G2GI (gas to gasoline and intermediates) using ODH (oxidative dehydrogenation of ethane). A.M. Gaffney

8:35 ENFL 27. Ultra-deep hydrodesulfurization of diesel fuel in stacked-bed reactors: A tale of two sites. T. Ho

9:05 ENFL 28. Thermochemical conversion of carbon dioxide by reverse water-gas shift chemical looping using perovskite-type oxides. J. Kuhn, D. Maiti, Y. Daza, A. Ramos, B. Hare, V. Bhethanabotla

9:35 ENFL 29. Catalyst development from petroleum coke: Manipulating the pore size while minimizing waste. V. Montes, J.M. Hill

10:05 Intermission.

10:20 ENFL 30. Partial oxidation and ammoxidation of propene over a-Bi-2Mo3O12: The special role of Bi. A.T. Bell

10:50 ENFL 31. Improving Fischer-Tropsch catalysts by using learnings from deactivation studies. S. Soled, S. Reyes, C.E. Kiewer, S. Miso

11:20 ENFL 32. Co-aromatization of methane with olefins: The role of catalytic sites in the inner pores and on the external surface of metal modified zeolites. P. He, J. Jarvis, S. Kou, H. Song

Section F

Walter E. Washington Convention Center
Room 144A

Advanced Nanomaterials Catalysts for Sustainable Energy & Fuels**Electrochemical Energy Conversion**

S. Guo, *Organizer*

D. Su, S. Zhang, *Organizers, Presiding*

8:00 ENFL 33. Discovery of new catalytic materials for the hydrogen evolution and oxygen evolution reactions. R.E. Schaak

8:30 ENFL 34. Platinum monolayer on new nanostructured core electrocatalysts for the oxygen reduction reaction. K. Sasaki, K. Kuttijiel, R.R. Adzic

9:00 ENFL 35. Transition metal phosphosulfide nanomaterials for electrocatalytic energy conversion. H. Wang

9:30 Intermission.

9:50 ENFL 36. Seed-mediated co-reduction as a route to multi-metallic core@shell nanocatalysts. S.E. Skrabalak

10:20 ENFL 37. Design of advanced nanomaterials for sustainable energy and fuel. Y. Kang

10:50 ENFL 38. Corrosion-induced degradation of platinum based oxygen reduction reaction catalysts and *in situ* investigation. H. Shan, W. Chen, Y. Ma, F. Shi, J. Wu

Recent Advances towards the Bioeconomy

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

Catalytic Transformation of Renewable Plant Biomass to Enhance Global Economy

Sponsored by CATL, Cosponsored by ENFL

Cooperative Catalysis at Surfaces & Interfaces: Impact on Chemistry & Energy Frontiers**Electrocatalysis**

Sponsored by CATL, Cosponsored by ENFL

SUNDAY AFTERNOON**Section A**

Walter E. Washington Convention Center
Room 143A

Carbon Management: Advances in Carbon Efficiency, Capture, Conversion, Utilization & Storage Materials & Utilization

Y. H. Hu, H. Lin, *Organizers*

P. K. Koech, X. Wang, *Organizers, Presiding*

M. Hu, *Presiding*

1:30 ENFL 39. Pushing the boundary: Nanocomposite polyphosphazene membranes in CO₂/N₂ separations. H. Nulwala, D. Luebke, H.R. Allcock, Z. Li

1:55 ENFL 40. Advance micro porous polymeric blends processed as high performance gas separation membranes. A. Sekizkardes, S. Venna, V. Kusuma, D. Hopkinson

2:20 ENFL 41. Hydrogenation of methyl acetate to ethanol by Cu/ZnO catalyst encapsulated in SBA-15. Z. Yujun, Y. Wang, J. Zhang, S. Huang, S. Wang, X. Ma

2:45 ENFL 42. Desulfurization of coal using choline chloride based deep eutectic solvents. M. Zahid, N.C. Hameed, S. Nasir, Z. Naseem

3:10 Intermission.

3:20 ENFL 43. Mitigates the agglomeration of the hollow graphitic carbon nanospheres. C. Zhang

4:00 ENFL 44. Cracking of methane (CH₄) and separation into hydrogen (H₂) and solid carbon. P. Oconnor

4:30 ENFL 45. Microporous carbons derived from soft drinks: Promising materials for carbon dioxide separation and capture. C.M. Teague, C. Stieber, J.A. Schott, Z.E. Mann, B. Williamson, P. Zhang, S. Dai, S.M. Mahurin

5:00 ENFL 46. Graphene-based nanomaterials for catalysis. M. Hu, Z. Yao, X. Wang

Section B

Walter E. Washington Convention Center
Room 142

Solar Energy & Solar Cells

Y. H. Hu, *Organizer*

R. T. Koodali, *Organizer, Presiding*

J. Z. Zhang, *Presiding*

1:30 Introductory Remarks.

1:35 ENFL 47. Enhancing stability of organolead iodide perovskite films and solar cells with surface chemistry approach. J.Z. Zhang

2:15 ENFL 48. Highly stable giant core/shell colloidal quantum dot sensitized solar cells. G. Selopal, H. Zhao, X. Tong, D. Benetti, F. Navarro Pardo, Y. Zhou, D. Barba, F. Vidal, Z.M. Wang, F. Rosei

2:35 ENFL 49. Three-dimensional photovoltaic cells for renewable energy application with enhanced exciton-hole separation and barrier characteristics. M.J. Uddin

2:55 ENFL 50. From small model systems to defined polymer architectures: An approach to efficient and long-lived photo-induced charge separation. M. Jaeger

3:15 Intermission.

3:25 ENFL 51. Photophysical properties of near infrared cyanine dyes and their application as photosensitizers in dye sensitized solar cells. W. Ghann, J. Uddin, H. Kang

3:45 ENFL 52. *In-situ* neutron reflectometry reveals dye: TiO₂ interfacial structures within dye-sensitized solar cell device environments. J. Cole

4:05 ENFL 53. Spray deposition of titania films for application in photovoltaics. L. Song, B. Su, K. Wang, S. Roth, P. Mueller-Buschbaum

4:25 ENFL 54. High performance ternary blend organic solar cells using conjugated polymer and molecular materials. J. Subbiah, P. Geraghty, V.D. Mitchell, W. Wong, D. Jones

4:45 ENFL 55. Using plasmonic excitation to generate electrostatic potentials for solar energy applications. K. Palm, J. Garrett, T. Gong, J. Munday

5:05 ENFL 56. Photoanode with enhanced performance achieved by coating BiVO₄ onto ZnO-templated Sb-doped SnO₂ nanotube scaffold. L. Zhou

5:25 Concluding Remarks.

Section C

Walter E. Washington Convention Center
Room 141

Ammonia Economy**Synthesis, Utilization & Nitrogen Reduction**

Cosponsored by I&EC

M. Jones, M. T. Mock, *Organizers*

Y. Kojima, T. Wood, *Presiding*

1:30 ENFL 57. Diruthenium chemistry of nitrides and ammonia. J.F. Berry

2:10 ENFL 58. Nitrogenase reduction of N₂ and CO₂. S. Rauegi

2:35 ENFL 59. Catalytic N₂ reduction to ammonia using a homogeneous chromium complex. A.J. Kendall, M.T. Mock, R. Bullock

3:00 ENFL 60. Transition metal complexes for N₂ reduction and NH₃ oxidation: Strategies for making and breaking N-N and N-H bonds. M.T. Mock, E.S. Wiedner, P. Bhattacharya, D. Prokopchuk

3:25 Intermission.

3:45 ENFL 61. Lower pressure ammonia synthesis. M. Malmali, J. Prince, M. Reese, A. McCormick, E. Cussler

4:10 ENFL 62. Alternatives to electricity for running the world on renewable energy: Hydrogen and ammonia fuels via underground pipelines, with low-cost, annual-scale storage. **W.C. Leighty**

4:35 ENFL 63. Flame stabilization mechanisms of ammonia/air pre-mixed flames in high speed swirling flows. **A. Hayakawa, Y. Arakawa, S. K.D. Kunkuma A., T. Kudo, H. Kobayashi**

5:00 Concluding Remarks.

Section D

Walter E. Washington Convention Center Room 143B

Innovative Chemistry & Materials for Electrochemical Energy Storage

Y. Shao, G. Yu, *Organizers*

J. Guo, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ENFL 64. Polymer-based batteries. **U.S. Schubert**

2:05 ENFL 65. Unique materials chemistry of organic radical polymer batteries. **J.L. Lutkenhaus**

2:35 ENFL 66. Binder-free NiFe₂O₄-C nanofiber films as air cathodes for Li-O₂ batteries. **X. Zhang, Z. Zhou**

2:55 ENFL 67. Hydride materials in all-solid Li-ion cell configuration. **A. El-kharbachi, Y. Hu, M. Sorby, H. Fjellvåg, B. Hauback**

3:15 Intermission.

3:30 ENFL 68. Flexible, foldable polymer composites for energy storage. **S. Yang**

4:00 ENFL 69. Studies on complex electrolytes for magnesium batteries. **J.L. Schaefer, L. Merrill, H. Ford**

4:30 ENFL 70. Withdrawn.

4:50 ENFL 71. Anion dynamical behaviors and their possible relationship to superionic conductivities in hydro-closo-borate salts of lithium and sodium. **M. Dimitrievska, W. Tang, K.E. Kweon, B. Wood, P.T. Shea, J. Varley, V. Stavila, A. Skripov, K. Yoshida, S. Orimo, T.J. Udovic**

5:10 ENFL 72. Computational studies of structure, composition, and electrochemical behavior of high-performance Ni-rich layered materials for lithium-ion batteries. **M. Dixit, B. Markovsky, D. Aurbach, D.T. Major**

Section E

Walter E. Washington Convention Center Room 143C

Energy & Fuels Storch Award in Fuel Science: Symposium in honor of Umit S. Ozkan

Cosponsored by CATL

N. A. Brunelli, *Organizer*

E. J. Biddinger, *Organizer, Presiding*

R. Watson, *Presiding*

1:30 Introductory Remarks.

1:35 ENFL 73. 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. Delgass, R. Gounder, J.T. Miller, W.F. Schneider, A. Yezerets, A. Parekh, C. Paolucci, I. Khurana, J. Albarracin, J. Di Iorio, A. Shih**

2:05 ENFL 74. Copper catalysts: From supported metal complexes and atomically-precise nanoclusters to dispersed nanoparticles. **S.L. Scott, Z. Jones**

2:35 ENFL 75. Tuning the molecular design of catalytic materials to increase activity and selectivity for mesoporous silica materials. **N.A. Brunelli, N. Deshpande, M.R. Whitaker, A. Parulkar, R. Joshi**

3:05 ENFL 76. Combined molecular confinement and metal-support interface effects for control of hydrodeoxygenation selectivity on porous Pd@TiO₂. **J. Zhang, B. Wang, J.W. Medlin, E. Nikolla**

3:35 Intermission.

3:50 ENFL 77. Cascade aldolization and self-deoxygenation over Zn_xZr_yO_z mixed oxides. **Y. Wang**

4:20 ENFL 78. Some new design concepts for heterogeneous catalysts for fuel processing and chemicals synthesis. **C. Song**

4:50 ENFL 79. Metal-modified zeolites and their use for production of biofuels from biomass pyrolysis vapors. **M. Yung**

Section F

Walter E. Washington Convention Center Room 144A

Advanced Nanomaterials Catalysts for Sustainable Energy & Fuels

Electrochemical Energy Conversion

S. Zhang, *Organizer*

S. Guo, D. Su, *Organizers, Presiding*

1:30 ENFL 80. Multifunctional carbon-based metal-free catalysts for efficient energy conversion and storage. **C. Hu, L. Dai**

2:00 ENFL 81. Atomic iron-dispersed carbon electrocatalysts for oxygen reduction in challenging acid. **G. Wu**

2:30 ENFL 82. Topological defects in nanocarbons for oxygen electrocatalysis. **Q. Zhang, C. Tang**

3:00 Intermission.

3:20 ENFL 83. Withdrawn.

3:50 ENFL 84. Surface/interface engineering and characterization for nanostructured electrocatalysis systems. **X. Xie, L. Du, L. Luo, C. Wang, Y. Shao**

4:20 ENFL 85. Eco-friendly synthesis of well-ordered mesoporous bio-carbon (MBC) as cathode catalyst for polymer electrolyte membrane fuel cells (PEMFCs). **R. Jiang, D.T. Tran, J.P. McClure, D.D. Chu**

4:45 ENFL 86. Ni-C-N nanosheets as catalyst for hydrogen evolution reaction. **P. Xi**

Recent Advances towards the Bioeconomy

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Catalytic Transformation of Renewable Plant Biomass to Enhance Global Economy

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Cooperative Catalysis at Surfaces & Interfaces: Impact on Chemistry & Energy Frontiers

Photocatalysis & Oxide Catalysis

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Environmental Applications of Liquid Phase Catalysis for Green Chemical Processes of Renewable Materials

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MONDAY MORNING

Section A

Walter E. Washington Convention Center Room 143A

Carbon Management: Advances in Carbon Efficiency, Capture, Conversion, Utilization & Storage CO₂ Capture & Chemical Looping

H. Lin, X. Wang, *Organizers*

Y. H. Hu, P. K. Koech, *Organizers, Presiding*

8:00 ENFL 87. Chemical looping gasification, reforming and chemical syntheses. **L. Fan**

8:50 ENFL 88. Advanced solid sorbents for CO₂ capture from flue gas. **X. Wang, D. Wang, C. Song**

9:15 ENFL 89. Green synthesis of Ca-based sorbents for fast CO₂ capture: The enhancement effect of waste-derived SiO₂ on cyclic stability and sorption kinetics. **F. Yan, J. Jiang, K. Li, X. Chen, S. Tian**

9:40 Intermission.

9:50 ENFL 90. Withdrawn.

10:15 ENFL 91. Interactions of CO₂/brine/rock under CO₂ storage conditions. **Y. Soong, D. Crandall, L. Dalton, R. Mclendon, L. Zhang, R. Lin, B. Howard, I. Haljasmaa**

10:40 ENFL 92. Cyclic trimer of carbon dioxide: Synthesis and stability. **A. Snow, M.J. Rodig, P. Scholl, S. Rea**

Section B

Walter E. Washington Convention Center Room 142

Solar Energy & Solar Cells

Y. H. Hu, R. T. Koodali, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENFL 93. 3D carbon nanomaterials as counter electrodes for perovskite solar cells. **Y.H. Hu**

8:45 ENFL 94. Interplay between polymer chain alignment and charge transport in semiconducting polymers. **T. Weller, C.R. McNeill, M. Thelakkat**

9:05 ENFL 95. Gradient doping of phosphorus in Fe₂O₃ nanoarray photoanodes for enhanced charge separation. **Z. Luo, T. Wang, J. Gong**

9:25 ENFL 96. Photocatalytic hydrogen generation from hydriodic acid using methylammonium lead iodide. **S. Park, W. Chang, K. Nam**

9:45 Intermission.

9:55 ENFL 97. New insight into the roles of oxygen vacancy in hematite for solar water splitting. **X. Zhao, Z. Chen**

10:15 ENFL 98. Aqueous solar cells as emerging photovoltaics: Photoelectrochemical and chemometric investigation. **F. Bella, S. Galliano, M. Falco, F. Giordano, A. Hagfeldt, M. Grätzel, G. Viscardi, C. Barolo, C. Gerbaldi**

10:35 ENFL 99. Surviving high-temperature calcination: ZrO₂-induced hematite nanotubes for photoelectrochemical water oxidation. **C. Li, T. Wang, J. Gong**

10:55 ENFL 100. Band-gap engineered MnO nanoparticles integrated on WO₃/BiVO₄ photoanode for efficient water oxidation. **M. Lee, H. Jang**

11:15 ENFL 101. Photoelectrochemistry of conducting polymers and opportunities in solar fuel generation. **D. Hursán, A. Kormanyos, R. Ondok, T. Kiss, C. Janaky**

11:35 ENFL 102. BiVO₄ for solar water oxidation via SF-ALD. **B. Lamm, A. Sarkar, M. Steflik**

11:55 Concluding Remarks.

Section C

Walter E. Washington Convention Center Room 141

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Current State & Future Path

Cosponsored by BMGT, CEI, ENVR, MPPG, PRES, PROF, SCHB and WCC

J. L. Bryant, J. C. Giordan, *Organizers*

E. B. Fox, L. Houston, *Organizers, Presiding*

J. Allison, K. A. Fjare, *Presiding*

8:00 Introductory Remarks.

8:05 ENFL 103. History, success and current challenges of biodiesel in the United States. **S. Howell**

8:25 ENFL 104. Corn ethanol in gasoline. **P.R. Robinson**

8:45 ENFL 105. Update on the commercial status of cellulosic bio-fuels. **S. Erhan, R. Moreau**

9:05 ENFL 106. Production of chemicals from biomass: Techno-economic and market perspectives. **M. Biddy**

9:25 Intermission.

9:45 ENFL 107. Renewable chemicals and fuels from biomass. **D.G. Vlachos, P.J. Dauenhauer**

10:05 ENFL 108. Agile BioFoundry: Applying synthetic biology tools to biomufacturing using lignocellulosic feedstocks. **J. Fitzgerald**

10:25 ENFL 109. Moving beyond drop-in replacements: Performance advantaged bio-based chemicals. **N.D. Fitzgerald**

10:45 ENFL 110. Perspective on renewable bioenergy from algae for chemical production in the water-energy-environment nexus. **L.M. Laurens, P.T. Pienkos**

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- 11:05 ENFL 111.** Co-optimization of fuels and engines: Identifying the fuel properties and engine design characteristics needed to maximize vehicle efficiency. **R.L. McCormick**, J. Farrell, J. Holladay, R. Wagner
- 11:25 ENFL 112.** Quantum modeling of biofuel autoignition. **M.R. Nimlos**, L. Bu

Section D

Walter E. Washington Convention Center Room 143B

Innovative Chemistry & Materials for Electrochemical Energy Storage

J. Guo, Y. Shao, *Organizers*

G. Yu, *Organizer, Presiding*

- 8:00 ENFL 113.** Challenges and prospects of high-nickel layered oxide cathodes for next-generation lithium-ion batteries. **A. Manthiram**
- 8:35 ENFL 114.** Controllable solid electrolyte interphase in nickel-rich cathodes by an electrochemical rearrangement for stable lithium-ion batteries. **J. Cho**
- 9:05 ENFL 115.** Two-dimensional materials for in-plane micro-supercapacitors. **X. Feng**
- 9:35 ENFL 116.** Synthesis and characterization of nanostructured $\text{LiNi}_{0.6}\text{Co}_{0.2}\text{Mn}_{0.2}\text{O}_2$ cathode material for high-capacity lithium ion battery. **S. Lee**
- 9:55** Intermission.
- 10:10 ENFL 117.** Self-assembly synthesis of electrode architectures for energy storage. **S. Dai**
- 10:40 ENFL 118.** Electrodeposition and hydrothermal growth of high performance solid and mesostructured Li-ion cathodes and anodes. **P.V. Braun**
- 11:10 ENFL 119.** One-dimensional nano-materials for energy storage. **L. Mai**
- 11:40 ENFL 120.** *In-situ* electrochemical stiffness in Li-ion composite cathodes. **K. Lundberg**, Ö.Ö. Çapraz, T. Fister, N.R. Sottos, A.A. Gewirth

Section E

Walter E. Washington Convention Center Room 143C

Energy & Fuels Storch Award in Fuel Science: Symposium in honor of Umit S. Ozkan

Cosponsored by CATL

E. J. Biddinger, N. A. Brunelli, *Organizers, Presiding*

8:00 Introductory Remarks.

- 8:05 ENFL 121.** Platinum group metal-free electrocatalysts derived by sacrificial support method. **P.B. Atanassov**

- 8:35 ENFL 122.** Copper electrocatalysis for synthesis of fuels and chemicals. **E.J. Biddinger**, A.N. Karaiskakis, S. Jung

- 9:05 ENFL 123.** Photo-electrochemical CO_2 reduction to acetate on iron-copper oxide: Understanding electron dynamics in catalysts showing high selectivity for CO_2 reduction. **L. Baker**

- 9:35 ENFL 124.** Photocatalytic degradation of metoprolol: Reaction conditions, intermediates and total reaction mechanism. **E. Moctezuma**, E. Leyva, M. Lopez

10:05 Intermission.

- 10:20 ENFL 125.** Insights into the oxygen reduction reaction activity of Pt/C and PtCu/C catalysts. **A. Co**, E. Coleman, F. Zhang, X. Lin

- 10:50 ENFL 126.** Poisoning and promotion of ORR activity in CN_x catalysts through anion adsorption: A density functional theory study. **A.R. Asthagiri**, Q. Zhang

- 11:20 ENFL 127.** Exploring hydrogen-permeable membranes for efficient catalytic methane dehydroaromatization. **S. Natesakhawat**, N. Means, B. Howard, M.W. Smith, V. Abdelsayed, J.P. Baurtus, J.W. Lekse, D. Link, B.D. Morreale

Section F

Walter E. Washington Convention Center Room 144A

Advanced Nanomaterials Catalysts for Sustainable Energy & Fuels

Electrochemical Energy Conversion

S. Guo, *Organizer*

D. Su, S. Zhang, *Organizers, Presiding*

- 8:00 ENFL 128.** Design and processing of higher-performance bimetallic catalysts assisted by *in situ* techniques. **H. Yang**

- 8:30 ENFL 129.** Rational design of novel nanostructured low-Pt and Pt-free catalysts for hydrogen fuel cells. **G. Zhang**, Q. Wei, X. Yang, **S. Sun**

- 9:00 ENFL 130.** Enhancing C-C splitting for the electro-oxidation of ethanol. **X. Teng**

9:30 Intermission.

- 9:50 ENFL 131.** Bright future for electrode materials: Highly conductive porous Na-embedded carbon nanowalls for energy devices. **Y.H. Hu**

- 10:20 ENFL 132.** Orbitalwise descriptors for engineering catalytic sites beyond volcano limitation. **H. Xin**

10:50 ENFL 133. Withdrawn.

- 11:10 ENFL 134.** Unraveling oxygen anion transport in nanostructured double perovskite electrodes for solid oxide fuel cells. **M. Haider**, U. Anjum, M. Agarwal, T. Khan

Catalytic Transformation of Renewable Plant Biomass to Enhance Global Economy

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Cooperative Catalysis at Surfaces & Interfaces: Impact on Chemistry & Energy Frontiers

Oxide Catalysis

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Environmental Applications of Liquid Phase Catalysis for Green Chemical Processes of Renewable Materials

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MONDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 143A

Carbon Management: Advances in Carbon Efficiency, Capture, Conversion, Utilization & Storage

CO_2 Capture

P. K. Koech, X. Wang, *Organizers*

Y. H. Hu, H. Lin, *Organizers, Presiding*

- 1:30 ENFL 135.** Mechanism of char chemical looping reduction process by employing calcium-doped copper oxide. **L. Bai**, J. Riley, W. Benincosa, H. Tian

- 2:10 ENFL 136.** Aminopyridine solvents as carbon dioxide capture agents. **P.K. Koech**, D. Malhotra, J. Page, D. Cantu, M. Bowden, A.J. Karkamkar, F. Zheng, D.J. Heldebrant, V. Glezakou, R. Rousseau

- 2:40 ENFL 137.** Removing the viscosity increase in water-lean CO_2 capture solvents. **D.J. Heldebrant**, D. Malhotra, D. Cantu, P. Koech, V. Glezakou, R. Rousseau, F. Zheng, J. Page, A. Zwoster

- 3:10 ENFL 138.** Highly efficient and reversible CO_2 capture by imidazolite-based ether-functionalized ionic liquids. **L. Zhang**, X. Xiao, H. Yang, X. Tantai, N. Yang

3:40 Intermission.

- 3:50 ENFL 139.** Energetically efficient CO_2 -binding organic liquids as carbon dioxide capture solvents. **D. Malhotra**, P.K. Koech, D.J. Heldebrant, J. Page, D.C. Cantu, V. Glezakou, R. Rousseau, F. Zheng

- 4:15 ENFL 140.** Integrated CO_2 capture/water-gas shift process for IGCC applications. **S. Zhao**, A. Lucero, S. Gangwah

- 4:40 ENFL 141.** Integrating *in vivo* and *in vitro* approaches for metagenomic RuBisCo sequence mining to improve carbon fixation. **N. Prywes**

- 5:05 ENFL 142.** CO_2 capture, concentration & conversion technology. **P. Oconnor**

Section B

Walter E. Washington Convention Center Room 142

Two-Dimensional Materials for Energy & Fuels

L. Hu, Y. Lin, G. Yu, *Organizers*

V. Barone, Y. Zhu, *Organizers, Presiding*

- 1:30 ENFL 143.** MXenes, 2D transition metals carbides, and carbonitrides for energy storage and catalysis. **M. Naguib**

- 1:55 ENFL 144.** Scalable and facile synthetic routes to holey graphene. **A. Star**

- 2:20 ENFL 145.** Synthesis and properties of 2D layers and heterostructures. **J. Robinson**

- 2:45 ENFL 146.** Graphene synthesis and applications for energy devices. **J.M. Tour**

3:25 Intermission.

- 3:40 ENFL 147.** 2D materials at fluid-fluid interfaces. **B. Rodier**, P. Wei, A. de Leon, Q. Luo, K. Pachuta, A. Sehirlioglu, **E. Pentzer**

- 4:05 ENFL 148.** Exceptional energy and new insight with sodium – selenium battery based on carbon nanosheet cathode and pseudo-graphite anode. **D. Mittin**

- 4:30 ENFL 149.** Dry compressible holey graphene: A unique high mass loading platform for energy storage. **Y. Lin**, L. Hu, J. Kim, J.W. Connell

4:55 ENFL 150. Withdrawn.

- 5:10 ENFL 151.** Extrusion-based 3D printing of a highly porous two-dimensional nanomaterial for beyond Li-ion batteries. **S. Lacey**, Y. Lin, J.W. Connell, L. Hu

Section C

Walter E. Washington Convention Center Room 141

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Challenges & Opportunities

Cosponsored by BMGT \ddagger , CEI \ddagger , ENVR, MPPG, PRES, PROF \ddagger , SCHB and WCC

J. L. Bryant, J. C. Giordan, *Organizers*

E. B. Fox, L. Houston, *Organizers, Presiding*

J. Allison, K. A. Fjare, *Presiding*

- 1:30 ENFL 152.** Exploring bulky chemicals from furfural platform by catalytic oxidation and carbonylation. **G. Yin**

- 1:50 ENFL 153.** Lignin depolymerization and further hydrodeoxygenation upgrading with new mesoporous zeolites. **Y. Wang**, N. Baxter, G. Kuo, **S. Wang**

- 2:10 ENFL 154.** Sterically protected and electronically activated azamacrocyclic catalysts for lignin depolymerization: A new approach to biomass valorization. **A.M. Rahatgaonkar**, M. Chorghade

- 2:30 ENFL 155.** Zinc chloride ionic liquid: A novel robust and selective solvent for biomass fractionation. **P. Oconnor**

2:50 Intermission.

- 3:00 ENFL 156.** Removal of acidic impurities from hydrolysate liquor by resin wafer based electrodeionization. **Y. Dai**, Y.J. Lin, S.W. Snyder, P. Chiang

- 3:20 ENFL 157.** Biohybrid fuel cells for power generation directly from fermentations. **M. Benyamin**, J. Jahnke, H. LaFors, D. Mackie

- 3:40 ENFL 158.** Application of electro-microbiology for *in-situ* bioprocess monitoring. **C. Turick**, P. Satjaritanun, S. Shimpalee, C. Milliken, C. Bagwell, J. Przywara, S. Greenway, J. Weidner

- 4:00 ENFL 159.** Complete exploitation of carbon for transforming microalgal biomass into biofuels via serial fermentations and transesterification. **M. Eldalatony**, E. Salama, S. Saha, M.B. Kurade, B. Jeon

- 4:20 ENFL 160.** One-pot hydrothermal catalytic conversion microalgae into bulk chemicals. **L. Kong**, Y. Sun

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

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Section D

Walter E. Washington Convention Center
Room 143B

Innovative Chemistry & Materials for Electrochemical Energy Storage

J. Guo, G. Yu, *Organizers*

Y. Shao, *Organizer, Presiding*

1:30 ENFL 161. Impact of electrolyte stability on electrochemical performance of Li-ion battery. C. Wang

2:00 ENFL 162. Manipulating interphases in non-aqueous and aqueous electrolytes. K. Xu

2:30 ENFL 163. Design strategies for materials and interfaces in all-solid-state Li-ion batteries. Y. Mo

3:00 ENFL 164. Tuning the solid electrolyte interphase to control the Li- and Na-ion storage in hard carbon. X. Li, F.A. Soto, P. Yan, M. Engelhard, P.B. Balbuena, C. Wang, J. Song, B. Xiao, D. Reed, V.L. Sprenkle

3:30 Intermission.

3:35 ENFL 165. Synchrotron based approaches for spatial resolution of electrode reactions. E.S. Takeuchi, A.C. Marschilok, K.J. Takeuchi

4:10 ENFL 166. Benefit of a multiscale (molecular- to meso-scale) approach for investigating the complex chemistry of electrochemical energy storage systems. K.J. Takeuchi, E.S. Takeuchi, A.C. Marschilok

4:40 ENFL 167. Applications of multi-dimensional NMR spectroscopy to rechargeable battery materials. R.J. Messinger

5:10 ENFL 168. Spatial heterogeneities and onset of passivation breakdown at lithium anode interfaces. K. Leung, K.L. Jungjohann

Section E

Walter E. Washington Convention Center
Room 143C

Energy & Fuels Storch Award in Fuel Science: Symposium in honor of Umit S. Ozkan

Cosponsored by CATL

N. A. Brunelli, *Organizer*

E. J. Biddinger, *Organizer, Presiding*

R. Watson, *Presiding*

1:30 Introductory Remarks.

1:35 ENFL 169. Single phase mixed metal carbides: Synthesis and catalytic properties. A. Mehdad, R.E. Jentoft, F. Jentoft

2:05 ENFL 170. Understanding and exploiting the catalytic properties of early transition metal carbides. L.T. Thompson

2:35 ENFL 171. Zinc modification of platinum ethane dehydrogenation catalysts: Insights into geometric and electronic promotion. V.J. Cybulskis, J.R. Gallagher, H. Tseng, Z. Wu, A. Kropp, B. Bukowski, J.P. Greeley, F. Ribeiro, J.T. Miller

3:05 ENFL 172. Molecular scale and mesoscale structure-property relationships in amine-oxide hydrid materials for CO₂ separations. C.W. Jones

3:35 Intermission.

3:50 ENFL 173. Neutron scattering approaches to gain new insights into catalytic reaction mechanisms. P.F. Britt, D.A. Lutterman, A. Savara, Z. Wu

4:20 ENFL 174. Analysis of reaction sequences for identifying intermediates. S.T. Oyama, A. Takagaki

4:50 Introduction of Awardee.

4:55 ENFL 175. Energy and the environment: Solutions offered by catalysis. U.S. Ozkan

Section F

Walter E. Washington Convention Center
Room 144A

Advanced Nanomaterials Catalysts for Sustainable Energy & Fuels

CO₂ Conversion & Capture

D. Su, *Organizer*

S. Guo, S. Zhang, *Organizers, Presiding*

1:30 ENFL 176. Nanoporous materials: Synthesis and electrocatalytic properties. F. Jiao

2:00 ENFL 177. Developing nanostructured electrocatalysts for solar fuel generation. Y. Li

2:30 ENFL 178. Withdrawn.

2:50 ENFL 179. Rational design of Bi nanoparticles for efficient electrochemical CO₂ reduction. Z. Zhang, M. Chi, G.M. Veith, P. Zhang, D.A. Lutterman, J. Rosenthal, S.H. Overbury, S. Dai, H. Zhu

3:10 Intermission.

3:30 ENFL 180. Controlling size of Rh nanoparticles produced by doping-segregation method and tuning them for catalytic CO₂ conversion. A. Orlov, Q. Wu, B. Yan, J. Cen, A. Frenkel, E. Stach, H. Xin, J.G. Chen

4:00 ENFL 181. Ultrasmall Au nanocatalysts supported on nitrated carbon supports for CO₂ electrochemical reduction. J. He, L. Jin, H. Yao, B. Liu

4:30 ENFL 182. Formulating CO₂ solid adsorbents into practical contactors using 3D-printing technique. H. Thakkar, S. Eastman, A. Rownaghi, F. Rezaei

Section G

Walter E. Washington Convention Center
Halls A/B

Advances in Chemistry of Energy & Fuels

D. J. Heldebrant, *Organizer*

2:00 - 4:00

ENFL 183. Preparation of reduced graphene oxide: ZnO hybrid cathode interlayer using *in situ* thermal reduction/annealing for interconnecting nanostructure and its effect on organic solar cell. D. Zheng, J. Yu

ENFL 184. Introduction of formamidine and Cs cation to quasi two-dimensional perovskites. R. Hamaguchi, M. Yoshizawa-Fujita, Y. Takeoka, M. Rikukawa

ENFL 185. Critical roles of cesium and bromide in mixed cations and halides perovskite solar cells. L. Chen

ENFL 186. Essential role of bromide on crystallization quality of (FAPb)_{1-x}(MAPbBr₃)_x perovskite. L. Xie, L. Chen, J. Yan, B. Mao, Z. Tian

ENFL 187. Fabrication of perovskite solar cells under ambient conditions. J.R. Vicente, J. Chen

ENFL 188. Optimization of photon and electron collection in silicon micro-solar cells for applications in diverse concentration systems. M. Anderson, Y. Yao, R.G. Nuzzo

ENFL 189. Orientation control of two-dimensional perovskites by incorporating carboxylic acid moiety. R. Arai, M. Yoshizawa-Fujita, Y. Takeoka, M. Rikukawa

ENFL 190. Reasons behind the improved performance of cuprous oxide/nanocarbon photoelectrodes. E. Kecsenvity, B. Endrodi, C. Janaky

ENFL 191. Facile fabrication of spray pyrolysed ternary Cu₂SnS₃ based solar cells. B.K. Patel, M. Walidiya, I. Mukhopadhyay, A. Ray

ENFL 192. Effect of additives on the performance of dye sensitized solar cells. L. Warner, S. Mahmood, J. Hu

ENFL 193. Mesoporous HZSM-5 zeolite microsphere for methanol to aromatics. K. Zhang, P. Liu, Z. Lyu, N. Zhao

ENFL 194. Three-dimensionally ordered macro/mesoporous NiO-Al₂O₃ nano-hybrid catalysts for partial oxidation of methane to syngas. P. Liu, K. Zhang, Z. Lyu, N. Zhao, F. Xiao

ENFL 195. Effects of oxide supports on CO methanation and WGS over MoS₂ catalysts. K. Zhang, L. Jia, B. Hou, D. Li

ENFL 196. Withdrawn.

ENFL 197. Silver and palladium nanoparticles as catalysts for hydrogen generation reactions. C.F. Huff, A. Heyman, J.M. Long, A. Aboulatta, T.M. Abdel-Fattah

ENFL 198. Catalytic activity of noble metal nanoparticles supported on multi-walled carbon nanotubes. J.M. Long, C.F. Huff, A. Heyman, A. Aboulatta, T.M. Abdel-Fattah

ENFL 199. Application of cobalt (II) ions and iron (II) ions for hydrogen evolution reactions. Q. Quach, E. Robertson, Z. Messegee, T.M. Abdel-Fattah

ENFL 200. Platinum aerogel catalyst for the generation of hydrogen. J. Osborne, M. Horten, T.M. Abdel-Fattah

ENFL 201. Binder free approach to synthesize flexible nanostructured cobalt oxide electrode for oxygen evolution reaction. S. Bhoyate, C. Zhang, C. Ranaweera, S. Mishra, P.K. Kahol, R. Gupta

ENFL 202. Non-noble metal nanoparticle catalysts for dehydrogenation/hydrogenation reactions. M. Muzzio, C. Yu, S. Sun

ENFL 203. Grape-like AgPd/WO_{2.72} nanocomposite to simplify the multi-step reaction for synthesizing heterocyclic compound. C. Yu, Z. Xi, M. Muzzio

ENFL 204. Effect of nitrogen doping on petroleum residue for CO₂ adsorption. N. Chalermwat, T. Chaisuwan, U. Suriyapraphadilok

ENFL 205. One-pot synthesis of covalent organic framework for oxygen electrocatalysis. B. Li, S. Zhang, Z. Xia, C. Tang, B. Zhang, Q. Zhang

ENFL 206. Pd nanoparticles coupled to WO_{2.72} nanorods for enhanced electrochemical oxidation of formic acid. Z. Xi, D. Erdosy, A. Mendoza-Garcia, P. Duchesne, J. Li, M. Muzzio, Q. Li, P. Zhang, S. Sun

ENFL 207. Pseudocapacitive energy storage in nanostructured CuO grown from a facile and scalable chemical route. P. Marathe, R.K. Pati, I. Mukhopadhyay, A. Ray

ENFL 208. Bimetallic-coordinated polymer-derived non-precious FeCo/N-C as efficient bifunctional oxygen electrocatalyst. T. Jin, X. Zhu, J. Hu, H. Liu, S. Dai

ENFL 209. Modeling alloys for ethanol oxidation in fuel cell applications. L. Mehdizadegan Namin, N.A. Deskins

ENFL 210. Synergistic process for efficiently converting FCC cycle oil. D. Fang, G. Wang

ENFL 211. Solar-driven MoS₂ quantum dots decorated π conjugated photocatalyst for high efficient hydrogen production. C. Ma, H. Zhu, J. Zhou, Z. Cui, T. Liu, Y. Wang, Y. Wang, Z. Zou

ENFL 212. Synthesis of dimethyl carbonate from CO₂ and methanol over Ce₂Zr_{1-x}O₂ solid solution. A. Li, N. Zhao, F. Xiao, X. Wang

ENFL 213. Fabrication and selection of low-cost catalytic materials for cathode of microbial fuel cells. T. Ilyas

ENFL 214. Steam reforming of methane with Pt nanoparticles supported on composite oxide of TiO₂ and SiO₂ prepared by photo-assisted deposition method. H. Ishikawa, K. Fuku, N. Ikenaga

ENFL 215. Role of CO₂ concentration in the development of corrosion scale in oil and gas pipelines. R. Gruet, S.C. Hayden, T.J. Kucharski, M. Ostraat

ENFL 216. Fabrication of amine-functionalized hollow mesoporous silica adsorbents for CO₂ capture. G. Xue, F. Xiao, N. Zhao, X. Wang

ENFL 217. Photophysical, electrochemical and photovoltaic properties of porphyrin-based dye sensitized solar cell. S. Khan, W. Ghann, J. Uddin

ENFL 218. Foam flooding in porous media for low-salinity enhanced oil recovery. K. Tantihtet, A. Charoensaeang, B.J. Shiau, U. Suriyapraphadilok

ENFL 219. Analysis of multi-feedstock biodiesel fuels using GCMS and chemometrics. A.M. Hupp, M. Flood, M.P. Connolly, M. Comiskey

ENFL 220. Hydrothermal stability of zeolitic imidazolate frameworks (ZIFs) membrane in thermochemical process: Marked effects of surface chemistry of metal oxides support. D. Lee, S. Lee, J. Kim

ENFL 221. Effect of TiO₂-diatomite composite materials on the pyrolysis of oily sludge. J. Li, C. Qu, S. Zhu

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- ENFL **222.** Experimental investigation of *in situ* transesterification of castor seeds (*Ricinus communis*) for methyl ester production using hybrid reactor. P. Kodgire, K. Thakkar, K. Shah, S. Kachhawa, H. Raghavendra
- ENFL **223.** Ethanol-enriched fermentation liquid from dairy wastewater used as carbon source for biological nutrient removal. H. Liu, Y. Chen, H. Huang
- ENFL **224.** Withdrawn.
- ENFL **225.** Synthesis of bio-oil via the hydrothermal liquefaction of chlorella in the presence of a KOH. N.T. Humphries, E.E. Rodriguez, W. Jiang
- ENFL **226.** Enhancing the capacity of LiFePO₄ cathode for lithium-ion battery by nanomesh graphene modifying. C. Yanming
- ENFL **227.** Rational design hybrid C₃N₄ frames and graphene-like layers structured material as cathode scaffold for lithium-sulfur battery. Y. Xu, Y. Kang
- ENFL **228.** Exploration of dopants and defects for oxygen reduction reaction in three dimensional graphene. Y. Yu, Y. Kang
- ENFL **229.** Power (electrical) of biology in batteries: Direct enhancement of lithium ion batteries utilizing a biological tool kit. S.J. Riley
- ENFL **230.** Four electron redox quinone polymer for high capacity lithium ion storage. A. Petronico, R.G. Nuzzo, A.A. Gewirth
- ENFL **231.** Strategy for optimizing catalytic behavior of Pt and Pt alloy in lithium-oxygen battery. X. Zeng, Y. Guo, J. Lu, K. Amine
- ENFL **232.** Development of printable electrolyte using poly(ethylene oxide) and poly(methyl methacrylate) for dye-sensitized solar cells. J. Lin, I. Liu, Y. Lee
- ENFL **233.** Strategies to improve the output power of dye-sensitized solar cell using cobalt redox couples under indoor lighting. C. Li, I. Liu, Y. Lee
- ENFL **234.** Innovative Sn/3D-carbon composite anodes for long cycle lithium-ion battery. Y. Guo, X. Zeng, F. Huo, J. Lu, A. Yan
- ENFL **235.** Study to improve electrolytes in sodium batteries. T. Higgwe, D. Walker, E. Thai, T. Yu
- ENFL **236.** CNT/mesoporous carbon core-shell structure for phase change materials support. G. Wang, A. Li, W. Dong, H. Gao, C. Dong, X. Chen
- ENFL **237.** Carbon nanofiber networks for stable lithium metal anodes with high coulombic efficiency and long cycle life. A. Zhang, X. Fang, C. Shen, Y. Liu, C. Zhou
- ENFL **238.** Flexible free-standing air electrode with bimodal pore architecture for long-cycling Li-O₂ batteries. Y. Kwon, S. Lee, J. Kim, S. Kwon, S. Hong

- ENFL **239.** Enhanced electrochemical stability of quasi-solid-state electrolyte containing SiO₂ nanoparticles for Li-O₂ battery applications. T. Kim, D. Lee, J. Lee, S. Kwon, S. Choi
- ENFL **240.** *In situ* transmission electron microscopy study of porous Si nanostructures and investigation on porous Si-S full cells. C. Shen, M. Ge, L. Luo, A. Zhang, X. Fang, Y. Liu, J. Rong, C. Wang, C. Zhou
- ENFL **241.** Probing mechanisms for inverse correlation between rate performance and capacity in K-O₂ batteries. N. Xiao, X. Ren, M. He, W.D. Mcculloch, Y. Wu
- ENFL **242.** Effect of metal ion substitution on the electrochemical properties of Co₃O₄ for energy storage devices. D. Alqahtani, C. Ranaweera, K.S. Siam, P.K. Kahol, R. Gupta
- ENFL **243.** Direct synthesis of bulk phosphorous-doped graphitic carbon. E. Billeter, N.P. Stodie
- ENFL **244.** Fabrication of a novel porous Mn₂Ce_{1-x}O₂ nanoparticle composite for high performance supercapacitors. W. Tianhao, X. Li, Y. Han, Y. Liu, L. Li, X. Li, H. Fan, L. Meng
- ENFL **245.** Photo-physical properties of selected pyrenyl pyridines: Potential candidates for blue OLEDs. T. De Silva, G.G. Tamas, G. Sahasrabudhe, P.K. Chhotaray, I.M. Warner
- ENFL **246.** Adsorption of a polyaromatic compound on silica surfaces from organic solvents studied by molecular dynamics simulation and AFM imaging. Y. Xiong

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Intellectual Property Considerations When Entering into a Joint Venture

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Emerging Catalytic Processes for Methane Conversion

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Cooperative Catalysis at Surfaces & Interfaces: Impact on Chemistry & Energy Frontiers

Metal Catalysis

Sponsored by CATL, Cosponsored by ENFL

MONDAY EVENING

Section A

Walter E. Washington Convention Center Halls D/E

Sci-Mix

D. J. Heldebrant, *Organizer*

8:00 - 10:00

3, 11, 15, 40, 55, 59, 71, 101-102, 120, 135, 157, 188, 202-203, 206, 209, 229, 237, 240-241. See previous listings.

270, 285, 302, 304-305, 307, 310, 350-351, 353, 358, 383, 389, 395, 399, 401, 416, 428, 430, 441, 443, 477. See subsequent listings.

TUESDAY MORNING

Section A

Walter E. Washington Convention Center Room 143A

Advances in Chemistry of Energy & Fuels

Biomass & Biofuels

D. J. Heldebrant, *Organizer*

M. V. Olarte, *Presiding*

8:00 Introductory Remarks.

8:05 ENFL **247.** Production of biodiesel via the *in situ* transesterification of sorghum bran and grain sorghum stillage. V.T. Wyatt, D.B. Johnston, K.C. Jones, R. Cook, R. Moreau

8:25 ENFL **248.** Molecular-level kinetic modeling of green diesel production via hydrodeoxygenation and hydroisomerization. P. Agarwal, J. Lucio-Vega, K. Engler, M.T. Klein

8:45 ENFL **249.** Effects of support for Ni₂P catalysts on hydrodeoxygenation of bio-oil using anisole as a model compound. P. Pitakjakkipop, C. Song

9:05 ENFL **250.** Conversion of *Methylosinus trichosporium* and *Chlorella vulgaris* into bio-oil via hydrothermal liquefaction. E.E. Rodriguez

9:25 ENFL **251.** Catalytic hydrothermal conversion fuel: Characterization, development of a surrogate fuel mixture, and engine combustion. D.J. Luning Prak, S. Ye, M. McLaughlin, J. Cowart, P.C. Trulove

9:45 ENFL **252.** Structure reactivity of generated chars during microwave and conventional pyrolysis. V. Abdelsayed, D. Shekhwat, M.W. Smith, D. Link, A.E. Stiegman

10:05 Intermission.

10:15 ENFL **253.** Multi-angles analysis on the role of saponin in enhancement of VFAs production from WAS anaerobic fermentation and its bioconversion to biodiesel. T. Mu, X. Huang, J. Liu

10:35 ENFL **254.** Rapid quadrupole-time-of-flight mass spectrometry method quantifies oxygen-rich lignin compound in a complex mixture. K. Boes, M. Roberts, N.R. Vinuesa

10:55 ENFL **255.** Instrumental detection of lipid accumulation in *Nannochloris eucaryotum* grown under nitrogen deprivation. J. Gerardi, T. Sultana, C. Lucasti, B.C. Eigenbrodt

11:15 ENFL **256.** Approaches and software tools for the development of molecular-level kinetic mega models. J.C. Lucio, M.T. Klein

11:35 ENFL **257.** Enhancement of bioavailability in fruit waste through the optimization of pretreatment. S. Saha, H. Kim, M.B. Kurade, B. Jeon

11:55 Concluding Remarks.

Section B

Walter E. Washington Convention Center Room 142

Two-Dimensional Materials for Energy & Fuels

V. Barone, Y. Lin, Y. Zhu, *Organizers*

L. Hu, G. Yu, *Organizers, Presiding*

8:00 ENFL **258.** Incorporating graphene halides to improve Li/S batteries.

E. Pardo, E. Thai, N. Dunham, J. Alonso, J. Garcia, A. Dinh, T. Yu

8:15 ENFL **259.** Controlling the energetics and stability of metallic 2D MoS₂ with surface modifiers. E. Miller, E. Benson, S.A. Schuman, S. Ferrere, J. Blackburn

8:30 ENFL **260.** 3D graphene with tailored porosity in for highly efficient energy storage. X. Duan

9:10 ENFL **261.** Synergistic phase and disorder engineering in 1T-MX₂ nanosheets to enhance the electrocatalytic activity for hydrogen evolution reaction. S. Bo, P. Xu, S. Jin

9:35 Intermission.

9:50 ENFL **262.** Withdrawn.

10:15 ENFL **263.** Carbon nanotube-2D hybrid structures for energy applications. A. Cao

10:40 ENFL **264.** Microwave enabled graphene derivatives and their applications. H. He

11:05 ENFL **265.** Graphene as a two-dimensional surfactant. W.W. Dickinson, D.H. Adamson, A.V. Dobrynin, H.C. Schniepp

11:30 ENFL **266.** Porous two-dimensional nanomaterials as an emerging material platform for efficient energy storage. G. Yu

Section C

Walter E. Washington Convention Center Room 141

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

From Research to Scale-Up

Cosponsored by BMGT#, CEI#, ENVR, MPPG, PRES, PROF#, SCHB and WCC

J. L. Bryant, J. C. Giordan, *Organizers*

E. B. Fox, L. Houston, *Organizers, Presiding*

J. Allison, K. A. Fjare, *Presiding*

8:00 ENFL **267.** Analysis of hydrocarbons from municipal waste pyrolysis oils by gas chromatography and Fourier transform ion cyclotron resonance mass spectrometry. R. Ware, R.P. Rodgers, S. Rowland, A.G. Marshall

8:20 ENFL **268.** Analysis and catalytic upgrading of fast pyrolysis bio-oils from various biomass feedstock. M.V. Olarte, D. Santosa, H. Wang, A.B. Padmaperuma, A. Zacher

8:40 ENFL **269.** Emulsification of pyrolysis-derived bio-oil and diesel fuel utilizing alcohol co-surfactants and different mixing methods. L. Cruz, M.G. de Luna, W. Chen

9:00 ENFL **270.** Upgrading bio-crudes with supercritical water. A. Saba, K. McGaughy, M. Reza

9:20 ENFL **271.** Long-term storage and oxidation stabilities of second generation biofuels used as drop-in replacement for marine diesel. J. Fu, S.Q. Turn

9:40 ENFL **272.** Bioprocessing of oil sands tailings by the microbial consortium BioTiger™. R. Brigmon, D. Reddy, K. Foreman, M. Moultrie, C. Milliken

10:00 ENFL **273.** Process integration for cellulosic biorefineries. B. Saha, S. Sadula

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

10:20 ENFL 274. Making of Honeywell Green Jet Fuel™. S. Frey, J. Jensen, M. Brodeur-Campbell

10:40 ENFL 275. Scaling up an *in situ* biogas production and upgrading process for renewable methane and organic fertilizer production. M. Urgan-Demirtas, Y. Shen

11:00 ENFL 276. Refinery-compatible and renewable hydrocarbon products generated from a hydrolysis vapor upgrading process. L. Zhang, K. Gong, J. Lai, M. Alvey

11:20 ENFL 277. Commercial-scale production of fuels and chemicals from low cost feedstocks via an integrated, multi-scale platform. F. Burton

Section D

Walter E. Washington Convention Center Room 143B

Innovative Chemistry & Materials for Electrochemical Energy Storage

Y. Shao, G. Yu, *Organizers*

J. Guo, *Organizer, Presiding*

8:00 ENFL 278. Electrodeposition of metals in single-ion conducting electrolytes. L.A. Archer

8:35 ENFL 279. Research progress of solid-state lithium-metal batteries driven by nanotech. Y. Guo

9:05 ENFL 280. Garnet based solid state lithium-metal batteries. L. Hu

9:35 ENFL 281. Rational structural design for lithium-based rechargeable batteries with high energy density. Y. Yang, H. Zhai

10:05 Intermission.

10:15 ENFL 282. Development of inorganic-organic hybrid as a protective layer for Li metal batteries. D. Wang

10:45 ENFL 283. Building nanoscale 3D solid-state batteries with vapor phase chemistry. K.E. Gregorczyk, G. Rubloff

11:15 ENFL 284. Stabilizing lithium electrodeposition using high conductivity/modulus nanoporous hybrid electrolyte for high energy metal-based batteries. Z. Tu, L.A. Archer

11:35 ENFL 285. Evolution at the solid electrolyte/Au electrode interface during lithium deposition and stripping. L. Sang, A.A. Gewirth, R.G. Nuzzo

Section E

Walter E. Washington Convention Center Room 143C

Innovative Chemistry & Electrocatalysis for Low-Carbon Energy & Fuels: Discovery to Application

S. W. Lee, G. Wu, *Organizers*

F. Jiao, Y. Shao, *Organizers, Presiding*

8:00 ENFL 286. Quantum mechanics based mechanisms for electrocatalytic reduction of CO₂ and CO. W.A. Goddard

8:30 ENFL 287. Catalysts and electrodes for electrolysis of CO₂ to CO or ethylene. P.J. Kenis, S. Verma

9:00 ENFL 288. Mechanistic insights into selective CO₂-to-fuels catalysis. A. Wuttig, Y. Yoon, S. Khan, Y. Surendranath

9:30 ENFL 289. Ag-Sn bimetallic catalyst with a core-shell structure for CO₂ reduction. W. Luc, F. Jiao

9:50 Intermission.

10:05 ENFL 290. Insights into the factors governing the activity and selectivity of Cu for the electrochemical reduction of CO₂ to fuels. A.T. Bell

10:35 ENFL 291. Pourbaix diagrams to guide searches for CO₂ reduction catalysts. J.A. Keith

11:05 ENFL 292. Progress on electrocatalysts for electrochemical synthesis of ammonia. S. Tao

11:35 ENFL 293. Withdrawn.

Section F

Walter E. Washington Convention Center Room 144A

Advanced Nanomaterials Catalysts for Sustainable Energy & Fuels

Heterogeneous Catalysis

D. Su, *Organizer*

S. Guo, S. Zhang, *Organizers, Presiding*

8:00 ENFL 294. Role of interfaces and heterojunctions in gas and aqueous phase catalysis. Z. Wu

8:30 ENFL 295. Structure determines function: Role of polymer in stabilization of magnetic catalyst for furfural hydrogenation. K. Alibegovic, N. Kuchkina, E.S. Serkova, D. Morgan, Y. Losovyj, K.E. Salnikova, V. Matveeva, Z. Shifrina, E. Sulman, L. Bronstein

8:55 ENFL 296. Mechanistic insights into metal Lewis acid-mediated catalytic transfer hydrogenation reactions. B. Xu, D.G. Vlachos

9:25 ENFL 297. Comparative study of ZSM-5 and BEA zeolites for low temperature passive adsorption. E. Kyriakidou, J.S. Choi, T. Toops, J. Parks

9:55 Intermission.

10:10 ENFL 298. Computationally assisted STEM and EXAFS characterization of tunable Rh/Au and Rh/Ag bimetallic nanoparticle catalysts. J. Yang

10:40 ENFL 299. Active Cu structure for low-temperature water gas shift reaction. W. Huang

11:10 ENFL 300. Synergy between CO and Co-based catalysts: Surface reconstruction and bond modification during higher alcohol synthesis. G. Collinge, R. Zhang, N. Kruse, J. McEwen

11:40 ENFL 301. Production of light olefins by catalytic cracking of three components over a modified Fe-ZSM-5 zeolite catalyst. M. Yang, J. Shao, H. Yang, Y. Chen, J. Luo, H. Chen

Emerging Catalytic Processes for Methane Conversion

Sponsored by CATL, Cosponsored by ENFL

Cooperative Catalysis at Surfaces & Interfaces: Impact on Chemistry & Energy Frontiers

Metal Catalysis

Sponsored by CATL, Cosponsored by ENFL

Multimodal Characterization of Functional Energy Materials

Analyses

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TUESDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 143A

Advances in Chemistry of Energy & Fuels

Batteries: Electrolytes, Electrodes & Supercapacitors

D. J. Heldebrant, *Organizer*

P. Bhattacharya, *Presiding*

1:30 Introductory Remarks.

1:35 ENFL 302. Cycling stability of high voltage, organic non-aqueous redox flow batteries. K.H. Hendriks, C.S. Sevov, M. Cook, M.S. Sanford

1:55 ENFL 303. Withdrawn.

2:15 ENFL 304. Facilitating fast ion diffusion in solids: Origin of superionic conductors. X. He, Y. Zhu, Y. Mo

2:35 Intermission.

2:45 ENFL 305. Bio-assembly of cathode materials for Li-ion battery with solid-binding peptides. E. Barannikova, M.A. Allen

3:05 ENFL 306. Understanding the mechanism for water-stimulated Mg²⁺ insertion in an electrodeposited MnO₂ cathode. E. Sahadeo, J. Song, G. Rubloff, S. Lee

3:25 ENFL 307. Novel strategies for lithium metal anode protection based on nitride materials chemistry. Y. Zhu, X. He, Y. Mo

3:45 ENFL 308. Lithium ion battery separator based on hydroxymethyl functionalized poly (ether ether ketone). Z. Li, S. Xu, Z. Xu

4:05 Intermission.

4:15 ENFL 309. Aromatic polyimides containing diaminobenzoic acid as *in-situ* porogen for electrochemical supercapacitors. S.D. Panangala, C. Karunaweera, R. Jayawickramage, K.J. Balkus, J.P. Ferraris

4:35 ENFL 310. Lignin based electrospun carbon nanofiber electrodes for high performance supercapacitors in ionic liquid electrolytes. R. Jayawickramage, J.P. Ferraris

4:55 ENFL 311. Solar-enhanced power generation in microbial fuel cells coupling with 3D nitrogen-doped graphene self-standing sponge anode. D. Guo, J. Zhang, J. Zhu

5:15 Concluding Remarks.

Section B

Walter E. Washington Convention Center Room 142

Two-Dimensional Materials for Energy & Fuels

L. Hu, G. Yu, Y. Zhu, *Organizers*

V. Barone, Y. Lin, *Organizers, Presiding*

1:30 ENFL 312. Hundreds of new two- and one-dimensional weakly bonded solids and lattice-commensurate heterostructures via data mining. G. Cheon, A. Sendek, K. Duerloo, C. Porter, Y. Chen, E. Reed

1:55 ENFL 313. Macroscopic assembled graphene for high performance cathode of aluminum-ion battery. C. Gao

2:20 ENFL 314. Ion intercalation and high-temperature behavior of 2D materials. L. Hu

2:45 ENFL 315. Advances in 2D materials: From theoretical prediction to potential spintronic device applications. A. Romero

3:25 Intermission.

3:40 ENFL 316. Multiscale structure engineering on nanosheet hybrids for water splitting electrocatalysis. X. Zhang, Y. Liang

4:05 ENFL 317. Extreme volume changes two-dimensional materials for efficient electrochemical strain energy harvesting. C. Pint, N. Muralidharan, A. Cohn, M. Li

4:30 ENFL 318. Heterogeneous catalysis of boron nitride sheet-anchored nanoparticles. Q. Fu, Z. Fang, Q. Hu, F. Lu

4:55 ENFL 319. Porous 3D few-layer graphene-like carbon for ultrahigh-power supercapacitors with well-defined structure-performance relationship. Z. Hu, Q. Wu, L. Yang, X. Wang

Section C

Walter E. Washington Convention Center Room 141

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Innovating in Biomass Conversion: Factors for Success

Cosponsored by BMGT⁺, CEI⁺, ENVR, MPPG, PRES, PROF⁺, SCHB and WCC

E. B. Fox, L. Houston, *Organizers*

J. L. Bryant, J. C. Giordan, *Organizers, Presiding*

1:30 ENFL 320. Opening overview: Chemists innovating in biomass conversion: Factors for success. J.C. Giordan, J.L. Bryant

1:40 ENFL 321. Oberon fuels: Working across the supply chain to provide an efficient, sustainable transportation infrastructure. R.L. Boudreaux

1:50 ENFL 322. White Dog Labs: A biotechnology company developing technologies to address global challenges. B. Tracy

2:00 ENFL 323. Elevance Renewable Sciences, Inc.: Transforming natural renewable plant-based oils into green, cleantech solutions for commercial applications. K. Schoene

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2:10 ENFL 324. Advanced Process Solutions, Inc.: Worldwide leader supporting alternative energy facilities. **B. Scaglione**

2:20 ENFL 325. Chemists using business acumen and innovating in biomass conversion: Factors for success. **J.C. Giordan, R.L. Boudreaux, B. Tracy, J.L. Bryant, K.A. Schoene, B. Scaglione, M. Jalbert**

2:50 Concluding Remarks.

2:55 Panel Discussion.

Section D

Walter E. Washington Convention Center Room 143B

Innovative Chemistry & Materials for Electrochemical Energy Storage

J. Guo, Y. Shao, *Organizers*

G. Yu, *Organizer, Presiding*

1:30 ENFL 326. Principle on the full use of sulfur and lithium metal in advanced lithium sulfur batteries. **Q. Zhang**

2:00 ENFL 327. High-energy Li-S batteries: New discovery on sulfur electrochemistry and electrode design. **Y. Shao, H. Pan, J. Chen, J. Liu**

2:30 ENFL 328. High energy density Li-S battery and its key materials. **J. Qian, F. Wu, Y. Ye, L. Li, C. Renjie**

3:00 ENFL 329. Surface chemistry and cathode materials design for lithium-sulfur batteries. **H. Wang**

3:30 Intermission.

3:40 ENFL 330. Lithium-oxygen battery based on lithium superoxide. **J. Lu, K. Amine**

4:10 ENFL 331. Withdrawn.

4:40 ENFL 332. Development of stable rechargeable lithium-oxygen batteries. **W. Xu, B. Liu, S. Song, J. Zhang**

5:10 ENFL 333. Electrochemical lithiation-delithiation of sulfur in nano- and sub-nano confinement. **J. Guo**

Section E

Walter E. Washington Convention Center Room 143C

Innovative Chemistry & Electroanalysis for Low-Carbon Energy & Fuels: Discovery to Application

F. Jiao, S. W. Lee, *Organizers*

Y. Shao, G. Wu, *Organizers, Presiding*

1:30 ENFL 334. Intermetallic nanoparticles for much enhanced electrocatalysis in acid. **S. Sun**

2:00 ENFL 335. Noble metal free catalysts for water splitting from MOFs and polyoxometalates. **T. Wang, X. Wang, J. Zheng, X. Li**

2:30 ENFL 336. Oxygen reduction catalyzed by carbon-based functional nanomaterials. **S. Chen**

3:00 ENFL 337. Carbon-based metal-free electrocatalysts for the oxygen reduction reaction: Materials, properties and mechanism. **Z. Hu**

3:30 Intermission.

3:40 ENFL 338. Metal-organic-framework-derived functional nanomaterials for electrochemical energy storage and conversion. **X. Lou**

4:10 ENFL 339. Phase and disorder engineering in MoX₂ (X=S, Se) nanosheets for electrocatalytic hydrogen evolution. **P. Xu**

4:40 ENFL 340. Designing porous structures and active sites in carbon-based electrocatalysts. **X. Feng**

5:10 ENFL 341. Highly stable Mn-based nanocarbon bifunctional electrocatalysts for oxygen reduction and evolution reactions. **G. Wu**

Section F

Walter E. Washington Convention Center Room 144A

Advanced Nanomaterials Catalysts for Sustainable Energy & Fuels

Heterogeneous Catalysis

S. Zhang, *Organizer*

S. Guo, D. Su, *Organizers, Presiding*

1:30 ENFL 342. Using organic ligands to direct nanoparticle size and surface accessibility: A nature-inspired approach. **M. Nigra, M. Coppens, N. Kapil**

2:00 ENFL 343. Zeolite-catalyzed C-C coupling reactions between biomass-derived compounds: Insights from first-principles calculations. **B. Wang**

2:30 ENFL 344. *In-situ* grown metal nanocatalysts from oxide support. **T. Oh**

3:00 ENFL 345. Metal-ceramic core-shell microstructure catalysts: Applications in renewable hydrogen production. **D. Lee, J. Kim**

3:25 Intermission.

3:40 ENFL 346. Controlled synthesis of nanomaterials by using organometallics: A combined DFT and STM study. **H. Khosravian**

4:10 ENFL 347. Role of nano-sized TiO₂ particles in catalytic decomposition of ammonium perchlorate. **R. Belosludov, Y. Kawazoe**

4:30 ENFL 348. Probing atomic-scale structure and dynamics in metallic nanocatalysts by x-ray absorption spectroscopy and theoretical simulations. **J. Timoshenko, A. Frenkel**

4:50 ENFL 349. Withdrawn.

Vehicle Emission Control Catalysis: New Era, New Challenges & New Solutions

Sponsored by CATL, Cosponsored by ENFL and ENVR

Advances in Carbon Dioxide Utilization

Sponsored by CATL, Cosponsored by ENFL and ENVR

Multimodal Characterization of Functional Energy Materials

Measurement & Modeling

Sponsored by CATL, Cosponsored by ENFL

WEDNESDAY MORNING

Section A

Walter E. Washington Convention Center Room 143A

Advances in Chemistry of Energy & Fuels

Hydrogen Production & Solar Energy Conversion

D. J. Heldebrant, *Organizer*

A. Kendall, *Presiding*

8:00 Introductory Remarks.

8:05 ENFL 350. Stability of binary metallic ceramics in the HER reaction – feasible HER electrocatalysts in acidic medium? **M. Ledendecker, J. Mondschein, A. Zeradjanin, S. Cherevko, S. Geiger, M. Schalenbach, R.E. Schaak, K. Mayrhofer**

8:25 ENFL 351. Towards carbon mediated water splitting – catalytic dehydrogenation of formaldehyde. **N. Alderman, V. Peneau, C. Viasus, S. Gambarotta**

8:45 ENFL 352. Electrochemical synthesis and characterization of p-type LaFeO₃ electrodes for use in a solar water-splitting photoelectrochemical cell. **G.P. Wheeler**

9:05 ENFL 353. Experimental and computational elucidation of lanthanide ion doping effects in bismuth vanadate photoanodes for solar water splitting. **G.V. Govindaraju, J.M. Morbec, G.A. Galli, K. Choi**

9:25 Intermission.

9:35 ENFL 354. Mimicking natural photosynthesis: Ultrafast charge transfer in PpcA-Ru(bpy)₃ complexes. **O. Kokhan, M. O'Malley, D. Marzolf, C. Swaim**

9:55 ENFL 355. Impact of local structure changes on cytochrome energy transfer. **C. Swaim**

10:15 ENFL 356. Designing models of artificial photosynthetic systems using solution-state proteins and water-soluble porphyrins. **D. Marzolf, C. Swaim, N. Wright, O. Kokhan**

10:35 ENFL 357. Enhanced photoelectrochemical performance and stability from Cu₂O photocathode protected with MoS_x-catalyst. **P. Shinde, P.R. Fontenot, J.P. Donahue, R.H. Schmehl, J. Waters, P. Kung, L. McNamara, N. Hammer, A. Gupta, S. Pan**

10:55 ENFL 358. Development of bi-metallic catalyst to reduce performance degradation for hydrogen production from commercial diesel fuel. **J. Oh, J. Lee, J. Bae**

11:15 Concluding Remarks.

Section B

Walter E. Washington Convention Center Room 142

Two-Dimensional Materials for Energy & Fuels

V. Barone, Y. Lin, Y. Zhu, *Organizers*

L. Hu, G. Yu, *Organizers, Presiding*

8:00 ENFL 359. Roles of graphene in photocatalysis and composite catalyst for oxygen reduction reaction. **C. Chen**

8:15 ENFL 360. Benzyl viologen-assisted simultaneous exfoliation and n-doping of MoS₂ nanosheets for enhanced thermoelectric properties. **K. Jo, J. Choi, H. Kim**

8:30 ENFL 361. Exploring 2D materials synthesis and heterogeneity with nonequilibrium growth techniques and laser spectroscopy. **D. Geohagan, M. Mahjouri-Samani, X. Li, K. Wang, A. Boulesbaa, L. Liang, M. Tian, A. Puzetzy, B. Sumpter, G. Duscher, M. Yoon, G. Eres, C. Rouleau, J. Idrobo, K. Xiao**

9:10 ENFL 362. 2D conductive metal organic framework as sulfur host for Li-S batteries. **Y. Zhu, K. Liu**

9:35 Intermission.

9:50 ENFL 363. National Science Foundation engineering programs for energy sustainability. **C.J. Read**

10:15 ENFL 364. Withdrawn.

10:40 ENFL 365. Flexible 2D materials enabled by laser crystallization of amorphous precursors. **N. Glavin**

11:05 ENFL 366. Tuning the electronic structure of 2D layered materials for highly efficient electrocatalysis. **H. Wang**

11:30 ENFL 367. Controllable CVD growth of 2D materials @ liquid metal. **L. Fu**

Section C

Walter E. Washington Convention Center Room 141

Advanced Chemical Technology for Oil & Gas Exploration & Production

P. R. Robinson, *Organizer*

M. G. Hilfiger, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 ENFL 368. Innovation in oil and gas. **G. Powers**

8:50 ENFL 369. Toward the next generation of well construction fluids. **P. Boul**

9:15 ENFL 370. Magnetic nanocrystals: Materials for sensing, imaging and changing oil and gas reservoirs. **V. Colvin**

9:40 Intermission.

9:55 ENFL 371. Durability performance of aramid-cement system. **E.Q. Contreras**

10:20 ENFL 372. SERS-SEF dual-mode optically detectable composite nanoparticles for oil reservoir tracer applications. **S. Chang, S.L. Eichmann, W. Wang**

10:45 ENFL 373. Resin system for sustained casing pressure remediation at high temperatures. **B. Reddy, M.G. Hilfiger**

11:10 ENFL 374. Surface geochemical surveys integrated with aeromagnetism, subsurface geology and seismic data to find conventional reservoirs in the mid-continent, USA. **S. Tedesco**

11:35 Concluding Remarks.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section D

Walter E. Washington Convention Center Room 143B

Innovative Chemistry & Materials for Electrochemical Energy Storage

J. Guo, G. Yu, *Organizers*

Y. Shao, *Organizer, Presiding*

8:00 ENFL 375. Optimal design of carbon-based nanomaterials for high-performance supercapacitors. G.S. Hwang

8:30 ENFL 376. Unrivaled combination of surface area and pore volume in micelle-templated carbon for supercapacitor energy storage. D. Mitlin

9:00 ENFL 377. Porous membranes for flow battery application. X. Li

9:30 ENFL 378. Withdrawn.

9:50 Intermission.

10:00 ENFL 379. Electrode materials for high-performance sodium-ion batteries. Y. Huang, C. Fang, C. Chen, Y. Huang

10:30 ENFL 380. Pathway to enhanced graphene-based electrochemical capacitors. A. Alazmi, O. ElTall, M. Hedhili, S. Patole, P. Dacosta

10:50 ENFL 381. Surface engineered carbon nanofibers for high performance supercapacitors. S. Bhoyate, P.K. Kahol, R. Gupta

11:10 ENFL 382. Supramolecular chemistry assembly of nano-composite material for high-performance supercapacitor. D. Shu, Y. Huang, H. Cheng, D. Zeng, S. Li

11:30 ENFL 383. Liquid crystal-line MXenes: Ordered 2D titanium carbide for ultrahigh rate supercapacitors. Y. Xia, Y. Gogotsi, S. Yang

Section E

Walter E. Washington Convention Center Room 143C

Innovative Chemistry & Electro catalysis for Low-Carbon Energy & Fuels: Discovery to Application

F. Jiao, Y. Shao, *Organizers*

S. W. Lee, G. Wu, *Organizers, Presiding*

8:00 ENFL 384. Platinum-based nanocages as a new class of catalysts toward the oxygen reduction reaction. Y. Xia

8:30 ENFL 385. Recent development of oxygen reduction and evolution electrocatalysts under reactive environments. H. Yang

9:00 ENFL 386. Porous electrocatalysts for energy conversion and storage. J. Lee

9:30 ENFL 387. Highly active earth-abundant electrocatalysts for electrocatalytic and photoelectrochemical water splitting. S. Jin, L. Dang

10:00 Intermission.

10:15 ENFL 388. Controlling the surface and interface of metal nanocrystals for efficient electrocatalysis. S. Guo

10:45 ENFL 389. Linking the effect of the metal ion doping to metal oxides redox transitions and OER activity. D. Kuznetsov, B. Han, R. Rao, Y. Shao-Horn

11:05 ENFL 390. Dynamics of electrocatalysts/ionomer interface under gas and water environment. Y. Shao, L. Luo, C. Wang, M. Engelhard

11:25 ENFL 391. New class of highly active and stable electrocatalyst for oxygen evolution reaction in an acidic medium. J. Park, Z. Feng, S.W. Lee

Section F

Walter E. Washington Convention Center Room 144A

5th International Symposium on Mesoporous Zeolites

Cosponsored by I&EC

Financially supported by Zeolyst International, Rive Technology, W. R. Grace

K. Li, *Organizer*

J. Garcia Martinez, *Organizer, Presiding*

E. T. Vogt, *Presiding*

8:00 Introductory Remarks.

8:10 ENFL 392. Hierarchy in zeolite catalysis: Reduction of diffusion limitations or improvement of accessibility? M. Hartmann, W. Schwioger

8:50 ENFL 393. Quantification of external surface, pore mouth and internal acid sites and catalytic properties in lamellar pillared MFI and pillared MWW zeolites. D. Liu, Y. Wu, J. Zhang

9:15 ENFL 394. New scalable synthetic route for high-crystallinity hierarchical zeolite X as superb sorbent in CO₂ separation. D. Seo

9:40 ENFL 395. Enhanced ion exchange property of hierarchical zeolite X and superior antibacterial performance of silver ion zeolites. S. Chen, J. Popovich, S.E. Haydel, D. Seo

10:05 Intermission.

10:25 ENFL 396. Recent advances in the textural characterization of hierarchically structured nanoporous materials. M. Thommes, K. Cychoz

11:05 ENFL 397. Diffusion of biomass pyrolysis products in mesoporous H-ZSM-5 zeolites. L. Bu, C. Mukarakate, B. Knott, M.R. Nimlos, D. Robichaud, S. Kim

11:30 ENFL 398. Hexane isomers in zeolite Y: Anomalous diffusion and kinetic separation. A.M. Thomas, Y. Subramanian

Vehicle Emission Control Catalysis: New Era, New Challenges & New Solutions

Sponsored by CATL, Cosponsored by ENFL and ENVR

Advances in Carbon Dioxide Utilization

Sponsored by CATL, Cosponsored by ENFL and ENVR

Multimodal Characterization of Functional Energy Materials

Exploration of Interfacial Processes

Sponsored by CATL, Cosponsored by ENFL

WEDNESDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 143A

Advances in Chemistry of Energy & Fuels

Separations

D. J. Heldebrandt, *Organizer*

D. Malhotra, *Presiding*

1:30 Introductory Remarks.

1:35 ENFL 399. Theoretical study of the formation of thiohypiodous acid (HSI) and potential hydrogen generation processes. P. Lolur, R. Gillis, W.H. Green

1:55 ENFL 400. Utilising waste from oil and natural gas: Decomposition of hydrogen sulphide and water into hydrogen and sulphur dioxide. V. Peneau, N. Alderman, S. Gambarotta

2:15 ENFL 401. Promoting effect of carbon dioxide on hydrogen sulfide removal from biogas over activated carbon. W. Quan, C. Song

2:35 ENFL 402. Removal of dissolved elemental sulfur from crude oil using membrane flow reactor. B. Chanchasha

2:55 ENFL 403. Withdrawn.

3:15 Intermission.

3:25 ENFL 404. Novel separation method to target asphaltene species that disproportionately contribute to aggregation. M.L. Chacon, S. Rowland, R.P. Rodgers

3:45 ENFL 405. Functionalized asphaltenes used for the adsorption of water pollutants. M.N. Siddiqui

4:05 ENFL 406. Improvements in thermochemical and semi-critical hydrocarbon extraction: Insights into a continuous/fractional fast method for chemicals' sample percolation. T. Chavez-Gil

4:25 ENFL 407. Reducing molecular-level kinetic models to decrease solution times. P. Agarwal, M.T. Klein

4:45 ENFL 408. Expanding the compatibility of hydrofluoric acid-containing fluids for formation damage remediation and titanium alloy: Deep water challenges. E.A. Reyes, D. Benoit

5:05 Concluding Remarks.

Section B

Walter E. Washington Convention Center Room 142

Two-Dimensional Materials for Energy & Fuels

L. Hu, Y. Lin, G. Yu, *Organizers*

V. Barone, Y. Zhu, *Organizers, Presiding*

1:30 ENFL 409. Graphdiyne nanosheet/Pt nanoparticle-based counter electrode material with enhanced catalytic activity for dye-sensitized solar cells. D. Wang, H. Ren, R. Yu

2:10 ENFL 410. Strain control of electrical transport properties in Weyl semimetal MoTe₂. J. Yang

2:35 ENFL 411. Simulation of thin film growth characteristics and crystallinity of 2D materials. J. Lee, V. Varshney, S. Shenogin, A.K. Roy

3:00 Intermission.

3:15 ENFL 412. Two-dimensional polymers based on the anthracene and triptycene motifs. B.T. King

3:55 ENFL 413. Influences of polymorphism and low-angle grain boundary on OFET performances. C. Wang, K. Wu, C. Hsieh

4:20 ENFL 414. Ti₂CO₂ (O-terminated MXene) with O vacancies as a highly active and selective catalyst for reduction of CO₂ into HCOOH. X. Zhang, Z. Zhou

4:35 ENFL 415. Nb₂O₅ /N, S co-doped graphene for lithium-ion hybrid supercapacitors. Q. Hao, X. Jiao

4:50 ENFL 416. Interlayer expanded layered manganese oxide for enhanced pseudocapacitive electrochemical energy storage. A.C. Thenuwara, N.H. Attanayake, S.L. Shumlas, R.C. Rensing, M.L. Klein, D.R. Strongin

Section C

Walter E. Washington Convention Center Room 141

Advanced Chemical Technology for Oil & Gas Exploration & Production

P. R. Robinson, *Organizer*

M. G. Hilfiger, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ENFL 417. Novel water based resins for wellbore annular repair. B. Reddy, M.G. Hilfiger

2:00 ENFL 418. Using custom chemistry to design optimal stimulation treatment fluids to potentially improve hydrocarbon recovery factors. D. Benoit, K. Holan, A. Recio, A. Potty, K.W. Hoeman

2:25 ENFL 419. Comparison of carboxylate and sulfonate additives in cement slurries. E.Q. Contreras

2:50 ENFL 420. Molecular interactions of crude oil with clay minerals. C.T. Johnston, X. Dong, R. Yerbolu, B.C. Clayton, N. Schultheiss, H.I. Kenttamaa

3:15 Intermission.

3:30 ENFL 421. Efficient enhanced oil recovery surfactant screening via microfluidics at close to reservoir conditions. A. Gizzatov, S. Chang, G. Thomas, S.L. Eichmann, W. Wang

3:55 ENFL 422. Unexpected oxidation resistance of organic matter in hydrocarbon source rocks. K.L. Hull, D. Jacobi, S. Althaus, J. Kone

4:20 ENFL 423. Deactivation/reactivation-on-demand of relative permeability modifiers with host-guest chemistry. A. Recio, III

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Section D

Walter E. Washington Convention Center
Room 143B

Innovative Chemistry & Materials for Electrochemical Energy Storage

Y. Shao, G. Yu, *Organizers*

J. Guo, *Organizer, Presiding*

1:30 ENFL 424. Design of high capacity intercalation cathode materials for sodium ion batteries with single-phase pathways. L. Yang, X. Li, Y. Hu, M. Liu, H. Chen

2:00 ENFL 425. Withdrawn.

2:30 ENFL 426. First-principles computational studies on layered Na₂Mn₃O₇ as a cathode material for sodium ion batteries. Z. Zhang, Z. Zhou

2:50 ENFL 427. High-power performance sodium ion capacitors fabricated with P2-Na_{0.67}Co_{0.5}Mn_{0.5}O₂ and active carbon. H. Gu, Z. Zhou

3:10 ENFL 428. Molecular origin of capacity fade in sodium ion batteries. L.E. Marbella, K.J. Griffith, C. Grey

3:30 Intermission.

3:40 ENFL 429. 3D high-surface-area and mesoporous graphene sheet-like nanocarbon for supercapacitors. G. Wu

4:10 ENFL 430. Development of redox-active metal coordination complexes for non-aqueous redox flow batteries. T. Chu, B.L. Davis

4:30 ENFL 431. Development of organic-based non-aqueous redox flow batteries. W. Duan, J. Huang, Z. Yang, W. Wang, J.S. Moore, L. Zhang, X. Wei

4:50 ENFL 432. pH-tuning a solar redox flow battery for integrated energy conversion and storage. W.D. McCulloch, M. Yu, Y. Wu

5:10 ENFL 433. Two-electron redox catholyte based on solvate ionic liquid for flow battery. K. Takechi, R. Yang

Section E

Walter E. Washington Convention Center
Room 143C

Innovative Chemistry & Electrocatalysis for Low-Carbon Energy & Fuels: Discovery to Application

Y. Shao, G. Wu, *Organizers*

F. Jiao, S. W. Lee, *Organizers, Presiding*

1:30 ENFL 434. Controlling the ORR with proton kinetics. A.A. Gewirth

2:00 ENFL 435. Layer-by-layer growth of molecular catalyst films for the electrocatalytic reduction of small molecules. C.C. McCrory

2:30 ENFL 436. Electrocatalysts for polymer electrolyte membrane fuel cells. Y. Song

3:00 ENFL 437. Catalysts for electrochemical conversion of renewable biomass energy into electricity. Y. Yan

3:20 Intermission.

3:35 ENFL 438. Designing efficient non-precious metal nanocatalysts for oxygen reduction and evolution. J. Hu

4:05 ENFL 439. Engineering of semi-conducting heterostructures for solar energy conversion. S. Yu

4:35 ENFL 440. Withdrawn.

4:55 ENFL 441. Highly active metal pyrites catalysts for a low-cost, high-performance polysulfide/ferrocyanide redox flow battery. Y. Dong, W. Li, S. Jin

Section F

Walter E. Washington Convention Center
Room 144A

5th International Symposium on Mesoporous Zeolites

Cosponsored by I&EC

Financially supported by Zeolyst International, Rive Technology, W. R. Grace

K. Li, *Organizer*

J. Garcia Martinez, *Organizer, Presiding*

M. Hartmann, *Presiding*

1:30 ENFL 442. Rive's Molecular Highway™ technology increases FCCU profitability. A.P. Humphries

2:10 ENFL 443. Towards production of biodiesel over basic hierarchical faujasites: Challenges and opportunities. A. Al-ani, V. Zholobenko

2:35 ENFL 444. Cracking of 1,3,5-triisopropylbenzene over mesoporous USY zeolites. C.A. Trujillo, J.A. Mendoza-Mesa, L.E. Sandoval-Diaz, J.A. Aragón-Quiroz

3:00 ENFL 445. Mesoporous IM-5 zeolite and its catalytic performance. Q. Yu, B. Shen

3:25 Intermission.

3:45 ENFL 446. Recent progress in the analysis of zeolites for refinery catalysts. E.T. Vogt, S. Kallirai, F. Meirer, D. Mance, J. van der Zwan, M. Baldus, B.M. Weckhuysen

4:25 ENFL 447. Novel tools for metal contamination and mobility investigations on fluid catalytic cracking catalysts. M. Clough, R. McGuire, D. Houtz, K.C. Kharas, A. Thompson

4:50 ENFL 448. Synthesis of Ti-SBA-15 by use of microwave-assisted method and its application in hydrotreating. T. Nguyen, E.W. Qian

5:15 Concluding Remarks.

Vehicle Emission Control Catalysis: New Era, New Challenges & New Solutions

Sponsored by CATL, Cosponsored by ENFL and ENVIR

Advances in Carbon Dioxide Utilization

Sponsored by CATL, Cosponsored by ENFL and ENVIR

Multimodal Characterization of Functional Energy Materials**Advances In Situ/ Operando Microscopy**

Sponsored by CATL, Cosponsored by ENFL

WEDNESDAY EVENING**Environmental Applications of Liquid Phase Catalysis for Green Chemical Processes of Renewable Materials**

Sponsored by ENVR, Cosponsored by CATL and ENFL

THURSDAY MORNING**Section A**

Walter E. Washington Convention Center
Room 143A

Advances in Chemistry of Energy & Fuels**Combustion of Fuels & Fuel Cells**

D. J. Heldebrant, *Organizer*

Y. Wang, *Presiding*

8:00 Introductory Remarks.

8:05 ENFL 449. Chemistry of diesel exhaust on glycerol emulsion fuels. S.J. Eaton, B. Sarnacki, R.W. Kimball, T. Wallace, J. Henry, T. Adams, R. Smith

8:25 ENFL 450. Sonochemically generated amorphous Ti–Al–B nanopowder: A high-energy-density solid fuel additive. A. Epshteyn, T.L. Connell, Z.J. Huba, B.T. Fisher, R. Yetter

8:45 ENFL 451. Shock tube and laser absorption measurements of organo phosphorus compounds. S. Vasu, S. Neupane, R. Peale

9:05 ENFL 452. Influence of cation structure on properties and energetic performances of hypergolic ionic liquids. C. Sun, S. Tang, X. Zhang

9:25 ENFL 453. Study of C/doped δ -Bi₂O₃ oxidation in chemical-looping combustion by in situ synchrotron x-ray diffraction. X. Wang, D. Taylor, M.R. Zachariah

9:45 ENFL 454. Dopant modified iron based oxygen carriers for methane to syngas chemical looping reforming applications. L. Qin, M. Guo, Z. Cheng, M. Xu, L. Fan

10:05 Intermission.

10:10 ENFL 455. Withdrawn.

10:30 ENFL 456. Predicting the chemistry of a surrogate mixture for heavy oil pyrolysis using the reaction mechanism generator (RMG). A. Payne, K. Han, W.H. Green

10:50 ENFL 457. Diversity of exoelectrogenic anode biofilm populations and potential for energy recovery using microbial fuel cells in domestic wastewater. W. Ko, A. Leininger, E. Bergman, M. Ramirez, B.V. Kjellerup

11:10 ENFL 458. Withdrawn.

11:30 ENFL 459. Cathode nanocomposite used to improve electrochemical performance of fuel cell. J.L. Liu, S. Bashir

11:50 Concluding Remarks.

Section B

Walter E. Washington Convention Center
Room 142

Two-Dimensional Materials for Energy & Fuels

V. Barone, L. Hu, G. Yu, *Organizers*

Y. Lin, Y. Zhu, *Organizers, Presiding*

8:00 ENFL 460. Synthesis of quantum dots - deposited TiO₂ (B) nanoleaves: Enhanced performance for solar to hydrogen conversion. S. Bellukonda

8:15 ENFL 461. Nanomaterial synthesis using atomic layer deposition. S. Patwardhan, G.C. Schatz

8:30 ENFL 462. Region-selective functionalization of graphene for efficient energy conversion and storage. X. Fan, Q. Dai, C. Hu, L. Dai

9:10 ENFL 463. Two-dimensional water-coupled metallic MoS₂ with nanochannels for ultrafast supercapacitor. X. Geng, H. Zhu

9:35 Intermission.

9:50 ENFL 464. Role of electron transfer in hydrogen evolution reaction of 2D transition metal dichalcogenides. J. Cha

10:15 ENFL 465. Differentiating left- and right-handed carbon nanotubes by DNA. M. Zheng

10:40 ENFL 466. Withdrawn.

11:05 ENFL 467. MoS₂ with better performance than Pt for hydrogen evolution. L. Cao

11:30 ENFL 468. Plasmonic imaging technique to characterize 2D materials for energy research. X. Shan, J. Chang

Section C

Walter E. Washington Convention Center
Room 141

Advanced Chemical Technology for Oil & Gas Exploration & Production

P. R. Robinson, *Organizer*

M. G. Hilfiger, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 ENFL 469. Rapid iron sulfide dissolution and new applications for downhole scale deposits. K.L. Hull, H. Alsaiani, M. Haq, B. Cooper

8:30 ENFL 470. Alkoxysilyl poly(norbornene) membranes for enhanced heavy hydrocarbon removal in natural gas separations: Synthesis and performance. J.A. Lawrence III, B.J. Sundell, D.J. Harrigan, J.T. Vaughn

8:55 ENFL 471. Viscosity models for hydrocarbons at extreme conditions: A review and comparative study. I. Gamwo, H. Baled, R.M. Enick, M.A. McHugh

9:20 Intermission.

9:35 ENFL 472. Asphaltene adsorption study on stainless steel for characterizing oil and screening inhibitors to prevent deposition. S. Jain, S. Ashtekar, K. Akbar Zadeh, A. M. Kharrat

10:00 ENFL 473. Optimization of chemical dissolution and inhibition of exotic oilfield scales. E. Horai, S. Castro, F. Dunn, G. Gunawan, H. Azam, J. Wilson

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

- 10:25 ENFL 474.** High temperature stable protection film for hydrogen sulfide corrosion control. H. Alsaiani, A. Cairns, H. Sun, J. Zhang, I. Al-Taie
- 10:50 ENFL 475.** Withdrawn.

Section D

Walter E. Washington Convention Center Room 143B

Innovative Chemistry & Materials for Electrochemical Energy Storage

Y. Shao, G. Yu, *Organizers*

J. Guo, *Organizer, Presiding*

8:00 Introductory Remarks.

- 8:05 ENFL 476.** Synergistic lithium storage mechanisms on 0D/2D heterointerface: SnPx-Sn/graphene. Y. Yang, M. Ji, C. Hao, S. Ren, G. Cao
- 8:25 ENFL 477.** Hierarchical porous reduced graphene oxide as high-performance anode for lithium-ion batteries. H. Wang, J. Xie, V. Zane, P. Amama
- 8:45 ENFL 478.** Direct bulk synthesis of high boron-content graphitic carbon. E. Billeter, N.P. Stadie
- 9:05 ENFL 479.** Stable CuO@CN_x core-shell nanoarrays for Li-ion battery anodes. G. Tan, Y. Yuan, J. Lu, K. Amine
- 9:25 ENFL 480.** Facile synthesis and electrochemical behavior of acetylene black supported selenium nano-electrode on nickel substrate for advanced supercapacitor. Y. Han, L. Song, Y. Li, Y. Liu, L. Li, H. Fan, L. Meng, W. Tianhao, X. Li
- 9:45** Intermission.
- 9:55 ENFL 481.** Design of coherent anode materials with 0D Ni₃S₂ nanoparticles self-assembled on 3D interconnected carbon networks for fast and reversible sodium storage. X. Zhao, W. Cai, J. Sui, G. Cao
- 10:15 ENFL 482.** Electrochemical properties of α -MnO₂ as tailored by quantity and distribution of Ag⁺. P. Smith, B. Zhang, A. Brady, L. Wu, Y. Zhu, A.C. Marschilok, E.S. Takeuchi, K.J. Takeuchi
- 10:35 ENFL 483.** Air-stable porous Fe₂N encapsulated in carbon microboxes with high-rate and long-life lithium storage performance. Y. Dong, K. Zhao, B. Wang, L. Mai, S. Jin
- 10:55 ENFL 484.** Sub-micrometer Novolac-derived carbon beads as electrodes for supercapacitors, redox electrolyte hybrids, and Li-S batteries. B. Krüner, J. Lee, S. Choudhury, V. Presser
- 11:15 ENFL 485.** Novel strontium-based nano-composite with high energy density and superior longevity as electrode for supercapacitors. Y. Liu, L. Li, H. Fan, X. Li, L. Meng, X. Qi, G. Wang, Y. Han

Catalytic Transformation of Renewable Plant Biomass to Enhance Global Economy

Sponsored by CATL, Cosponsored by ENFL

ENVR

Division of Environmental Chemistry

J. Goldfarb, *Program Chair*

OTHER SYMPOSIA OF INTEREST:

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization (see ENFL, Mon, Tue)

Green Chemistry: Theory & Practice (see CHED, Wed)

Vehicle Emission Control Catalysis: New Era, New Challenges & New Solutions (see CATL, Tue, Wed)

Environmental Fate, Transport & Modeling of Agriculturally-Related Chemicals (see AGRO, Sun, Mon)

Engineered Nanomaterials in the Environment: Fate, Behaviour & Effects (see GEOC, Sun)

Water Chemistry Associated with Energy Production & Extraction (see GEOC, Mon)

SOCIAL EVENTS:

Reception, 6:00 PM: Tue

Dinner, 7:30 PM: Tue

BUSINESS MEETINGS:

Program Planning, 2:00 PM: Sun

Long Range Planning Meeting, 3:00 PM: Sun

Business Meeting, 7:00 PM: Sun

Executive Committee Meeting, 7:30 PM: Sun

Funders' Town Hall, 4:30 PM: Tue

SUNDAY MORNING

Section A

Renaissance Washington, DC Downtown Meeting Room 3

Ecological & Human Health Impacts of Emerging Environmental Contaminants

Cosponsored by AGRO and CHAL

X. Pan, M. I. Selim, B. Zhang, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 ENVR 1. Emerging environmental contaminants in the oceans: An overview of SOST priorities and US NSF investments. L. Clough

9:20 ENVR 2. Applications of the web-based CompTox Chemistry Dashboard to support emerging contaminants in the Superfund Program. A. Frame, A.J. Williams, R. Judson, A. Mageid, G. Patlewicz, I. Shah, J. Smith, C. Grulke, J. Edwards

9:45 ENVR 3. Changes in iodine speciation in surface waters receiving wastewater effluent. K.E. Studer, H. Weinberg

10:10 ENVR 4. Effects of zinc oxide nanoparticles on the neurological behavior and pharyngeal pumping of *C. elegans*. L. Lish

10:35 Intermission.

10:50 ENVR 5. Uptake of hormones and pharmaceutical and personal care products by quagga mussels (*Dreissena bugensis*) in an aquatic ecosystem. X. Bai, K. Acharya

11:15 ENVR 6. Impact of nanoparticles on plant growth and development and the microRNA-mediated regulation. B. Zhang

11:40 ENVR 7. Do humic acids alleviate the ecotoxicity of graphene oxide on crustacean *Daphnia Magna*? Y. Zhang

12:05 ENVR 8. Ecocultural factors of carbon emission, ecological footprints and implication for chemical safety in the environment. K.O. Oloruntege

Section B

Renaissance Washington, DC Downtown Meeting Rooms 8/9

Electrochemical Technologies for Water Purification

Cosponsored by CATL and CEI

J. Barazesh, J. Jasper, E. Roberts, *Organizers*

B. P. Chaplin, A. Pham, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 ENVR 9. Journey to enhance the stability of blue and black TiO₂ nanotube array electrodes for water treatment. Y. Yang, M.R. Hoffmann

8:55 ENVR 10. Degradation of carbon nanomaterials using electrochemical oxidation on BDD electrodes.

V. Reipa, A. Urbas, L. Sander, J. Elliott, J.M. Conny, E. Petersen, S. Hanna

9:15 ENVR 11. Fluorination of boron-doped diamond film electrodes for minimization of perchlorate formation. P. Gayen, B.P. Chaplin

9:35 ENVR 12. Localized study of the surface passivation and re-reduction on a substoichiometric TiO₂ material using scanning electrochemical microscopy. Y. Jing, B.P. Chaplin

9:55 ENVR 13. Electrochemical perchlorate reduction over bimetallic Ru-Cu catalysts supported on stainless-steel electrode in dilute aqueous solution. C. Chen, C. Huang

10:15 Intermission.

10:30 ENVR 14. Formation of hydroxyapatite during toilet wastewater treatment by electrolysis. C. Cid, J. Jasper, M.R. Hoffmann

10:50 ENVR 15. Negative electron affinity diamond surfaces for photoelectrochemical reduction of perfluoroalkyl substances. N.T. Plymale, B.B. Pate

11:10 ENVR 16. Withdrawn.

11:30 ENVR 17. Degradation and mineralization of common pharmaceuticals using nitrogen-doped carbon monolith 3D electrode with 3D printed electrochemical reactor. K. Liu, M. Yu, J. Jasper, M.R. Hoffmann

11:50 ENVR 18. Factors that affect cathodic hydrogen peroxide production for water and wastewater treatment applications. S. Popat, M. Young, D. Ki, A. Xie, B.E. Rittmann, C. Torres

Section C

Renaissance Washington, DC Downtown Meeting Rooms 10/11

Surface Chemistry of Biochar & Its Applications in Environmental & Related Systems

M. Fan, J. L. Goldfarb, J. R. Leszczynski, *Organizers*

W. W. Chen, R. Doong, C. Huang, *Organizers, Presiding*

P. Chiu, *Presiding*

8:00 Introductory Remarks.

8:05 ENVR 19. Redox and catalytic properties of zero-valent iron-included biochar for removal of nitro explosives and halogenated phenols. S. Oh, Y. Seo, K. Ryu

8:30 ENVR 20. Mechanisms for redox transformation mediated by biochar and other black carbon. P. Chiu

8:55 ENVR 21. Activation of biochar for energy and environmental applications. W.W. Chen, N.O. Egbebor, D.L. Mattern

9:20 ENVR 22. Reactivity of carbonaceous nanocomposites for water purification and recovery applications. R. Doong

9:45 ENVR 23. Nickel foam-supported activated carbon fabricated from vegetable sponge for electro-sorptive removal of ammonium ion. Y. Shih, Y. Huang, C. Huang

10:05 Intermission.

10:20 ENVR 24. Elemental and stable isotopes (C, N) analysis of thermochemically treated biomass-derived chars. M. Reza, C. Coronella, S.R. Poulson

10:40 ENVR 25. Adsorptive removal of mercury by biochar modified with plasma. T. Wang, J. Liu, Y. Zhang, W. Pan, W.W. Chen

11:00 ENVR 26. Functionalized activated carbons for enhancing fluoride removal capacity from water. C. Chen, S. Park, C. Huang

11:20 ENVR 27. Withdrawn.

11:40 ENVR 28. Synthesis and performance of a novel nitrogen and phosphorus dual-doped mesoporous biochar derived from algae. B. Gao, Q. Yue, X. Zhu, Y. Gao

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Section D

Renaissance Washington, DC Downtown Meeting Room 5

Iron & Manganese Oxides: Their Formation, Structure, Reactivity & Applications

Y. Hu, D. Waite, H. Zhang, *Organizers*
J. Fortner, M. Zhu, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 ENVR 29. Schwertmannite growth by nanoparticle aggregation: Real-time scattering measurements using custom mixed flow reactors. **F. Michel**, K. Kletetschka

9:10 ENVR 30. Density functional theory calculations on model ferrihydrite nanoparticles. **J.D. Kubicki**

9:30 ENVR 31. Heterogeneous nucleation and growth of Ni/Cd-bearing ferrihydrite on quartz and corundum. **Y. Hu**, C. Dai, X. Zuo, R. Tang, J. Liu

9:50 ENVR 32. Impurity-bearing ferrihydrite nucleation and growth on quartz and corundum: Impurity ion hydrolysis, substitution, and adsorption. **Y. Hu**, C. Dai, J. Liu

10:10 Intermission.

10:25 ENVR 33. 54Mn radiotracer studies of the transformation and recrystallization of phyllosilicates in reducing environments. **E. Elzinga**

11:00 ENVR 34. Magnetic Fe₃O₄ nanocubes and nanospheres: Synthesis, properties, and sensing capabilities. **A. Kolhatkar**, Y. Chen, I. Nekrashevich, I. Rusakova, D. Litvinov, S. Xu, R.C. Willson, **T. Lee**

11:35 ENVR 35. Fabrication of hierarchical MnO₂ hollow sphere for efficient catalytic ozonation of removal of endocrine-disrupting compound. **C. He**, Y. Huang, W. Xu, J. Zeng

11:55 ENVR 36. Enhanced biofilm penetration for microbial control by polyvalent phages conjugated with magnetic nanoparticles. **P. Yu**, L. Li, P.J. Alvarez

Section E

Renaissance Washington, DC Downtown Meeting Room 4

Environmental, Social & Economic Impacts of Aged/Transformed Nanomaterial-Enabled Consumer Products

E. Sahle-Demessie, N. Savage, H. Shi, *Organizers*

S. Chae, *Organizer, Presiding*

8:30 ENVR 37. Fate of cerium dioxide nanoparticles in soil monitored by single particle ICP-MS. **W. Liu**, **H. Shi**, K. Liu, J. Liu, C. Stephan

8:55 ENVR 38. Development of validated materials and methods to characterize silver nanomaterial loaded textiles during their lifecycle. **J.M. Gorham**, S.J. Underwood, D.E. Gorka

9:20 ENVR 39. Nano-composite degradation and the release of nanoparticles from consumer products during accelerated weathering. **C. Han**, E. Sahle-Demessie, H. Shi, J. Wang

9:45 ENVR 40. Release of QDs from consumer electronics for sustainability evaluation of competing QD-enabled displays. **Y. Bi**, S. Chopra, J. Schoepf, F. Brown, K.D. Hristovski, T.L. Theis, P.K. Westerhoff

10:10 Intermission.

10:25 ENVR 41. Factors affecting the antibacterial effects of industrial and sunscreen derived ZnO nanoparticles and their toxicity mechanisms. **S. Joo**, S. Baek, N. Kumar, M. Toborek

10:50 ENVR 42. Potential environmental implications of select copper-based fungicide/bactericide employed in world markets. **A. Tegenaw**, G. Sorial, E. Sahle-Demessie

11:15 ENVR 43. Carbon nanomaterials differentially impact phenanthrene bioaccumulation and elimination kinetics by earthworms. **H. Zhang**, W. Chen, X. Shen, M. Zhang, Y. Yang, J.C. White, S. Tao, X. Wang

11:40 ENVR 44. Microbial transformation of carbon nanomaterials in water. **S. Chae**

12:05 ENVR 45. Impact of engineered nanomaterials (ENMs) from wastewater treatment plants to biological activities in micro-ecosystems. **J. Liu**, P. Williams, C. Geisler-Lee, D. Chen, M. Peiravi, M. Fakharifar, L. Zheng, D. Lightfoot

Recent Advances towards the Bioeconomy

Sponsored by *CELL*, Cosponsored by *AGFD*, *CARB*, *ENFL* and *ENVR*

Advances in Residue Analytical Methods: Innovation, Current Status & Future Prospects

Sponsored by *AGRO*, Cosponsored by *ENVR*

SUNDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown Meeting Room 3

Ecological & Human Health Impacts of Emerging Environmental Contaminants

Cosponsored by *AGRO* and *CHAL*

X. Pan, M. I. Selim, B. Zhang, *Organizers, Presiding*

1:30 ENVR 46. Identification of novel polyfluorinated compounds in the Tennessee River downstream of manufacturing facilities near Decatur, Alabama, USA. **S. Newton**, R.L. McMahan, J. McCord, J. Stoeckel, M. Chislock, A. Lindstrom, M. Strynar

1:50 ENVR 47. Heavy metals in subtropical sediments from coastal ecosystems in Niger Delta: Distribution, source apportionment and contamination assessment. **N. Benson**, J.P. Essien, A. Olajire

2:10 ENVR 48. RNA-mediated technology for pest management – environmental benefits and risks. **X. Pan**

2:30 ENVR 49. Effect of earthworm activity on the fate of antibiotics and abundance of antibiotic-resistant bacteria and resistance genes in a compost amended silt loam soil. **C. Chen**, K. Xia

2:50 ENVR 50. Bioaccumulation of perfluoroalkyl acids by three species of earthworms exposed to contaminated soils. **B. Wen**, Y. Wu, H. Zhang, S. Zhang

3:10 Intermission.

3:25 ENVR 51. Investigating effects of benzoic acid on the fat storage and gene expressions in the insulin- signaling and fatty acid synthesis pathways using the *Caenorhabditis elegans* model. **L. Lewis**

3:45 ENVR 52. Alkaline fermentation effectively enhances the recovery of carbon source and removal of antibiotic resistance genes from waste sludge. **H. Huang**, X. Zheng, Y. Chen, L. Hui

4:05 ENVR 53. Cloning and expression of protocatechuate dioxygenase gene from *Klebsiella pneumoniae*: Application for degradation of sulfonated aromatic amines. **S. Dixit**, S. Garg

4:25 ENVR 54. Antibiotics and antibiotic-resistant genes in bulk and rhizosphere soils: A greenhouse study of vegetables grown in soils amended with antibiotic-containing manure. **C. Chen**, G.K. Guron, K. Xia, A. Pruden, M. Ponder, P. Du

4:45 ENVR 55. Presence of antibiotic resistance genes in treated wastewater and biosolids used for land application. **C. Bodenreider**, J. Holt, S.J. Fischer, **B.V. Kjellerup**

Section B

Renaissance Washington, DC Downtown Meeting Rooms 8/9

Electrochemical Technologies for Water Purification

Cosponsored by *CATL* and *CEI*

J. Barazesh, J. Jasper, E. Roberts, *Organizers*
B. P. Chaplin, A. Pham, *Organizers, Presiding*

1:30 ENVR 56. Salt removal from brackish waters by redox-active flow-electrode capacitive deionization (FCDI). **T. Waite**, J. Ma, D. He, W. Tang, P. Kovalsky, C. He, C. Zhang

2:10 ENVR 57. Performance optimization of a flow-through capacitive deionization stack using unipolar- and bipolar-electrode connections for desalination. **Y. Chen**, C. Hou

2:30 ENVR 58. Capacitive heat engines for brackish water deionization. **M. Hatzell**, J. Zhang, K. Hatzell

2:50 ENVR 59. Withdrawn.

3:10 ENVR 60. Removal and recovery of boric acid from waste water with bipolar membrane electrodialysis. **A. Yamasaki**, Y. Nakamura, M. Itabashi, T. Shoji, M. Noguchi

3:30 Intermission.

3:45 ENVR 61. Application of external voltage for the prevention of organic foulants deposited on graphene oxide and molybdenum disulfide. **I. Alam**, L. Guiney, M. Hersam, I. Chowdhury

4:05 ENVR 62. Effect of sulfide on the removal of hardness and silica from oil sands in-situ produced water by Fe-Electrocoagulation. **A. Pham**, H. Chow

4:25 ENVR 63. Withdrawn.

4:45 ENVR 64. Coupling catalytic ozonation with electrocoagulation for NOM removal in water treatment. **W. Yang**, T. Wu

5:05 ENVR 65. Electro-Fenton process: From stirred tank reactor to autonomous solar pre-pilot plant. **S. Segura**, E. Brillas

5:25 Concluding Remarks.

Section C

Renaissance Washington, DC Downtown Meeting Rooms 10/11

Surface Chemistry of Biochar & Its Applications in Environmental & Related Systems

R. Doong, M. Fan, J. L. Goldfarb, C. Huang, J. R. Leszczynski, *Organizers*

W. W. Chen, *Organizer, Presiding*

1:30 ENVR 66. Biofilms on activated carbon is a mediator for enhanced bioremediation of polychlorinated biphenyl (PCBs). **S.J. Edwards**, B.V. Kjellerup

1:50 ENVR 67. High temperature co-pyrolysis/thermal air activation enhances biochar mesoporosity and capacity for uptake of organic micropollutants from water. **J. Kearns**, K.K. Shimabuku, D. Knappe, R.S. Summers

2:10 ENVR 68. Biochar and surface modified biochar for mitigation of urban and agricultural storm-water pollutants. **Y. Deng**

2:30 ENVR 69. Effect of coated fulvic acid on interaction of biochars and ionizable organic pollutants. **Y. Wu**, B. Chen

2:50 ENVR 70. CO₂ capture by ultrasonicated amine-functionalized graphene oxide as a model for biochar. **R. Chatterjee**, D.L. Mattern, W.W. Chen, N.O. Egiebor, Y. Liu, A. Adeniyi

3:10 Intermission.

3:25 ENVR 71. Synergistic processes in early-stage acoustic treatment of biochar in CO₂ and water. **A.R. Adeniyi**, W.W. Chen, N.O. Egiebor, D.L. Mattern, J. Mobley, C. Church, R. Chatterjee

3:45 ENVR 72. Development of magnetic biochar for water purification. **P.C. Ray**, S.J. Jones, A. Pramanik, R. Chatterjee, W.W. Chen

4:05 ENVR 73. Withdrawn.

4:25 ENVR 74. Molecular-scale investigation on adsorption of dissolved biochar on soil. **L. Luo**, J. Lv, S. Zhang

4:45 ENVR 75. Enhanced desalination performance of carbon-based electrodes via pseudocapacitance using manganese dioxide in capacitive deionization. **N. Liu**, Y. Liu, T. Yu, C. Hou

5:05 ENVR 76. MnO₂ structure induced surface charge effect on the performance of capacitive deionization in different pH. **S. Xu**, T. Wang, Y. Wu, C. Wang

5:25 Concluding Remarks.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section D

Renaissance Washington, DC Downtown Meeting Room 5

Iron & Manganese Oxides: Their Formation, Structure, Reactivity & Applications

J. Fortner, D. Waite, M. Zhu, *Organizers*

Y. Hu, H. Zhang, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 77. Redox chemistry of As(III) and Cr(VI) on iron and manganese oxide. D.R. Strongin, S.L. Shumlas, E.B. Cerkez, R.J. Reeder

2:10 ENVR 78. Generation of hydroxyl radicals by hydroquinones and iron oxide nanoparticles. P. Persson

2:45 ENVR 79. Withdrawn.

3:05 ENVR 80. Reduction kinetics and mechanisms of nitrogen-oxygen compounds (NOCs) by Fe(II) associate with goethite versus by soluble Fe(II)-iron complex. X. Li, Y. Chen, H. Zhang

3:25 Intermission.

3:40 ENVR 81. Transformation of nanoparticulate zero-valent iron to iron oxides and effect on reactive oxygen species generation and contaminant degradation. T. Waite, D. He, R. Collins, J. Ma

4:15 ENVR 82. Electron mobility and trapping in iron and manganese redox cycling. B. Gilbert

4:50 ENVR 83. Effect of MnO₂ phase structure on its oxidation performance in contaminant removal. J.J. Huang, S. Zhong, H. Zhang

5:10 ENVR 84. Impacts of iron oxide-induced corrosion of lead on drinking water quality. B. Trueman, G.A. Gagnon

Section E

Renaissance Washington, DC Downtown Meeting Room 4

Environmental Applications of Liquid Phase Catalysis for Green Chemical Processes of Renewable Materials

Cosponsored by CATL and ENFL

J. Bond, N. A. Deskins, *Organizers*

M. T. Timko, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 85. Hydrothermal carbonization of digestate in presence of zeolite. M. Reza, J. Mumme, M. Titirci, O. Masek, A. Pfeiffer

1:55 ENVR 86. Characterization and quantification of acid sites on zeolites in the presence of solvents. B. Xu, N. Gould

2:15 ENVR 87. Use of solid-state NMR for condensed phase catalyst applications: Hydrothermal stability and solid liquid interfaces. R.L. Johnson, J. Anderson, M.P. Hanrahan, M. Mellmer, J.A. Dumesic, A.J. Rossini, K. Schmidt-Rohr, B.H. Shanks

2:35 ENVR 88. Quantitative kinetic descriptions of aqueous-phase sugar isomerization in hydrophobic and hydrophilic Lewis acid zeolites. M. Cordon, M. Gupta, J.W. Harris, D. Hibbitts, R. Gounder

2:55 ENVR 89. Engineered solvent system for hydrolysis of lignocellulosic biomass using biomass derived γ -valerolactone. A. Motagamwala, J.A. Dumesic, W. Won, C. Maravelias

3:15 Intermission.

3:25 ENVR 90. Hydrothermal catalysis to valorize renewable biomass feedstocks. P.E. Savage, N. Mo, J.N. Jocz, J. Jiang

4:05 ENVR 91. Liquid acids on silica for dehydratodehydration of renewable tetrahydrofuran. P.J. Dauenhauer

4:25 ENVR 92. Structural insights into cellulase-mimicry of polystyrene-based solid acids for cellulose hydrolysis. M.V. Tyufekchiev, M.T. Timko, S. Granados Focil, K. Schmidt-Rohr, P. Duan, M. Emmert

4:45 ENVR 93. Hydrothermal liquefaction of food waste and remediation of aqueous byproducts. A. Paulsen, M.T. Timko, A. Maag, P. Yelvington, T. Amundsen

5:05 ENVR 94. Understanding solvent effects in the thermal and electrochemical hydrogenation of organic compounds. D. Cantu, R. Weber, Y. Wang, M. Lee, M. Nguyen, S. Akhade, A. Padmaperuma, M. Lilga, V. Glezakou, R. Rousseau

Recent Advances towards the Bioeconomy

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

Environmental Fate, Transport & Modeling of Agriculturally-Related Chemicals

Sponsored by AGRO, Cosponsored by ENVR

Agrochemical Formulations

Sponsored by AGRO, Cosponsored by ENVR†

MONDAY MORNING

Section A

Renaissance Washington, DC Downtown Meeting Room 3

Ecological & Human Health Impacts of Emerging Environmental Contaminants

Cosponsored by AGRO and CHAL

X. Pan, M. I. Selim, B. Zhang, *Organizers, Presiding*

8:00 ENVR 95. PAH compounds identified in crude oil utilizing GCMS induce germ cell apoptosis in *Caenorhabditis elegans*. X. Pan, J. Polli, B.R. Rushing, M.I. Selim, B. Zhang

8:20 ENVR 96. Analysis of time change of environmental risks: A case study of time change of risks caused by the emission of VOSs from polymeric materials used for commercial products. M. Noguchi, A. Yamasaki

8:40 ENVR 97. Potential environmental pollution via released leachates and microparticulates from dental resin-based composite. S. Mulligan, G. Kakonyi, S. Thornton, J.J. Ojeda, M. Ogden, K. Moharamzadeh, A. Fairburn, N. Martin

9:00 ENVR 98. Withdrawn.

9:20 ENVR 99. Transformation and fate of neonicotinoid insecticides during drinking water treatment. K. Klarich, D.M. Cwiertny, G.H. LeFevre

9:40 Intermission.

9:55 ENVR 100. Chlorination disinfection by-products in drinking and swimming pool water. W.U. Anake, N.U. Benson, A. Williams, O.H. Fred-Ahmadu, O.B. Enamuot

10:15 ENVR 101. Withdrawn.

10:35 ENVR 102. Predicting solvent-water partitioning of charged organic species using quantum-chemically estimated Abraham pp-LFER solute parameters. C.W. Davis, D.M. Ditoro

10:55 ENVR 103. Photoreactivity of metal-organic frameworks in aqueous solutions: Metal dependence of reactive oxygen species production. Y. Gao, G. Yu

Section B

Renaissance Washington, DC Downtown Meeting Rooms 8/9

Advances in Chemical Oxidation for Water & Wastewater Treatment Systems

Financially supported by Shimadzu; Assoc. of Environmental & Engineering Science Professors (AEESP)

Y. Deng, W. Song, *Organizers, Presiding*

8:15 Introductory Remarks.

8:20 ENVR 104. Studies in advanced oxidation: Understanding the details of free radical chemistry. W.J. Cooper

8:55 ENVR 105. Photochemical oxidation of effluent organic matters: HRMS Characterization. W. Song, L. Lian

9:20 ENVR 106. Activation of peroxymonosulfate for rhodamine B degradation by a morphology derived CuBi₂O₄: Intersurface reaction and degradation mechanism. Y. Wang, F. Qi

9:45 ENVR 107. Degradation of triclosan in the presence of p-aminobenzoic acid under simulated sunlight irradiation. P. Zhai, H. Li

10:10 Intermission.

10:25 ENVR 108. Exploring the elimination mechanism of halogenated emerging contaminants in water environments: Contribution of adsorption, photocatalysis and biological degradation. T. An, G. Li, J. Xiong

11:00 ENVR 109. Sulfate radical oxidation of aromatic contaminants: A detailed assessment of density functional theory and high-level quantum chemical methods. C. Xiao, S. Pari, I.A. Wang, H. Liu, B.M. Wong

11:25 ENVR 110. Withdrawn.

11:50 ENVR 111. Rapid degradation of theophylline drug in pharmaceutical effluents using UV/PS in an advanced oxidation persulfate system. A. Ghauch, A. Baalbaki, N. Zeineddine, S. Jaber, S. Al Hakim

Section C

Renaissance Washington, DC Downtown Meeting Rooms 10/11

Measurements & Methods in Environmental Nanotechnology

Cosponsored by AGRO and ANYL

S. Hanna, M. Johnson, A. R. Montoro, B. C. Nelson, C. M. Sims, *Organizers*

E. Petersen, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 112. Detecting and verifying chemical transformations of silver nanomaterials in textiles. D. Gorka, J.M. Gorham

8:30 ENVR 113. Measurements of transformations of silver dietary supplements in simulated gastrointestinal fluids. K.E. Marchionda, N. Patel, R.I. Maccuspie

8:55 ENVR 114. Optical nano-tracker for capture, sequestration and detection of metal oxide nanoparticles. A. Othman, D. Andreescu, E. Andreescu

9:20 ENVR 115. Advances in the metrology for characterizing the uptake, translocation and genotoxicity of engineered nanomaterials in terrestrial plants. B.C. Nelson

9:45 Intermission.

10:05 ENVR 116. Separation and quantification of dissolved and nanoparticulate metals with SEC-ICP-MS. P. Paydary

10:30 ENVR 117. Effect of environmental and biological matrices on single particle ICP-MS nanoparticle sizing and counting capabilities. A.R. Montoro, K. Murphy, M. Winchester

10:55 ENVR 118. Separation, sizing, and quantitation of gold nanoparticles in *Caenorhabditis elegans* using mass spectrometry and imaging techniques. M. Johnson, S. Hanna, N. Sharp, J. Bennett, A.R. Montoro, K. Murphy, B.C. Nelson

11:20 Concluding Remarks.

Section D

Renaissance Washington, DC Downtown Meeting Room 5

Iron & Manganese Oxides: Their Formation, Structure, Reactivity & Applications

J. Fortner, H. Zhang, M. Zhu, *Organizers*

Y. Hu, D. Waite, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 119. Capturing the variable reactivity of goethites in adsorption models for metal cations. L.E. Katz

8:40 ENVR 120. Oxygen atom release during selenium oxyanion sorption on goethite and hematite. P. Yue, N. Chen, D. Peak, A. Onnis-Hayden, P. Larese-Casanova

9:00 ENVR 121. Adsorptive fractionation of dissolved organic matter by iron-containing mineral soil: Macroscale approach and molecular insight. T. Polubesova, S. Avneri-Katz, R. Young, A.M. McKenna, H. Chen, Y. Corilo, T. Borch, B. Chefetz

9:20 ENVR 122. Synthesis of green high magnetic nanoparticles and evaluation of their potential in adsorption heavy metals. W. Marimon Bolivar, E. Gonzalez Jimenez

9:40 Intermission.

9:55 ENVR 123. Green rust formation induced by reaction between aqueous Fe(II) and smectite clay minerals. A. Jones, C. Murphy, D. Waite, R. Collins

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10:30 ENVR 124. Mechanisms of Mn(II) catalytic oxidation on ferrhydrite surface and the formation of manganese (oxyhydr)oxides. X. Feng, S. Lan, X. Wang, H. Yin, W. Tan, F. Liu

11:05 ENVR 125. Identifying redox transition zones in the subsurface. X. Yin, H. Hua, L. Axe

11:25 ENVR 126. Characterizing reactive iron mineral coatings in redox transition zones. H. Hua, X. Yin, L.B. Axe

11:45 Concluding Remarks.

Section E

Renaissance Washington, DC Downtown Meeting Room 4

Environmental Applications of Liquid Phase Catalysis for Green Chemical Processes of Renewable Materials

Cosponsored by CATL and ENFL

J. Bond, M. T. Timko, *Organizers*

N. A. Deskins, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 127. Influence of water on furfural ring rearrangement reactions. L.V. Herrera, N. Briggs, B. Wang, S. Crossley

8:25 ENVR 128. Hydrothermal stability of zeolites under relevant carbohydrate conversion conditions. D.W. Gardner, J. Huo, T.C. Hoff, R.L. Johnson, B.H. Shanks, J. Tessonnier

8:45 ENVR 129. Stability and activity of zeolite in hot liquid water. M.T. Timko

9:05 ENVR 130. Molecular-level insights into the influence of the structure of liquid water on aqueous phase heterogeneously catalyzed sugar alcohol conversions. C. Bodenschatz, T. Xie, X. Zhang, T. Sewell, R. Getman

9:25 ENVR 131. Renewable p-xylene from 2,5-dimethylfuran and ethylene using phosphorus-containing zeolite catalysts. H. Cho, L. Ren, V. Vattipalli, Y. Yeh, N. Gould, B. Xu, R.J. Gorte, R.F. Lobo, P.J. Dauenhauer, M. Tsapatsis, W. Fan

9:45 Intermission.

10:00 ENVR 132. Mesoporous Nb/W-silicates as propylene epoxidation catalysts. S.K. Maiti, A. Ramanathan, B. Subramaniam

10:40 ENVR 133. Reductive conversion of lignin with copper-doped catalysts. M.B. Foston

11:00 ENVR 134. Assessing implicit solvation models for describing surface chemistry at aqueous/Pt(111) interfaces. S. Iyemperumal, N.A. Deskins

11:20 ENVR 135. Functionalization of 5-hydroxymethylfurfural by selective etherification. M. Allen, W. Gramlich, T.J. Schwartz

11:40 ENVR 136. First-principles methods for modeling electrochemical processes. R. Sundararaman

Sustaining Water Resources: Environmental & Economic Impact

Sponsored by MPPG, Cosponsored by COMSCh, ENVR, GEOC, I&EC and PRES

Environmental Fate, Transport & Modeling of Agriculturally-Related Chemicals

Sponsored by AGRO, Cosponsored by ENVR

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Current State & Future Path

Sponsored by ENFL, Cosponsored by BMGT, CEH, ENVR, MPPG, PRES, PROF, SCHB and WCC

MONDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown Meeting Room 3

Advances & Challenges in Separation & Mixing of Salts for the Sustainable Production of Food, Energy & Water

D. Jassby, C. Kim, J. R. Landon, S. Lin, *Organizers*

S. Chae, J. Park, N. Y. Yip, *Organizers, Presiding*

1:30 ENVR 137. Reverse electro-dialysis as a new power source for small devices. S. Kwon, S. Baek, T.D. Chung

2:00 ENVR 138. Development of reverse electro-dialysis salinity gradient power. C. Kim, K. Hwang, J. Han, H. Kim, N. Jeong, Y. Choi, S. Hong

2:20 ENVR 139. Fouling control of ion-exchange membranes in reverse electro-dialysis. D. Kim, S. Chae, C. Kim, N. Jeong, J. Park

2:40 ENVR 140. Effects of divalent cations on electrical resistance of ion exchange membranes for energy production using reverse electro-dialysis. Y. Oh, C. Kim, N. Jeong, J. Park, S. Chae

3:00 ENVR 141. Energy efficiency of reverse-electrodialysis cell according to hydrodynamic energy losses. H. Kim, J. Nam, K. Hwang, J. Han, N. Jeong, C. Kim

3:20 Intermission.

3:40 ENVR 142. Structure-property analysis of conductivity-permeability tradeoff in ion-exchange membranes. N. Yip

4:10 ENVR 143. Theoretical and experimental investigation of hydrogen production from the mixing of sea and river water. M. Hatzell, M. Nazemi, A. Agles

4:30 ENVR 144. Quasi-steady state polarization reveals the interplay of capacitive and faradaic processes in capacitive deionization for water treatment. N. Holubowitch, J. Landon, A. Omosebi, X. Gao, K. Liu

4:50 ENVR 145. Forward osmosis using sulfur containing air pollutants as draw solution for water-energy-food nexus technology. V.H. Tran, D. Han, H. Park, A. Abdel-Wahab, H. Shon

5:10 ENVR 146. Water-solute permselectivity limits of biomimetic desalination membranes. J. Werber, M. Elimelech

Section B

Renaissance Washington, DC Downtown Meeting Rooms 8/9

Advances in Chemical Oxidation for Water & Wastewater Treatment Systems

Financially supported by Shimadzu; Assoc. of Environmental & Engineering Science Professors (AEESP)

Y. Deng, W. Song, *Organizers, Presiding*

1:30 ENVR 147. Advances in the field of advanced oxidation processes for the treatment of cyanotoxins. D.D. Dionysiou

2:05 ENVR 148. Ferrate(VI) reactions with phosphate in water. Y. Deng, S.C. Myneni

2:30 ENVR 149. Treatment of several drinking water contaminants with ferrate via oxidation and precipitation mechanisms. J. Goodwill, J. Cunningham, X. Mai, Y. Jiang, K. Ikuma, D. Reckhow, J.E. Tobiason

2:55 ENVR 150. Synergistic effect of nickel-iron-foam and tetrapolyphosphate enables the electro-Fenton process at circum-neutral pH. F. Deng, H. Olvera-Vargas, O. Garcia-Rodriguez, S. Qiu, J. Yang, O. Lefebvre

3:20 Intermission.

3:35 ENVR 151. Comparative study in treating stripped off mixtures of trihalomethanes (THMs) in biotrickling filters (BTFs). B. Mezgebe, G. Sorial, E. Sahle-Demessie, D. Wendell

4:00 ENVR 152. Roles of ozone oxidation, adsorption and biodegradation in the removal of disinfection-by-product precursors and emerging contaminants in pilot-scale ozone BAC contactors applied for potable reuse. Y. Sun, Z. Wang, B. Angelotti, M. Brooks, B. Dowbiggin, P. Evans, B. Devins

4:25 ENVR 153. Iron(III)-based metal organic frameworks as heterogeneous Fenton-like catalysts for organic pollutant degradation. X. Quan, C. Gao

4:50 ENVR 154. Effect of seawater natural organic matter on oxidation process: A case study seawater Republic of Korea. H. Kye, K. Kim, Y. Jung, Y. Ahn, Y.W. Ahrha, S. Nam, I. Choi, J. Kang

5:15 Concluding Remarks.

Section C

Renaissance Washington, DC Downtown Meeting Rooms 10/11

Measurements & Methods in Environmental Nanotechnology

Cosponsored by AGRO and ANYL

S. Hanna, M. Johnson, A. R. Montoro, B. C. Nelson, C. M. Sims, *Organizers*

E. Petersen, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 155. Degradation of single-layered g-C₃N₄ nanomaterial via Fenton reaction. Y. Feng, Z. Xie, G. Liu

2:00 ENVR 156. Probing interactions between graphene oxide and human serum albumin protein: Measurements, mechanisms, and implications for nanoparticle-cell membrane interactions. X. Liu, C. Yan, K. Chen

2:25 ENVR 157. Radiochemical studies on the fate of C60 in soils. D. Navarro, R.S. Kookana, M. McLaughlin, J. Kirby

2:50 Intermission.

3:10 ENVR 158. Surface functionalized cellulose nanomaterials with fluorogenic probes. J.W. Woodcock, D. Fox, J. Gilman, S. Stranick, B. Natarajan

3:35 ENVR 159. Development of a microwave induced heating method for the detection of carbon nanotubes in environmental matrices. S.R. Al-Abed, D.D. Dionysiou, Y. He

4:00 ENVR 160. Methods to assess the environmental degradation of carbon nanotube/polymer nanocomposites. D.G. Goodwin, J.M. Gorham, K.C. Scott, L. Sung

4:25 ENVR 161. Agglomeration of Escherichia coli with positively charged nanoparticles can lead to artifacts in a standard Caenorhabditis elegans toxicity assay. S. Hanna, A.R. Montoro, A. Peterson, V. Reipa, L. Scanlan, S. Hosbas Coskun, T. Cho, M. Johnson, V.A. Hackley, B.C. Nelson, M. Winchester, J. Elliott, E. Petersen

4:50 Concluding Remarks.

Section D

Renaissance Washington, DC Downtown Meeting Room 5

Nano-Enabled Water Treatment Technologies: Applications & Implications

Cosponsored by CATL

K. D. Hristovski, M. S. Wong, *Organizers*

N. Hoogesteijn von Reitzenstein, A. Mulchandani, C. Powell, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 162. Effect of pH and ionic strength on self-healing hydrogel pore-filled water filtration membranes. B. Getchew, S. Kim, J. Kim

1:55 ENVR 163. Treatment performance of secondary effluents by nanofiber composite forward osmosis membrane. C. Zhang, T. Cai, M. Huang

2:15 ENVR 164. Interfacial transport in cellulose nanocrystal based thin film nanocomposite membranes for reverse osmosis water desalination. E.D. Smith, S. Martin

2:35 ENVR 165. Nanoparticle incorporation into thin film nanocomposite membrane by a novel synthesis procedure. P. Cay Durgun, M. Lind, F. Perreault, R. Verduzco

2:55 Intermission.

3:10 ENVR 166. Engineering high-effective antifouling polyether sulfone membrane with novel amphiphilic copolymer and organic-inorganic composite modifier. J. Jiang, Q. Zhang, X. Zhan, D. Cheng, F. Chen

3:30 ENVR 167. Development of nanoscale zirconium molybdate embedded anion exchange resin for selective removal of phosphate. T.H. Bui, S. Hong, J. Yoon

3:50 ENVR 168. Withdrawn.

4:10 ENVR 169. Withdrawn.

4:30 Concluding Remarks.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section E

Renaissance Washington, DC Downtown Meeting Room 4

Heterogeneous Catalysis for Environmental & Energy Applications

Cosponsored by CATL

A. Orlov, A. Savara, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 170. Withdrawn.

1:55 ENVR 171. Withdrawn.

2:15 ENVR 172. Oxidative dehydrogenation of but-1-ene with copper oxide catalyst. T. Kiyokawa, K. Fuku, N. Ikenaga

2:35 ENVR 173. Design of composite catalysts introduced tungstate and inorganic anions on calcined LDH for controlling oxidative reaction property using hydrogen peroxide. K. Fuku, S. Fujimoto, N. Ikenaga

2:55 ENVR 174. Oriented microwave energy conversion based on metal-triggered discharges and its application in VOCs/Tar destruction. J. Sun, W. Wang, Z. Song, X. Zhao, Y. Mao

3:15 Intermission.

3:30 ENVR 175. Enhanced environmental remediation using triplet-triplet annihilation upconversion: Broadening the sub-band light absorption of semiconductor photocatalysts. A.L. Hagstrom, S. Weon, H. Kim, W. Choi, J. Kim

3:50 ENVR 176. Photoreduction, adsorption and aggregation of graphene oxide-Fe(III) complexes for the efficient removal of Cr(VI) under visible-light irradiation. L. Renlan, X. Zhu, B. Chen

4:10 ENVR 177. Microkinetic modeling and molecular origin of the selectivity differences between palladium and gold-palladium in benzyl alcohol oxidation. A. Savara

4:30 ENVR 178. Can heterogeneous suspensions provide micro-environments protected from radical scavengers during ozonation? B. Solomon, J.L. Ferry

4:50 ENVR 179. Efficient catalytic ozonation over fluorine-doped carbon nanotubes for oxalic acid degradation. J. Wang, X. Quan

5:10 ENVR 180. Dramatically stable birnessite-type MnO₂ for gaseous ozone decomposition in humid stream at room temperature: Effects of post nitric acid treatment. P. Zhang, Y. Liu

Atmospheric Fate & Transport of Agricultural Emissions

Sponsored by AGRO, Cosponsored by ENVR†

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Challenges & Opportunities

Sponsored by ENFL, Cosponsored by BMGT†, CEI†, ENVR, MPPG, PRES, PROF†, SCHB and WCC

2,4-D Human Exposure Data: Lessons from Decades of Study

Sponsored by AGRO, Cosponsored by ENVR

Undergraduate Research Posters

Environmental Chemistry

Sponsored by CHED, Cosponsored by ENVR and SOCED

MONDAY EVENING

Section A

Walter E. Washington Convention Center Halls D/E

Sci-Mix

J. L. Goldfarb, *Organizer*

8:00 - 10:00

17, 79, 120. See previous listings.

367-369, 380, 385-386, 390, 393, 395, 405-406, 428, 439, 442, 454, 459-462, 468-469, 474, 476, 479, 481, 487-489, 492, 502, 506, 512, 515, 517. See subsequent listings.

TUESDAY MORNING

Section A

Renaissance Washington, DC Downtown Meeting Room 3

Science & Perception of Climate Change

Cosponsored by CEI

S. O. Obare, E. Schoffers, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENVR 181. Engaging diverse audiences with climate change: Message strategies for global warming's six Americas. J. Kotcher

8:35 ENVR 182. 4th National Climate Assessment and Beyond: Informing decisions across sectors and scales. C.W. Avery, D. Reidmiller, K. Reeves

8:55 ENVR 183. Climate science literacy, educational tools for the lifelong learner. G.P. Foy, K.E. Peterman, R.L. Foy, L. Clements

9:15 ENVR 184. Why do students respond favorably to attempts to teach climate change? G.M. Bodner

9:40 Intermission.

9:50 ENVR 185. Response to a warming world. If not us, who? J.A. Bell

10:10 ENVR 186. Global warming is unequivocal: From Arrhenius to Keeling... facts are not enough to influence public sentiment. B.Z. Shakhshiri

10:30 ENVR 187. Can science be translated to the public? How popular media and other stakeholders frame the climate change debate. E. Schoffers

10:50 ENVR 188. How culture shapes the climate change debate. A.J. Hoffman

11:30 Panel Discussion.

Section B

Renaissance Washington, DC Downtown Meeting Rooms 8/9

Multi-Phase Environmental Chemistry of Aerosols

Aerosol Chemistry of Biomass Burning

A. Laskin, S. A. Nizkorodov, *Organizers*

S. W. Hunt, *Organizer, Presiding*

A. P. Ault, D. O. Dehaan, *Presiding*

8:00 Opening Remarks.

8:05 ENVR 189. Laboratory and field studies of the multiphase chemistry of isoprene-derived epoxides and hydroperoxides leading to secondary organic aerosol formation. J. Surratt, Y. Lin, M. Riva, W. Rattanavaraha, S. Budisulistiorini, Y. Chen, Y. Zhang, Z. Zhang, A. Gold, M. Arashiro, R. Fry, S. Martin, S. de Sa, I. Ribeiro, E. Oliveira, C. Machado, R. de Souza, E. Gomes, S. Duvoisin, J.T. Jayne, D.R. Worsnop, A. Lambe, P. Croteau, M. Canagaratna, H. Pye, V.F. McNeill, J.A. Thornton

8:40 ENVR 190. Gas-phase kinetics modifies the CCN activity of biogenic SOA. A.E. Vizenor, A. Asa-Awuku

9:05 ENVR 191. Photodegradation and photosensitization reactions of secondary organic aerosols on environmental surfaces. K.T. Malecha, S.A. Nizkorodov, J. Smith, C.L. Faiola, A. Ylisirniö, A. Virtanen, J. Holopainen, S. Schobesberger

9:25 ENVR 192. Inorganic seed surface area dependence of secondary organic aerosol formation from dark α -pinene ozonolysis in a continuous flow environmental chamber. Y. Han, Z. Gong, P. Liu, S. de Sa, K.A. McKinney, S. Martin

9:45 Intermission.

10:05 ENVR 193. Formation and aging of biomass organic aerosols in wildfire emissions in the Western U.S..

Q. Zhang, S. Zhou, S. Collier, T.B. Onasch, D. Jaffe, A. Sedlacek, L. Kleinman

10:40 ENVR 194. Molecular characterization of atmospheric brown carbon. A. Laskin, J. Laskin, S.A. Nizkorodov, P. Lin

11:05 ENVR 195. Reactive uptake of ammonia by biogenic and anthropogenic organic aerosols. S.A. Nizkorodov, J. Montoya, M. Hinks, P. Aiona, V. Perraud, J. Horne, S. Zhu, D. Dabdub, A. Laskin, J. Laskin, P. Lin

11:30 ENVR 196. Measured absorption spectra of aerosolized carbonaceous species and their influence on climate forcing. C. Zangmeister

Section C

Renaissance Washington, DC Downtown Meeting Rooms 10/11

Trace Organic Contaminants (TrOCs) in Aquatic Systems: Advancements in Monitoring & Remediation

Cosponsored by ANYL and BIOL

M. Shreve, *Organizer*

R. Brennan, *Organizer, Presiding*

8:00 Introductory Remarks.

8:10 ENVR 197. Comprehensive quantification and screening of emerging per/polyfluoroalkyl substances (PFAS) in an aquatic ecosystem. T. Anumol, T. Coggan, R. Hindle, K. Hunt, B. Clarke

8:30 ENVR 198. Development of a nanotechnology enabled passive sampling device for legacy and emerging organic pollutants. J. Qian, D.M. Cwierzny, A. Martinez

8:50 ENVR 199. Fate of imidazolium, pyridinium, pyrrolidinium, and piperidinium ionic liquid cations in natural and technical aquatic systems. S.G. Pati, W. Arnold

9:10 ENVR 200. Dual-biofilm reactive barrier for in situ remediation of chlorobenzenes at anaerobic-aerobic interfaces in contaminated groundwater. S.J. Chow, M. Lora, A. Wadhawan, N.D. Durant, E.J. Bouwer

9:30 ENVR 201. Effects of temperature and filtration rate on removal of contaminants of emerging concern (CECs) in biologically-active GAC filters. B. Ma, R.M. Hozalski, W. Arnold, T. LaPara

9:50 Intermission.

10:05 ENVR 202. Characterization and quantification of pharmaceutical and personal care product (PPCP) interactions with biosolids-derived dissolved organic matter. S.J. Fischer, M. Ramirez, A. Torrents

10:25 ENVR 203. Optimization studies of a vertical flow filtration column system for endocrine activity removal in wastewater. B.E. Holmes, K.J. McDermott, H. Weinberg

10:45 ENVR 204. Removal of trace organic contaminants and estrogenic activity in six full-scale integrated fixed-film activated sludge (IFAS) wastewater treatment plants. M. Shreve, R. Brennan

11:05 ENVR 205. Source apportionment of polychlorinated biphenyls in District of Columbia wastewater. S.L. Capozzi, R. Jing, L.A. Rodenburg, B.V. Kjellerup, E.K. Wilson

11:25 ENVR 206. Screening of a large number of trace organic compounds in drinking water using point-of-use filters and suspect screening analysis. S. Newton, R.L. McMahan, J.R. Sobus, A.J. Williams, A.D. McEachran, M. Strynar

11:45 Discussion.

Section D

Renaissance Washington, DC Downtown Meeting Room 5

Advances & Challenges at the Food-Energy-Water Nexus

Cosponsored by CEI

S. Ahuja, I. Chowdhury, D. D. Dionysiou, Y. Lin, *Organizers*

S. Chae, *Organizer, Presiding*

8:00 ENVR 207. Nutrient-energy-water (NEW) recovery by osmotic bioelectrochemical systems towards sustainable wastewater treatment. M. Qin, Z. He

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8:30 ENVR 208. Recovery of major and micronutrients (N,P,S,Cu,Zn) from solid and liquid industrial waste and reuse in enhanced efficiency fertilizer production. **G. Sarapajevaite**, C. Navizaga, J. Boecker, K. Baltakys, J. Baltrusaitis

8:50 ENVR 209. Using hydrothermal carbonization to beneficially recover nutrients from food wastes. **N.D. Berge**, J.R. Flora, I. Idowu, L. Li, K. Ro

9:10 ENVR 210. Aerated fluidized bed treatment for phosphate recovery from dairy and swine wastewater. **A. Rabinovich**, A. Rouff

9:30 ENVR 211. Resource recovery from high strength wastewater: Evaluating the resilience of multilayer composite-encapsulated bacterial cultures. **C.W. Davis**, K. Zhu, P. Novak, W. Arnold

9:50 Intermission.

10:10 ENVR 212. NEWAGE: A system with enhanced energy recovery and value-added products from wastewater and wastewater biosolids for agriculture and green environment. **Z. Liu**, D. Zitomer, P. McNamara, B. Mayer, A. Parolari, W. McDonald

10:40 ENVR 213. Withdrawn.

11:00 ENVR 214. Low cost nutrient monitoring for fertilizer production from source-separated urine on an urban farm. **R. Sui**, J. Lorencen, Z.E. Wilton, E.K. Drake, O.R. Sinutko, R. Lahr

11:20 ENVR 215. Treated laterite as potential adsorbent for removal of heavy metals from drinking water. **S. Chatterjee**, S. De

11:40 ENVR 216. Bio-inspired membranes from block polymer precursors for remediation of heavy metal contaminated water sources. **J.L. Weidman**, R.A. Mulvenna, B.W. Boudouris, W.A. Phillip

Section E

Renaissance Washington, DC Downtown Meeting Room 4

Nano-Enabled Water Treatment Technologies: Applications & Implications

Cosponsored by CATL

K. D. Hristovski, M. S. Wong, *Organizers*

N. Hoogesteijn von Reitzenstein, A. Mulchandani, C. Powell, *Organizers, Presiding*

8:15 Introductory Remarks.

8:20 ENVR 217. Mechanistic understanding of function and impact of hematite nanoparticle (na-Fe₂O₃) size and shape on sustainable aqueous inorganic remediation. **A.W. Lounsbury**, D. Peak, J.B. Zimmerman

8:40 ENVR 218. Adsorption and desorption of PFOA and PFOS with transition metal dichalcogenides. **Y. Tian**, I. Chowdhury

9:00 ENVR 219. Fast and efficient heavy metal removal from contaminated water using metal-organic frameworks. **D.T. Sun**, L. Peng, S. Chaurd, W.S. Reeder, E. Oveisi, **W.L. Queen**

9:20 ENVR 220. Adsorption of organic aromatic molecules from aqueous environments by electronically sorted SWCNTs. **J.R. Rocha**, R.E. Rogers, A.B. Dichiera, R.C. Capasse

9:40 ENVR 221. As (III) and As (V) adsorption by nanocomposite of hydrated zirconium oxide coated carbon nanotubes. **D. Liu**, S. Deng, G. Yu

10:00 Intermission.

10:15 ENVR 222. Functionalized aluminum oxide hydroxide nanowhiskers for heavy metal removal. **Z. Xia**, L.M. Baird, N. Zimmerman

10:35 ENVR 223. Improving arsenic sorption capacity by doping metal (hydr) oxide nano-enabled hybrid media with more electronegative transition metal. **J. Markovski**, T. Custodio, **K.D. Hristovski**

10:55 ENVR 224. Recovery of inorganic phosphorus using copper-substituted ZSM-5. **M. Manto**, P. Xie, M. Keller, W. Liano, T. Pu, C. Wang

11:15 ENVR 225. Biomimetic biomimetic mineralization-inspired hybrid electrospun-silk-nanofiber@metal-organic-framework membranes for universal water purification. **L. Zhishang**, G. Zhou, Q. Zhang, H. Dai, Y. Fu, Y. Li

11:35 Concluding Remarks.

Atmospheric Fate & Transport of Agricultural Emissions

Sponsored by AGRO, Cosponsored by ENVR†

Application of Spatial Technologies to Advance Exposure Modeling & Risk Assessments

Sponsored by AGRO, Cosponsored by ENVR

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

From Research to Scale-Up

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Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YCC†

TUESDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown Meeting Room 3

Fate, Transport & Remediation of Radionuclides in the Environment

P. Paviet, *Organizer*

V. Anagnostopoulos, S. Saslow, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 226. Principles that guide fate and transport of actinides in the environment: Example application to the WIPP safety case. **D.T. Reed**

2:05 ENVR 227. Stability and persistence of plutonium colloids in nature. **A. Kersting**, J. Begg, E. Balboni, T. Parsons-Moss, J. Shusterman, P. Zhao, M. Zavarin

2:25 ENVR 228. Plant responses to nutrient stress could co-facilitate radionuclide mobilization from soils. **N. Edayilam**, B. Ferguson, D. Montgomery, B.A. Powell, N. Tharayil

2:45 ENVR 229. Comparison of Eu and Np sorption to aluminum (hydr)oxide minerals. **T. Baumer**, P. Kay, **A.E. Hixon**

3:15 Intermission.

3:25 ENVR 230. Aquatic chemistry and thermodynamics of technetium: Redox processes, solubility and complexation. **X. Gaona**, E. Yalcintas, A. Baumann, R. Polly, M. Altmairer, H. Geckels

3:55 ENVR 231. Mechanisms for simultaneous Tc and Cr removal by Fe(OH)₂ in Hanford waste streams. **S. Saslow**, W. Um, G. Wang, D. Kim, M. Schweiger, A.A. Kruger

4:15 ENVR 232. Use of titanium dioxide as a platform for the photoreduction of Technetium-99. **C. Brent**, L.C. Francesconi, B.P. Burton-Pye, I. Radivojevic

4:35 ENVR 233. Chemometric determination of the localized chemistry of Tc-99 in simulated nuclear waste glasses. **J.L. Weaver**

5:05 ENVR 234. Department of Energy's efforts on the back end of the nuclear fuel cycle and connection to environmental clean-up efforts. **P. Paviet**

5:25 Concluding Remarks.

Section B

Renaissance Washington, DC Downtown Meeting Rooms 8/9

Multi-Phase Environmental Chemistry of Aerosols

Aqueous Chemistry in the Atmosphere

S. W. Hunt, S. A. Nizkorodov, *Organizers*

A. Laskin, *Organizer, Presiding*

J. Surratt, Q. Zhang, *Presiding*

1:30 ENVR 235. Tropospheric aerosol particle organic mass formation: HOMs uptake and cloud processing. **H. Herrmann**

2:05 ENVR 236. Aqueous phase photo-oxidation of nitrophenol brown carbon compounds. **R.F. Hems**, J.P. Abbatt

2:25 ENVR 237. Integrating direct measurements of aerosol pH to improve understanding of acidity in the atmosphere. **A.P. Ault**, R.L. Craig, A. Bondy, J.L. Axson

2:50 ENVR 238. Aqueous and dry aerosol processing of dicarbonyls: Uptake coefficients, SOA production, and radiative forcing. **D.O. Dehaan**

3:15 Intermission.

3:35 ENVR 239. Exploring spatial differences in satellite aerosol optical thickness as a function speciated organic particle mass. **A. Carlton**

4:10 ENVR 240. Contrasting multi-phase chemistry in urban and rural environments. **C. Hennigan**, S. Douglas, M. Battaglia

4:35 ENVR 241. Modelling atmospheric mineral aerosol chemistry to predict heterogeneous photocatalytic oxidation of SO₂ and NO_x. **M. Jang**, Z. Yu, J. Park

5:00 ENVR 242. Aerosol interactions with fog in urban and suburban sites in northeastern France: Applications of carbon isotopic analysis. **D.C. Napolitano**, O. Delhomme, M. Millet, P. Herckes

Section C

Renaissance Washington, DC Downtown Meeting Rooms 10/11

Monitoring Water Quality & Infrastructure to Prevent Future Flints

Cosponsored by CEI and MPPG

B. G. Loganathan, *Organizer*

S. Ahuja, *Organizer, Presiding*

B. Loganathan, *Presiding*

1:30 Introductory Remarks.

1:35 ENVR 243. Origins of the Flint water crisis. **M. Edwards**

2:15 ENVR 244. Global climate change. **N.B. Jackson**

2:35 ENVR 245. Learning from horror stories of water contamination. **S. Ahuja**

2:55 ENVR 246. Investigating the missing link: Effects of noncompliance and aging private infrastructure on water quality monitoring. **A. Cooper**, S. Ahuja

3:15 ENVR 247. Impacts of infrastructure deficiencies on potable water quality in the Republic of Serbia. **J. Markovski**, M. Markovski, **K.D. Hristovski**, L. Olson

3:35 Intermission.

3:45 ENVR 248. Harmful algal blooms: Their effects are global and massive and we need to mitigate them. **X. Duan**, D.D. Dionysiou

4:05 ENVR 249. Methods for characterization of chemical and biological groundwater interactions with close-proximity oil and gas extraction activity. **K. Schug**, D.D. Carlton, I.C. Santos, Z.L. Hildenbrand, M. Martin, M. Reyes, D. Reyes

4:25 ENVR 250. Developing a sensitive biosensor for monitoring arsenic in drinking water supplies. **J. Berberich**, T. Li, E. Sahle-Demessie, S. Zeh, S. Minderlein

4:45 ENVR 251. Low-cost tap water monitoring via the coffee-ring effect. **R. Lahr**, X. Li, S. Allen, A.R. Sanderson

5:05 ENVR 252. Integrating microplastics data into water quality monitoring protocol. **J.R. Peller**, L. Eberhardt, R. Alam, T. Janesheski, A. Kubalewski

5:25 Concluding Remarks.

Section D

Renaissance Washington, DC Downtown Meeting Room 5

Advances & Challenges at the Food-Energy-Water Nexus

Cosponsored by CEI

S. Ahuja, S. Chae, D. D. Dionysiou, Y. Lin, *Organizers*

I. Chowdhury, *Organizer, Presiding*

1:30 ENVR 253. Algae-based sustainable urban-wastewater reclamation ecosystem (aSURE): An integrated approach to sustaining food-energy-water supply. **Y. Zhang**

2:00 ENVR 254. Mold-yeast consortia convert food waste to alcohol for vaporized bio-hybrid fuel cells. **H.M. LeFors**, J. Jahnke, M. Benjamin, D.M. Mackie

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

2:20 ENVR **255**. Withdrawn.

2:40 ENVR **256**. Biogeochemical effects of silicon-rich amendments in rice paddies. **M. Limmer**, J. Mann, D. Amaral, A. Seyffert

3:00 ENVR **257**. Model systems to study plant accumulation of ionizable organic contaminants. **S.L. Nason**, E.L. Miller, K. Karthikeyan, J.A. Pedersen

3:20 Intermission.

3:40 ENVR **258**. Produced water reuse options in Kansas: A case study at the food-energy-water nexus. **E.F. Peltier**, S.J. Randtke, K. Shafer-Peltier, R. Barati, O. Dollar, S. Thompson

4:10 ENVR **259**. Water quality challenges in creating a sustainable water reuse framework in Abu Dhabi, UAE. **F. Ahmad**

4:30 ENVR **260**. Assessment of cost-effective and sustainable irrigation water management practices in agricultural watershed. **M. Paul**, M. Negahban-Azar

4:50 ENVR **261**. Reduction of excess biological sludge in tannery effluent treatment. **V. Sodhi**, A. Bansal, M.K. Jha

Section E

Renaissance Washington, DC Downtown Meeting Room 4

Nano-Enabled Water Treatment Technologies: Applications & Implications

Cosponsored by CATL

K. D. Hristovski, M. S. Wong, *Organizers*

N. Hoogesteijn von Reitzenstein, A. Mulchandani, C. Powell, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR **262**. In-situ growth of TiO₂ on TiN nanoparticles for non-noble-metal plasmonic photocatalysis. **C. Li**, W. Yang, L. Liu, W. Sun, **Q. Li**

1:55 ENVR **263**. Influence of functional groups on the indirect photolysis of graphene. **M. Shams**, L. Guiney, M. Hersam, I. Chowdhury

2:15 ENVR **264**. Adsorption-photocatalysis composite nanomaterials for water treatment. **M. Suh**, C. Li, H. Jing, C.K. Chan, J. Kim

2:35 ENVR **265**. Solar-photothermal nanomaterials: Fundamentals and application for the inactivation of virus and bacteria in drinking water. **S. Loeb**, C. Li, J. Kim

2:55 Intermission.

3:10 ENVR **266**. Design of novel nano-enabled photothermal desiccants to improve energy efficiency of atmospheric water capture. **A. Mulchandani**, P.K. Westerhoff

3:30 ENVR **267**. Development of a powder assay kit to fast detect gold nanoparticles in aquatic media. **X. Bi**, P.K. Westerhoff

3:50 ENVR **268**. Edible science: Food dye sensitized water disinfection and safety indication. **E. Ryberg**, J. Kim

4:10 ENVR **269**. Fabrication of graphene oxide/poly(ethyleneimine) aerogel with controlled surface charge for both anionic and cationic dyes removal. **Q. Zhao**, X. Zhu, B. Chen

4:30 Concluding Remarks.

Section F

Renaissance Washington, DC Downtown Meeting Room 12

C. Ellen Gonter Environmental Graduate Student Award

T. Anderson, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ENVR **270**. Measurement of the pH of individual aerosol droplets by surface-enhanced Raman spectroscopy. **H. Wei**, L.C. Marr, P.J. Vikesland

1:55 ENVR **271**. Simple method to quantify the carboxyl group areal density in the active layer of polyamide thin-film composite membranes. **J.R. Werber**, D. Chen, M. Elimelech

2:15 ENVR **272**. Probing interaction and penetration forces between a silver nanoparticle and supported lipid bilayers using atomic force microscopy. **X. Liu**, K. Chen

2:35 ENVR **273**. Ultra-strong three-dimensional graphene oxide sponges reinforced by cellulose nanocrystals. **N. Yousefi**, K. Wong, Z. Hosseini-doust, A. Angulo, N. Tufenkji

2:55 Intermission.

3:10 ENVR **274**. Quantifying historical levels of antibiotics in freshwater lake sediment cores. **J.F. Kerrigan**, D. Engstrom, K. Sandberg, T. LaPara, W. Arnold

3:30 ENVR **275**. Dissolved organophosphate ester flame retardants in the North Atlantic and Arctic Oceans. **C.A. McDonough**, C. Sun, D. Adelman, T. Soltwedel, E. Bauerfeind, D. Muir, R. Lohmann

Vehicle Emission Control Catalysis: New Era, New Challenges & New Solutions

Sponsored by CATL, Cosponsored by ENFL and ENVR

Atmospheric Fate & Transport of Agricultural Emissions

Sponsored by AGRO, Cosponsored by ENVR†

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Innovating in Biomass Conversion: Factors for Success

Sponsored by ENFL, Cosponsored by BMGT†, CEI†, ENVR, MPPG, PRES, PROF†, SCHB and WCC

Advances in Carbon Dioxide Utilization

Sponsored by CATL, Cosponsored by ENFL and ENVR

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YCC†

TUESDAY EVENING

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YCC†

WEDNESDAY MORNING

Section A

Renaissance Washington, DC Downtown Meeting Room 3

Economic Impact of Environmental Health Research: A Case Study of the NIEHS Superfund Research Program

Cosponsored by MPPG

H. Henry, K. G. Pennell, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ENVR **276**. Economic impact of environmental health research: A case study of the NIH/NIEHS superfund research program. **H. Henry**, D.J. Carlin, M. Heacock, B. Trotter, W.A. Suk

8:25 ENVR **277**. New advances reduces remediation costs for legacy pollutants in sediments. **U. Ghosh**

8:45 ENVR **278**. Application of monoclonal antibody-based biosensor analysis for rapid assessment of PAH distribution, fate and toxicity at contaminated sediment sites. **M. Unger**, A. Beck, G. Vadas, M. Vogelbein, M. Cochran, S. Hartzell, L. Yonkos, J. Rieger

9:05 ENVR **279**. Diffusive flux of PAHs across sediment-water and water-air interfaces at urban superfund sites. **J. Minick**, K.A. Anderson

9:25 ENVR **280**. Laboratory and computational technologies to reduce the cost and improve the quality of congener-specific measurement of PCB congeners in air, water, sediments, and biological matrices. **K.C. Hornbuckle**, R.F. Marek, A. Awad, N. Herkert, A. Martinez, P. Saktrakulka

9:45 Intermission.

10:05 ENVR **281**. Use of reactive mats for cost-effective clean-up of contaminated aquatic sediments. **D. Meric**, A. Alshawabkeh, J.M. Shine, **T. Sheahan**

10:25 ENVR **282**. Metal functionalized nanostructured membrane technology for water remediation. **D. Bhattacharyya**, S. Hernandez, A. Saad, H. Wan, M.S. Islam, A. Aher, L. Ormsbee

10:45 ENVR **283**. Optimization of Fe/Pd nanoparticles immobilized membrane systems for PCB degradation. **H. Wan**, N. Briot, L. Ormsbee, D. Bhattacharyya

11:05 ENVR **284**. Optimization of magnetite based arsenic immobilization strategies: Role of coupled iron oxidation and reduction in magnetite formation. **B.C. Bostick**, J. Jamieson, A.A. Nghiem, J. Sun, B.J. Mailloux, A. Yusov, H. Prommer, O. Duckworth, S.N. Chillrud

11:25 ENVR **285**. Effect of manganese on in-situ magnetite formation and field implementation of groundwater remediation technologies. **A.A. Nghiem**, B.J. Mailloux, S.N. Chillrud, J. Sun, H. Prommer, B.C. Bostick

Section B

Renaissance Washington, DC Downtown Meeting Rooms 8/9

Multi-Phase Environmental Chemistry of Aerosols

Chemistry at Interfaces

S. W. Hunt, A. Laskin, *Organizers*

S. A. Nizkorodov, *Organizer, Presiding*

Y. Rudich, R. Weber, *Presiding*

8:00 Introductory Remarks.

8:05 ENVR **286**. Interfacial chemistry of free radicals and the oxidation of organic aerosol. **K.R. Wilson**

8:40 ENVR **287**. Reactions of Criegee intermediates at the gas-liquid interface. **S. Enami**

9:05 ENVR **288**. Contributions from water-air interfaces in the multiphase environmental chemistry of α -ketoacids. **V. Vaida**, A. Reed Harris, R. Rapf, R. Perkins

9:30 ENVR **289**. Processing of unsaturated carboxylic acids by ozone at the air-water interface: Implications for aerosol aging. **L. Li**, A.J. Colussi, S. Enami, M.R. Hoffmann

9:50 Intermission.

10:10 ENVR **290**. Location, location: Chemical morphology and reactivity at environmental interfaces. **D. Donaldson**

10:45 ENVR **291**. Multiphase chemistry of nitrogen oxides on soil surfaces. **M.A. Donaldson**, R.F. Hansen, **J.D. Raff**

11:20 ENVR **292**. Novel aerosol suspension chamber for exploring atmospheric interfacial reactions. **C. Smith**, A. Ziegler, M. Brown, E.M. Durke, S. Dhaniyala, J.R. Morris

11:40 ENVR **293**. Halogen activation: Decomposing surface and bulk processes. **J. Edebeli**, M. Ammann, A. Gilgen, A. Eichler, M. Schneebeli, T. Bartels-Rausch

Section C

Renaissance Washington, DC Downtown Meeting Rooms 10/11

Impact of Materials, Surface Chemistry & Modifications on Biofilm Formation in Environmental Remediation & Engineering Applications

Cosponsored by BIOL

Financially supported by AEESP

N. J. Lin, *Organizer*

B. V. Kjellerup, *Organizer, Presiding*

8:15 Introductory Remarks.

8:20 ENVR **294**. Biofilms: Slime at the surface. **M.E. Shirliff**, J.M. Harro

9:05 ENVR **295**. Can we design a passive surface that predictably alters the activity of attached bacteria? **D. Brown**, L. Albert, H. Zhu

9:25 ENVR **296**. Physiological responses of microcystins from *Microcystis aeruginosa* PCC7806 by chemical treatments. **G. Lamas Samanamud**, T.E. Reeves, M.W. Tidwell, J.A. Bohmann, K.J. Lange, H.J. Shipley

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9:45 ENVR 297. Beta-1, 4-glycosyl hydrolase of *Francisella tularensis*- a negative regulator of biofilm production in a bacterial biothreat agent. M.L. van Hoek

10:05 Intermission.

10:20 ENVR 298. Measuring biofilms and their interactions with materials. N.J. Lin

10:40 ENVR 299. Characterizing microbial adhesion strength with centrifuge force microscopy. T. LeFevre, J.N. Wilking

11:00 ENVR 300. Experimental and theoretical analysis of biofilm formation and growth on cylindrical surfaces with impedimetric sensors. R. Huiszoon, S. Preza, P. Rajasekaran, T. Winkler, W.E. Bentley, R. Ghodssi

11:20 ENVR 301. Internal polarity of individual *G. sulfurreducens* bacterial cells attached to inorganic substrates. N. Lebedev, M.D. Yates, S.M. Strycharz-Glaven, L. Tender

11:40 ENVR 302. Withdrawn.

Section D

Renaissance Washington, DC Downtown Meeting Room 5

Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation

Cosponsored by CEI and CHAL

M. Card, T. R. Henry, L. Libelo, *Organizers*
E. Wong, *Organizer, Presiding*

8:15 ENVR 303. EPA rules under amended TSCA: Prioritization rule and risk evaluation rule. A. Babcock, T.R. Henry

8:50 ENVR 304. Risk assessment under TSCA: Perspectives from the chemical industry. K. Schmidt

9:15 ENVR 305. Qualitative assessment of risk strategies within the US EPA New Chemical Programs under the Toxic Substances Control Act (TSCA). W. Irwin, L. Scarano, R. Daiss, D.T. Chang, S. Surapureddi

9:40 ENVR 306. Pre & post-amended TSCA: Changes in framework on the use of chemical fate & transport in environmental risk assessment. E.M. Wong, L. Libelo

10:05 Intermission.

10:20 ENVR 307. Data gathering for existing chemicals risk evaluation under the amended TSCA. F. Branch, I. Camacho, B. Amy, M. Cawley, C. Henning, H. Hubbard

10:45 ENVR 308. Modifications in chemicals' degradation testing guidelines for EPA new chemicals' evaluation under TSCA. N. Orentas, L. Libelo, D. Lynch

11:10 ENVR 309. Adverse outcome pathways: A mechanistic approach for future risk assessments. S. Surapureddi, W. Irwin, D.T. Chang, L. Scarano

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section E

Renaissance Washington, DC Downtown Meeting Room 4

Green Chemistry & the Environment

Cosponsored by CATL and CEI

A. M. Balu, R. Luque, S. O. Obare, *Organizers*
S. DeVito, *Organizer, Presiding*

8:30 Introductory Remarks.

8:40 ENVR 310. Quantifying the success of green chemistry and other pollution prevention practices in the pharmaceutical and automotive manufacturing industries. A. Stoeckle, S. Gaona, C. Keenan

9:00 ENVR 311. Analysis of toxics release inventory green chemistry reporting. S. Gaona, M. Sumner

9:20 ENVR 312. Characterizing the environmental impact of sustainability practices using sector profiles: An application to the automotive manufacturing sector. C. Keenan

9:40 ENVR 313. Highlighting pollution prevention achievements in the 2015 Toxics Release Inventory National Analysis. C. Briere

10:00 Intermission.

10:15 ENVR 314. Using alternatives assessment approaches to inform the ranking of TRI-listed solvent chemicals. L. Brown, H. Forth, L. Reichle, A. Casner, A. McFadden

10:35 ENVR 315. Visualizing industrial source reduction achievements: Demonstration of the Qlik food app. S. Gaona

10:55 ENVR 316. Challenges to implementation of pollution prevention as evidenced by barriers reported to EPA's toxics release program. S. Gaona, C. Keenan

11:15 ENVR 317. Role of Pollutant Release and Transfer Registers (PRTRs) in achieving the United Nations sustainable development goals. C. Briere, S. Gaona

11:45 Concluding Remarks.

Section F

Renaissance Washington, DC Downtown Meeting Room 12

Environmental Justice: The Role & Impact of Diversity on Environmental Stewardship

Cosponsored by CEI and CMA

J. L. Sarquis, *Organizer*
A. M. Rivera Figueroa, M. Santiago, *Organizers, Presiding*

8:15 Introductory Remarks.

8:20 ENVR 318. Withdrawn.

8:40 ENVR 319. Environmental justice in Indian Country: Tradition and science inform Native American quest to recover threatened land, resources, and cultures. M. Ondrechen

9:00 ENVR 320. Safe access to traditional foods and medicines: Camas and the Portland Native American Community. C.S. Greene

9:20 ENVR 321. Confronting mine waste contamination in Navajo communities with tradition and chemistry. R.L. Tsosie

9:40 Intermission.

9:55 ENVR 322. Health and wellbeing impact of contamination on the Navajo reservation. J.C. Ingram, T. Rock, A. Lister

10:15 ENVR 323. Characterizing the extent of uranium contamination in sheep grazing near abandon uranium mines on the Navajo reservation. J.C. Ingram, A. Lister

10:35 ENVR 324. Adverse effects of traffic-related air pollutants in Puerto Rican children. L. Méndez

10:55 ENVR 325. Drinking water infrastructure inequality: New insight into system corrosion and the lead-pathogen nexus. A. Katner, K. Pieper, Y. Lambrinidou, K. Brown, W. Subra, M. Edwards

11:15 Panel Discussion.

Green Chemistry: Theory & Practice

Sponsored by CHED, Cosponsored by CEI and ENVR†

Vehicle Emission Control Challenges: New Era, New Solutions

Sponsored by CATL, Cosponsored by ENFL and ENVR

Developing Pesticide Environmental Risk Assessment Approaches

Sponsored by AGRO, Cosponsored by ENVR

Advances in Carbon Dioxide Utilization

Sponsored by CATL, Cosponsored by ENFL and ENVR

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YCC†

WEDNESDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown Meeting Room 3

Economic Impact of Environmental Health Research: A Case Study of the NIEHS Superfund Research Program

Cosponsored by MPPG

H. Henry, K. G. Pennell, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 326. From bench experiments to full scale application: development of three commercially successful technologies for reducing the time and cost for remediating contaminated industrial sites. N.D. Durant, D. Major, E. Cox, J. Wang, S. Dworatzek, E.A. Edwards, G. Grant, J. Gerhard, D. O'Carroll, D. Gent

1:55 ENVR 327. RemRx™ CRP: Controlled release polymeric systems for in situ chemical oxidation of contaminated waters. A. Carpenter

2:15 ENVR 328. Cost-analysis of *in situ* electrochemically-induced systems for groundwater remediation. L. Rajic, A. Ciblak, Y. Zhao, W. Zhou, R. Nazari, K. Hetrick, A. Alshwabkeh

2:35 ENVR 329. Systems biology approaches: A pathway to precision bioremediation. F. Loeffler

2:55 Intermission.

3:15 ENVR 330. Towards risk-based environmental monitoring and technology assessment via toxicogenomics technology and data science. A. Gu, N. Gou, J. Lan, S. Rahman, Y. Lin

3:35 ENVR 331. Extractive tea bag for water sampling and cleanup. R. Giese

3:55 ENVR 332. Economic impact of accurately assessing vapor intrusion exposure risks at hazardous waste sites. K.G. Pennell, M. Roghani, E.J. Willett, E. Shirazi

4:15 ENVR 333. From lab bench to across the valley of death: How does one build the bridge from one side? And how large can the impact be? E.M. Subberg, R. Hurt

4:35 Discussion.

Section B

Renaissance Washington, DC Downtown Meeting Rooms 8/9

Multi-Phase Environmental Chemistry of Aerosols

Health Effects, Particle Formation & Growth

A. Laskin, S. A. Nizkorodov, *Organizers*

S. W. Hunt, *Organizer, Presiding*

J. D. Raff, K. R. Wilson, *Presiding*

1:30 Introductory Remarks by Sherri Hunt.

1:40 ENVR 334. Can reactions between ozone and organic constituents of ambient particles influence PM-induced adverse cardiovascular health effects? M.T. Kleinman, A. Keebaugh, D. Herman, L.M. Wingen, N. Staimer

2:15 ENVR 335. Aerosol oxidative potential size distributions: A contrast between water-soluble and insoluble components. R. Weber, T. Fang, V. Verma, H. Guo, A. Nenes

2:50 ENVR 336. Oxidative properties of ambient particulate matter: An assessment of the relative contributions from various aerosol components and their emission sources. V. Verma, C. Sioutas, R. Weber

3:25 Intermission.

3:40 ENVR 337. On the health effects of transported and resuspended dusts. Y. Rudich, M. Pardo, D. Gat

4:15 ENVR 338. Kinetics, thermodynamics, HULIS, metal solubility and the interplay of superoxide, hydroxyl radical and hydrogen peroxide. D. Gonzalez-Martinez, X.M. Kuang, J.A. Scott, S. Paulson

4:40 ENVR 339. Impact of particle phase chemistry on nanoparticle composition and growth rate. M.V. Johnston, P. Tu, Y. Wu, M.J. Apsokardu, C. Stangl, J. Krasmonowitz

5:05 ENVR 340. Influence of ammonia on particle formation from methanesulfonic acid and amines: Combined experimental and theoretical studies. V. Perraud, K.D. Arquero, J. Xu, R.B. Gerber, B.J. Finlayson Pitts

†Cooperative Cosponsorship

Section C

Renaissance Washington, DC Downtown Meeting Rooms 10/11

Impact of Materials, Surface Chemistry & Modifications on Biofilm Formation in Environmental Remediation & Engineering Applications

Cosponsored by BIOL

Financially supported by AEESP

B. V. Kjellerup, *Organizer*

N. J. Lin, *Organizer, Presiding*

1:30 ENVR 341. Hindering biofilm formation using colloidal-crystal topographic films. **W.A. Ducker**, M. Kargar, H. Mon, Y. Chang, K. Lagree, A. Mitchell, A. Pruden

1:50 ENVR 342. Effect of surface topography on bacterial surface motility. **Y. Chang**, E.R. Weeks, W.A. Ducker

2:10 ENVR 343. Copper-functionalized membranes versus silver nanoparticle membranes for control of biofouling. **C. Sprick**, S. Asapu, I.C. Escobar

2:30 ENVR 344. Effects of modifying low pressure membranes with bioinspired polydopamine and silver nanoparticles on biofilm formation. **M. Fleming**, E.J. Bouwer, K. Chen

2:50 Intermission.

3:05 ENVR 345. Bactericidal activity and mechanism of high intensity narrow wavelength blue light LED. **N. Zhan**, Q. Chang, K. Yeung

3:25 ENVR 346. Microbially-induced corrosion: The formation of biofilms. **M. Al-Sheikhy**, P. Rostron, N. Hassan, A. Farzaneh, G. Pertmer, D. Poster, M. Postek

3:45 ENVR 347. Biofilm dispersing agents reduce the pathogenicity of *Pseudomonas aeruginosa* biofilm infections in the *Caenorhabditis elegans* host model. **A. Yan**, C. Melander, **B.V. Kjellerup**

4:05 ENVR 348. Withdrawn.

4:25 Discussion.

Section D

Renaissance Washington, DC Downtown Meeting Room 5

Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation

Cosponsored by CEI and CHAL

T. R. Henry, L. Libelo, E. Wong, *Organizers*

M. Card, *Organizer, Presiding*

1:30 ENVR 349. Current use of models and requirements for new models in U.S. EPA new chemicals risk assessments under amended TSCA. **M. Card**, W. Lee, F. Antwi

1:55 ENVR 350. Case study applications of the RAIDAR model for chemical risk assessment. **J. Arnot**, L. Toose, J. Armitage, A. Falls, T. Gouin, M. Bonnell

2:20 ENVR 351. Models, guidelines and references for wastewater removal rate assessments in the U.S. EPA TSCA New Chemicals Program. **W. Lee**, D. Lynch, M. Card

2:45 ENVR 352. QSAR and calculators for Freundlich adsorption coefficient (Kf) based on 18 agricultural soils. **W.P. Eckel**

3:10 Intermission.

3:30 ENVR 353. Integrated analytical and computational tools for assessing the risks of emerging contaminants and their bioactive transformation products. **D.M. Cwiertny**, E.P. Kolodziej, J.B. Gloer, R. Abagyan, E.V. Patterson

3:55 ENVR 354. Identifying strategies that will provide greater confidence in estimating the degradation rates of organic chemicals in soil. **Y. Wang**, D. Helbling

4:20 ENVR 355. EPA CompTox Chemistry Dashboard and underpinning software architecture. **A.J. Williams**, C. Grulke, D.T. Chang, K. Markey, J. Edwards

4:45 Panel discussion.

Section E

Renaissance Washington, DC Downtown Meeting Room 4

Green Chemistry & the Environment

Cosponsored by CATL and CEI

A. M. Balu, S. DeVito, R. Luque, *Organizers*

S. O. Obare, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 ENVR 356. Challenges and opportunities in developing green chemistry research programs at academic institutions. **S.O. Obare**

2:00 ENVR 357. Assessing interestification for sustainable biodiesel production. **L. Soh**, Y. Tian, C. Verni, R. Elias, P. Leggieri, S. McCartney, M. Senra

2:25 ENVR 358. Green active and selective nanoscale catalysts for tandem hydrogenation and acetalization of carbonyls. **H.A. Al-Zubaidi**, S.O. Obare

2:50 ENVR 359. Cocktail effects of chemical mixtures on health and environment. **N. Vaidya**, N.A. Vaidya

3:15 Intermission.

3:25 ENVR 360. Anaerobic digestion of renewable materials for biogas production: Experimental stage to the field. **O.O. Adetule**

3:45 ENVR 361. Bioremediation of municipal wastewater with a naturally collected freshwater macroalgae *Spirogyra* sp.: Preliminary laboratory-scale process study. **S. Ge**, P. Champagne

4:05 ENVR 362. Mechanisms governing algal remediation of atmospheric CO₂ in shallow saline lakes of the Chilean Altiplano region. **A.L. Prieto**, A. de la Fuente

4:25 ENVR 363. Supported ionic liquids for air purification. **V. Castillo Ramos**, W. Han, K. Yeung, J. Kwan

4:45 ENVR 364. Withdrawn.

5:05 Concluding Remarks.

Vehicle Emission Control Catalysis: New Era, New Challenges & New Solutions

Sponsored by CATL, Cosponsored by ENFL and ENVR

Advances in Carbon Dioxide Utilization

Sponsored by CATL, Cosponsored by ENFL and ENVR

Developing Pesticide Environmental Risk Assessment Approaches

Sponsored by AGRO, Cosponsored by ENVR

Good Laboratory Practices for the Agrochemical Professional

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Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YCC†

WEDNESDAY EVENING

Section A

Walter E. Washington Convention Center Hall D

Advances & Challenges at the Food-Energy-Water Nexus

Cosponsored by CEI

S. Ahuja, S. Chae, I. Chowdhury, D. D. Dionysiou, Y. Lin, *Organizers*

6:00 - 8:00

ENVR 365. Low-temperature heat utilization with vapor pressure-driven (VPD) membrane technology: Impact of membrane chemistry and structure. **X. Chen**, N.Y. Yip

ENVR 366. Withdrawn.

ENVR 367. Encapsulation of anaerobic microbial consortia: Cell growth and leakage. **K. Zhu**, C. Davis, J. Sakkos, J. Preciado, A. Aksan, W. Arnold, P. Novak

ENVR 368. Synthesis of a series of long-chain aliphatic podand ligands for complexation and water remediation. **J. Pothoof**, G. Nguyen, M. Bhagwagar, S. Makk, M.A. Benvenuto

ENVR 369. CO₂ foam: Stability improving in high salinity produced water. **R. Barati**, N. Nazari, J. Tsau, E.F. Peltier

Section A

Walter E. Washington Convention Center Hall D

Advances & Challenges in Separation & Mixing of Salts for the Sustainable Production of Food, Energy & Water

S. Chae, D. Jassby, C. Kim, J. R. Landon, S. Lin, J. Park, N. Y. Yip, *Organizers*

6:00 - 8:00

ENVR 370. Rational design of a bi-layered reduced graphene oxide film on polystyrene foam for solar-driven interfacial water evaporation. **L. Shi**, Y. Wang, L. Zhang, P. Wang

ENVR 371. Withdrawn.

ENVR 372. Application of dimensionally stable electrode: Effect of surface roughness. **J. Choi**, J. Park

ENVR 373. Acetylated biomass as a raw material for desalination membranes. **J.M. Estrada Ortiz**, L. Ballinas-Casarrubias, L.A. Soto Salcido, N.I. Cruz Ochoa, K. Ruiz Cuitly, G. González Sánchez

Section A

Walter E. Washington Convention Center Hall D

Advances in Chemical Oxidation for Water & Wastewater Treatment Systems

Y. Deng, W. Song, *Organizers*

6:00 - 8:00

ENVR 374. Effect of pretreatment on biomethanation of rice straw in anaerobic degradation. **M. Kim**, B. Kim, Y. Choi, K. Nam

ENVR 375. Oxidative and coagulative mechanisms of ferrate(VI) for simultaneous removal of algal cells and toxins in water. **Y. Deng**, **M. Wu**

ENVR 376. Photo-assisted electrochemical oxidation of imidacloprid synthetic wastewater in the presence of chloride ions. **Y. Liao**, Y. Shih, Y. Huang

ENVR 377. Electrodeposition of manganese dioxide on Ti-DSA electrode (MnO₂@IrO₂/Ti) for direct electro-oxidation of carboxylic acids. **Y. Chan**, S. Ma, Y. Shih

ENVR 378. Comparison of Fenton's reagent and ozonation for chemical oxidation of UV-quenching substances (UVQS) in municipal landfill leachate. **R. Zhao**, Y. Deng, C. Jung, K. Torrens

ENVR 379. Advanced oxidation processes (AOPs) of biologically stabilized landfill leachate for COD removal. **Q. Xu**, Q. Yuan

ENVR 380. Insights into the triplet photochemistry of effluent organic matter: The role of chemical constituents. **H. Zhou**, L. Lian, J. Ma, S. Yan, W. Song

ENVR 381. Metals modified diatomite, zeolite and carbon xerogel as catalysts for catalytic wet air oxidation of phenol: Characterization, oxidation efficiency and reaction pathway. **S.A. Maicaneanu**, R. Plesa Chincias, E. Gal, H. Bedeleian, M. Darabantu

ENVR 382. Perfluorooctanoic acid degradation by UV/persulfate: Modeling of degradation kinetics and chlorate formation under changed pH conditions. **Y. Qian**, X. Zhou, J.C. Crittenden, J. Chen

ENVR 383. Degradation of methyl paraben in aqueous phase using UV-activated persulfate method. **S. Dhaka**, **M.B. Kurade**, J. Jang, B. Jeon

ENVR 384. Degradation of 17-ethinylestradiol by UV-activated persulfate oxidation. **C. Rackov**, A. Camara, T.A. Ferreira, L. Aguiar, H. Maia de Oliveira, C. Oller do Nascimento, O. Chiavone-Filho

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Section A

Walter E. Washington Convention Center
Hall D

Advances in Environmental Analytical Methods for EPA Compliance Reporting & Exposure Risk Assessment

Cosponsored by AGRO and CHAL

Financially supported by Shimadzu

W. Lipps, B. Prakash, *Organizers*

6:00 - 8:00

ENVR 385. Effect of hormesis of polymyxin B sulfate enhanced by weak magnetic field on *Vibrio qinghaiensis* sp.-Q67. **K. Li**

ENVR 386. 76% increase in throughput for determination of semi-volatiles using narrow-bore GC columns and rapid data acquisition with a highly sensitive quadrupole GCMS system. **B. Prakash**, T. Ogura, W. Lipps

Section A

Walter E. Washington Convention Center
Hall D

Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation

Cosponsored by AGRO, CEI and CHAL

M. Card, T. R. Henry, L. Libelo, E. Wong, *Organizers*

6:00 - 8:00

ENVR 387. Public access to environmental chemistry data via the EPA CompTox Chemistry Dashboard. **A.J. Williams**, C. Grulke, J. Smith, R. Jolley, J. Dunne, E. Edmiston, J. Edwards

ENVR 388. Quantitative structure-activity relationships predictions of toxicokinetic parameters for risk-based prioritization. **B.L. Ingle**, B. Veber, J. Wambaugh, J. Nichols, R. Tornero-Velez

Section A

Walter E. Washington Convention Center
Hall D

Ecological & Human Health Impacts of Emerging Environmental Contaminants

Cosponsored by AGRO and CHAL

X. Pan, M. I. Selim, B. Zhang, *Organizers*

6:00 - 8:00

ENVR 389. Pharmaceutical chemicals, steroids and xenoestrogens in fish and sediments from the tidal freshwater Potomac River. **G. Arya**, K. De Mutsart, C. Jones, T.B. Huff, G.D. Foster

ENVR 390. Biocomposite alginate-chitosan beads coated magnetic nanoparticles for removal of oxybenzone in seawater systems: Application to inhibit coral reef photo-bleaching. **A.G. Zapata**, F.M. Alvarez, **G. Cruet**, V. Fernandez-Alos, F.R. Roman

ENVR 391. Untargeted screening and apportionment of brominated compounds in house dust. **B. Dhungana**, H. Peng, B. Subedi, P.D. Jones, J.P. Giesy, G.P. Cobb

ENVR 392. Withdrawn.

ENVR 393. Protective toxicokinetic and toxicodynamic changes associated with aflatoxin B₁ detoxification. **B.R. Rushing**, M.I. Selim

ENVR 394. Occurrence of polycyclic aromatic hydrocarbons in mantises. **H. Shimazu**

ENVR 395. Phthalate and non-phthalate plasticizers in indoor dust from childcare facilities, salons, and homes across the USA. **B. Subedi**, K. Sullivan, B. Dhungana

ENVR 396. Preliminary investigation of seasonal changes in pesticides and PPCPs in surface water in eastern North Carolina. **B.R. Rushing**, **A.R. Wooten**, M.I. Selim

ENVR 397. Occurrence and concentrations of polybrominated diphenyl ethers in soils from an e-waste recycling area in north China. **Z. Wu**

ENVR 398. Withdrawn.

Section A

Walter E. Washington Convention Center
Hall D

Economic Impact of Environmental Health Research: A Case Study of the NIEHS Superfund Research Program

Cosponsored by MPPG

H. Henry, K. G. Pennell, *Organizers*

6:00 - 8:00

ENVR 399. Evaluation of new and rapid antibody-based PAH measurement techniques for determining the distribution and flux of PAH at contaminated sediment sites. **K. Prossner**, G. Vadas, M. Unger

Section A

Walter E. Washington Convention Center
Hall D

Electrochemical Technologies for Water Purification

Cosponsored by CATL and CEI

J. Barazesh, B. P. Chaplin, J. Jasper, A. Pham, E. Roberts, *Organizers*

6:00 - 8:00

ENVR 400. Fenton reaction as a step of electrochemical disinfection of water contaminated with *E. coli*: Role of hydroxyl radicals and their scavengers. **N. Barashkov**, T. Sakhno, I. Irgibaeva

ENVR 401. Protic salt-derived porous carbon for efficient capacitive deionization. **Y. Li**, J. Qi, J. Li, L. Wang

ENVR 402. Influences on electrochemical oxidation efficiency: Degradation of *p*-chlorobenzoic acid with boron-doped diamond anodes. **M. Lanzarini-Lopes**, S. Garcia-Segura, P.K. Westerhoff

ENVR 403. Bimetallic catalysts for electrochemical nitrate reduction toward high nitrogen selectivity. **J. Su**, C. Huang

ENVR 404. Electronic properties of 3D-bifunctional carbon nanotube sponge for bioelectrical system applications. **D. Han**, S. Yoon, C. Yu, A. Abdel-Wahab, A. Han

Section A

Walter E. Washington Convention Center
Hall D

Environmental, Social & Economic Impacts of Aged/Transformed Nanomaterial-Enabled Consumer Products

S. Chae, E. Sahle-Demessie, N. Savage, H. Shi, *Organizers*

6:00 - 8:00

ENVR 408. Effect of organic coating materials on antibacterial properties of titanium dioxide nanoparticles. **S. Baek**, S. Joo

ENVR 409. Quantitative evaluation of nanomaterial release from multi-walled carbon nanotubes epoxy composite after weathering treatment. **Y. Zhao**, G. Ramakrishnan, J. Cen, Q. Wu, A. Orlov

ENVR 410. Withdrawn.

ENVR 411. Approaches to evaluating weathering effects on release of engineered nanomaterials from solid matrices. **R.G. Zepp**, W. Wohlleben, E. Sahle-Demessie, C. Kingston, D.C. Bouchard, B. Acrey, H. Hsieh, A. Commodore, O. Okungbowa, A.L. Andraday, J.J. Locklin

Section A

Walter E. Washington Convention Center
Hall D

Environmental Applications of Liquid Phase Catalysis for Green Chemical Processes of Renewable Materials

Cosponsored by CATL and ENFL

J. Bond, N. A. Deskins, M. T. Timko, *Organizers*

6:00 - 8:00

ENVR 405. Multifunctional nanoreactors for oxidative catalysis and product isolation by spontaneous phase separation. **A. Harrison**, T. Vuong, M. Nguyen, C. Tang

ENVR 406. Synthesis of glycerol carbonate from CO₂ and glycerol in liquid phase. **D. He**, J. Zhang

ENVR 407. Catalytic dephosphorylation using ceria nanocrystals: Effects of surface oxygen vacancies. **M. Manto**, P. Xie, C. Wang

Section A

Walter E. Washington Convention Center
Hall D

Fate, Transport & Remediation of Radionuclides in the Environment

V. Anagnostopoulos, P. Paviet, S. Saslow, *Organizers*

6:00 - 8:00

ENVR 408. Effect of organic coating materials on antibacterial properties of titanium dioxide nanoparticles. **S. Baek**, S. Joo

ENVR 409. Quantitative evaluation of nanomaterial release from multi-walled carbon nanotubes epoxy composite after weathering treatment. **Y. Zhao**, G. Ramakrishnan, J. Cen, Q. Wu, A. Orlov

ENVR 410. Withdrawn.

ENVR 411. Approaches to evaluating weathering effects on release of engineered nanomaterials from solid matrices. **R.G. Zepp**, W. Wohlleben, E. Sahle-Demessie, C. Kingston, D.C. Bouchard, B. Acrey, H. Hsieh, A. Commodore, O. Okungbowa, A.L. Andraday, J.J. Locklin

ENVR 412. Impact of carbonate on the solubility of An(IV) under alkaline to hyperalkaline pH conditions. **X. Gaona**, J. Schepperle, E. Yalcintas, D. Fellhauer, N. Cevirim, M. Altmaier, H. Geckeis

ENVR 413. Autunite dissolution in the presence of *Shewanella oneidensis* in different bicarbonate concentrations under anaerobic conditions. **V. Anagnostopoulos**, Y. Katsenovich, B. Lee

ENVR 414. Effect of salinity and temperature on pH-dependent transport of heavy metals and radionuclides in reactive porous media. **Z. Ye**, V. Prigiobbe

ENVR 415. Role of ionic strength on sorption of neodymium on dolomite. **H.P. Palmer Emerson**, F. Zengotta, T.M. Dittrich, Y. Katsenovich, D.T. Reed

ENVR 416. Mechanism of nanoparticle-stabilized foam generation in the presence of a brine. **Q. Li**, V. Prigiobbe

ENVR 417. Use of titanium dioxide/graphene oxide nanocomposites as a platform for the reduction of Technetium-99. **C. Brent**, S.L. Groveman, M. Vittadello, L.C. Francesconi

ENVR 418. Fast pH-dependent transport of heavy metals and radionuclides due to longitudinal and transverse dispersion. **T. Liu**, J. Qian, V. Prigiobbe

Section A

Walter E. Washington Convention Center
Hall D

General Posters

J. L. Goldfarb, *Organizer*

6:00 - 8:00

ENVR 419. Estimating exposure to pollutants from concentrated animal feeding operations using AERMOD. **M. Citra**, H. Pohl, H. Abadin, E. Murray, L. Ingerman, I. Szadkowska-Stanczyk, A. Kozajda, A. Nguyen

ENVR 420. Best practices for addressing human health and environmental data gaps in an alternatives assessment context. **J. Young Tanir**

ENVR 421. Withdrawn.

ENVR 422. Carnauba wax based passive sampler to characterization of air particulate matter. **P.E. Planajunior**, M.A. Stocco, **M. Piacenti-Silva**

ENVR 423. Passive sampler to assessment of metal content in settleable dust in urban, industrial and rural areas in Brazil: A spatial and temporal study. **M.A. Stocco**, P.E. Planajunior, C.N. Iwabe, **M. Piacenti-Silva**

ENVR 424. Feasibility of mapping diurnal and seasonal variations of carbon dioxide, methane, and carbon monoxide in highland rim using cavity ring down spectroscopy. **L.P. Gamage**, W.K. Gichuhi

ENVR 425. Field calibration of XAD-based passive air sampler on the Tibetan Plateau: Wind influence and configuration improvement. **P. Gong**

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

ENVR **426.** Long-term toxicity and uptake of silver nanomaterials to agriculturally relevant plant species. **K. Marsh, W. Leng, D. Gorka, P.J. Vikesland, J. Liu**

ENVR **427.** Cyclodextrin-promoted detection of aromatic toxicants and toxicant metabolites in human breast milk. **D.J. DiScenza, M. Levine**

ENVR **428.** Withdrawn.

ENVR **429.** Debris polystyrene as sources of styrene oligomer in ocean water and sand areas surroundings Japan. **M. Okada, K. Koizumi, B. Kwon, S. Chung, N. Ogawa, T. Kusui, N. Maximenko, K. Saido, T. Hiaki**

ENVR **430.** Luminescent lanthanide-organic framework sensor as a platform for detection of aqueous pesticides. **K. Liu, L. Gao, H. Wang, C. Wu, M.R. Hoffmann**

ENVR **431.** Optimization of preparation parameters for Co-Fe layered double hydroxides for hydrogen sulfide removal. **S. Lee, D. Kim**

ENVR **432.** Single-crystal structures of fully dehydrated Cd²⁺-exchanged zeolite Y and of its benzene sorption complex. **D. Moon, Y. Kim, J. Kim, W. Lim**

ENVR **433.** Assessment of heavy metal contamination in sediment of a lake in the Nakdong-river affected from mine waste of upstream. **T. Shin, J. Kim, S. Lee, S. Woo, Y. Kim**

ENVR **434.** Extraction of caffeine from coffee waste and oxidative degradation of the extracted caffeine. **M. Shin, H. Kwon, H. Kim, Y. Kim**

ENVR **435.** Studies on adsorption characteristics of heavy metals using precipitates from mine water in Dalseong metal mine. **J. Kim, J. Kim, Y. Kim, S. Woo, J. Hyeon**

ENVR **436.** Characteristics of adsorption of heavy metal by synthesized Fe-oxide/hydroxide. **J. Kim, J. Hwang, J. Kim, J. Seo, Y. Kim, C. Lee**

ENVR **437.** Analysis of trace metal contaminants in Manadas Creek. **A.K. Addo-Mensah, V. Lozano, V. Rodriguez**

ENVR **438.** Chlorination of swimming pool water: Kinetics of chloroform formation using indicator compounds. **T. Schlosser, L. Erdinger**

ENVR **439.** Porous carbon beads with controllable pore structure for elimination of volatile organic compounds. **J. Qi, Y. Li, J. Li, L. Wang**

ENVR **440.** Influence of interlayer chemistry on uptake of aromatic contaminants to HDTMA-modified montmorillonite. **M. Costanza-Robinson, E. Payne, K. Fink, R. Morris**

ENVR **441.** Investigation of sources of eutrophication, sedimentation, and nutrient pollution in an urban watershed. **J. Abbatangelo, A. Byrne, J. Butler, J. Wilson**

ENVR **442.** Chemical oxidation of selenite to selenate by reactive oxygen species. **P. Paydary, M. Teli, A.E. Schellenger, D. Jaisi, A. Onnis-Hayden, P. Larese-Casanova**

ENVR **443.** Quantifying the production of reactive oxygen species by the autooxidation of aqueous organic carbon. **M. Smith, J.L. Ferry**

ENVR **444.** Generation of reactive halogen species from autoxidation of Fe(II) in seawater. **F. Wang, J.L. Ferry**

Section A

Walter E. Washington Convention Center Hall D

Green Chemistry & the Environment

Cosponsored by CATL and CEI

A. M. Balu, S. DeVito, R. Luque, S. O. Obare, *Organizers*

6:00 - 8:00

ENVR **445.** Reclamation of copper from solution as the copper carbonate pellet by a fluidized-bed homogeneous crystallization (FBHC) process. **S. Huang, C. Huang, Y. Shih**

ENVR **446.** Chemical oxo-precipitation (COP) of boron solution using calcium chloride as the precipitant. **Y. Song, Y. Shih**

ENVR **447.** Effect of different filters on the amount of microbeads that enter waterways. **R. Jamal, A. Jadhav**

ENVR **448.** Phosphate sequestration via copper-exchanged ZSM-5. **M. Manto, P. Xie, M. Keller, W. Liano, T. Pu, C. Wang**

ENVR **449.** Bioremediation in exploitation of oil and green chemistry. **M.M. Vrvic, S. Miletic, J. Avdalovic, M. Ilic, J. Milic, V.P. Beskoski, G. Gogjic-Cvijovic**

ENVR **450.** Using antiscalant in membrane fouling (MD). **M.S. Humoud**

ENVR **451.** Quantification of ammonia gas uptake by heat-treated struvite decomposition products using simultaneous thermal analysis – pulse thermal analysis. **M.V. Ramlogan, A. Rouff**

ENVR **452.** Treatment of ion exchange resins by modified Fenton process. **M. Tsai, Y. Shih, Y. Huang, C. Huang**

ENVR **453.** Using constructed wetlands-treated water for crop irrigation and examining possible emerging contaminant uptake. **E. Tully, H. Weinberg**

ENVR **454.** Reduction of organohalide compounds mediated by flavin mononucleotide at colloidal titanium dioxide interfaces. **T.S. Saeed, S.O. Obare**

ENVR **455.** Zn-Fe₂O₄-Au NPs for the oxidation of Congo red dye under visible light. **A.A. Ramirez, C.A. Huerta-Aguilar, T. Pandiyan**

ENVR **456.** Design a bactericidal system with high-intensity narrow-wavelength (Hi-NW) LED to eliminate the environmental pathogen and biosafety studies of the system. **N. Zhan, Q. Chang, N. Wong, K. Yeung**

ENVR **457.** Solubility products of barium perborates in aqueous solution at 25°C for predicting residual boron levels in effluents of chemical oxo-precipitation. **J. Lin, Y. Song, Y. Shih, Y. Huang**

ENVR **458.** Improvement of the urease activity of *Sporosarcina pasteurii* culture by controlling urea concentration and its application for preventing soil loss by microbially induced calcite precipitation. **H. Chung, I. Jeon, B. Jeong, S. Kim, K. Nam**

Section A

Walter E. Washington Convention Center Hall D

Heterogeneous Catalysis for Environmental & Energy Applications

Cosponsored by CATL

A. Orlov, A. Savara, *Organizers*

6:00 - 8:00

ENVR **459.** Withdrawn.

ENVR **460.** Facile fabrication of carbon quantum dots (CQDs) loaded BiVO₄ with up-conversion ability for efficient photocatalytic performance. **X. Zhang, W. Zhang, X. Dong, H. Ma, C. Ma**

ENVR **461.** Towards understanding the photocatalytic activity enhancement of Bi₂MoO₆ based photocatalyst via elemental erbium (Er) incorporation. **X. Dong, X. Zhang, X. Wang, H. Ma**

ENVR **462.** Fluorine-doped hierarchically porous carbon in situ generation of H₂O₂ for efficient electro-fenton degradation of organic compounds. **K. Zhao, X. Quan**

ENVR **463.** Applying dimethyl sulfoxide and methanol as hydroxyl radical probes in heterogeneous photocatalytic reactions. **C. Hung, C. Yuan**

ENVR **464.** Ceria-titania rich mesoporous silica materials and its UV-visible photocatalytic activity enhancement of organic dye. **N. Pal, S. Chatterjee, E. Cho**

ENVR **465.** Liquid phase hydrogenation of furfural and furfuryl alcohol assisted by metal chlorides. **S. Ogozaly, L.A. Welch**

ENVR **466.** Performance of vacuum ultraviolet photocatalytic oxidation air purifier with nanoporous TiO₂ film for VOCs removal in indoor air. **H. Zheng, T. Xu, P. Zhang**

ENVR **467.** Novel heterogeneous catalytic system under visible light combined with padding wet scrubber for simultaneous elimination of gaseous NO and SO₂. **J. Zeng, Y. Huang, W. Xu, C. He**

Section A

Walter E. Washington Convention Center Hall D

Impact of Materials, Surface Chemistry & Modifications on Biofilm Formation in Environmental Remediation & Engineering Applications

B. V. Kjellerup, N. J. Lin, *Organizers*

6:00 - 8:00

ENVR **468.** Mechanistic insights for the interactions of engineered nanoparticles with bacterial cells and biofilms. **S. Aggarwal, S. Joo**

ENVR **469.** Biofilm covered activated carbon particles: Application as a microbial inoculum delivery system. **S.L. Capozzi, S. Saffari Ghandehari, C. Bodenreider, R. Jing, B.V. Kjellerup**

ENVR **470.** Fluorescence lifetime imaging of membrane potential probes for distinguishing microbial phenotypes. **J. Dunkers, B. Jones, S. Stranick**

ENVR **471.** Withdrawn.

ENVR **472.** Withdrawn.

ENVR **473.** Bioremediation of PCE-contaminated groundwater using mixed organohalide-respiring biofilms. **S. Saffari Ghandehari, S.L. Capozzi, C. Bodenreider, M. Flores, B.V. Kjellerup**

ENVR **474.** Potential of bacteria for simultaneous treatment of polychlorinated biphenyls (PCBs) and chromium in tannery wastewater. **M.W. Yasir, B.V. Kjellerup, S. Mahmood, A. Khalid, L. Riaz, M.B. Siddique**

ENVR **475.** New insight on FeS-coated nanoscale zerovalent iron (S-nZVI) for sequestration of molybdate from water samples. **Y. Zhang, Y. Su, Y. Zhang**

Section A

Walter E. Washington Convention Center Hall D

Iron & Manganese Oxides: Their Formation, Structure, Reactivity & Applications

J. Fortner, Y. Hu, D. Waite, H. Zhang, M. Zhu, *Organizers*

6:00 - 8:00

ENVR **476.** 3D printed mixed flow reactors: In situ characterization of ferric oxyhydroxides nanoparticles. **K. Kletetschka, A. Gerig, F. Michel**

ENVR **477.** Effect of dissolved trace metal cations on iron atom exchange during aqueous Fe(II) promoted iron oxide recrystallization. **P. Yue, C. Gorski, P. Larese-Casanova**

Section A

Walter E. Washington Convention Center Hall D

Measurements & Methods in Environmental Nanotechnology

Cosponsored by AGRO and ANYL

S. Hanna, M. Johnson, A. R. Montoro, B. C. Nelson, E. Petersen, C. M. Sims, *Organizers*

6:00 - 8:00

ENVR **478.** Microplate based colorimetric assays for characterization of redox reactivity of nano materials for water treatment. **Y. Hwang, P. Mines, M. Jakobsen, H. Andersen**

ENVR **479.** Glutathione functionalized gold nanoparticle-dynamic light scattering tandem for rapid and selective detection of cadmium. **I. Terry, J. Wiley, A.K. Singh, S.S. Dasary**

ENVR **480.** Withdrawn.

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Section A

Walter E. Washington Convention Center
Hall D

Monitoring Water Quality & Infrastructure to Prevent Future Flints

Cosponsored by CEI and MPPG

S. Ahuja, B. G. Loganathan, *Organizers*

6:00 - 8:00

ENVR 481. Occurrence of glyphosate and triazine residues in drainage and river waters from western Kentucky, USA. T. Polanco, P. Yerneni, S.S. Kenneth, B.G. Loganathan

ENVR 482. Impacts of Deepwater Horizon oil and dispersants on various life stages of oysters *Crassostrea virginica*. A. Volety, J. Vignier, J. Roberts, A. Loh, M. Boulais, B.E. Woodall, P. Soudant, F. Chu, J.M. Morris, C. Lay, M. Krasnec

Section A

Walter E. Washington Convention Center
Hall D

Multi-Phase Environmental Chemistry of Aerosols

S. W. Hunt, A. Laskin, S. A. Nizkorodov, *Organizers*

6:00 - 8:00

ENVR 483. Electrospray aerosol synthesis of crude oil simulant to mimic the behavior of oil droplets in water. S. Rodrigo, R. Conny, G. Sorial, A. Zimmer

ENVR 484. Detailed characterization of a mist chamber for the measurement of water soluble organic gases. M.M. El-Sayed, C. Hennigan

ENVR 485. Dithiothreitol activity by particulate oxidizers in atmospheric organic aerosol. M. Jang, H. Jiang, Z. Yu

ENVR 486. Influence of multiphase oxidation on SOA chemistry and volatility properties determined using Aerosol-CIMS. M. Link, D. Farmer

ENVR 487. How quantitative are black carbon filter-based instruments? C. Grimes, J. Radney, R. Dickerson, J.M. Conny, C. Zangmeister

ENVR 488. Aerosol formation from OH oxidation of the volatile cyclic methyl siloxane (cVMS) decamethylcyclopentasiloxane. Y. Wu, M.V. Johnston

ENVR 489. Heterogenous reaction between pyruvic acid and mineral dust aerosol particles: SiO₂, Al₂O₃ and TiO₂. Y. Fang, V. Vaida, V.H. Grassian

ENVR 490. Formation of hydrogen peroxide and hydroxyl radicals by ambient particles in acidic aqueous solutions. X.M. Kuang, D. Gonzalez-Martinez, J.A. Scott, S. Paulson

ENVR 491. Withdrawn.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section A

Walter E. Washington Convention Center
Hall D

Nano-Enabled Water Treatment Technologies: Applications & Implications

Cosponsored by CATL

N. Hoogesteijn von Reitzenstein, K. D. Hristovski, A. Mulchandani, C. Powell, M. S. Wong, *Organizers*

6:00 - 8:00

ENVR 492. Adsorptive removal of p-nitrophenol from water by porous organic polymers. W. Lu, F. McNair, L. Stewart

ENVR 493. Controlled evaluation of interactions between environmental macromolecules and photoreactive nanomaterials. S. Shakiba, S. De La Fuente, S.M. Louie

ENVR 494. In-situ hypercrosslinking of macrofibers with hierarchical porous structures. Y. Sheng, J. Zhang, S.M. Mahurin, H. Liu, S. Dai

Section A

Walter E. Washington Convention Center
Hall D

Science & Perception of Climate Change

Cosponsored by CEI

S. O. Obare, E. Schoffers, *Organizers*

6:00 - 8:00

ENVR 495. New software for calculating pH value of coastal seawater: Considering the effects of low molecular weight organic acids. L. Lyu, D. Lu, C. Sun, H. Ding, G. Yang

ENVR 496. Long-term investigations of organic matter content in the Adriatic Sea as an indication of global changes. J. Dautović, V. Vojvodić, N. Tepić, B. Čosović, I. Ciglenecki

ENVR 497. Regional changes in daily extremes of temperature and precipitation over the Southwestern Nigeria, 1975 - 2008. N. Benson, A. Adedapo, W.U. Anake, A. Onu, C. Nwokedi, C. Nwokike

ENVR 498. Metals concentrations and mobility in Philadelphia's urban watersheds as influenced by salinity. M. Kilmer, G. Makler, K. Kramer, E.R. McKenzie

Section A

Walter E. Washington Convention Center
Hall D

Surface Chemistry of Biochar & Its Applications in Environmental & Related Systems

W. W. Chen, R. Doong, M. Fan, J. L. Goldfarb, C. Huang, J. R. Leszczynski, *Organizers*

6:00 - 8:00

ENVR 499. Preparation and application of biochar for the removal of H₂O₂ from semiconductor wastewater. H. Cheng, C. Huang, C. Guo, C. Huang

ENVR 500. Synthesis of lithium iron phosphate/biochar composite using co-precipitation method. Y. Wang, Y. Tsai, C. Hsieh

ENVR 501. Reduction of hydrogen peroxide over biochar surface in acidic solution. C. Guo, R. Fan, H. Cheng, J. Tzeng, C. Huang, C. Huang

ENVR 502. Effects of in-situ biochar incorporation on microbial community in a highly weathered soil. C. Liao, Y. Wu, S. Jien

ENVR 503. Mesocosm study for enrichment of natural PCB-dechlorinating bacteria in wastewater samples using activated carbon particles for enhanced dechlorination of Aroclor 1248. R. Jing, B.V. Kjellerup

ENVR 504. Lignocellulose and lignin pyrolysis and preparation for carbon-coated silicon composites as negative electrodes of lithium batteries. C. Chou, J. Kuo, S. Yen

ENVR 505. Is biochar toxic to aquatic organisms: Role of environmental persistent free radicals. Y. Zhang

ENVR 506. Sustainable biomass-based treatments for local water pollution. M. Karod, M. Berger, C. Johnson, J.L. Goldfarb

ENVR 507. Phosphate adsorption on the hierarchical porous adsorbent of α -Fe₂O₃/Fe₂O₃/C with bamboo bio-template. Z. Zhu, Y. Zhu, C. Huang, W. Wei, H. Qin

ENVR 508. Surface complex formation between heavy metal ions and sludge particulates. C. Huang, J. Wang, H. Kim

Section A

Walter E. Washington Convention Center
Hall D

Trace Organic Contaminants (TrOCs) in Aquatic Systems: Advancements in Monitoring & Remediation

Cosponsored by ANYL and BIOL

R. Brennan, M. Shreve, *Organizers*

6:00 - 8:00

ENVR 509. Superhigh adsorption of perfluorooctane sulfonate on aminated polyacrylonitrile fibers with the assistance of air bubbles. P. Meng, S. Deng

ENVR 510. Steric effect in nitroaromatic compound adsorption on smectite clays. L. Li, G. Sheng

ENVR 511. Transformation of β -lactam antibiotics induced by Fe(III) and Mn(II) ions: The overlooked hydrolysis. J. Chen, Y. Qian, T. Huang

ENVR 512. Development of a protocol for measuring the biodegradation of crude oil components in sea water by two-dimensional GC. A. Bleich, D. Letinski, M. Connelly, R. Nelson

ENVR 513. Preparation of a solid-phase material for PFAS-impacted water measurements. B.J. Place, J. Murray, J. Reiner

ENVR 514. Withdrawn.

ENVR 515. Micropollutant biotransformation by a nitrifying community enriched from biofilm of a nitrification trickling tower. K. Zhang, Y. Men

ENVR 516. Biodegradation and metabolic fate of levofloxacin via a freshwater green alga, *Scenedesmus obliquus* in synthetic saline wastewater. J. Xiong, M. Kurade, S. Chang, B. Jeon

ENVR 517. Pharmaceutical trace organic pollutants in surface water from the tidal freshwater Potomac River: Tandem strong-anion and strong-cation exchange cartridge extractions. T.B. Huff, Z. Kassahun, T. King, J. Raisigel, C. Jones, G.D. Foster

THURSDAY MORNING

Section A

Renaissance Washington, DC Downtown
Meeting Room 3

Advances in Environmental Analytical Methods for EPA Compliance Reporting & Exposure Risk Assessment

Cosponsored by AGRO and CHAL

Financially supported by Shimadzu

H. Chen, M. Li, W. Lipps, B. Prakash, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 **ENVR 518.** Pipeline leak environmental forensic tools: A case study still used today for training purposes. R. Bost

8:25 **ENVR 519.** Analysis of perfluorinated compounds in water by LCMSMS. W. Lipps

8:45 **ENVR 520.** Polychlorinated biphenyls in effluent discharged from a wastewater treatment plant. R. Jing, E.K. Wilson, B.V. Kjellerup

9:05 **ENVR 521.** Microwave assisted synthesis of aminopyridines Schiff bases and characterization as selective cyanide colorimetric sensor. Y.M. Hijji, R. Rajan

9:25 **ENVR 522.** Characterization of acrylamide-induced cardiotoxicity during cardiac progenitor commitment and atrioventricular canal differentiation in zebrafish. M. Huang, J. Jiao, Y. Zhang

9:45 Intermission.

10:00 **ENVR 523.** Reexamining weighted factors contributing to the rates of structural and chemical transformations of metallic nanoparticles. J.M. Pettibone, J. Liu, F. Zhang, A. Allen, A. Johnston-Peck

10:20 **ENVR 524.** Evaluation of toxic metals in filler tobacco and filter samples of cigarette brands and related human health implications. N. Benson, W.U. Anake, A. Adedapo, O.H. Fred-Ahmadu, O. Odubogun

10:40 **ENVR 525.** Occurrence and health risk assessment of hazardous contaminants in herbal medicines. W.U. Anake, N.U. Benson, A. Williams, O.H. Fred-Ahmadu, T.A. Kasali

11:00 **ENVR 526.** Chemical speciation and contamination associated risks of trace metals in *Camellia sinensis*. N. Benson, O.H. Fred-Ahmadu, W.U. Anake, A. Adedapo

11:20 Concluding Remarks.

Section B

Renaissance Washington, DC Downtown
Meeting Room 8

Multi-Phase Environmental Chemistry of Aerosols

Sea Spray Aerosols

S. W. Hunt, A. Laskin, *Organizers*

S. A. Nizkorodov, *Organizer, Presiding*

D. Knopf, M. Shiraiwa, *Presiding*

8:00 **ENVR 527.** Single particle studies of sea spray aerosol: Formation, water uptake, surface tension and multiphase chemistry. V.H. Grassian

8:35 **ENVR 528.** Impact of calcium enrichment on the stability of model sea surface films. B.A. Wellen, A.S. Vidalis, H.C. Allen

8:55 ENVR 529. From sea spray aerosol to clouds: Surface tension from sub- to super-saturated regimes of individual submicrometer particles. A.V. Tivanski

9:20 ENVR 530. Correlating 3D morphology and mechanical properties of individual substrate-deposited particles. K.K. Ray, M. Gutierrez, H.D. Lee, H.S. Morris, F.J. Chang, A.V. Tivanski

9:40 Intermission.

10:00 ENVR 531. OCEANFILMS: A mechanistic approach for connecting ocean biology and aerosol chemistry. S.M. Burrows

10:35 ENVR 532. Marine ice nucleating particles: Resolving their sources, characteristics, emissions and atmospheric longevity. T. Hill, F. Malfatti, C. McCluskey, G. Schill, M. Santander, H. Al-Mashat, G. Cornwell, E. Levin, K. Suski, D. Farmer, B. Friedman, M. Shrestha, V.H. Grassian, W. Biddle, J.D. Fisk, K.A. Prather, P.J. DeMott

11:00 ENVR 533. Effect of particle phase and morphology on cloud condensation nucleus activity. M. Freedman

11:25 ENVR 534. Phase diagrams of internally mixed aqueous nanoscale organic aerosols. N. Rothfuss, S. Petters, A. Marsh, J. Reid, M. Petters

Section C

Renaissance Washington, DC Downtown Meeting Room 9

Impact of Materials, Surface Chemistry & Modifications on Biofilm Formation in Environmental Remediation & Engineering Applications

Cosponsored by BIOL

Financially supported by AEESP

B. V. Kjellerup, Organizer

N. J. Lin, Organizer, Presiding

8:15 Introductory Remarks.

8:20 ENVR 535. Electrical interactions between biofilms and surfaces. S. Glaven, L.M. Tender, B. Eddie, M.D. Yates, N. Kotloski, N. Lebedev, L. Bird

9:05 ENVR 536. Analyzing biofilm architecture and bacterial metagenomics at PAH-contaminated estuarine sites. S. Volkoff, C.K. Gunsch, L. Redfern

9:25 ENVR 537. Microbial transcriptomic analysis of cariogenic bacterial species at enamel surfaces in a pediatric population. K.C. Hsu, M.E. Shirliff, J. Freiberg, L. Hittle, A. Scott, E. Mongodin

9:45 ENVR 538. Acetate production by anaerobic, autotrophic bacteria in a H₂-based membrane biofilm reactor. D. Calvo, A. Ontiveros-Valencia, J. Maldonado-Ortiz, R. Krajmalnik-Brown, C. Torres, B.E. Rittmann

10:05 Intermission.

10:20 ENVR 539. Occurrence of polychlorinated biphenyls (PCBs) in stormwater sediments and their dechlorination by soil biofilms. S. Cao, A. Chan, S.L. Capozzi, A.P. Davis, B.V. Kjellerup

10:40 ENVR 540. Implementing a biowall to induce microbial reductive dehalogenation of volatile organics in groundwater. D. Kindig

11:00 ENVR 541. Removal of pentachlorophenol from water by a hydrogen-based membrane biofilm reactor. M. Long, C. Zhou, S. Xia

11:20 ENVR 542. Biological nitrogen removal potential of stormwater. Y. Sun, Z. Wang

11:40 ENVR 543. Treating refinery waste with a novel mobile biofilm process. F. Sabba, J. Calhoun

Section D

Renaissance Washington, DC Downtown Meeting Room 5

Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation

Cosponsored by CEI and CHAL

M. Card, T. R. Henry, E. Wong, Organizers

L. Libelo, Organizer, Presiding

8:00 ENVR 544. Changes in TSCA drive new strategies for eye irritation hazard assessments. H. Raabe

8:25 ENVR 545. Advanced *in vitro* test systems provide human-relevant results to support regulatory decision-making. H. Behrsing

8:50 ENVR 546. Tiered approach for integrating exposure and dosimetry with *in vitro* dose-response data in the modern risk assessment paradigm. J. Leonard, D.T. Chang, H. El-Masri, S. Edwards, C. Stevens, K. Mansouri, P. Egeghy, C. Tan

9:15 ENVR 547. *In vitro* methods available for chemical risk assessment under amended TSCA for skin sensitization evaluation. T. Ruwona, E. Hill

9:40 Intermission.

10:00 ENVR 548. Integrating non-targeted analysis research with high-throughput chemical screening programs at the US EPA. J.R. Sobus, J. Wambaugh, K. Isaacs, A.J. Williams, A.D. McEachran, A. Richard, C. Grulke, E.M. Ulrich, J. Rager, M. Strynar, S. Newton

10:25 ENVR 549. *In vitro* metabolomics as alternative testing strategy for predicting adverse outcome pathways of the exposome. S. Surapureddi

10:50 Panel Discussion.

THURSDAY AFTERNOON

Section B

Renaissance Washington, DC Downtown Meeting Room 8

Multi-Phase Environmental Chemistry of Aerosols

Particle Phase & Morphology

S. W. Hunt, S. A. Nizkorodov, Organizers

A. Laskin, Organizer, Presiding

M. Freedman, A. V. Tivanski, Presiding

1:00 ENVR 550. What is the role of the organic phase state in multiphase chemical kinetics, particle hygroscopicity, and ice nucleation? D.A. Knopf, J.H. Slade, J.C. Charnawskas, P.A. Alpert, A. Lambe, T. Berkemeier, A. Arangio, M. Shiraiwa, J. Wang, H. Su, P. Massoli, R.E. O'Brien, U. Pöschl, T.B. Onasch, R.C. Moffet, M.K. Gilles, P. Davidovits, D.R. Worsnop

1:35 ENVR 551. Molecular corridors and particle phase state in atmospheric secondary organic aerosols. M. Shiraiwa

2:10 ENVR 552. Diffusion measurements in high viscosity aerosol particles. T. Preston

2:35 ENVR 553. Condensed phase diffusivity and evaporation of volatile organics in levitated viscous aerosol particles. S. Bastelberger, U.K. Krieger, B. Luo, T. Peter

2:55 Intermission.

3:15 ENVR 554. Single particle measurements of the physicochemical properties of secondary organic aerosol surrogates. J. Reid, G. Rovelli, Y. Song, A. Haddrell, K. Pereira, J. Hamilton, D. Topping

3:50 ENVR 555. Glass forming properties of secondary organic aerosol tracers and surrogates examined by thin film dielectric relaxation spectroscopy. Y. Zhang, A. Lambe, T.B. Onasch, S. Katira, L. Nichman, W. Xu, Z. Zhang, M. Canagaratna, A. Freedman, A. Gold, J.T. Jayne, D.R. Worsnop, J. Surratt, P. Davidovits, D. Chandler, C.E. Kolb

4:10 ENVR 556. Feedbacks between microphysics and photochemical aging in viscous aerosols. J. Dou, B. Luo, P.C. Arroyo, P.A. Alpert, M. Ammann, T. Peter, U.K. Krieger

4:30 ENVR 557. Bridging the gap between solid to liquid states of single particle sucrose: Young's modulus and surface tension using AFM. H.D. Lee, K.K. Ray, A.V. Tivanski

Section C

Renaissance Washington, DC Downtown Meeting Room 9

Impact of Materials, Surface Chemistry & Modifications on Biofilm Formation in Environmental Remediation & Engineering Applications

Cosponsored by BIOL

Financially supported by AEESP

N. J. Lin, Organizer

B. V. Kjellerup, Organizer, Presiding

1:00 ENVR 558. H₂-utilizing biofilm embedded with palladium nanoparticles (PdNP-biofilm): Assembly, characterization, and application in enhancing denitrification. C. Zhou, M. Long, B.E. Rittmann

1:20 ENVR 559. Rhamnolipid enhanced *Pseudomonas putida* biofilm formation on hydrophilic surfaces. H. Katz, R. Cahan

1:40 ENVR 560. Statistical exploration of the cause of bacterial regrowth in filtered drinking water. J. Lin, J. Edwards-Brandt, Z. Wang

2:00 ENVR 561. Microbial electrochemical energy storage and recovery in a combined electroautotrophic and electrogenic biofilm. M.D. Yates, Q. Zhang, B. Eddie, A. Malanoski, S.M. Strycharz-Glaven, S.R. Yates, L.M. Tender

2:20 Intermission.

2:35 ENVR 562. Bench-scale comparison of a new mobile biofilm process and traditional IFAS technology. F. Sabba, J. Calhoun

2:55 ENVR 563. Pilot-scale investigation of ozone-enhanced biofiltration using spent and regenerated granular activated carbon media for potable reuse. Y. Sun, B. Angelotti, P. Evans, M. Brooks, Z. Wang

3:15 ENVR 564. Nitrogen removal using a biofilm attached to chabazite in a sequencing batch reactor. V. Aponte, S. Ergas

3:35 ENVR 565. Bacterially-induced changes in the sorption and bioavailability of ionizable substrates during adhesion due to the charge-regulation effect. D. Brown, H. Zhu, L. Albert

3:55 Concluding Remarks.

Nanoscale Sensing in Foods & Other Complex Media

Sponsored by AGFD, Cosponsored by ANYL, COLL, ENVR and INOR

FLUO

Division of Fluorine Chemistry

N. Vasdez, Program Chair

TUESDAY MORNING

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL[†], BMGT[‡], COLL[‡], ENVR[‡], FLUO[‡], PMSE[‡], PRES, SCHB[‡] and YCC[‡]

TUESDAY AFTERNOON

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL[†], BMGT[‡], COLL[‡], ENVR[‡], FLUO[‡], PMSE[‡], PRES, SCHB[‡] and YCC[‡]

TUESDAY EVENING

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL[†], BMGT[‡], COLL[‡], ENVR[‡], FLUO[‡], PMSE[‡], PRES, SCHB[‡] and YCC[‡]

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WEDNESDAY MORNING**Journey to Mars: Materials, Energy & Life Sciences**

Sponsored by POLY, Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YCC†

WEDNESDAY AFTERNOON**Journey to Mars: Materials, Energy & Life Sciences**

Sponsored by POLY, Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YCC†

GEOC**DIVISION OF GEOCHEMISTRY**

W. Burgos, Program Chair

OTHER SYMPOSIA OF INTEREST:

Carbon Management: Advances in Carbon Efficiency, Capture, Conversion, Utilization & Storage (see ENFL, Sun, Mon)

Ecological & Human Health Impacts of Emerging Environmental Contaminants (see ENVR, Sun, Mon, Wed)

Iron & Manganese Oxides: Their Formation, Structure, Reactivity & Applications (see ENVR, Sun, Mon, Wed)

Materials Science in Nuclear Waste Disposal (see NUCL, Mon, Tue)

Langmuir Lectures, Nano Letters Award Lecture, ACS Materials & Interfaces Award Lecture (see COLL, Tue)

Fate, Transport & Remediation of Radionuclides in the Environment (see ENVR, Tue, Wed)

BUSINESS MEETINGS:

GEOC Business Meeting, 6 PM: Sun

SOCIAL EVENTS:

GEOC Social Hour, 6 PM: Tue

SUNDAY AFTERNOON**Section A**

Grand Hyatt Washington
Constitution B

Engineered Nanomaterials in the Environment: Fate, Behaviour & Effects

E. Chiang, Organizer

R. M. Santos, Organizer, Presiding

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

1:30 Introductory Remarks.

1:35 **GEOC 1.** Withdrawn.

2:05 **GEOC 2.** Effect of organic ligands and tin dopant concentration on apparent band gap and aggregation of indium tin oxide nanoparticles in aqueous systems. **J. Grundy**, C. Ngan, N.B. Saleh, L.E. Katz, M. Kirisits, C.A. Saez Cabezas, D.J. Milliron

2:25 **GEOC 3.** Factors influencing quantum dot dissolution kinetics and mechanism. **P. Payday**

2:45 Intermission.

3:05 **GEOC 4.** Environmental fate and behavior of engineered nanoparticles that have natural analogs. **B. Kim**

3:35 **GEOC 5.** Evolution of nanoscale zero-valentiron (nZVI) in water: Microscopic and spectroscopic evidence on the formation of nano- and micro-structured iron oxides. **A. Liu**, S. Huang

3:55 **GEOC 6.** Structure of silicate species on ferrihydrite surfaces and in ferrihydrite structure. **X. Wang**, X. Feng, M. Zhu

4:15 Concluding Remarks.

MONDAY MORNING**Section A**

Grand Hyatt Washington
Independence D/E

Water Chemistry Associated with Energy Production & Extraction

J. M. Vanbriesen, Organizer

N. Warner, Organizer, Presiding

8:30 Introductory Remarks.

8:35 **GEOC 7.** Supercritical carbon dioxide reaction and diffusion in brine under geologic carbon sequestration conditions. **P.N. Perera**, H. Deng, P. Schuck, B. Gilbert

8:55 **GEOC 8.** Impact of surface active compounds in crude oil on reservoir sandstone and carbonate rock wettability. **P. Mwangi**, G. Thyne, P. Brady

9:15 **GEOC 9.** Impact of fluid conditions and additives on iron sulfide formation, phase transformation, and layer distribution. **H. Alsaiani**, K.L. Hull, M. Sayed, T. Luce

9:35 **GEOC 10.** Lithium recovery from shale gas produced water using precipitation and adsorption method. **Y. Jang**, E. Chung

9:55 **GEOC 11.** Removal of strontium and barium from produced waters using sulfonate-based polymers. **K. Shafer-Peltier**, C. Kenner, S. Xie, S.J. Randtke, E.F. Peltier

10:15 Intermission.

10:35 **GEOC 12.** Development of celestite impregnated proppant for the control of Ra-226 in the Marcellus shale produced water. **A. Gusa**, J.R. Flora, R.D. Vodic

10:55 **GEOC 13.** Fate of radium and barium in waste solids from hydraulic fracturing. **B. Ouyang**, M. Ajemigbitse, K. Van Sice, N. Warner, J. Landis, D. Renock

11:15 **GEOC 14.** Determining the impacts of oil and gas wastewater discharge on sediments in Pennsylvania. **K. Van Sice**, N. Warner

11:35 **GEOC 15.** Effects of mineral spatial distribution on the reactive transport of Marcellus shale waters. **Z. Cai**, H. Wen, L. Li

11:55 **GEOC 16.** Investigating bioaccumulation of alkali earth metals associated with oil and gas operations. **N. Warner**, B. McDevitt, K. Van Sice, T.J. Geeza, W.D. Burgos

12:15 Discussion.

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED†, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

Sustaining Water Resources: Environmental & Economic Impact

Sponsored by MPPG, Cosponsored by COMSCI†, ENVR, GEOC, I&EC and PRES

MONDAY AFTERNOON**Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy**

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED†, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

MONDAY EVENING**Section A**

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

W. D. Burgos, Organizer

8:00 - 10:00

17, 24. See subsequent listings.

TUESDAY MORNING**Section A**

Grand Hyatt Washington
Lafayette Park

General Geochemistry

W. D. Burgos, Organizer, Presiding

N. Kabengi, Presiding

8:30 Introductory Remarks.

8:35 **GEOC 17.** Application of high energy resolution X-ray fluorescence spectroscopy on environmental samples.

M. Noerpel, T. Luxton, A.J. Kropf, B. Ravel, R. Karna, D.M. Pelouquin, K. Scheckel

8:55 **GEOC 18.** Effect of geochemical conditions and chemical treatment of zeolites on their ability to bind selenium oxyanions. **N. Halalshah**, A. Smith, C. Papellis

9:15 **GEOC 19.** Changes in human health risk of arsenic-contaminated soil in former smelter site by injecting stabilization agents. **J. An**, G. Yu, K. Nam

9:35 **GEOC 20.** Enrichment of rare earth elements (REEs) from fly ashes using flotation method. **F. Shi**, Y. Soong, M. Gray

9:55 Intermission.

10:15 **GEOC 21.** Trace and rare earth element geochemistry of kerogen samples from the Orange Basin, South Africa. **A. Akinlua**

10:35 **GEOC 22.** A XRF geochemical analysis and TOC between the late Devonian-early Mississippian Chattanooga and Maquoketa carbonaceous mudstones in the Sedgwick Basin, Kansas, Mid-Continent, USA. **S. Tedesco**, H. Ali

10:55 **GEOC 23.** Role of fluid composition in oil recovery from organic nanopores in shale source rocks. **S. Baek**, I. Akkuttu

11:15 **GEOC 24.** Upscaled rate law for mineral dissolution rates across scales in heterogeneous porous media. **H. Wen**, L. Li

Understanding the Chemistry of Our Planet**Chemistry's Role in our Earth System**

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

TUESDAY AFTERNOON**Understanding the Chemistry of Our Planet****Human Impacts to our Planet**

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

TUESDAY EVENING**Section A**

Walter E. Washington Convention Center
Hall D

General Geochemistry

W. D. Burgos, Organizer

8:00 - 10:00

GEOC 25. Simulation of Cu and Pb migration in MSWI bottom ash landfill site. **H. Zhang**

GEOC 26. A comparative inorganic geochemical analysis between the Cherokee and Atoka sediments of the Denver, Cherokee and Forest City basins, Mid-Continent, USA based on XRF. **H. Ali**, S. Tedesco

GEOC 27. Electrostatic potential mapping within aluminosilicate clays: Principles that govern organic cation sorption. **J. Gascon**, A. Richard

GEOC 28. Effect of bicarbonate on the structure and reactivity of nanoscale zero-valent iron (nZVI): Applications for U(VI) separation. **Y. Hua**, W. Zhang, L. Ling

GEOC 29. Withdrawn.

GEOC 30. Arsenic removal from water using zeolites: Effects of zeolite treatment and geochemical conditions. **A. Smith**, N. Halalshah, C. Papellis

GEOC 31. Observation and manipulation of silver on quartz nano-crystals. **A. Felipe**

GEOC 32. Heavy metal concentrations in the Lumber River: The effects of the decommissioned W.H. Weatherhead coal-fired power plant. **B.J. Bryan**

GEOC 33. Metal transport enhanced by dissolved organic carbon (DOC) at the watershed scale. W. Zhi, L. Li, J. Kaye, K. Williams, C. Steefel

GEOC 34. Characterization of the acid-base properties of selected humic acids. J. Kang

GEOC 35. Investigating the controls on salinization of rivers impacted by oil and gas wastewater disposal. B. McDevitt

GEOC 36. Trace and major element ratios in *Elliptio dilatatus* shells as indicators of surface water quality in Western Pennsylvania. T.J. Geeza, N. Warner, D.P. Gillikin

HIST

Division of the History of Chemistry

S. Rasmussen, *Program Chair*

SOCIAL EVENTS:

No Belles theatre performance, 5:30 PM: Tue

BUSINESS MEETINGS:

HIST Executive Committee Meeting, 5:00 PM: Sun

SUNDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution C

HIST Tutorial & General Papers

S. C. Rasmussen, *Organizer, Presiding*

1:30 HIST 1. HIST Tutorial: Polymer chemistry before Staudinger. S.C. Rasmussen

2:15 Intermission.

2:30 HIST 2. Iodine and its fascinating history. N.V. Tsarevsky

3:00 HIST 3. Woodward's birth centennial: A philatelic tribute. D. Rabinovich

3:30 HIST 4. Grassroots advocacy for the sciences: A case history from the National Coalition for Science and Technology (1981–87). D.L. Garin

Analytical Chemistry in the Context of Cultural Heritage

Teaching Chemistry through Art

Sponsored by ANYL, Cosponsored by HIST

MONDAY MORNING

Section A

Grand Hyatt Washington
Constitution C

History as Outreach: Celebrating the ACS Landmarks Program's 25th Anniversary

A. J. Rocke, *Organizer*

V. V. Mainz, *Organizer, Presiding*

8:30 HIST 5. Introductory remarks:

A quarter-century of chemical landmarks. A.J. Rocke

9:00 HIST 6. Roots of the national and the international programs. N.D. Heindel

9:30 HIST 7. Peripatetic

Priestley. R.G. Anderson

10:00 Intermission.

10:15 HIST 8. Ivermectin: A cure for a deadly and torturous scourge. M. Orna

10:45 HIST 9. Connecting chemistry to society and culture. M. Meyer

11:15 HIST 10. From Bakelite to biochemistry: Highlights from the National Museum of American History's collections. K. Frederick-Frost, M. Warner

11:45 Panel Discussion.

Analytical Chemistry in the Context of Cultural Heritage

Research & Application

Sponsored by ANYL, Cosponsored by HIST

MONDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution C

HIST Tutorial & General Papers

S. C. Rasmussen, *Organizer, Presiding*

1:30 HIST 11. Story of a long-lasting chemistry textbook and its authors. W. Palmer

2:00 HIST 12. Chemistry in a library. A. Davis

2:30 HIST 13. *Scientific American* and its influence on the public understanding of the chemical sciences, Part I: 1846–1866. M.D. Saltzman

3:00 Intermission.

3:15 HIST 14. Items of interest to chemists from the pages of *Scientific American* for chemists, Part I: 1846–1866. M.D. Saltzman

3:45 HIST 15. Baking powder wars: A history of chemical leavening. L. Civitello

4:15 HIST 16. Contribution of medical missionaries to the introduction of chemistry and industries in Korea. C.H. Do

Analytical Chemistry in the Context of Cultural Heritage

Research & Application

Sponsored by ANYL, Cosponsored by HIST

MONDAY EVENING

Section A

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

S. C. Rasmussen, *Organizer*

8:00 - 10:00

1, 4, 15. See previous listings.

TUESDAY MORNING

Section A

Grand Hyatt Washington
Declaration A/B

Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists

Cosponsored by PRES, PROF and WCCF

E. T. Strom, *Organizer*

V. V. Mainz, *Organizer, Presiding*

8:25 Introductory Remarks.

8:30 HIST 17. Women scientists: An uphill battle for recognition. M. Hargittai

9:00 HIST 18. Should the 1932 Nobel Prize be awarded to Langmuir, Pockels and Blodgett? B.H. Davis

9:30 HIST 19. Lise Meitner: Overlooked leadership in the discovery of nuclear fission. J.L. Curtis-Fisk

10:00 Intermission.

10:15 HIST 20. Who got Marietta Blau's Nobel Prize? V.L. Trimble

10:45 HIST 21. Ida Noddack-Tacke: The actual proposer of nuclear fission before Hahn. J.L. Marshall, M. Orna

11:15 HIST 22. Katharine Burr Blodgett: A brief account of her remarkable life and work. M.E. Schott

11:45 HIST 23. Erika Cremer and the origins of solid state gas chromatography, 1944–1947. J.A. Johnson

TUESDAY AFTERNOON

Section A

Grand Hyatt Washington
Declaration A/B

Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists

Cosponsored by PRES, PROF and WCCF

V. V. Mainz, *Organizer*

E. T. Strom, *Organizer, Presiding*

1:30 HIST 24. Kathleen Yardley Lonsdale: Pioneering crystallographer and peace activist. M. Julian, M. Orna

2:00 HIST 25. Birth of environmental chemistry: Rachel Carson, the courageous author and scientist that gave rise to the EPA. A.H. Coffman

2:30 HIST 26. Vive le francium: Marguerite Perey, discoverer of the last natural element. S.S. Preston

3:00 Intermission.

3:15 HIST 27. Rosalind Franklin: Her pathway to DNA. B.H. Davis

3:45 HIST 28. Professor Emerita Darleane C. Hoffman. C.F. Mason

4:15 HIST 29. Always a nominee, never a Nobelist. V.V. Mainz

I&EC

Division of Industrial and Engineering Chemistry

C. Abney, *Program Chair*

BUSINESS MEETINGS:

Subdivision Meetings: Open, 10 AM: Sat

I&EC Business Meeting: Open, 1 PM: Sat

Executive Committee Meeting: Closed, 6 PM: Sun

SUNDAY MORNING

Ammonia Economy

Oxidation, Catalytic Cracking & Storage

Sponsored by ENFL, Cosponsored by I&EC

SUNDAY AFTERNOON

Section A

Grand Hyatt Washington
Declaration A/B

Structural & Supramolecular Aspects of Metal Ion Separations

Cosponsored by NUCL

C. W. Abney, *Organizer*

M. R. Antonio, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 I&EC 1. Surface polarization effects on metal-amphiphile emulsions. M. Olvera De La Cruz

2:00 I&EC 2. Aggregate formation and synergistic extraction: The challenge of explaining and modeling extraction behavior of metal ions. M. Nilsson

2:25 I&EC 3. Organic phase microstructure in TBP-metal- HNO_3 - H_2O systems. J. Braley, M. Servis, A. Baldwin, R.J. Ellis

2:50 I&EC 4. Molecular and supramolecular features of Pd and Nd extraction with malonamides: Towards a better description of the driving forces of solvent extraction. R. Poirat, D. Bourgeois, D. Meyer

3:15 Intermission.

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3:45 I&EC 5. Solvent extractions based on ionic liquids: Ion recognition through ionic liquids. H. Luo, C.W. Abney, S. Dai

4:10 I&EC 6. Coordination chemistry of rare earth elements to address problems in their separations and sustainability. E.J. Schelter, B.E. Cole, J. Bogart, M. Boreen, C. Lippincott, B. Manor, P. Carroll

4:35 I&EC 7. Diluent effect on distribution and speciation behavior of T2EHDGA and HE[HEHP] as individual extractants and in the combined ALSEP solvent. G.J. Lumetta, E.L. Campbell, G.B. Hall, V. Holfeltz, T.G. Levitskaia

5:00 I&EC 8. Supramolecular aggregation in the ALSEP system: Effect of diluent. T.G. Levitskaia, V. Holfeltz, E.L. Campbell, G.B. Hall, G.J. Lumetta

5:25 Concluding Remarks.

Science Communications: The Art of Developing a Clear Message

Sponsored by PRES, Cosponsored by BIOL, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, CTA, DAC, I&EC, INOR, ORGN, PROF, SCHB and YCC

Ammonia Economy

Synthesis, Utilization & Nitrogen Reduction

Sponsored by ENFL, Cosponsored by I&EC

MONDAY MORNING

Section A

Grand Hyatt Washington
Declaration A/B

Structural & Supramolecular Aspects of Metal Ion Separations

Cosponsored by NUCL

M. R. Antonio, *Organizer*

C. W. Abney, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 I&EC 9. Mechanism of the high-efficient recovery of vanadium in aqueous solution by a reusable primary amines N1923: based on the vanadium species characterization. J. Wen, H. Cao, P. Ning

8:30 I&EC 10. Synthesis of water decontamination materials by radiation-induced graft polymerization and its application for environmental water at contaminated area. S. Saiki, N. Seko

8:55 I&EC 11. Bifunctional amine/amidoxime polyacrylonitrile fibers for the separation of uranium from seawater. S. Alexandratos, X. Zhu

9:20 I&EC 12. Task-specific design and functionalization of advanced porous organic polymers for metal ion separation. S. Ma

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

9:45 Intermission.

9:55 I&EC 13. Ion sorption, diffusion and transport in charged polymer membranes. B.D. Freeman

10:20 I&EC 14. Ion foam flotation of metal ions using a carboxylate based surfactant: from speciation to ion separation by foams. P. Bauduin, C. Micheau, O. Diat

10:45 I&EC 15. X-ray studies of interfacial molecular complexes formed during solvent extraction of rare earth metal ions. M.L. Schlossman

11:10 I&EC 16. Solvent extraction: Structure of the liquid/liquid interface containing a diamide ligand. O. Diat, T.T. Pham, J. Duf r che, L. Girard, P. Brevet, A. Jonchere, E. Scoppola

11:35 I&EC 17. Foundational characteristics of interfacial regions relevant to solvent extraction. A.E. Clark

Building a Safety Culture Across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Sustaining Water Resources: Environmental & Economic Impact

Sponsored by MPPG, Cosponsored by COMSCHI, ENVR, GEOC, I&EC and PRES

MONDAY AFTERNOON

Section A

Grand Hyatt Washington
Declaration A/B

Structural & Supramolecular Aspects of Metal Ion Separations

Cosponsored by NUCL

M. R. Antonio, *Organizer*

C. W. Abney, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 I&EC 18. Selective recognition of metal ions in seawater by amidoxime-functionalized polymers. A. Ivanov, I. Popovs, C.W. Abney, B. Parker, L. Rao, S. Dai, V. Bryantsev

2:00 I&EC 19. Structural basis for selective liquid-liquid extraction from EXAFS and molecular simulations. V. Bryantsev, R.J. Ellis, A.S. Ivanov, B.A. Moyer

2:25 I&EC 20. Polymeric foams for plutonium anion exchange. K.M. Taylor-Pashow, T.C. Shehee, D.T. Hobbs, J. Pribyl, B.C. Benicewicz

2:50 I&EC 21. Structural, spectroscopic, and theoretical studies on the effects of pyrazole substitution and ion-pairing in binding and sensing of NH₄⁺ and Lanthanides(III) by tripodal tris-pyrazole receptors. T.M. Jonah, E.V. Govor, S. Kandel, L. Mathivathanan, R.G. Raptis, A.N. Morozov, A.M. Mebel, K. Kavallieratos

3:15 Intermission.

3:45 I&EC 22. Photoswitchable single and double helices for anion binding and release. A.H. Flood

4:10 I&EC 23. Development of fragment-based quantum chemical models for anion binding with macrocycles and foldamers. K. Raghavachari, A. Sengupta, D. Sibali

4:35 I&EC 24. Metal complexes for catch-and-release of phosphate in water. V.C. Pierre

5:00 I&EC 25. Selective crystallization of anion-water clusters with self-assembled guanidines. R. Custelcean, C. Seipp, N.J. Williams

5:25 Concluding Remarks.

Building a Safety Culture Across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

MONDAY EVENING

Section A

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

C. W. Abney, *Organizer*

8:00 - 10:00

31, 35, 44, 46-47, 50, 56. See subsequent listings.

TUESDAY MORNING

Section A

Grand Hyatt Washington
Constitution C

General Papers

E. Rosenberg, *Organizer*

C. W. Abney, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 I&EC 26. Microwave-induced electrical discharges open up new possibilities and opportunities for efficient and oriented application of microwave heating technology, especially in recycling/disposal of solid waste and VOCs destruction. J. Sun, W. Wang, Z. Song

8:25 I&EC 27. Co-Fe layered double hydroxides for removal of hydrogen sulfide from gas stream. S. Lee, D. Kim

8:45 I&EC 28. Synthesis of a novel monolith combined activated carbon and zeolite-NaUSY for CO₂ capture by electric swing adsorption (ESA). Q. Zhao, F. Wu, P. Xiao, P. Webbley

9:05 Intermission.

9:20 I&EC 29. Digital manufacture: The road to industrialization of polymer tailor-making. B. Li, Y. Luo, W. Wang, S. Zhu

9:40 I&EC 30. Macroporous monolith with polymer gel matrix: Application in continuous-flow catalytic reactor. H. Matsumoto, Y. Hoshino, Y. Miura

10:00 I&EC 31. Azo functionalized, hydrophilic fabrics for the extraction of uranium from seawater. T. Dietz, Z. Tsinas, J. Cua, I. Pazos, E. Fastow, W. Li, F. Bateman, D. Poster, D.C. Grills, M. Adel-Hadadi, A. Barkatt, J.F. Wishart, M. Al-Sheikhly

10:20 Intermission.

10:35 I&EC 32. Hybrid of metal-organic framework and ionic liquid as adsorbent for adsorptive separation of acetylene and ethylene. Z. Bao

10:55 I&EC 33. Liquid-liquid equilibrium between two hydrophobic ionic liquids. C. Seica Neves, A.M. Silva, A.M. Fernandes, J. Coutinho, M. Freire

11:15 I&EC 34. Ionic liquids and click chemistry: A promising combination for development of functional materials with diverse applications. A. Mirjafari

11:35 Concluding Remarks.

Understanding the Chemistry of Our Planet

Chemistry's Role in our Earth System

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

TUESDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution C

General Papers

E. Rosenberg, *Organizer*

C. W. Abney, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 I&EC 35. End-to-end DNA archival storage system. L. Organick, S. Ang, Y. Chen, R. Lopez, S. Yekhanin, K. Makarychev, M. Racz, B. Nguyen, C. Takahashi, S. Newman, H. Parker, C. Rasthchian, K. Stewart, G. Gupta, R. Carlson, J. Mulligan, D. Carnean, G. Seelig, L. Ceze, K. Strauss

1:55 I&EC 36. Dual reactor methodology for the high-selective synthesis of hydrocarbons from methane and carbon dioxide. W. Zhaoxuan, M. Ding

2:15 I&EC 37. Development and scale-up of a robust process for a challenging Pd-cat. C-N coupling step for production of a pharmaceutical intermediate: Modeling and mechanistic studies of a unique dual-base system across multiple scales. B. Inankur, E. Simmons, L. Dong, D. Treitler, A. Rogers, K. Chen

2:35 Intermission.

2:50 I&EC 38. Synthesis of titanium dioxide nanofluid and application in jet impingement cooling in steel industries. I. Sarkar, S.K. Pal, S. Chakraborty

3:10 I&EC 39. Hydrothermal processing of K-feldspar ore for industrial production of affordable potash fertilizers. D. Ciceri, M. de Oliveira, A. Allanore

3:30 I&EC 40. Kinetics of hot-stage carbonation of basic oxygen furnace slag for reduction of free lime content. G. Ounoughene, R.M. Santos,  . Cizer, T. Van Gerven

3:50 Intermission.

- 4:05 I&EC **41.** Dopamine derivatives for enhancing practicality of fabricating polydopamine-based antimicrobial coatings. **K. Neoh**, L. Shi, J. Zhang, E. Kang, C.L. Chai
- 4:25 I&EC **42.** Fabrication of omniphobic and superomniphobic surfaces with inexpressive lasers. **S. Movafaghi**, A. Pendurthi, W. Wang, S. Shadman, A.P. Yalin, A. Kota
- 4:45 I&EC **43.** Developments in monitoring continuous reactions by online benchtop NMR: Development of benchtop NMR as a process analytical technology. **J.F. Araneda**, T. Boehringer, T. Rehm, **S. Riegel**
- 5:05 Concluding Remarks.

Understanding the Chemistry of Our Planet

Human Impacts to our Planet

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINP, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

TUESDAY EVENING

Section A

Walter E. Washington Convention Center Hall D

General Posters

C. W. Abney, E. Rosenberg, *Organizers*

6:00 - 8:00

- I&EC **44.** Effects of various impurities on the purification of styrene by a new technique combining distillation and crystallization. **L. Shiau**
- I&EC **45.** Withdrawn.
- I&EC **46.** Development and mechanical properties of bimodal microstructures in low carbon steel. **G. Nourian**, A. Karimi Taheri
- I&EC **47.** Synthesis of drug-based superprotic ionic liquids via thiol-ene click chemistry. **M. Reardon**, A. Mirjafari
- I&EC **48.** Modified approach to analyze nucleation behavior of organic and inorganic solutions. **S. Xu**, J. Gong, J. Wang
- I&EC **49.** Dynamic vapor sorption and electrochemical impedance spectroscopy as rapid screening tests for anti-corrosion coatings. **S. Arumugam**, L. Yao, A. Prisco, J. Gu
- I&EC **50.** Nanostructured refractory ceramics. **B. Dyatkin**, M. Laskoski, B. Rock, S.B. Qadri, T.M. Keller, R.M. Gamache
- I&EC **51.** Synthesis of monodisperse lithium carbonate nanoparticles using an upscaled microfluidic reactor. **S. Tallapudi**, H.A. Stretz, J.L. Massingill
- I&EC **52.** Facile synthesis of porous liquids with tunable pore size as promising media for gas separation. **W. Shan**, B.P. Thapaliya, C. Do-Thanh, S. Dai
- I&EC **53.** Synthesis and characterization of fluorescent materials stable at high temperatures. **M. Soltani**, J. Davis JR
- I&EC **54.** Reviewer's perspectives on stability testing of drug substances. **J. Wang**, N. Takiar, R. Michalak, D.J. Skanchy
- I&EC **55.** Composition-controlled photo-copolymerization in a diffusion-limited environment. **X. Liu**

- I&EC **56.** Development and bench testing of organic radiochromic materials. **B. Peters**, J.C. Nicholson, A. Petty, J.E. Anthony, A.L. Washington
- I&EC **57.** Reengineering of the rate-limiting N-acetyl-L-glutamate kinase from corynebacterium crenatum and its application in the synthesis of L-arginine. **M. Xu**, J. Zhang, Z. Rao, Z. Xu
- I&EC **58.** Test strip technology for field detection of explosives. **A.R. Nicolaescu**, M. Felten, S. Graber
- I&EC **59.** Sonochemical degradation of perfluorooctanoic and perfluorohexanesulfonic acids in aqueous solutions. **D. Chen**, D. McInnis, W. Arnold, M.F. Simcik, Y. Aly
- I&EC **60.** PDMS based compounds as wind shield protectors. **S. Bommakanti**

WEDNESDAY MORNING

Section A

Grand Hyatt Washington
Constitution C

General Papers

E. Rosenberg, *Organizer*

C. W. Abney, *Organizer, Presiding*

9:00 Introductory Remarks.

- 9:05 I&EC **61.** Recycling of waste printed circuit boards by delamination using different organic solvents and study of its mechanism. **H.R. Verma**, K.K. Verma, T.R. Mankhand
- 9:25 I&EC **62.** Solvent-free synthesis of ordered mesoporous solid acid for biomass transformation. **J. Borovilas**, C. Carrie, M. Finnerty, A. Masoumi, F. Liu, M.J. Savelski, C. Slater, J.F. Stanzione, **I. Noshadi**
- 9:45 I&EC **63.** High purity Organosol lignin for carbon fiber application. **G. Koumba Yoya**
- 10:05 I&EC **64.** Thermodynamic study of hydrophobic eutectic solvents based on terpenes. **M. Martins**, P. Pontes, E.A. Crespo, G. Máximo, S.P. Pinho, C. Held, J. Coutinho
- 10:25 Intermission.
- 10:40 I&EC **65.** Improvement of fumaric acid biosynthesis in engineered *Saccharomyces cerevisiae* by site-directed mutagenesis and codon optimization. **G. Xu**, F. Zhang, M. Koffas, R.J. Linhardt
- 11:00 I&EC **66.** Magnetic separation for high efficiency harvesting of microalgal cells. **C. Guo**, C. Liu
- 11:20 I&EC **67.** Different performance of nanocellulose-producing bacterial strains in lignocellulose-derived inhibitors added culture media. **X. Zou**, G. Wu, S. Stagge, F. Hong, L. Jonsson, L. Chen
- 11:40 Concluding Remarks.

5th International Symposium on Mesoporous Zeolites

Sponsored by ENFL, Cosponsored by I&EC

WEDNESDAY AFTERNOON

5th International Symposium on Mesoporous Zeolites

Sponsored by ENFL, Cosponsored by I&EC

INOR

Division of Inorganic Chemistry

N. Radu and **S. Koch**, *Program Chairs*

OTHER SYMPOSIA OF INTEREST:

Theoretical Models of Chemical Bonding & Reactivity Spanning the Periodic Table: A Symposium in Honor of Roald Hoffmann (see *PHYS*, Sun, Mon, Tue, Wed, Thu)

2017 ACS Catalysis Lectureship for the Advancement of Catalytic Science (see *CATL*, Mon)

2016 ACS Catalysis Lectureship for the Advancement of Catalytic Science: Honoring Matthias Beller (see *CATL*, Mon)

Structural & Supramolecular Aspects of Metal Ion Separations (see *I&EC*, Sun, Mon)

Nano Commercialization: Views from the Front (see *MPPG*, Mon)

Organometallics Distinguished Author Award (see *ORGN*, Mon)

SUNDAY MORNING

Section A

Renaissance Washington, DC Downtown
Renaissance East

Fundamental Aspects of Metal Organic Framework Catalysis

MOFs for Chemical Warfare Agent Degradation

A. J. Morris, J. R. Morris, *Organizers, Presiding*

- 8:30 INOR **1.** Robust surface-anchored UiO-66-based metal-organic-framework films on polymer fibers for rapid hydrolysis of chemical agents. **G. Parsons**, J. Zhao, D.T. Lee, H.F. Barton
- 9:00 INOR **2.** Metal organic framework's acid dissociation constants as a robust descriptor of their morphology and reactivity: Applications to hydrolysis of warfare agents. **M. Momeni**, C.J. Cramer
- 9:30 Intermission.
- 9:45 INOR **3.** Reaction of the chemical warfare agent simulant, DMMP(g), with zirconium (IV) MOFs: An ultrahigh-vacuum and DFT study. **G. Wang**, C.H. Sharp, A. Plonka, Q. Wang, A. Frenkel, W. Guo, C.L. Hill, C. Smith, J. Kollar, D. Troya, J.R. Morris
- 10:15 INOR **4.** Molecular modeling insights into the adsorption and degradation of hazardous chemical warfare agents by metal-organic frameworks. **J. Harvey**, D.F. Sava Gallis, J.A. Greathouse
- 10:45 INOR **5.** Optimizing toxic chemical removal through defect-induced UiO-66-NH₂ metal-organic framework. **G.W. Peterson**, M. Destefano, S.J. Garibay, A. Ploskonka, M. Hall, C.J. Karwacki, J.T. Hupp, O.K. Farha

Section B

Renaissance Washington, DC Downtown
Renaissance West A

Personal & Global Energy Conversion in Chemistry & Biology

C. J. Chang, M. Kanan, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 INOR **6.** Photocatalytic oxidation of bromide to bromine by using ruthenium polypyridyl complexes. **I. Chang**, K. Tsai

9:00 INOR **7.** Multimetallic systems for the photocatalytic production of fuels from abundant sources. **C. Turro**

9:25 INOR **8.** Thermally and photochemically activated diradicals: Applications to catalysis and nanoreagents for CO₂ reduction. **J.M. Zaleski**

9:50 INOR **9.** Luminescent nanoparticles coated with metal complexes for biomedical applications. **Z. Pikramenou**

10:15 Intermission.

10:30 INOR **10.** Designing and understanding catalysis with high valent metals. **A.L. Odom**, T. McDaniel, B. Billow, K. Aldrich

10:55 INOR **11.** Hydrogen-atom non-innocence of an azanidodithiolate pincer ligand. **A.F. Heyduk**, K.E. Rosenkoetter, B. Charette

11:20 INOR **12.** Follow the protons: Directly monitoring proton transfer mechanisms with ultrafast continuum mid-IR spectroscopy. **A.M. Stingel**, **P.B. Petersen**

Section C

Renaissance Washington, DC Downtown
Grand Ballroom South

Environmental & Energy-Related Inorganic Chemistry

S. A. Koch, *Organizer*

K. L. Hull, W. R. McNamara, *Presiding*

8:30 INOR **13.** Specific ion effect manifested in oxidation of ammonium salts and inorganic substrates. **K.L. Hull**, A. Cairns, M. Haq

8:50 INOR **14.** Supercharging electrocatalysts for carbon dioxide reduction. **S. Sung**, D. Kumar, S. Park, **M. Nippe**

9:10 INOR **15.** Selective partial oxidation of light alkanes using iodine oxides and halides. **N. Schwartz**, G. Fortman, S.E. Kaiman, R. Fu, R.J. Nielsen, N. Boaz, W.A. Goddard, J.T. Groves, T.B. Gunnoe

9:30 INOR **16.** Solar-powered biofertilizer production: An electro-augmented nitrogen and phosphorus cycle. **K.K. Sakimoto**, P.A. Silver, D.G. Nocera

9:50 INOR **17.** Iron complexes for hydrogen generation from aqueous solutions. **W.R. McNamara**

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

10:10 INOR 18. Development of continuous high-pressure hydrogen evolution from formic acid by Iridium homogeneous catalyst and its kinetic study under pressurized conditions. H. Kawanami, M. Iguchi, Y. Himeda

10:30 Intermission.

10:40 INOR 19. Photochemistry of iron(III) carbenes. L.A. Fredin, P. Chábbera, R. Lomoth, V. Sundstrom, K. Warnmark, P. Persson

11:00 INOR 20. Heterometallic molecular precursors for lithium-iron oxide cathode material. E. Dikarev, H. Han

11:20 INOR 21. Generalities related to reduction of nitrogen oxyanions: Ligand design aids metal reducing agents. K.G. Caulton, J. Seo, A. Cabelof, C. Chen, D.M. Beagan

11:40 INOR 22. Withdrawn.

12:00 INOR 23. Light-driven H₂ production by coupling Ni/Pt dimine dithiolate complexes with Pt-TiO₂. G. Li, M. Mark, D.W. McCamant, R. Eisenberg

12:20 INOR 24. Electrocatalytic reduction of CO₂ to formate using cobalt complexes. P. Kang, F. Liu

Section D

Renaissance Washington, DC Downtown
Renaissance West B

Electronic Structure Contributions to Function: From Metals in Biology to Materials Science

A. Dey, L. Quintanar, *Organizers*

P. Chen, A. E. Palmer, *Organizers, Presiding*

8:30 INOR 25. Living with oxygen. H.B. Gray

8:55 INOR 26. Hydroquinone ring-cleaving dioxygenases: Enzymes and model complexes. T.E. Machonkin

9:20 INOR 27. Structure/function relationships in cysteine and cysteamine dioxygenases. T.C. Brunold

9:45 INOR 28. Redox active metals in Alzheimer's disease. S. Ghosh Dey

10:10 INOR 29. Metal-induced aggregation of human gamma-crystallins: Relevance to cataracts disease. L. Quintanar, J. Dominguez-Calva, M. Perez-Vazquez, E. Martinez-Jurado, E. Serebryany, J. King

10:35 Intermission.

10:50 INOR 30. Calorimetric measurements of Zn(II) and Co(II) binding to protein sites: Can a spectroscopic probe be a thermodynamic surrogate? D. Wilcox

11:15 INOR 31. Rationalized design of site-differentiated Fe-S clusters in peptides and nanoclays. R.K. Szilagyi

11:40 INOR 32. Diatomic gas binding and sensing mechanism of hemo-protein studied by nuclear resonance vibrational spectroscopy. T. Ohta

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

12:05 INOR 33. Electronic structure contributions to molecular rectification. M.L. Kirk, R. Dangli, L. Ingersol, D.A. Shultz

Section E

Renaissance Washington, DC Downtown
Grand Ballroom North

Chemistry of Materials

Materials for Energy & Catalytic Applications

C. G. Lugmair, *Organizer*

H. Djieutedjeu, *Presiding*

8:30 INOR 34. Withdrawn.

8:50 INOR 35. Accelerated computational design of mixed protonic and electronic conductors for H₂ separation. Q. Bai, Y. Zhu, X. He, E.D. Wachsmann, Y. Mo

9:10 INOR 36. Effects of solution and solid state synthesis routes on the material properties of Sr₂Fe_{1.5}Mo_{0.5}O_{6.5} solid oxide fuel cell anodes. J. Jenkins, B.C. Eigenbrodt

9:30 INOR 37. Probing porosity-dependent activity towards electrocatalytic CO₂ reduction on metal-decorated carbon aerogel. X. Han, V. Thoi

9:50 INOR 38. Electrochemical oxygen reduction on earth-abundant rich palladium alloys. S. Hall, D. Sun

10:10 INOR 39. High-yield ammonia synthesis via an electrochemical cycling process using N₂ and H₂O at atmospheric pressure. J.M. McEnaney, A. Singh, J. Schwalbe, J. Kibsgaard, J. Lin, M. Cargnello, T.F. Jaramillo, J.K. Norskov

10:30 Intermission.

10:45 INOR 40. Oxygen-evolving electrocatalysts for use in highly acidic solutions. J. Mondschein, R.E. Schaak

11:05 INOR 41. Size-controlled PtZn intermetallic nanoparticles for catalytic electro-oxidation. W. Huang, Z. Qi

11:25 INOR 42. Photocatalytic methane conversion using shape-controlled semiconductor microcrystals. B. Sadtler

11:45 INOR 43. Synthesis of WQ₂/CoQ₂ and WQ₂/CoQ (Q = S, Se) nanostructure for electrocatalyst and hydrogen evolution reaction. H. Djieutedjeu, B.S. Gupton, M. Thomas, Y. Lei

12:05 INOR 44. Enhanced cycling stability of sulfur electrodes through effective binding of pyridine-functionalized conjugated polymer. Y. Tsao

Section F

Renaissance Washington, DC Downtown
Grand Ballroom Central

Organometallic Chemistry

New Ligand Platforms

N. S. Radu, *Organizer*

S. R. Daly, D. Genna, *Presiding*

8:30 INOR 45. Tridentate π -extended carbanionic donor sets for RuII polypyridyl-type photosensitizer. M. Jaeger, T. Schlotthauer, G. Parada, H. Goerls, S. Ott, U.S. Schubert

8:50 INOR 46. Indecisive metal: Multivalent cobalt complexes featuring hemilabile [SNS] ligands. C.E. Hayes, B.W. Fitchett, A.J. de Aguirre, F. Maseras, C. Bucher, W.D. Jones, R.T. Baker

9:10 INOR 47. Electron-rich organometallic platforms involving an asymmetrically anchored 6,6'-biazulenyl π -linker. M.V. Barybin, J.C. Applegate, C.L. Berrie, N.R. Erickson, M.K. Okeowo

9:30 INOR 48. Highly active, phase-separable and recyclable bipyridine linked polyisobutylene oligomers ligands based catalysts for iridium catalyzed C-H borylation reaction. S. Madrahimov, H. Mamlouk, D.E. Bergbreiter

9:50 INOR 49. Synthesis and reactivity of fluorescent metal complexes. Z.M. Heiden, N.R. Treich

10:10 INOR 50. Asymmetric tris(2-aminoethyl)amine (tren) ligands. D.R. Manke

10:30 INOR 51. Cooperative ligand-centered reactivity in triaminoborane-bridged diphosphine complexes. K. Lee, C.M. Donahue, S.R. Daly

10:50 INOR 52. Reduction of air-stable phosphine precursors and isolation of volatile 1°, 2°, and 3° phosphines on the gram scale. N.I. Rinehart, A.J. Kendall, D.R. Tyler

11:10 INOR 53. Diastereoselective and enantioselective synthesis of P-stereogenic syn-phosphiranes from chiral epoxides: Stereochemistry and mechanism. J.A. Muldoon, B. Varga, M. Deegan, T. Chapp, R.P. Hughes, D.S. Glueck, C. Moore, A.L. Rheingold

11:30 INOR 54. Role of chelating P-Si ligands on group 9 metal centers: Applications in alkene functionalization. D. Genna

Section G

Renaissance Washington, DC Downtown
Congressional A

Chemistry of Materials

Nanomaterials

C. G. Lugmair, *Organizer*

E. B. Cerkez, M. A. Ochoa, *Presiding*

8:30 INOR 55. Synthesis and plasmonic properties of early transition metal nitride powders and nanomaterials. A.P. Purdy, O.A. Baturina, B. Simpkins, S.L. Giles

8:50 INOR 56. Gold nanoclusters promote electrocatalytic water oxidation at the nanocluster/CoSe₂ interface. S. Zhao, R. Jin

9:10 INOR 57. Energy transfer, heat and dissipation in molecule-metal nanosystems. M.A. Ochoa, A. Nitzan

9:30 INOR 58. Orientational order controls crystalline and amorphous thermal transport in superatomic crystals. W. Ong, E. O'Brien, A. McGaughey, J. Malen, X. Roy

9:50 INOR 59. Synthesis of lanthanide doped nano-spinels as hosts for down-shifting phosphors. D.A. Hardy, G.F. Strouse

10:10 INOR 60. Synthesis and magneto-optical properties of europium sulfide-europium selenide solid solution colloid nanocrystals. N. Rosa, H.A. Dalafu, D.J. James, S. Omagari, A. Kawashima, T. Nakanishi, Y. Hasegawa, S.L. Stoll

10:30 Intermission.

10:45 INOR 61. Photochemistry of gold nanoparticle sensitized ferritin protein. E.B. Cerkez, K. Dutton, M. Kukulka, A. Valentine, D.R. Strongin

11:05 INOR 62. Thermoelectric performance of tetrahedral synthesized by a modified polyol process. D. Weller, G. Kunkel, A. Ochs, D. Stevens, C. Holder, D. Morelli, M.E. Anderson

11:25 INOR 63. Drug delivery using layered structured nanomaterials. J.L. Colon, J. González-Villegas, Y. Kan, V. Bahkmutov, A. Clearfield

11:45 INOR 64. Mesoporous SiO₂ nanoparticle based thermally insulating transparent barrier coatings for single-pane windows. Y. Yan, S. King, M. Li, T. Galy, S.H. Tolbert

What do Synthetic Chemists Want from Their Reaction Systems?

Sponsored by CINF, Cosponsored by COMP, INOR, MEDI and ORGN

SUNDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown
Renaissance East

Fundamental Aspects of Metal Organic Framework Catalysis

A. J. Morris, J. R. Morris, *Organizers*

W. Huang, *Presiding*

1:30 INOR 65. Insights into the MOF-based degradation of organophosphates in non-aqueous media: A combined experimental-modeling study. D.F. Sava Gallis, C.J. Pearce, M.K. Kinnan, J.B. DeCoste, H. Jacob, J. Greathouse

2:00 INOR 66. Uptake and diffusion of chemical warfare agent simulants in Z₆-based MOFs. C.H. Sharp, N.B. Jones, W. Guo, C.L. Hill, F.A. Houle, J.R. Morris

2:30 INOR 67. Metal-organic frameworks as highly functional catalytic arrays. O.K. Farha

3:00 Intermission.

3:15 INOR 68. Modeling reactions catalyzed by noble metal clusters deposited on metal-organic frameworks. A. Mavrandonakis, S.L. Pellizzeri, R. Getman, V. Bernales, A.B. Martinson, B.C. Gates, J.T. Hupp, O.K. Farha, L. Gagliardi, C.J. Cramer

3:45 INOR 69. Tandem catalysis by metal@MOFs with extremely high selectivity. W. Huang, X. Li, B. Zhang

4:15 INOR 70. Nanospace within metal-organic frameworks: Plenty of opportunities for heterogeneous catalysis. S. Ma

Section B

Renaissance Washington, DC Downtown
Renaissance West A

Personal & Global Energy Conversion in Chemistry & Biology

C. J. Chang, M. Kanan, *Organizers, Presiding*

1:30 INOR 71. Synthetic biology approaches to new chemistry. M. Chang

1:55 INOR 72. Chemical approaches to studying redox biology in living systems. C.J. Chang

2:20 INOR 73. Controlling non-radiative decay in transition metal chromophores using structure and spin. N.H. Damrauer, S.M. Fatur, S. Shepard

2:45 INOR 74. How defects and proton-intercalation in WO₃ impact its activity for the photoelectrochemical oxygen evolution reaction. **B.M. Bartlett**

3:10 Intermission.

3:30 INOR 75. Catalysts for cyclic polymer synthesis. **S. Nadif, S.A. Gonsales, T. Kubo, C.D. Roland, K.A. Abboud, B.S. Sumerlin, A.S. Veige**

3:55 INOR 76. Radical control at terminal metal oxos. **J.D. Soper**

4:20 INOR 77. Metal-carbon bond forming reactions for luminescent materials. **T.G. Gray**

4:45 INOR 78. Understanding and harnessing spin in photoredox catalysis using first row transition series complexes. **M.P. Shores**

Section C

Renaissance Washington, DC Downtown Grand Ballroom South

Organometallics Distinguished Author Symposium in honor of Alexander Miller

P. J. Chirik, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 INOR 79. Using catalysis, mechanistic inquiry and collaboration to find sustainable methods for the production of chemicals and fuels. **K.I. Goldberg**

2:10 INOR 80. Mechanism, rate, and selectivity consequences of sulfur ligands in cross-dehydrogenative coupling. **B.P. Carrow, L. Wang, B. Gorsline, P. Ren**

2:45 Intermission.

3:00 INOR 81. Excited state behavior of platinum(II) charge transfer dimers. **F.N. Castellano**

3:35 INOR 82. Cation-responsive pincer-crown ether complexes for tunable and switchable catalysis. **A.J. Miller, M.R. Kita, J.B. Smith, J. Grajeda, L. Gregor, A. Sullivan, A. Camp**

Section D

Renaissance Washington, DC Downtown Renaissance West B

Electronic Structure Contributions to Function: From Metals in Biology to Materials Science

A. Dey, A. E. Palmer, *Organizers*

P. Chen, L. Quintanar, *Organizers, Presiding*

1:30 INOR 83. Synthetic heme-O₂-copper assemblies and reductive O-O cleavage chemistry. **K.D. Karlin**

1:55 INOR 84. Iron-catalyzed cross-coupling: Intermediates and mechanism. **M.L. Neidig**

2:20 INOR 85. Modeling the active site and reactivity of flavodiiron nitric oxide reductases. **N. Lehnert**

2:45 INOR 86. Computational electrochemistry of mononuclear non-heme iron complexes: Redox properties and their contributions to reactivity. **D. Bim, M. Srncic**

3:10 INOR 87. Insight into the electronic structure of transition metal ion complexes from resonant inelastic X-ray scattering. **T. Kroll, R. Hadt, S.A. Wilson, M. Baker, M. Lundberg, J.J. Yan, T. Weng, D. Sokaras, R. Alonso-Mori, D.M. Casa, M.H. Upton, B.G. Hedman, K.O. Hodgson, E.I. Solomon**

3:35 Intermission.

3:50 INOR 88. Thermal and optical spin-state switching of surface-adsorbed iron complexes. **F. Tuzcek**

4:15 INOR 89. Group 11 metal(II) polynuclear complexes with the substituted pyrazolates: New strategy to make metal...metal interaction. **K. Fujisawa**

4:40 INOR 90. Development of synthetic functional models of iron only hydrogenase. **A. Dey**

5:05 INOR 91. Extension of the redox principle in nature to synthetic systems. **K. Park**

Section E

Renaissance Washington, DC Downtown Grand Ballroom North

Inorganic Nanoscience Award

Financially supported by University of South Carolina NanoCenter

J. E. Goldberger, *Organizer, Presiding*

1:30 Introductory Remarks.

1:40 INOR 92. Tracking rare cells and biomolecules using nanostructured materials. **S.O. Kelley**

2:10 INOR 93. Sensors using DNA charge transport. **J.K. Barton**

2:40 INOR 94. Tailoring optoelectronic, magnetic, and topological phenomena in group 14-containing honeycomb 2D materials. **J.E. Goldberger**

3:10 INOR 95. Unlocking the materials genome through combinatoric nanoscience. **C.A. Mirkin**

3:40 Intermission.

3:55 INOR 96. Single-particle sensors for nano-bio interactions. **T.W. Odom**

4:25 INOR 97. Tuning protein display with nanoparticle surface chemistry. **C.J. Murphy**

4:55 INOR 98. Nanobiosensor arrays for multiplexed measurements of the spatiotemporal dynamics of neurotransmitters and microbiome signalomics. **P.S. Weiss, A.M. Andrews**

Section F

Renaissance Washington, DC Downtown Grand Ballroom Central

Organometallic Chemistry

Catalysis-Late Transition Metals

N. S. Radu, *Organizer*

L. Tahsini, A. G. Tennyson, *Presiding*

1:30 INOR 99. Synthesis, structural properties and catalytic application of pincer N-heterocyclic carbene complexes of copper(II) with small wingtip substituents. **L. Tahsini**

1:50 INOR 100. Catalytic asymmetric P-C bond formation via chiral Cu(II)-phosphido complexes. **S.K. Gibbons, D.S. Glueck, A.L. Rheingold**

2:10 INOR 101. Aerobic catalytic oxidative functionalization of methane by Pt(II)/Cu(II) bimetallic system in trifluoroacetic acid solutions. **D. Adams, A.N. Vedernikov**

2:30 INOR 102. Catalytic ester metathesis with applications to the transfer hydrogenation of esters, and the serendipitous discovery of a cyclopropanation of aliphatic esters and alcohols with a homogeneous Ru(II) catalyst. **E. Khaskin, T. Jankins, A. Dubey, R. Fayzullin**

2:50 INOR 103. Hydrophenylation of ethylene using a cationic Ru(II) catalyst: Change in selectivity based on an auxiliary ligand. **X. Jia, S. Gu, J.B. Gary, B.A. McKeown, T.R. Cundari, T.B. Gunnoe**

3:10 INOR 104. Ruthenium-PNP catalyzed cascade conversion of carbon dioxide to methanol. **D. Samblanet, M.S. Sanford**

3:30 INOR 105. Formation of a ruthenium-hydride intermediate and its ability to catalyze radical reduction in aerobic, aqueous solution. **A.G. Tennyson**

3:50 INOR 106. Structure, reactivity, and mechanism in alkyl-alkyl cross-coupling with iron-NHCs. **V.E. Fleischauer, S.B. Muñoz, M.L. Neidig**

4:10 INOR 107. Investigation of Fe-based 2+2 cycloaddition catalysts for the conversion of alkenes and dienes to fuels and lubricants. **D. Morris, T. Groshens, R. Quintana, B.G. Harvey**

4:30 INOR 108. Kinetic study of iron-catalyzed transfer hydromagnesiation using operando infrared spectroscopy. **J.A. Rogers, B.V. Popp**

4:50 INOR 109. Iridium hydride thermochemistry as an indicator of catalytic performance in a bimetallic iridium/ruthenium H₂ evolution catalyst. **K.R. Brereton, C.L. Pitman, A.J. Miller**

5:10 INOR 110. Synthesis of an organometallic iridium complex containing a dianionic, tridentate, mixed organic-inorganic ligand: A fast-acting and short-lived oxygen evolving catalyst. **A. Bloomfield, A. Matula, B.Q. Mercado, V.S. Batista, R.H. Crabtree**

Section G

Renaissance Washington, DC Downtown Congressional A

Triplet Excited State in Inorganic Chemistry

F. N. Castellano, *Organizer*

M. Abrahamsson, A. De Bettencourt Dias, *Presiding*

1:30 INOR 111. Altering photophysics in trans-substituted molybdenum dimers using ligands featuring low energy triplet states. **R.R. Joyce, F.N. Castellano**

1:50 INOR 112. Triplet state in lanthanide luminescence and singlet state generation. **A. De Bettencourt Dias**

2:15 INOR 113. Oppositely polarized singlet and triplet states: A new strategy to control photo-triggered energy conversion reactions of coordination compounds. **M.J. Therien, N. Polizzi, T. Jiang, D.N. Beratan**

2:40 INOR 114. Transition metals in singlet fission. **D. Guldi**

3:05 Intermission.

3:20 INOR 115. Exchange-modulated spin polarizing triplet states. **M.L. Kirk, B.W. Stein, C. Tichnell, D.A. Shultz**

3:45 INOR 116. Implications of triplet state surface shapes in photophysics and photochemistry. **M. Abrahamsson**

4:10 INOR 117. Ultrafast and sustainable coherent wave-packet motions in excited state Pt dimers. **P. Kim, S.E. Brown-Xu, A. Chakraborty, M.S. Kelley, X. Li, G.C. Schatz, F.N. Castellano, L.X. Chen**

4:35 INOR 118. Solvent and excitation wavelength-dependent dynamics in the excited-state evolution of ³MLCT states: The role of charge distribution in solvent-solute coupling. **M.C. Carey, J.K. McCusker**

Section H

Renaissance Washington, DC Downtown Congressional B

Chemistry of Materials

Metal Organic Frameworks

C. G. Lugmair, *Organizer*

R. Comito, D. R. Manke, *Presiding*

1:30 INOR 119. Halide-assisted synthesis of metal-organic frameworks. **D. Genna**

1:50 INOR 120. Bimetallic and actinide-based metal-organic frameworks (MOFs). **O.A. Ejegebawwo, E.A. Dolgoplova, M.D. Smith, N.B. Shustova**

2:10 INOR 121. Transparent and monolithic glassy metal organic framework with accessible internal surface. **Y. Zhao, S. Lee, O.M. Yaghi, C. Angell, N. Becknell**

2:30 INOR 122. Secondary building unit as metalloiligand: Structural and mechanistic insight into catalysis at metal-organic framework nodes. **R. Comito, D. Mircea, R. Dubey, E. Metzger, Z. Wu, G. Zhang, J. Miller**

2:50 INOR 123. Incorporation of multifunctionalities into stable metal-organic frameworks via one-pot synthesis. **Y. Sun, H. Zhou**

3:10 INOR 124. Structural diversity and reactivity of metal-organic frameworks assembled from diphosphine pincer complexes. **C.R. Wade, N. Mucha, A. Kassie**

3:30 Intermission.

3:45 INOR 125. Withdrawn.

4:05 INOR 126. Covalent Metal-Organic Networks (CMONs) through protecting group syntheses. **D.R. Manke**

4:25 INOR 127. Bottom-up construction of a superstructure in a porous uranium-organic crystal. **P. Li, N. Vermeulen, C. Malliakas, D. Gómez-Gualdrón, A. Howarth, L. Mehdli, A. Dohnalkova, N. Browning, M. O'Keefe, O.K. Farha**

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- 4:45 INOR 128.** Metal organic frameworks as templates for materials synthesis. M. Li, F. Claire, G. Contreras, S. Tenney, T.J. Kempa
- 5:05 INOR 129.** Development of fabrication methods to tailor surface morphology of metal-organic framework thin films and powders. A. Trojnik, L. Brower, B. Bowser, M.L. Ohnsorg, M.E. Anderson

Science Communications: The Art of Developing a Clear Message

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What do Synthetic Chemists Want from Their Reaction Systems?

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SUNDAY EVENING

Section A

Walter E. Washington Convention Center Hall D

Inorganic Catalysts

S. A. Koch, Organizer

5:30 - 7:30

- INOR 130.** NSF / CHE: Data-driven discovery in chemistry (D3SC). L. He, S. Atlas, R.J. Cave, D.A. Rockcliffe, A.K. Wilson
- INOR 131.** National Science Foundation (NSF) / Division of Chemistry (CHE): Important updates on proposal preparation. S. Albin, C.A. Bessel, K.J. Covert, M. Jenkins, K. Moeller, K. Moloy, T. Patten, J. Papanikolas, A. Schmoltner, S. Tam-Chang
- INOR 132.** National Science Foundation (NSF): New opportunities in the chemical sciences. S. Atlas, M. Bushey, R.J. Cave, K. Cook, M. Funk, E. Goldfield, L. He, T. Li, C.A. Murillo, D.A. Rockcliffe
- INOR 133.** Synthesis and reactivity of chromium complexes for N₂ reduction. A.J. Kendall, M.T. Mock, R. Bullock
- INOR 134.** Mechanistic study of hydrodeoxygenation reaction on lignin beta-5 model compounds using earth abundant metal catalyst. H. Luo
- INOR 135.** Modified tris(2-pyridyl)methyl amine (TPMA) and tris[2-(dimethylamino)ethyl]amine (Me6TREN) hybrid ligands for use in copper-mediated atom transfer radical addition (ATRA). A.J. Rupprecht, T. Pintauer
- INOR 136.** Discrete air-stable nickel-palladium(II) complexes as catalysts for Suzuki-Miyaura reactions. T. Zhao, P. Ghosh, Z. Martinez, X. Liu, X. Meng, M.Y. Darensbourg
- INOR 137.** ω-Functionalized self-assembled monolayers of phosphonates as a pathway to tethered electrocatalysis. S. Heisey, B.A. Andrews, P.R. Sunder, A.A. Keefer, K.N. Crowder
- INOR 138.** Simple structural analog ([Zr(μ-OH)(H₂O)(α₂-P₂W₁₇O₆₁)]₂)¹⁴⁻ to zirconium hydroxide for CWA simulatant decomposition. S.L. Giles, J. Lundin, P. Pehrsson, R. Balow, J.H. Wynne
- INOR 139.** Engineering of RuMb: Towards a green catalyst for carbene insertion reactions. M. Wolf, D. Vargas, N. Lehnert
- INOR 140.** Novel and highly efficient copper catalysts for atom transfer radical addition (ATRA) of monohalogenated compounds. M. Novak, T. Pintauer
- INOR 141.** Inverse frustrated Lewis pair (FLP) approach for catalytic metal-free hydrogenation of imines. S. Mummadi, D. Kenefake, R. Diaz, C. Krempner
- INOR 142.** Intermolecular approach to bimetallic photocatalytic systems: Synthesis, characterization, and reactivity. A. Forney, H.R. Lucas
- INOR 143.** Water oxidation electrocatalysis by transition metals supported onto zirconium phosphate nanoparticles. M. Ramos-Garcés, J. Sanchez, I. Narkeviciute, T.F. Jaramillo, J. Colón

Section B

Walter E. Washington Convention Center Hall D

Fundamental Aspects of Metal Organic Framework Catalysis

A. J. Morris, J. R. Morris, Organizers

5:30 - 7:30

- INOR 144.** Kinetically guided one-pot synthesis of heterogeneous core-shell metal-organic frameworks. X. Yang, S. Yuan, L. Zou, Y. Zhang, J. Qin, H. Zhou
- INOR 145.** Development of novel catalytically active metal organic frameworks for water splitting. B.J. Gibbons, A.J. Morris
- INOR 146.** Removal of Pb ions from water using thiophene-containing metal-organic frameworks. A. Geisse, D. Genna
- INOR 147.** *In situ* studies of DMMP interaction with Zr-based metal organic frameworks. W.O. Gordon, A.M. Plonka, A. Balboa, Q. Wang, S.D. Senanayake, C.H. Sharp, D. Troya, W. Guo, A. Frenkel, C.L. Hill, J.R. Morris
- INOR 148.** Efficient and recyclable functionalized nano-size zirconium based UiO-66 MOF catalysts for successive C-C and C-N bond formation. P. Elumalai, S.T. Madrahimov
- INOR 149.** Small molecule activation with iron(II)-based metal-organic polyhedra. G.R. Lorzing, B.A. Trump, C.M. Brown, E.D. Bloch
- INOR 150.** Chiral ruthenium aminophosphine (PN) and phosphine iminopyridine (PNN) complexes: Synthesis and application to asymmetric hydrogenation and transfer hydrogenation. L. Scarlet, P.T. Maragh, T.P. Dasgupta, K. Abdur-Rashid

Section C

Walter E. Washington Convention Center Hall D

Bioinorganic Chemistry

Proteins & Enzymes & Model Systems

S. A. Koch, Organizer

5:30 - 7:30

- INOR 151.** Withdrawn.
- INOR 152.** Understanding proteome dependent cellular zinc trafficking to form native Zn-proteins. A. Mahim
- INOR 153.** Bioinspired water-soluble Mn-porphyrin complex as catalase mimic for antioxidative activity. R. Kubota, S. Asayama, H. Kawakami
- INOR 154.** Isolation of a synthetic nitrogenase-relevant iron-molybdenum/interstitial-carbide cluster. C. Joseph, S. Kuppuswamy, M.J. Rose
- INOR 155.** Structural characterization of heme proteins mineralized within the ZIF-8 metal organic framework. D. Grassie, R.W. Larsen
- INOR 156.** Characterization of KmTR from *Mycobacterium tuberculosis*. K.A. Higgins, V. Surette, G. Swanson, A. Miller, K. Gonzalez, M. McGowan, S. Lewis
- INOR 157.** Mechanistic insights into heme-protein carbenoid chemistry using stopped flow spectroscopy. C.B. Monroe, J.T. Groves
- INOR 158.** Studies toward the development of a more accurate structural model of the nitrile hydratase active site. W.I. Chow, R.R. Markham, C. Moore, A.L. Rheingold, C.J. Daley
- INOR 159.** Cyanide ligands as docking agents in [FeFe]-hydrogenase biomimetics. M. Quiroz, P. Ghosh, M.Y. Darensbourg, N. Bhuvanesh, X. Meng
- INOR 160.** Modeling of halogen bonding interactions to PBDEs as a mechanism for thyroid disruption. E.S. Marsan, C.A. Bayse
- INOR 161.** Extended broken symmetry approach to modeling structures and spectroscopic properties of oxidized and reduced 2Fe-2S clusters from mitoNEET. R.A. Wheeler, A.M. Koval
- INOR 162.** Synthesis and reactivity of an anthracene-bridged dimer as a model of mono-iron hydrogenase. S.A. Kerns, A. Magtaan, M.J. Rose
- INOR 163.** Molybdenum pyranopterin dithiolene complexes: Synthesis and applications. N. Nguyen, H.H. Varnum, V.R. Berke, D. Gisewhite, S.J. Nietzer Burgmayer
- INOR 164.** Substitution reactions of iron(II) carbamoyl-thioether complexes related to mono-iron hydrogenase. Z. Xie, M.J. Rose
- INOR 165.** Nitric oxide and hydrogen sulfide cross-talk mediated by zinc. V. Hosseininasab, T.H. Warren
- INOR 166.** Role of metal complexation in the metastable conformation of α-Synuclein. R.D. Fernandez, H.R. Lucas

Section D

Walter E. Washington Convention Center Hall D

Electronic Structure Contributions to Function: From Metals in Biology to Materials Science

P. Chen, A. Dey, A. E. Palmer, L. Quintanar, Organizers

5:30 - 7:30

- INOR 167.** What can the relationship between ligand donor strength and spin-state energetics reveal about the electronic structure of Fe(II) polypyridine complexes? D. Ashley, E. Jakubikova
- INOR 168.** New diiron complex capable of reducing NO to N₂O mimics the reactivity of FNORs. H.T. Dong, C. White, N. Lehnert
- INOR 169.** Design of copper catalysts for electrochemical production of NO on demand. A. Batka, A. Hunt, N. Lehnert
- INOR 170.** Mechanistic studies of iron-catalyzed C-H functionalization. T.M. Baker, S.H. Carpenter, M.L. Neidig
- INOR 171.** Iron catalyzed cross-coupling with TMEDA. J. Sears, M.L. Neidig
- INOR 172.** Graphitic surfaces for small molecule functionalization of semiconductors. M.M. MacInnes, N. Lehnert, S. Maldonado
- INOR 173.** Molecular property analysis of phosphoryl-containing compounds: A theoretical approach. A. Balboa, M. Hurley
- INOR 174.** Electronic structure and bonding in cobalt(II)-N-heterocyclic carbene complexes. T. Iannuzzi, M.L. Neidig
- INOR 175.** Synthesis and spectroscopic characterization of ferric heme-thiolate complexes as models for cytochrome P450nor. A.P. Hunt, N. Lehnert
- INOR 176.** Synthesis, characterization, and reactivity studies of a flavodiiron nitric oxide reductase model complex. C. White, A. Speelman

Section E

Walter E. Washington Convention Center Hall D

Triplet Excited State in Inorganic Chemistry

F. N. Castellano, Organizer

5:30 - 7:30

- INOR 177.** Photophysical studies of molecules with thermally activated delayed fluorescence for application in organic light emitting diodes. T. Palmeira, E. Torres, M. Esteves, M. Brites, M.B. Berberan-Santos
- INOR 178.** Phasor representation and singlet-triplet interconversion diagram in thermally activated delayed fluorescence. L. Martelo, T. Palmeira, M.B. Berberan-Santos
- INOR 179.** Molecular photophysics of Ir(III) MLCT excited states bearing hydrides. C. Taliaferro, F.N. Castellano
- INOR 180.** Pushing the limits of metal-metal interaction in dinuclear Pt(II) complexes. J. Yarnell, A. Chakraborty, F.N. Castellano

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section F

Walter E. Washington Convention Center
Hall D

Coordination Chemistry

Characterization & Applications

S. A. Koch, A. Larsen, *Organizers*

5:30 - 7:30

- INOR **181.** Surface synthesis of molecular assemblies: Application in energy conversion. U. Mathiyazhagan, J.W. Jurss, T.J. Meyer
- INOR **182.** Luminescent zirconium(IV) complexes as a molecular photosensitizers for visible light photoredox catalysis. Y. Zhang, C. Milsmann
- INOR **183.** Molecular characterization and thermal studies of cationic lanthanide complexes. P.K. Yuen, C. Lau, N. Ho, H. Chan, C. Law, F. Shek, A.K. Yuen
- INOR **184.** Rapid, machine-assisted syntheses of substituted iridium(III)-pyrazolate complexes with tunable luminescence. L.M. Groves
- INOR **185.** Synthesis and characterisation of β -diketonate and β -ketoiminate metal compounds: Potential applications in ring opening metathesis polymerisation of lactide. R.M. Lord, F. Janeway, P. McGowan
- INOR **186.** Molecular dyads and triads comprising phenothiazine or xTTF donors, Ru(II) bisterpyridine complexes and polyoxometalates. A. Winter, K. Barthelmes, M. Sittig, U.S. Schubert
- INOR **187.** Design and synthesis of cationic metal-organic polyhedra for gas storage applications. G.E. Decker, E.D. Bloch
- INOR **188.** Interaction of five coordinated copper complexes with cysteine: Theoretical and experimental studies. C.A. Huerta-Aguilar, T. Pandiyan, J. Gracia Mora
- INOR **189.** Withdrawn.
- INOR **190.** Hyperpolarized molecular tags as a novel strategy for developing imaging probes. J. Bae, Z. Zhou, K. Shen, J. Colelli, T. Theis, W.S. Warren, Q. Wang
- INOR **191.** Effect of geometry and sterics of bipyridine ligands on catalytic performance. C.L. Boelke, S. Lense
- INOR **192.** NIR absorbance of Ru(II) and Ir(III) photosensitizers containing a merocyanine π -acceptor. P. Catsoulis, J.J. Rochford
- INOR **193.** Chiral mer-coordinating bis(4,5-dihydroxazol-2-ylimino)isoin-doline-based pincer ligands: Attempted synthesis optimization, characterization, and preliminary enantioselective catalysis studies. L.M. Baldauf, C. Moore, A.L. Rheingold, C.J. Daley
- INOR **194.** Synthesis, characterization, and reactivity of platinum indazole complexes with potential anti-cancer activity. K.W. Barwick, A.J. Bachman, K.A. Wheeler, R.E. Bachman
- INOR **195.** Light-driven H₂ production by attaching Ni/Pt diimine dithiolate dyads and catalysts on TiO₂. G. Li, M. Mark, D.W. McCamant, R. Eisenberg
- INOR **196.** Electronic structure and multi-catalytic features of redox-active Bian (bis-(arylimino)acenaphthene) derived ruthenium complexes. A. Singha Hazari, G.K. Lahiri

Section G

Walter E. Washington Convention Center
Hall D

Center for Enabling New Technologies through Catalysis: Transforming Catalysis through Collaboration

A. Goldman, N. E. Gruhn, E. Ison, S. W. Kraska, L. T. Thompson, *Organizers*

5:30 - 7:30

- INOR **197.** Aerobic oxidation of hydrocarbons catalyzed by [Ir] III complexes. S.B. Rubashkin, Z.H. Syed, A. Wright, K.I. Goldberg
- INOR **198.** Ethylene oligomerization-dehydrogenation co-catalyzed by (phebox)Ir(OAc)(H) and Na⁺ cation. Y. Gao, A. Goldman
- INOR **199.** Pincer Ir^{III} complexes for aerobic alkane functionalization. K. Smoll, K.I. Goldberg
- INOR **200.** Synthesis and reactivity of Iridium(III) PCP-pincer acetate complexes. A. Shada, A.S. Goldman
- INOR **201.** Alkane oxidation utilizing a novel iridium ν -oxo complex. C.M. Perry, E.A. Ison
- INOR **202.** Investigation of the non-thermodynamic factors governing metal-ligand bond dissociation rates. B. Gordon, S. Malakar, T. Zhou, S. Biswas, K. Krogh Jespersen, A.S. Goldman
- INOR **203.** Immobilized pincer-ligated iridium catalysts characterized via in situ UV-visible and Fourier transform infrared spectroscopy. A.M. Pennington, B. Sheludko, M.T. Cunningham, A.S. Goldman, F.E. Celik
- INOR **204.** Side chain design in brush block copolymer photonic crystals. A.L. Liberman-Martin, C. Chu, R.H. Grubbs
- INOR **205.** Glycerol deoxygenation catalyzed by (POCOP)Ir(CO) complexes. B. Bark, K.I. Goldberg, D.M. Heinekey
- INOR **206.** Heterogeneous catalysts for the aldehyde water shift reaction: Comparative investigation of molybdenum carbide, cerium oxide, and aluminum oxide supported Cu, Pt and Au. W. Wen, L.T. Thompson
- INOR **207.** Late transition metal catalysts for hydrogenolysis reactions. L.M. Guard, J.M. Goldberg, T. Lekich, K.I. Goldberg, D.M. Heinekey
- INOR **208.** Insights of iridium pincer coordination chemistry enabled by a new synthetic method for dimethyl heteroleptic phosphines. T. Lekich, P. Askleson, R. Burdick, L.M. Guard, J.M. Goldberg, D.M. Heinekey
- INOR **209.** Reductive elimination of alkylamines from phosphine-ligated alkylpalladium(II) amido complexes. D.M. Peacock, Q. Jiang, J.F. Hartwig, T.R. Cundari
- INOR **210.** Mechanistic investigation of palladium-catalyzed C(sp³)-N bond formation with DFT methods. D. Peacock, Q. Jiang, T.R. Cundari, J.F. Hartwig
- INOR **211.** Combining Rh-catalyzed diazo-coupling and enzymatic reduction to efficiently synthesize enantioenriched 2-substituted succinate derivatives. Y. Wang, M.J. Bartlett, C. Denard, H. Zhao, J.F. Hartwig
- INOR **212.** Homogenous catalytic reduction of CO₂ to MeOH at moderate temperatures. W. Chu, K.I. Goldberg
- INOR **213.** Base-free hydrogenation of esters using pincer-ligated iridium complexes and dihydrogen. Z. Culakova, L.M. Guard, K.I. Goldberg
- INOR **214.** Interrogating ligand electronic effects and the influence of solvation on thermodynamic hydricity (relevant to aqueous organometallic catalysis). K.R. Brereton, C.N. Jadrich, C.L. Pitman, A.J. Miller
- INOR **215.** Oxidative electrochemistry of pincer complexes. A.G. Walden, N. Lease, A.S. Goldman, A.J. Miller
- INOR **216.** Efforts toward the synthesis of γ -Fe₃N. T.E. Stevens, C.J. Pearce, S. Atcity, T.C. Monson
- INOR **217.** Mechanistic insights into the electrochemical scission of dinitrogen by a pincer rhenium complex. B.M. Lindley, A.J. Miller
- INOR **218.** Oxidative chemistry of a pincer-supported Re(V)-nitride derived from dinitrogen. G.P. Connor, N. Lease, A. Goldman, P.L. Holland, J.M. Mayer
- INOR **219.** Molybdenum pincer complexes for nitrogen reduction to ammonia. A. Casuras, N. Lease, A.S. Goldman
- INOR **220.** Leveraging science center partnerships to educate the public about catalysis. E. Perara, N.E. Gruhn, K.I. Goldberg

Section H

Walter E. Washington Convention Center
Hall D

Organometallic Chemistry

Catalysis

N. S. Radu, *Organizer*

5:30 - 7:30

- INOR **221.** Fast electrocatalytic production of hydrogen by thiophenedithiolate bridged butterfly [2Fe-2S] clusters. M.O. Talbot, L.M. Stratton, D.H. Evans, R.S. Glass, D.L. Lichtenberger
- INOR **222.** Unraveling the role of ligand variation on the effectiveness of group 7 in the electrocatalytic reduction of CO₂. Y. Hameed, G. Rao, B. Gabidullin, D.S. Richeson
- INOR **223.** Synthesis and reactions of polymer-bound Styker's reagent. S.A. O'Reilly, B. Masingo, O. Arogbokun
- INOR **224.** Ni(II) catalyzed hydrophosphonylation of alkynes with a P(III) source. R. Islas-Vigueras, J.J. Garcia
- INOR **225.** Silylated cobalt catalysts for alkene functionalization. J.E. Pallone, D. Genna
- INOR **226.** Mechanistic studies of the iridium-catalyzed ortho C-H borylation of benzylic amines. C.M. Oliver, A. Samoshin, K.A. McGarry, H. Guan, T.B. Clark
- INOR **227.** Phosphine-directed C-H borylation reactions: New catalyst development and synthetic utility. S.E. Wright, S. Richardson-Solorzano, E.E. Albitz, C. Miller, T.B. Clark
- INOR **228.** Investigating rhodium catalyzed C-H borylation: Evaluating selectivity through catalyst design. M. Mantell, M.S. Sanford
- INOR **229.** Transfer hydrogenation of ketones catalyzed by novel arene ruthenium iminophosphonamides. I.S. Sinopalnikova, T.A. Peganova, A.M. Kalsin, E. Deydier, R. Poli
- INOR **230.** Investigation the path way of amines react with a tris(pyrazolyl)borate rhodium complex. J. Yuwen, W. Brennessel, W.D. Jones
- INOR **231.** Air stable molybdenum(0) catalysts for selective alkene isomerization. J. Becica, O.D. Glaze, G. Dobreiner
- INOR **232.** Macrocyclic bidentate N-heterocyclic carbene ligands for group 10 metals for catalysis. R. Thapa, S.M. Kilyanek
- INOR **233.** Towards catalytic ammonia oxidation with Mo and Ru-ammonia complexes. P. Bhattacharya, E.S. Wiedner, Z.M. Heiden, S.I. Johnson, S. Raugel, R. Bullock, M.T. Mock

Section I

Walter E. Washington Convention Center
Hall D

Organometallic Chemistry

Applications to Organic Transformations

N. S. Radu, *Organizer*

5:30 - 7:30

- INOR **234.** Cu(I) Complexes of pincer pyridine-based N-heterocycliccarbenes with a small wingtips substituents: Synthesis, characterization and application in Sonogashira coupling reactions. D. Domyati, L. Tahsini
- INOR **235.** Kinetics of the decarboxylation of well-defined copper(II) benzoate complexes. G. Thomas, J.M. Hoover
- INOR **236.** Copper-catalyzed arylation, vinylation and alkylation of sp² and sp³ C-H bonds with iodonium salts. C. Liu
- INOR **237.** Kinetic studies of the decarboxylation of silver benzoate complexes. R.A. Crovak, J.M. Hoover
- INOR **238.** Mechanistic investigation of copper-catalyzed boracarbonylation of alkenes. N.N. Baughman, B.V. Popp
- INOR **239.** Construction of benzofluorenones via 5-exo-dig carbocoupling of phenylene ethynyls: Tandem copper(II) mediated cycloaromatizations. T.S. Hughes, K. Gillespie, M. Lieu, J. Cobb, K. Allen
- INOR **240.** Highly enantioselective epoxidation of olefins with H₂O₂ catalyzed by bioinspired N₄ manganese complexes. W. Sun
- INOR **241.** Alkyne diboration catalyzed by iridium(CO)/BuNC system. Q. Lai, O. Ozerov

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Section J

Walter E. Washington Convention Center
Hall D

Chemistry of Materials

C. G. Lugmair, *Organizer*

5:30 - 7:30

INOR 242. Ruthenium(II)-polypyridyl doped zirconium(IV) metal-organic frameworks as solid-state electrochemiluminescence detectors. M. Cai, A.J. Morris

INOR 243. Layered siloxene sheets and their composites for photocatalytic applications. H. Kang, K. Lee, S. Kye, S. Lee, N.H. Hur

INOR 244. Structural resolutions of magic-size (CdSe)₁₃ twin clusters. T. Hsieh, C. Hsieh, T. Yang, S. Huang, Y. Yeh, C. Chen, E.Y. Li, Y. Liu

INOR 245. Development of plasmonically enhanced TiO₂ substrates directed for ethanol oxidation reactions. J. Boltersdorf, J.P. McClure, D.R. Baker, C. Lundgren

INOR 246. Radiation detection and dosimetry using Y₂O₃:Eu/Li nanoscintillators. B.W. Langloss, I.N. Stanton, M. Bellej, J. Dooley, S.X. Chang, O. Craciunescu, J.P. Chino, T.T. Yoshizumi, M.J. Therien

INOR 247. Reproducible synthesis of free-standing porous silicon membranes for energy storage applications. M.L. Anger

INOR 248. Establishment of heterogeneous multi-step synergy biocatalytic platform by biomimetic and immobilization of enzymes. S. Zhang, H. An, Z. Zhang, Y. Chen

INOR 249. Design and synthesis of new types of porous imide organic cages. Z. Wang, Z. Zhang

INOR 250. Small molecule activation utilizing carboxylate based metal-organic polyhedra. C.A. Rowland, E.D. Bloch

INOR 251. Synthesis, characterization, and photophysical properties of Bi(III)-thiophenecarboxylate materials. A.K. Adcock, J.A. Bertke, K.E. Knope

INOR 252. Selective gas adsorption in an isostructural series of pillared metal-organic polyhedra. E. Gosselein

INOR 253. Pulse laser deposition of oxynitride thin films for photoelectrochemical measurements. N.B. King, W. Wong-Ng

INOR 254. Microwave-assisted routes for bismuth nanostructures. P. Corio, J.d. de Souza, F. Hirata, M. Chapina

INOR 255. Functionalization of zeolitic imidazolate frameworks for enhanced carbon dioxide selectivity. N. Khazeni, A. Bandegi, M. Garcia, J. Rastegary, A. Ghasssemi, R. Foudazi

INOR 256. Energy transfer studies on mixed-ligand PCN-223 metal organic frameworks. S. Shaikh, A.J. Morris, N. Mayhall

INOR 257. Withdrawn.

INOR 258. Tunable electronic properties in a 2D metal-organic framework platform. J. Park, D. Feng, Z. Bao

INOR 259. Study of stacking faults in honeycomb lattice compounds. L. Yin, J. Liu, P. Khalifah

Section K

Walter E. Washington Convention Center
Hall D

Organometallic Chemistry

Synthesis & Characterization-Late Transition Metals

N. S. Radu, *Organizer*

5:30 - 7:30

INOR 260. C-C bond activation by rhodium complexes. K. Lee

INOR 261. Toward copper-catalyzed asymmetric P-C bond formation using chiral NHCs. L. Mendelsohn, S.K. Gibbons, G. Wang, A.L. Rheingold, D.S. Glueck

INOR 262. Carbon atom transfer to an iron(IV) nitride from a cyclopropenylidene carbene. J.L. Martinez, H. Lin, W. Lee, M. Pink, C. Chen, X. Gao, J.M. Smith

INOR 263. Cyclometalated platinum (VI) complexes with thiophene-based ligands: Synthesis and reactivity. C.M. Anderson, D. Yu, F. Mastrocinque, M.F. Pizzuto

INOR 264. Regioselective preparation of a flexible phosphane-borane by hydroboration with simple rhodium catalysts. B.R. Nichols, N. Akhmedov, J.L. Petersen, B.V. Popp

Section L

Walter E. Washington Convention Center
Hall D

Environmental & Energy-Related Inorganic Chemistry

S. A. Koch, *Organizer*

5:30 - 7:30

INOR 265. Design and practice of a long-term bactericidal system. N. Zhan, Q. Chang, K. Yeung

INOR 266. Design air purification filters with formulated antimicrobial agents. J. Lee, N. Zhan, J. Kwan, K. Yeung

INOR 267. Charge transfer-induced spin crossover manganese(II/III) redox mediators for next generation quantum dot solar cells. M. Kessinger, A.J. Morris

INOR 268. Synthesis and photocatalytic activity of nitrogen-doped TiO₂ microspheres wrapped with silica. S. Kye, H. Jung, H. Kang, K. Lee, N.H. Hur

INOR 269. Distribution and elevated solubility of lead, arsenic and cesium in contaminated paddy soil enhanced with the electro-kinetic field. X. Mao

INOR 270. Volatile organic compounds (VOCs) degradation and antimicrobial activities for metal doped or coupled TiO₂ nanoparticles coated on the stainless steel substrate under UV and visible light irradiation. S. Kim, M. Suh, C. Lee

INOR 271. Effects of solid state and sol-gel synthesis methods on the materials and electrochemical properties of La_{0.9}Sr_{0.2}Ga_{0.9}Mg_{0.2}O_{3-δ} solid oxide fuel cell electrolytes. B.C. Eigenbrodt, T. Marshall

INOR 272. Carbonate eutectic promoted dolomite for CO₂ removal. X.S. Li, C.S. Sampara, K.G. Rappe, F. Zheng, W. Liu

INOR 273. Immobilization of chromophores and catalysts to titanium dioxide via robust attachments. N.A. Race, M.E. Screen, W.R. McNamara

INOR 274. Withdrawn.

INOR 275. Low temperature facile synthesis of α-Fe₂O₃ dispersed on Flavin mononucleotide-stabilized graphene nanosheet via microwave-assisted hydrothermal method. M.E. Cabello, E. Enriquez

INOR 276. Passivation of nanoscale zero-valent iron (nZVI) by Cr(VI): The influence of Cr(VI) concentration and environmental conditions. X. Huang, L. Ling, W. Zhang

INOR 277. Solution-phase synthesis and thermoelectric characterization of tetrahedrite. A. Ochs, G. Kunkel, D. Weller, D. Stevens, C. Holder, D. Morelli, M.E. Anderson

INOR 278. Withdrawn.

INOR 279. Homogeneous and heterogeneous metal selenolate catalysts for the hydrogen evolution reaction. C. Downes, S. Marinescu

INOR 280. Polydopamine-coated nanocomposites of transition metal complexes supported on graphene for oxygen reduction. H.A. Wayland, S. Boury, B.P. Chhetri, C. Parnell, A. Ghosh

INOR 281. Determination of polycyclic aromatic hydrocarbons in Durban city road dusts. A.D. Abdulkadir

INOR 282. High-performance electromagnetic wave absorbing composites prepared by one-step transformation of Fe³⁺ mediated egg-box structure of seaweed. Q. An

Section L

Walter E. Washington Convention Center
Hall D

Inorganic Spectroscopy

S. A. Koch, V. C. Popescu, *Organizers*

5:30 - 7:30

INOR 283. To be or not to be: d¹⁰-d¹⁰ bonding in heterometallic complexes. K. Melancon, B.M. Otten, M.A. Omary

INOR 284. Influences of trifluoromethyl ligands on transition metal electronic structure and their implications for metal-mediated trifluoromethylation. J. Lukens, I. DiMucci, K.M. Lancaster

INOR 285. Reactions of Cu²⁺ with the aromatic amino acid Phenyl alanine in aqueous solutions. Y.Z. Hamada

INOR 286. IR, potentiometry and UV-Vis measurements of glycine with Cu²⁺. Y.Z. Hamada

INOR 287. Photo-activated phosphorescence of gold(I) arylethynyl complexes in aerated DMSO solutions and gels. S. Wan, W. Lu

INOR 288. Assessing the scope and limitations of a new ¹³C NMR approach for probing charge delocalization in electron-rich organometallics featuring the isocyanide junction unit. Z.A. Wood, M.D. Hart, M.V. Barybin

INOR 289. Spectroscopic and computational investigations of the ground- and excited-state properties of Cr(III) bis(4'-arylerpyridyl) complexes. B.M. Lovaasen, P.K. Waihout, B.D. Verblie

INOR 290. Decreased polyatomic interference in the analysis of arsenic with ICP-MS after injecting methanol to sample. J. An, K. Nam

MONDAY MORNING

Section A

Renaissance Washington, DC Downtown
Renaissance East

Fundamental Aspects of Metal Organic Framework Catalysis

A. J. Morris, J. R. Morris, *Organizers*

D. Powers, *Presiding*

8:30 INOR 291. Controlled encapsulation of catalysts into nanoporous materials. C. Tsung

9:00 INOR 292. Computational study of a MOF-supported single site Ni catalyst for ethylene dimerization. J. Ye, A. Leaque, D.G. Truhlar, C.J. Cramer, L. Gagliardi, V. Bernales, O.K. Farha, J.T. Hupp, Z. Li, A. Platero Prats, K.W. Chapman, D.M. Camaioni, J. Fulton, J.A. Lercher

9:30 Intermision.

9:45 INOR 293. Single-site heterogeneous catalysts for olefin upgrading enabled by cation exchange in metal-organic frameworks. R. Comito, M. Dinca, E.D. Metzger, R. Dubey

10:15 INOR 294. Inorganometallic catalyst design: Alkane metathesis catalysis in NU-1000 MOFs functionalized with transition metals. B. Yang, K. Sharkas, L. Gagliardi, D.G. Truhlar

10:45 INOR 295. Hydroxylation stereochemistry as a probe of In-MOF versus On-MOF catalysis. D. Powers, A. Cardenal, H. Park

Section B

Renaissance Washington, DC Downtown
Renaissance West A

Personal & Global Energy Conversion in Chemistry & Biology

C. J. Chang, M. Kanan, *Organizers, Presiding*

8:30 INOR 296. Redox distribution in multi-electron substrate activation processes. T. Betley

8:55 INOR 297. Charge carriers modulate the bonding of semiconductor dopants: A time-resolved x-ray study. P.T. Sneek, A. Hassan, X. Zhang, R.D. Schaller

9:20 INOR 298. Development of BN cyloalkanes: From H₂ storage materials to molecular precursors for 2D BCN graphene. G. Chen, Z. Giustra, J. Ishibashi, W. Luo, A. Enders, S. Liu

Technical program information
known at press time.

The official technical program for
the 254th ACS National Meeting
is available at [www.acs.org/
WDC2017](http://www.acs.org/WDC2017)

- 9:45 INOR 299.** Utilizing synthetic control in molecular complexes to understand the chemistry of solar fuels catalysis. J.Y. Yang
- 10:10 Intermission.**
- 10:30 INOR 300.** Controlling the outcome of CO₂ reduction at bismuth-film cathodes in the presence of room temperature ionic liquids. J. Rosenthal
- 10:55 INOR 301.** Turning lead into gold: Materials and nanostructures in electrochemical energy conversion. J. Bachmann
- 11:20 INOR 302.** Photocurrent generation in printable photovoltaic materials: Insights from ultrafast spectroscopy. J. Hodgkiss
- 11:45 INOR 303.** Carbonate-catalyzed CO₂ utilization. M. Kanan

Section C

Renaissance Washington, DC Downtown
Grand Ballroom South

Inorganic Chemistry Lectureship

W. B. Tolman, *Organizer, Presiding*

- 8:30** Introductory Remarks.
- 8:35 INOR 304.** On the trail of aminophosphinidenes. C.C. Cummins, M. Geeson, M. Nava, W. Transue, A. Velian
- 9:00 INOR 305.** DNA-mediated signaling among proteins with [4Fe4S] clusters. J.K. Barton
- 9:25 INOR 306.** Metal-ligand multiple bonds as viable intermediates for group transfer catalysis in C-H bond functionalization. T. Betley
- 9:50 Intermission.**
- 10:05 INOR 307.** Constructing multiple bonds between unlikely metal pairs: Niobium-iron triple bonds, and other awkward relationships. C.M. Thomas, G. Culcu
- 10:30 INOR 308.** Cooperative metal-metal interactions for challenging chemical transformations. T.D. Tilley
- 10:55 INOR 309.** Catalysts for solar-driven water splitting. H.B. Gray
- 11:20 INOR 310.** Synthetic iron nitrogenases. J.C. Peters

Section D

Renaissance Washington, DC Downtown
Renaissance West B

Electronic Structure Contributions to Function: From Metals in Biology to Materials Science

P. Chen, A. E. Palmer, L. Quintanar, *Organizers*
A. Dey, *Organizer, Presiding*

- 8:30 INOR 311.** Exploring halogen bonding from fundamental principles to real-world applications. P. Kennepohl
- 8:55 INOR 312.** Thermally and photothermally activated diradical architectures: From small molecule bioreagents to new material morphologies for dissolution of biopolymers. J.M. Zaleski
- 9:20 INOR 313.** Characterization and control of high activity oxygen evolution reaction and carbon dioxide reduction catalysts. A.A. Gewirth
- 9:45 INOR 314.** Reaction and photocurrent imaging of single semiconductor particles for solar water oxidation. P. Chen

- 10:10 Intermission.**
- 10:25 INOR 315.** High-valent states in molecular and heterogeneous oxygen-evolving catalysts and their role in O-O bond formation. R.G. Hadt, C. Brodsky, T. Kroll, D. Hayes, N. Li, D.K. Bediako, L.X. Chen, D.G. Nocera
- 10:50 INOR 316.** Double exchange in linear face-sharing pentamers. T. Glaser
- 11:15 INOR 317.** Design and implementation of a high resolution spectrometer and associated computational methodology for measurement of vibrational probes for proteins. M.T. Kieber-Emmons
- 11:40 INOR 318.** Chemical and biological applications of synchrotron and free electron laser X-rays. K.O. Hodgson, B.G. Hedman

Section E

Renaissance Washington, DC Downtown
Grand Ballroom North

Many Colors of Copper

Good Cop, Bad Cop

Cosponsored by BIOL

- I. Garcia-Bosch, K. D. Karlin, T. H. Warren, *Organizers*
- K. J. Franz, *Organizer, Presiding*
- 8:55** Introductory Remarks.
- 9:00 INOR 319.** Multiple interconnected pathological factors (copper, amyloid-β, and reactive oxygen species) in Alzheimer's disease. M. Lim
- 9:30 INOR 320.** Copper vs. beta-sheets: From diabetes to cataracts disease. L. Quintanar
- 10:00 INOR 321.** Transition metal signaling: Bioinorganic chemistry beyond active sites. C.J. Chang
- 10:30 Intermission.**
- 10:45 INOR 322.** New family of copper superoxide dismutases for fungal pathogens. V. Culotta
- 11:15 INOR 323.** Mining for new antimicrobials with copper as the tool. A.G. Dalecki, C.L. Crawford, J.C. Lingo, F. Wolschendorf
- 11:45 INOR 324.** Designing molecules to mine for cellular copper. K.J. Franz

Section F

Renaissance Washington, DC Downtown
Grand Ballroom Central

Center for Enabling New Technologies through Catalysis: Transforming Catalysis through Collaboration

N. E. Gruhn, E. Ison, L. T. Thompson, *Organizers*
A. Goldman, S. W. Krska, *Organizers, Presiding*

- 8:30** Introductory Remarks.
- 8:40 INOR 325.** CENTC approach to electrophilic alkane oxidation. K.I. Goldberg, K. Allen, Y. Gao, B. Gany, D. Pahls, S.B. Rubashkin, Z.H. Syed, T. Warner, J.Z. Williams, A.M. Wright, H. Yuan, T.R. Cundari, A.S. Goldman, W.D. Jones
- 9:10 INOR 326.** Catalytic alkane conversions based on dehydrogenation by pincer complexes. A.S. Goldman, M. Brookhart, K. Krogh Jespersen, R.R. Schrock, S.L. Scott

- 9:40 INOR 327.** Light-alkane functionalization and polyethylene degradation. Z. Huang
- 10:00 INOR 328.** Polyolefin catalysts for the production of ethylene based fluids. B. Bailey, J. Klosin, D. Arriola, T. Paine
- 10:20 Intermission.**
- 10:30 INOR 329.** Oxyfunctionalization with Cp*Ir(III) complexes. E.A. Ison
- 11:00 INOR 330.** Immobilized pincer-ligated iridium complexes in continuous heterogeneous alkane transfer dehydrogenation. F.E. Celik, B. Sheludko, A.M. Pennington, M.T. Cunningham, M.E. Gliege, A.S. Goldman
- 11:30 INOR 331.** Dehydrogenation of alkanes using pincer complexes in a continuous process. D. Guironnet, J. Schultz
- 11:50 INOR 332.** Understanding the roles of metallic additives in organotransition metal catalysis. G. Dobereiner, K. Weerasiri, J. Becica, D. Wozniak
- 12:10** Concluding Remarks.

Section G

Renaissance Washington, DC Downtown
Congressional A

Triplet Excited State in Inorganic Chemistry

- F. N. Castellano, *Organizer*
- K. Hanson, Y. Ma, *Presiding*
- 8:30 INOR 333.** Supramolecular strategies enabling directional energy flow from quantum dots. S. Garakyaraghi, C. Mongin, F.N. Castellano
- 8:50 INOR 334.** Solid-state infrared-to-visible upconversion sensitized by colloidal nanocrystals. M. Baldo
- 9:15 INOR 335.** Iridium complex for tandem 3PA-TTA photo upconversion with large anti-Stokes shift. Y. Ma
- 9:40 INOR 336.** Thermally activated delayed photoluminescence from pyrenyl decorated CdSe quantum dots. C. Mongin, P. Moroz, N. Razgoniaeva, M. Zamkov, F.N. Castellano
- 10:05 Intermission.**
- 10:20 INOR 337.** Triplet states in organometallic conjugated materials. K.S. Schanze, S. Goswami, E. Holt, J. Wang
- 10:45 INOR 338.** Tuning photochemistry and photophysics in metallo-supramolecular materials. A. Ostrowski
- 11:10 INOR 339.** Electrophosphorescence and photophysics of heavy and not so heavy metal complexes. M.E. Thompson, R. Hamze, S. Shi
- 11:35 INOR 340.** Harnessing low energy triplet states via molecular photon upconversion at organic-inorganic interfaces. S.P. Hill, T. Dilbeck, Y. Zhou, K. Hanson

Section H

Renaissance Washington, DC Downtown
Congressional B

Coordination Chemistry Characterization & Applications

S. A. Koch, A. Larsen, *Organizers*
D. C. Bebout, C. Milsman, *Presiding*

- 8:30 INOR 341.** Self-assembly of molecular thiolate-bridged group 12 metal ion complexes. W. Lai, A.A. Tran, C. Rojas Ramirez, K. Ritz, J.C. Poutsma, R.D. Pike, R. Butcher, C.A. Bayse, D.C. Bebout
- 8:50 INOR 342.** Design and synthesis of molecular qubit host complexes for applications in quantum information processing. M. Fataftah, S.C. Coste, J. Zadrozny, D.E. Freedman
- 9:10 INOR 343.** Solution behavior and resonance Raman spectroscopic investigation of modified salen-type subterranean fluid flow tracers. O. Staples, J.C. Sanchez, T.E. Tesema, J.M. Sears, T.G. Habteyes, T.M. Roper, J.A. Greathouse, T.J. Boyle, R.A. Kemp
- 9:30 INOR 344.** Installation and reduction of nitrate using a redox-active pincer ligand. D.M. Beagan, N.A. Maciulis, M. Pink, K.G. Caulton
- 9:50 INOR 345.** Joint computational and synthetic exploration into the reduction of nitrate using a novel pyrazole/pyridyl/phosphine pincer ligand. A. Cabelof, A.V. Polezhaev, M. Pink, K.G. Caulton
- 10:10 Intermission.**
- 10:20 INOR 346.** Molecular photosensitizers based on earth abundant early transition metals. C. Milsman
- 10:40 INOR 347.** Redox-active formazanate ligands on iron: Going beyond electrode reservoirs. D. Broere, B.Q. Mercado, K.M. Lancaster, E. Bill, P.L. Holland
- 11:00 INOR 348.** Cracking down on vapochromic materials: Vapor-induced stress in gas sensing platinum salts. A.E. Norton, S. Taylor, M. Abdolmaleki, R. Hart, J.A. Krause, W.B. Connick
- 11:20 INOR 349.** Magnetic anisotropy from main group elements: Halide versus group 14 elements. S. Coste, D.E. Freedman, B. Vlaisavljevich

Building a Safety Culture across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

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MONDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown
Renaissance East

Fundamental Aspects of Metal Organic Framework Catalysis

MOFs for Artificial Photosynthetic Catalysis

A. J. Morris, J. R. Morris, *Organizers*
S. Ott, *Presiding*

1:30 INOR 350. Functionalized metal organic frameworks for CO₂ reduction. K. Johnson, L. Li, J. Ye

2:00 INOR 351. Mechanistic study on CO₂ hydrogenation and photocatalytic reduction using metal-organic frameworks. C. Wang

2:30 Intermission.

2:45 INOR 352. Ni-cyclam-based metal-organic frameworks for electrochemical reduction of CO₂. J. Zhu, A.J. Morris

3:15 INOR 353. Investigations of water oxidation by catalysts incorporated metal-organic frameworks. S. Lin, Y. Pineda-Galvan, W.A. Maza, C. Epley, J. Zhu, M. Kessinger, Y. Pushkar, A.J. Morris

3:45 INOR 354. Molecular catalysis of energy relevance in metal-organic frameworks. S. Ott

Section B

Renaissance Washington, DC Downtown
Renaissance West A

Personal & Global Energy Conversion in Chemistry & Biology

C. J. Chang, M. Kanan, *Organizers*, *Presiding*

1:30 INOR 355. At the nexus of energy and water: Atmospheric fresh water capture and heat transfer with a material operating at the water uptake reversibility limit. M. Dinca, A.J. Rieth, Y. Tulchinsky, A. Wright

1:55 INOR 356. Design of earth-abundant main group catalyst. A.T. Radosevich

2:20 INOR 357. Advances in quantum materials synthesis and application. T. McQueen

2:45 INOR 358. Approaching challenges in physics with inorganic chemistry. J.M. Zadrozny, M. Graham, J. Walsh, C. Yu, S.M. Clarke, D.E. Freedman

3:10 Intermission.

3:30 INOR 359. Energy transfer within nanocrystal-molecule systems. E.J. McLaurin

3:55 INOR 360. Group-transfer chemistry at first-row transition metal complexes in bis(alkoxide) ligand environments. S. Groysman, M. Yousif, A. Grass, R.L. Lord

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

4:20 INOR 361. Clean nanocrystals for clean energy & advanced technologies. A.B. Greytak, A. Roberge, M.Y. Gee

4:45 INOR 362. Molecular models of inner-sphere interfacial electron transfer. Y. Surendranath, M. Jackson, S. Oh, A. Murray, C. Kaminsky, S. Chu, T. Marshall-Roth

Section C

Renaissance Washington, DC Downtown
Grand Ballroom South

Inorganic Young Investigator Awards

J. D. Protasiewicz, *Organizer*, *Presiding*

1:30 Introductory Remarks.

1:35 INOR 363. Role of heme redox potential in controlling enzymatic activities. A. Bhagi, Y. Lu

2:00 INOR 364. Excited-state metal-loradicals: Luminescent cerium(III) complexes for photo-redox chemistry. H. Yin, Y. Jin, J. Hertzog, K.C. Mullane, P. Carroll, B. Manor, J.M. Anna, E.J. Schelter

2:25 INOR 365. Competing pathways in interfacial CO₂-to-fuels catalysis. A. Wuttig, M. Yaguchi, S. Hall, Y. Yoon, K. Motobayashi, M. Osawa, Y. Surendranath

2:50 INOR 366. Breaking and forming bonds through metal-borane cooperation. B.R. Barnett, J.S. Figueroa

3:15 Intermission.

3:25 INOR 367. Itinerant ferromagnetism driven by physical and chemical compression in Ca_{1-x}Eu_xCo₂As₂. X. Tan, M. Shatruk

3:50 INOR 368. Nanoscale metal-organic frameworks for photodynamic therapy and immunotherapy. K. Lu

4:15 INOR 369. Solution growth of single-crystal lead halide perovskite nanostructures and stabilization of metastable perovskites for lasing and optoelectronic applications. Y. Fu, H. Zhu, F. Meng, J. Zhai, M. Shearer, X. Zhu, S. Jin

4:40 INOR 370. Tailoring properties of metal-organic frameworks. J. Park, D. Feng, Z. Bao, H. Zhou

Section D

Renaissance Washington, DC Downtown
Renaissance West B

Coordination Chemistry Characterization & Applications

S. A. Koch, A. Larsen, *Organizers*

S. Pope, M. Shatruk, *Presiding*

1:30 INOR 371. Molecular spintronics devices utilizing inorganic molecules as the device elements. P. Tyagi, T. Goulet, E. Friebe

1:50 INOR 372. Simple method to predict the electronic spin configuration of Fe(II) tris-diimine complexes. H. Phan, J.J. Hrudka, M. Shatruk

2:10 INOR 373. Synthesis, structure, and luminescence of Cu(I) halide complexes of chiral bis(phosphines), [Cu(diphos*)(X)]₂. S.K. Gibbons, R.P. Hughes, D.S. Glueck, A.T. Royappa, A.L. Rheingold, R.B. Arthur, A.D. Nicholas, H.H. Patterson

2:30 INOR 374. Ligand-functionalized nanoreactors: Synthesis and coordination chemistry. F. Gayet, A. Joumaa, S. Chen, E. Manoury, M. Lansalot, F. D'Agosto, R. Poli

2:50 INOR 375. Withdrawn.

3:10 Intermission.

3:20 INOR 376. Networking nanoswitches for communication and catalysis using coordination chemistry. M.J. Schmittel, N. Mittal, S. Gaikwad, A. Goswami, I. Paul, S. Pramanik, S. De

3:40 INOR 377. Complexes based on fluorescent 1,8-naphthalimide derivatives and applications in bioimaging. S. Pope

4:00 INOR 378. Novel, luminescent, cyclometalated Pt(II) complexes: From fundamental studies to heterometallic bimodal imaging agents. S. Pope

4:20 INOR 379. Novel, luminescent 1,8-naphthalimide-NHC ligands and their Au(I) complexes for imaging and therapeutics. L.M. Groves

Section E

Renaissance Washington, DC Downtown
Grand Ballroom North

Many Colors of Copper

Proteins & Models

Cosponsored by BIOL

K. J. Franz, I. Garcia-Bosch, T. H. Warren, *Organizers*

K. D. Karlin, *Organizer*, *Presiding*

1:45 Introductory Remarks.

1:50 INOR 380. Copper-sulfide clusters that activate nitrous oxide and other small molecules. N.P. Mankad, B. Johnson, S. Bagherzadeh, C. Hsu

2:20 INOR 381. Tale of bonding and reactivity by tricopper cyclophanates. L.J. Murray

2:50 INOR 382. Is PqqB, a protein of unknown function within the PQQ biosynthetic pathway, a novel copper enzyme? J. Klinman, E. Koehn, J. Lathan, R.L. Evans III, X. Tu, D.V. Sundaram, C. Wilmut

3:20 Intermission.

3:35 INOR 383. Oxygen activation by Cu sites. E.I. Solomon

4:05 INOR 384. Structure, function and spectroscopy studies of lytic polysaccharide monoxygenases. P. Walton

4:35 INOR 385. RGB copper azurins: Engineered azurins that display a wide range of colors, reduction potentials and enzymatic activities. Y. Lu, P. Hosseinzadeh, S. Tian, C. Cui

Section F

Renaissance Washington, DC Downtown
Grand Ballroom Central

Center for Enabling New Technologies through Catalysis: Transforming Catalysis through Collaboration

A. Goldman, N. E. Gruhn, E. Ison, S. W. Krska, L. T. Thompson, *Organizers*

M. Brookhart, K. I. Goldberg, *Presiding*

1:30 Introductory Remarks.

1:35 INOR 386. Tandem catalysis for carbon dioxide hydrogenation. M.S. Sanford

2:05 INOR 387. High-throughput chemistry for the development of photoredox-catalyzed hydroxymethylation of heteroaromatic bases. C.A. Huff, R. Cohen, K. Dykstra, E. Streckfuss, D. DiRocco, S.W. Krska

2:25 INOR 388. Bridging the gap between homogeneous and heterogeneous catalysis at Argonne National Laboratory. E. Bunel

2:45 INOR 389. Hydrogen transfer reactions of metal-oxide and metal-nitride materials. J.M. Mayer, S.M. Laga, D. Damatov, J. Castillo-Lora, R. Mitsuhashi, C. Valdez, B.A. McKeown, E.A. Mader, J. Peng, L.T. Thompson, B. Wyratt, J.R. Gaudet, T. Cundari, D. Pardue, A. Marton, W.D. Jones, M. Wilklow-Marnell, A.J. Miller, A.G. Walden, A. Goldman, N. Lease

3:15 Intermission.

3:25 INOR 390. Thermodynamic acidity as a tool for interpreting and predicting catalyst performance. A.J. Miller, K.R. Brereton, C.L. Pitman, C.N. Jadrlich, H. Fallah, T.R. Cundari

3:55 INOR 391. Design and synthesis of carbide supported metal catalysts. Y. Chen, B. Wyratt, S. Eady, W. Wen, L.T. Thompson

4:25 INOR 392. Investigation of sulfur tolerance in supported Pt-Pd catalysts for aromatic saturation. M.P. Lanci, S.L. Soled, S. Misco, C.E. Kiewer, P.A. Stevens, Y.V. Joshi

4:45 INOR 393. Single-facet anatase TiO₂ nanomaterials as model catalysts for alcohol dehydration. Y. Chen, L. Zhang, H. Wang, F. Gao, Y. Wang

5:05 Concluding Remarks.

Section G

Renaissance Washington, DC Downtown
Congressional A

Triplet Excited State in Inorganic Chemistry

F. N. Castellano, *Organizer*

P. C. Glazer, T. S. Teets, *Presiding*

1:30 INOR 394. Acetylide versus allenylidene: Excited state properties of photoluminescent Pt(II) zwitterionic acetylide complexes. C. Zou, J. Lin, F. Peng, M. Xie, J. Xia, X. Chang, W. Lu

1:50 INOR 395. Photophysics and photochemistry of complexes with conjugated ligands containing sulfur-based functional groups. C.M. Brown, P.R. Christensen, M. Kitt, T. Wright, M.O. Wolf

2:15 INOR 396. Mechanisms of photochemical H₂ evolution from organometallic iridium hydrides. A.J. Miller, M.B. Chambers, C.L. Pitman, D.A. Kurtz

2:40 INOR 397. Controlling triplet energies and dynamics in bis-cyclometalated iridium complexes via ancillary ligand modification. T.S. Teets, H. Na, P. Lai, A. Maity, J. Kölsch

3:05 INOR 398. Interconfigurational electronic transitions of cerium(III) complexes: Photophysics and photochemistry. E.J. Schelter, Y. Qiao, H. Yin, Y. Jin, B. Manor, P. Carroll, J.M. Anna

3:30 Intermission.

3:45 INOR 399. Population of multiple triplet states for drug photorelease and sensitization of singlet oxygen. C. Turro

4:10 INOR 400. Triplet excited states and metal based covalent cytotoxic agents. P.C. Glazer

4:35 INOR 401. Harvesting triplet excited states in Ru(II) and Cu(I) complexes for photodynamic therapy of cancer. R.S. Khayzer

5:00 INOR **402.** Tuning triplet excited state lifetimes in CuHETPHEN complexes. K.L. Mulfort, L. Kohler, D. Hayes, R. Hadt, L.X. Chen

Building a Safety Culture across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRG, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Transformative Research & Excellence in Education Award

Sponsored by COMSCI, Cosponsored by BIOL, COLL, COMP, ENFL, INOR, PHYS and PRES

Materials Science in Nuclear Waste Disposal

Sponsored by NUCL, Cosponsored by INOR

Undergraduate Research Posters

Inorganic Chemistry

Sponsored by CHED, Cosponsored by INOR and SOCED

MONDAY EVENING

Section A

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

S. A. Koch, N. S. Radu, *Organizers*

8:00 - 10:00

130-132, 137, 144-146, 148-149, 154, 157, 163, 165, 167, 172, 178, 184, 190, 193, 196-197, 202, 204, 211, 236, 239, 242, 245-246, 253, 256-257, 261, 271, 274, 278. See previous listings.

524, 528, 532-533, 536, 538, 540, 542-543, 549, 552, 559, 562, 566, 568, 570, 575-577, 581-582, 585, 588, 597, 607, 613, 615, 617, 621-623, 625-626, 631-632, 635, 637-638, 641, 645, 648-649, 668, 670-672. See subsequent listings.

TUESDAY MORNING

Section A

Renaissance Washington, DC Downtown
Renaissance East

Fundamental Aspects of Metal Organic Framework Catalysis

A. J. Morris, J. R. Morris, *Organizers*

S. Marinescu, *Presiding*

8:30 INOR **403.** Probing framework-restricted metal axial ligation and spin state patterns in iron-porphyrin-based metal-organic framework catalysts. J.V. Lockard, P. Kucheryavy, N.O. Lahanas, C. Sun

9:00 INOR **404.** Development of highly stable metal-organic frameworks for applications in catalysis. P. Usov, A.J. Morris

9:30 Intermission.

9:45 INOR **405.** Metal dithiolenes frameworks with tunable physical and chemical properties. S. Marinescu

10:15 INOR **406.** Enhancement in molecular catalysis through redox hopping metal organic framework scaffold. A.J. Morris

10:45 INOR **407.** Photophysical properties of crystalline self-assembled porous materials: Contribution of interchromophoric interactions and environment. P. Deria

Section B

Renaissance Washington, DC Downtown
Renaissance West A

Chemistry of Materials Lectureship & Best Paper Award

J. M. Buriak, C. Toro, *Organizers, Presiding*

8:30 Introductory Remarks.

8:45 INOR **408.** Perovskite photovoltaics: Materials, cells and modules. K. Zhu

9:30 INOR **409.** Extrinsic ion migration in perovskite solar cells. Z. Li

10:10 INOR **410.** Halide ion exchange and migration in mixed halide lead perovskites. P.V. Kamat, S.J. Yoon

10:40 Intermission.

11:00 INOR **411.** Pb-free and less Pb perovskite thin-film solar cells: Theory and device. Y. Yan

11:30 INOR **412.** Time-resolved optical studies of perovskite polycrystalline films, single crystals and their surfaces. M.C. Beard, Y. Yang

12:00 INOR **413.** Tailoring of microstructures and grain-boundary networks in hybrid-perovskite thin films for efficient, stable solar cells. Y. Zhou, S. Pang, K. Zhu, N.P. Padture

Section C

Renaissance Washington, DC Downtown
Grand Ballroom South

Bioinorganic Chemistry

Proteins & Enzymes & Model Systems

S. A. Koch, *Organizer*

G. T. Cheek, H. C. Fry, *Presiding*

8:30 INOR **414.** Acyl-containing small molecule mimics of [Fe]-hydrogenase: Ligand effect on structure and reactivity. Y. Cho, D. Gummadi, M.J. Rose

8:50 INOR **415.** Electrochemical studies of cysteine/zinc interactions in aqueous media. G.T. Cheek, M.Y. Doan

9:10 INOR **416.** Direct observation of oxygen rebound in an iron-hydroxide complex. J. Zaragoza, D.P. Goldberg

9:30 INOR **417.** Biometal-induced structural perturbations of α Sy-nuclein upon aggregation. D.L. Abeyawardhane, H.R. Lucas

9:50 INOR **418.** Triiron clusters containing mixed bridging ligands for the study of dinitrogen reduction. R.B. Ferreira, L.J. Murray

10:10 Intermission.

10:20 INOR **419.** DNA-processing repair proteins containing redox-active [4Fe4S] metallocofactors facilitate DNA lesion detection. E. Tse, J.K. Barton

10:40 INOR **420.** Peptide assembly influence on metalloporphyrin function. H.C. Fry, L.A. Solomon

11:00 INOR **421.** Artificial metallo-proteins with Co₂O, cubane active sites: Exploiting secondary sphere interactions to control electronic and molecular structure. L. Olshansky, R.H. Lavoie, A.I. Nguyen, T.D. Tilley, A. Borovik

11:20 INOR **422.** Generation of a metastable, nonheme {FeNO}⁸ complex: Reduction of {FeNO}⁷, production of N₂O, and nitroxyl (NO⁻) based reactivity. A.M. Confer, A. McQuilken, D.P. Goldberg

Section D

Renaissance Washington, DC Downtown
Renaissance West B

Organometallic Chemistry

New Ligand Platforms: Pincer Ligands

N. S. Radu, *Organizer*

R. Wright, *Presiding*

8:30 INOR **423.** Exploring ion-controlled substrate access to pincer-crown ether catalysts. J.B. Smith, S.H. Kerr, A.J. Miller

8:50 INOR **424.** Multifunctional redox-active and electrophile-responsive pincer ligand supporting multiple oxidation states of Co and Fe on a way to CO₂ activation. A.V. Polezhaev, A. Cabelof, C. Chen, K.G. Caulton

9:10 INOR **425.** Facile metal-ligand cooperative nitride to ammonia conversion on a pincer ruthenium framework using weak chelating acids. B.M. Lindley, Q.J. Bruch, F. Hasanayn, A.J. Miller

9:30 INOR **426.** New ligand architecture to enable aerobic C-H oxidation at a platinum center. D.B. Watts, D. Wang, P.Y. Zavalij, A.N. Vedernikov

9:50 INOR **427.** Multiple metal-boron interactions in carboranyl pincer complexes. D.V. Peryshkov, B. Eleazer

10:10 INOR **428.** Agostic C₆₀-H Iron(I) pincer complex. Q. Lai, O. Ozerov

10:30 INOR **429.** Synthesis and reactions of high-valent nitrido-rhenium(V) complexes bearing PNP pincer ligands. N. Lambic, E. Ison

10:50 INOR **430.** C-H activation with PBP pincer complexes of iridium and rhodium takes advantage of a non-innocent boryl site. O. Ozerov, W. Shih, Y. Cao

11:10 INOR **431.** Diverse reactivity of iridium pincer-crown ether carbonyl complexes. J. Grajeda, E.K. Nichols, A.J. Miller

Section E

Renaissance Washington, DC Downtown
Grand Ballroom North

Many Colors of Copper

Small Molecule Activation

Cosponsored by BIOL

K. J. Franz, I. Garcia-Bosch, K. D. Karlin, *Organizers*

T. H. Warren, *Organizer, Presiding*

8:55 Introductory Remarks.

9:00 INOR **432.** Copper-catalyzed electrochemical CO reduction. M. Kanam

9:30 INOR **433.** Hydrogenation of CO₂ using copper hydride complexes. A.M. Appel

10:00 INOR **434.** Electrocatalytic water oxidation by a homogeneous copper catalyst disfavors single-site mechanisms. M.T. Kieber-Emmons

10:30 Intermission.

10:45 INOR **435.** Cu(III) with imidazole ligation: Biologic relevance? T.D. Stack, W. Keown, L. Chiang, J.B. Gary, E.C. Wasinger

11:15 INOR **436.** Copper(III) complexes relevant to possible catalytic intermediates. W.B. Tolman

11:45 INOR **437.** Copper active site of particulate methane monooxygenase. A.C. Rosenzweig

Section F

Renaissance Washington, DC Downtown
Grand Ballroom Central

Center for Enabling New Technologies through Catalysis: Transforming Catalysis through Collaboration

A. Goldman, N. E. Gruhn, S. W. Kraska, *Organizers*

E. Ison, L. T. Thompson, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 INOR **438.** New elementary reactions, catalytic reactions, and combinations of catalytic reactions. J.F. Hartwig

9:05 INOR **439.** Process inspired method development: New chemistries of sulfonyl fluoride. P.S. Hanley, M. Ober, A.L. Krasovskiy, T.P. Clark

9:25 INOR **440.** Concurrent tandem catalytic methodologies for the hydrodehalogenation, cyanation, and amidation of aryl halides using a multifunctional copper catalyst. S. Lin, A.H. Roy MacArthur

9:45 INOR **441.** Valuable skills I learned at CENTC that prepared me for a career in industry. J.M. Villalobos

10:05 Intermission.

10:15 INOR **442.** Exploring the synergy between biological catalysis and chemical catalysis. H. Zhao

10:45 INOR **443.** Dicarbofunctionalization of olefins by cross-coupling. R. Giri

11:05 INOR **444.** Ru(II) complex catalyzed tandem C-C and C-N bond formation: Sustainable strategy for the utilization of alcohols as alkylating agents. K. Chakrabarti, B. Paul, B.C. Roy, S. Shee, S. Kundu

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11:25 INOR 445. Cyclometallation reactions of alkynes, alkenes, ketones, and biphenylene with iridium pincer complexes. M. Wilklow-Marnell, D.A. Laviska, B. Li, T. Zhou, K. Krogh Jespersen, W. Brennessel, A.S. Goldman, **W.D. Jones**

11:55 Concluding Remarks.

Section G

Renaissance Washington, DC Downtown
Congressional A

Electrochemistry

B. L. Lucht, *Organizer*

I. F. Cheng, B. Helms, *Presiding*

8:30 INOR 446. Toward a molecular level understanding of electrochemical interfaces in lithium-sulfur batteries. **B. Helms**

8:50 INOR 447. Resolving the mechanism of capacity fading in Li-ion solid-state batteries. **C. Gong, Z. Jadidi, F.E. Gabaly, E.J. Fuller, A.A. Talin, M.S. Leite**

9:10 INOR 448. Graphene from the University of Idaho thermolyzed asphalt reaction (GUITAR) is it an amorphous carbon, graphite or a new carbon allotrope? **I.F. Cheng, D. Estrada, P. Davis, A. Clearfield, J. Foutch, K. Livingston, K. Yocham, T. Pandhi, C. Nwamba, Y. Kan, A. Blumenfeld, H. Kabir**

9:30 INOR 449. Rhenium and manganese complexes with proton relays in the secondary coordination sphere for the electrocatalytic reduction of carbon dioxide. **V. Yempally, C.A. Caputo**

9:50 INOR 450. Effect of metal cations on the redox behavior of naphthalene diimides. **C.R. Wade, B.R. Reiner**

10:10 INOR 451. Probing the tunable redox nature of vertex-differentiated dodecaborate clusters. **A.I. Wixtrom, A.M. Spokoyko**

10:30 INOR 452. Nontraditional porphyrinoid scaffolds as efficient electrocatalysts for the oxygen reduction reaction. **J. Rosenthal**

10:50 INOR 453. Withdrawn.

11:10 INOR 454. Electrodeposition of Si thin film on HOPG from SiCl_4 in BMImTf_2N at room temperature. **N.K. Shah, A. Ray*, R.K. Pati, I. Mukhopadhyay**

11:30 INOR 455. Electrochemical quantification of hormone disruptors with a bacterial biosensor. **A.L. Furst, M.B. Francis**

11:50 INOR 456. Naturally synthetic: Using biology to connect inorganic particles. **M.A. Allen, E. Barannikova, S.J. Riley, A. Winton**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Understanding the Chemistry of Our Planet

Chemistry's Role in our Earth System

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Materials Science in Nuclear Waste Disposal

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Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Aromatic, Antiaromatic & Non-Aromatic Systems

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TUESDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown
Renaissance East

Fundamental Aspects of Metal Organic Framework Catalysis

A. J. Morris, J. R. Morris, *Organizers, Presiding*

1:30 INOR 457. Tune the catalytic selectivity of core-shell metal-organic frameworks (MOFs) by changing the length of the linker in the shell. **X. Yang, H. Zhou**

2:00 INOR 458. Multi-component metal-organic frameworks as cooperative bimetallic catalysts. **S. Yuan**

2:30 Intermission.

2:45 INOR 459. CuPd mixed-metal MOFs characterized by UHV-FTIRS and HR-XPS. **P. Guo, M. Muhler, Y. Wang**

3:15 INOR 460. Metal-organic frameworks as micromotors with tunable engines and brakes. **X. Yu, J. Li, J. Wang, S. Cohen**

3:45 INOR 461. Impact of metal substitution on stability and adsorption properties of MOF-74. **K.S. Walton**

Section B

Renaissance Washington, DC Downtown
Renaissance West A

Memorial Symposium Honoring Justine Roth: Oxygen & Isotope Effects in Mechanisms, from Enzymes to Small Molecules

Cosponsored by BIOL

A. M. Angeles Boza, J. M. Mayer, *Organizers*

K. D. Karlin, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 INOR 462. Analyzing hydrogen atom transfer reactions with Marcus theory. **J.M. Mayer**

2:00 INOR 463. Dioxygen activation by human indoleamine 2,3-dioxygenase, isoform-1 (hIDO1): The role of ferryl derivatives in catalysis. **V.V. Smirnov**

2:25 INOR 464. Differences in carbon and oxygen isotope discrimination during the catalytic activation of small molecules. **A.M. Angeles Boza**

2:50 INOR 465. Reactivity in situations where life's control over coordination is weak or non-existent. **A.T. Stone**

3:15 Intermission.

3:35 INOR 466. Fire without Flint: Cofactorless strategies for converting biopolymers into useful chemical precursors. **J. DuBois, G.C. Moraski, G. Beckham**

4:00 INOR 467. Using isotope effects to follow the chemical step along enzyme evolution. **P. Singh, D. Hilvert, A. Kohen**

4:25 INOR 468. Addition of HX across Ni amide bonds: Synthesis and reactivity of Ni hydroxide complexes. **J.M. Boncella, N.H. Anderson, A.M. Tondreau**

4:50 INOR 469. Enormous, temperature independent kinetic deuterium isotope effects in the proton-coupled electron transfer reaction catalyzed by soybean lipoxygenase. **J. Klinman, S. Hu, A. Soudackov, S. Hammes-Schiffer**

Section C

Renaissance Washington, DC Downtown
Grand Ballroom South

Chemistry of Materials

Nanomaterials

C. G. Lugmair, *Organizer*

P. Tyagi, J. G. Werner, *Presiding*

1:30 INOR 470. Molecular spintronics device based magnetic metamaterials. **P. Tyagi, C. D'Angelo, C. Baker**

1:50 INOR 471. Fluorescence preservation and solidification of semiconducting polymer-dots by hybridization with layered double hydroxides. **X. Liu, W. Wang, Y. Chen, S. Kuo, Y. Chan, C. Chen**

2:10 INOR 472. Manganese and iron oxo-clusters as potential contrast agents for magnetic resonance imaging. **V. Dahanayake, W. Hickling, O. Rodriguez, C. Albanese, S.L. Stoll**

2:30 INOR 473. Plasmonic photoelectrochemistry for catalytic functionality. **D.R. Baker, K. Grew, J.P. McClure, J. Boltersdorf, C. Lundgren**

2:50 INOR 474. Core-shell mesoporous silica nanoparticles embedded with X-ray dense nanocrystals for CT imaging and drug delivery. **S. Chakravarty, B. Blanco-Fernandez, E.M. Shapiro**

3:10 INOR 475. Nano-integrated ordered three-dimensional multifunctional hybrid for all-solid-state energy storage. **J.G. Werner, G.G. Rodriguez-Calero, H.D. Abruna, U.B. Wiesner**

3:30 Intermission.

3:45 INOR 476. Cesium lead bromide perovskite nanocube superlattices and the pressure-induced change in its structure and optical properties. **Y. Nagaoka, O. Chen, K. Hills-Kimball, Z. Wang, R. Li**

4:05 INOR 477. Synthesis and fluorescence properties of carbon quantum dots and core-shell superparamagnetic Fe@C-CN_x particles. **V.N. Khabashesku, S. Murugesan, R. Suresh, O. Kuznetsov**

4:25 INOR 478. Extension of confined-yet-coupled design to 2D semiconductors. **T.W. Farnsworth, A. Woomer, J. Thompson, S.C. Warren**

4:45 INOR 479. Design and use of upconverting NaYF₄:Yb/Er nanocrystals for 3D tissue imaging in optical emission computed tomography. **B.W. Langloss, P. Yoon, M. Oldham, M.J. Therien**

5:05 INOR 480. Giant PbS/CdS/CdS quantum dots: Effect of shell thickness on structure, ensemble and single-dot stability, and device performance. **S. Krishnamurthy, Z. Hu, A. Singh, M. Sykora, J. Casson, D. Williams, H. Htoon, A. Malko, J.A. Hollingsworth**

Section D

Renaissance Washington, DC Downtown
Renaissance West B

Coordination Chemistry

Synthesis & Characterization

S. A. Koch, A. Larsen, *Organizers*

C. R. Graves, W. Lee, *Presiding*

1:30 INOR 481. Aluminum complexes of redox-active ligands. **C.R. Graves**

1:50 INOR 482. Synthesis, structure, and computations of an isolable magnesium diphosphoethynolate complex. **R.J. Gilliard, D. Heift, Z. Benko, A.L. Rheingold, J.D. Protasiewicz, H. Grützmaier**

2:10 INOR 483. Withdrawn.

2:30 INOR 484. Synthesis and characterization of polydentate imino phosphonate complexes of Co(III). **N. Daniel Ekekwe, M. Polson, J. Wikaira, R. Hartshorn**

2:50 INOR 485. Tetra-aza-anthraquinone: A biologically-inspired redox-active ligand bridging homogeneous and heterogeneous catalysis toward the reduction of small molecules. **I.J. Huerfano, A.V. Polezhaev, M. Pink, C. Chen, K.G. Caulton**

3:10 INOR 486. Low-coordinate heterocyclic thione and selenone complexes of copper(I) and silver(I). **A. Allen, D. Rabinovich**

3:30 Intermission.

3:40 INOR 487. Synthesis, reactivity, and compositional analysis of trinuclear clusters. **C. Juda, T. Betley**

4:00 INOR 488. Synthesis, characterization, and reactivity of iron and cobalt complexes with an asymmetric nacin ligand. **W. Lee, E.A. Weerawardhana, C.M. Stanek, M. Zeller**

4:20 INOR 489. Redox-active pincer ligands on chromium: Carbonate formation from a neglected metal. **N. Labrum, C. Chen, M. Pink, K.G. Caulton**

4:40 INOR 490. Re(CO)₃-templated scorpionate synthesis through nitrile activation. **A.J. Osinski, C.J. Ziegler**

5:00 INOR 491. Withdrawn.

Section E

Renaissance Washington, DC Downtown
Grand Ballroom North

Many Colors of Copper

Catalysis

Cosponsored by BIOL

K. J. Franz, K. D. Karlin, T. H. Warren, *Organizers*

I. Garcia-Bosch, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 INOR 492. Copper catalyzed C-H functionalization: Method development via enabling intermediates. **T.H. Warren**

2:05 INOR 493. Development of copper catalysts for the selective oxidation of C-H bonds under mild conditions. **I. Garcia-Bosch**

†Cooperative Cosponsorship

2:35 INOR 494. Driving synthesis by oxidation. J. Lumb

3:05 Intermission.

3:20 INOR 495. Fundamental redox processes in model platforms for Cu-catalyzed C-heteroatom bond forming transformations. X. Ribas

3:50 INOR 496. Copper-catalyzed amino difunctionalization of alkenes. Q. Wang

4:20 INOR 497. Revealing the mechanisms of copper-catalyzed synthetic methods. J.F. Hartwig

Section F

Renaissance Washington, DC Downtown
Grand Ballroom Central

Center for Enabling New Technologies through Catalysis: Transforming Catalysis through Collaboration

A. Goldman, N. E. Gruhn, E. Ison, S. W. Kraska, L. T. Thompson, *Organizers*

W. D. Jones, M. S. Sanford, *Presiding*

1:30 Introductory Remarks.

1:35 INOR 498. Hydrogenolysis of carbon-oxygen bonds. D.M. Heinekey, K.I. Goldberg, J.M. Goldberg, B. Bark

2:05 INOR 499. Aldehyde water shift reaction: Integrating theory and experiment to deconvolute a catalytic transformation. T.R. Cundari, T. Brewster, W. Ou, J.C. Tran, W. Wen, J.M. Goldberg, K.I. Goldberg, S.K. Hanson, D. Thorn, D.M. Heinekey, L.T. Thompson

2:35 INOR 500. Synthesis and characterization of bifunctional transition metal complexes. T. Brewster, T.J. Yokley, C.E. O'Connell, T.H. Nguyen, M.M. Reynolds

2:55 INOR 501. Details towards the mechanism of base-free transfer hydrogenation catalyzed by Cp^{*}Ir(pyridinesulfonamide) Cl complexes. A.R. O'Connor, T.M. Townsend, A. Ruff, G.L. Heard, C. Goldberg

3:15 INOR 502. Enabling new technology with catalysis at Eastman Chemical. R.T. Hembre

3:35 Intermission.

3:45 INOR 503. Cheaper by the Baker's dozen: Towards base-metal Guerbet catalysts for selective butanol production. C.E. Hayes, N. Kulkarni, W.D. Jones, R.T. Baker

4:15 INOR 504. Towards biomass as sustainable feedstock: Understanding mechanisms in halide and solid acid catalysis. M. Emmert

4:35 INOR 505. Production of long chain alcohols through the '+1' pathway: Combining enzyme engineering, strain development and fermentation optimization to accelerate development. P. Bhosale, S. Delaplaine, M. Devarapalli, S. Greenwalt, R. Hill, P. Sanghani, C. Stowers, D.C. Rosenfeld

4:55 INOR 506. Apeel Sciences: Going with the flow... (but not really). R. Alamillo, M. Aronson, L. Perez

5:15 Concluding Remarks.

Section G

Renaissance Washington, DC Downtown
Congressional A

Chemistry of Materials

Synthesis & Properties

C. G. Lugmair, *Organizer*

E. Doud, *Presiding*

1:30 INOR 507. One-pot synthesis of gold microbars for optical circuitry applications. E. Hobbs, M. Devadas

1:50 INOR 508. Metal coordination complexes in mechanically responsive systems. K. Hall, M.H. Horst, S.W. Telford, K.J. Franz

2:10 INOR 509. In-situ structure-tracking aided design in synthesis of energy-storage materials. F. Wang, J. Bai

2:30 INOR 510. Aerosol assisted chemical vapor deposition of WS₂ from a single source precursor. N. Richey, L. McElwee-White

2:50 INOR 511. Exfoliation and doping of layered two-dimensional rhenium and molybdenum chalcogenide networks. B. Choi

3:10 Intermission.

3:25 INOR 512. Conductance of NHC-based single-molecule junctions formed in situ via (NHC)AuCl complexes. E. Doud, M. Inkpen, G. Lovat, L. Venkataraman, X. Roy

3:45 INOR 513. Design and synthesis of fluorinated tungsten (VI) oxo-alkoxide complexes bearing β-diketionate and β-ketoesterate ligands for chemical vapor deposition of WO₃. D.C. Bock, N. Ou, T.J. Anderson, L. McElwee-White

4:05 INOR 514. Synthesis and luminescent behavior of lanthanide thiophenemalonocarboxylate-based materials. R. Batrice, A.K. Adcock, R.L. Ayscue, P. Cantos, J.A. Bertke, K.E. Knope

4:25 INOR 515. Synthesis and characterization of photoluminescent bismuth organic materials. K.E. Knope

Section H

Renaissance Washington, DC Downtown
Congressional B

Lanthanide & Actinide Chemistry

A. De Bettencourt Dias, *Organizer*

C. G. Gianopoulos, M. Nippe, *Presiding*

1:30 INOR 516. Heterometallic lanthanide-transition metal complexes: Synthesis, magnetism, and redox properties. T.P. Latendresse, C. Dickie, C. Burns, M. Nippe

1:50 INOR 517. Probing crystal chemistry properties that impact flotation selectivity: Collector-mineral interaction experiments in synthetic REE-orthophosphate systems. J. Gamage McEvoy, Y. Thibault

2:10 INOR 518. Thermal charge-transfer reduction of uranyl UO₂(VI) to UO₂⁺(V) by methanol and other functionalized organic compounds. X. Sun, D. Kolling, S. Deskins

2:30 intermission.

2:45 INOR 519. Description of uranium-halogen bonding based on charge-density studies at 20 K. C.G. Gianopoulos, V.V. Zhurov, S.G. Minasian, E.R. Batista, C. Jelsch, A.A. Pinkerton

3:05 INOR 520. Luminescent behavior of bismuth halide organic complexes and their lanthanide doped analogs. R.L. Ayscue, J.A. Bertke, K.E. Knope

3:25 INOR 521. Magnetic resonance imaging contrast agent for in-vivo copper imaging. N.N. Parawithana, A.F. Martins, G. Meloni, D. Sherry

3:45 INOR 522. Lanthanide podand complexes as potential bioimaging agents based on multidentate poly-acac motifs. T.L. King, G. Ibarra, R.A. Jones, E.L. Que

4:05 INOR 523. Investigation of the electronic structure and evaluation of the covalency of cerocene, (C₈H₄)₂Ce, using carbon K-edge X-ray absorption spectroscopy. D.E. Smiles, S.G. Minasian, J.M. Keith, E.R. Batista, S.A. Kozimor, R.L. Martin, D.K. Shuh

Understanding the Chemistry of Our Planet

Human Impacts to our Planet

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Chemistry Past Curium

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Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Heteroatom Systems

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TUESDAY EVENING

Section A

Walter E. Washington Convention Center
Hall D

Chemistry of Materials

C. G. Lugmair, *Organizer*

5:30 - 7:30

INOR 524. Aqueous sol-gel route towards selected quaternary metal oxides with single and double perovskite type structure containing tellurium or tungsten. I. Derd, B. Markovic, J. Bijelic, N. Filipovic, B. Matasovic, E. Kovac Andric, J. Popovic, Z. Skoko, Z. Jaglicic, D. Pajic, S. Mal, T. Weller, R. Marschall, P. Voepel, C. Suchomski, B. Smarsly

INOR 525. Synthesis of hafnium oxide and its thermal treatment. I.B. Polovov, Y.S. Bataev, V.A. Volkovich, A. Chukin, Y.D. Afonin, A.I. Rakhmatullin, M. Boga

INOR 526. Phase transfer directed synthesis of hollow metal-organic frameworks nanocages. B. Yu, J. Gong

INOR 527. Electrochemical etching for MXene. W. Sun

INOR 528. Magnetic diluted semiconductors in 2D nanosheet crystals. S. Hsu, T. Hsieh, T.S. Lin, Y. Liu

INOR 529. Sized controlled synthesis of hollow sphere metal oxides for metastable intermolecular composites. A.M. Morey, S.T. Iacono

INOR 530. New methods to fabricate anti-fouling Ag@silica catalyst for the reduction of 4-nitrophenol. J. Hou, J. Gong

INOR 531. Bimetallic amino acid complexes as precursors for nickel molybdate. F. Alqahtani, A.W. Apblett

INOR 532. Withdrawn.

INOR 533. Stability of metal-organic frameworks for high pressure confined chemical vapor deposition. B. Laubacker, J.V. Badding

INOR 534. Aerosol route to various iodine oxide/iodic acid microparticles, and their performance as oxidizers in thermite systems. T. Wu, X. Wang, M.R. Zachariah

INOR 535. Light absorption and energy transfer in thin film metal-organic frameworks. J. Rowe, A.J. Morris, E.M. Soderstrom

INOR 536. Growths of highly ordered mesoporous graphene-oxide thin films (MGTFs). Z. Dai, H. Chang, Y. Liu

INOR 537. Withdrawn.

INOR 538. Effect of molecular dipole on phase behavior of pyridinium derivatives of [closo-1-CB₁₁H₁₂]⁻. A.C. Friedli, B.D. Lukasik, M.O. Ali, K.L. King, P. Kaszynski

INOR 539. Study of nanostructured composites Nd(Ti,Zr)O/Si(B)CO for optical and nuclear waste storage application. V. Proust, T.E. Albrecht-Schmitt

INOR 540. Synthetic deconvolution of interfaces and material components in hybrid nanoparticles. J.L. Fenton, R.E. Schaak

Section B

Walter E. Washington Convention Center
Hall D

Main Group Chemistry

T. W. Hudnall, *Organizer*

5:30 - 7:30

INOR 541. Luminescent azepane-substituted β-diketones and difluoroboron complexes. F. Wang, C.A. DeRosa, M. Daly, D. Song, C.L. Fraser

INOR 542. Difluoroboron β-diketones for ratiometric oxygen imaging with a color camera. M. Zhuang, C.A. DeRosa, F. Wang, C.L. Fraser

INOR 543. Luminescent piperidine-substituted dibenzoylmethane derivatives and their difluoroboron complexes. D. Song, F. Wang, C.A. DeRosa, C.L. Fraser

INOR 544. Radiosyntheses of [¹⁸F] fluoroarenes via hypervalent iodoarene precursors. J. Chun, J. Son, J. Park, M. Yun

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INOR 545. $\text{Sb}@_{\text{Ni}_{12}}@_{\text{Sb}}^{\text{m}}$ and $\text{Sb}@_{\text{Pd}_{12}}@_{\text{Sb}}^{\text{m}}$ cluster anions where $m = +1, -1, -4$; $n = +1, -1, -3, -4$: Multi-oxidation state clusters of interpenetrating platonic solids. **Y. Wang**, M.M. DeBusk, L. Stevens, J. Hu, P.Y. Zavalij, K.H. Bowen, B.I. Dunlap, E. Glaser, B.W. Eichhorn

INOR 546. Heterobimetallic aluminum-alkali metal complexes of tetraanionic chiral ligands. **R. Mosneanu**, C.R. Graves

Section C

Walter E. Washington Convention Center Hall D

Solid-State Inorganic Chemistry

C. G. Lugmair, V. Poltavets, *Organizers*

5:30 - 7:30

INOR 547. IONiC connection: Increasing interactions in the inorganic community. **B.A. Reisner**, J.L. Stewart, A.K. Bentley, H.J. Eppley, E.R. Jamieson, A.R. Johnson, S. Lin, C. Nataro, K. Plass, S.R. Smith, L.A. Watson, N. Williams

INOR 548. Synthesis and characterization of new alkali metal and divalent transition metal materials derived from the the hydortris(3,5-dimethyl-1,2,4-triazolyl)borate ligand. **E.C. Krist**, E. Roberts, B.C. Chan, B.A. Reisner

INOR 549. Halogen mediated synthesis of noninterpenetrated metal organic frameworks (MOFs). **J.L. Strozier**

INOR 550. From a layer to a ring: A kinetic study for the ion-exchange reactions of a new tellurite, $\text{Li}_3\text{Mo}_3\text{TeO}_{12}$ using the powder X-ray diffraction. **S. Oh**, K. Ok

INOR 551. Investigation of relaxor ferromagnets. **C. Chin**, P.D. Battle, E.C. Hunter, M. Avdeev, J. Hademann, R. Paria Sena

Section D

Walter E. Washington Convention Center Hall D

Coordination Chemistry

Synthesis & Characterization

S. A. Koch, A. Larsen, *Organizers*

5:30 - 7:30

INOR 552. Bottom-up assembly of self-supporting metal-organic layers. **L. Cao**, C. Wang, W. Lin

INOR 553. Facile route synthesis and structural characterization of anionic lanthanide-salen complexes. **P.K. Yuen**, C. Lau, N. Ho, W. Chan, H. Chan, A.K. Yuen

INOR 554. Studies of dinuclear metal complexes as models for inhibited metallohydrolases. **A.H. Gad**, H.I. Nimir

INOR 555. Redox interconversion of non-oxido vanadium complexes accompanied with thiol and thiolate transformations. **H. Hsu**, J. Yan

INOR 556. Carbon-hydrogen bond activation via a bis(pyrrrolyl)pyridine iron complex: Evidence for iron nitrene intermediates. **B.M. Hakey**, C. Milsmann

INOR 557. Synthesis and characterization of dioxomolybdenum(VI) complexes containing nitrogen rich ligands and their potential use in thin films growth and oxygen transfer reactions. **O. El-Kadri**

INOR 558. Anionic indium-derived metal organic frameworks. **S.E. Springer**, D. Genna

INOR 559. Amine-functionalized trispyrazolylborate iron spin crossover complexes: A key element for the preparation of electrically addressable molecular magnetic quantum bit. **C. Ma**, C. Besson

INOR 560. Synthesis of 1,3,6-trisubstituted fulvene coordination complexes as versatile building blocks for supramolecular architectures and functional materials. **S.K. Adas**

INOR 561. Simple, efficient synthetic route to 2-2'-bipyrazine derivatives from bromo-pyrazine for making rhenium and ruthenium dyes. **D.P. Rillema**, V. Komreddy, H. Nguyen

INOR 562. Synthesis and characterization of heterobimetallic $\text{Cu}(\text{I})\text{-X}$ complexes supported by substituted trispyridylphosphines. **J. Leonard**, M. Bezpalko, W.S. Kassel

INOR 563. Aluminum complexes of nitroxide-based redox active ligands. **A. Woodside**, C.R. Graves

INOR 564. Spectroscopic characterization of copper(II)-alkylperoxo complexes. **B. Pella**

INOR 565. Construction of variable dimension CdCl_2 complexes from topologically linear pentadentate ligands. **A. Gerhard**, D.B. Tice, R.D. Pike, D.C. Bebout

INOR 566. Recent developments in the chemistry of dicopper(I)-naphthyridinediimine crescent complexes hosting various bridging ligands. **R. Conger**, S. Fox

INOR 567. Synthesis and coordination chemistry of functionalized pyridylphosphine ligands with late transition metals. **M. Bezpalko**, W.S. Kassel

INOR 568. Synthesis and characterization of ruthenium complexes of tris(2-pyridyl)phosphine. **L. Wilkinson**, M. Bezpalko, W.S. Kassel

INOR 569. Ligand-based phase control in low-dimensional metal-organic frameworks. **O. Barreda**, E.D. Bloch

INOR 570. Withdrawn.

INOR 571. Synthesis, characterization, and reactivity of cobalt complexes bearing the nitrogen-based pip2NNN ligand. **J. Webb**, B. Hakey, M. Sabat

INOR 572. Tripodal transition metal beta-diketonate complexes. **G. Ibarra**, T.L. King, R.A. Jones, E.L. Que

INOR 573. Synthesis and characterization of rhodium(III) complexes using mixed polypyridyl ligands. **P. Nunez**, D. Amarante

Section E

Walter E. Washington Convention Center Hall D

Bioinorganic Chemistry

DNA, RNA & Inorganic Drugs

S. A. Koch, *Organizer*

5:30 - 7:30

INOR 574. Withdrawn.

INOR 575. Electron-deficient organometallic compounds: Potential anticancer drug candidates against human colon cancer. **R.M. Lord**, A. Saikyhan, A. Pitto-Barry, N. Barry

INOR 576. Synthesis, DNA binding study and anticancer activity of organorhenium sulfonate compounds on hormone-dependent MCF-7 and hormone-independent triple-negative MDA-MB-231 breast cancer cells. **T. Odebode**, A.J. Winstead, S.K. Mandal

INOR 577. Photodynamic therapy metal organo frameworks (PDT-MOFs). **N. Azbill**, A.G. Giacalone, R.W. Larsen

INOR 578. Towards photodynamic therapy MOFs: Encapsulation of photoactive $\text{Ru}(\text{II})(2,2'\text{-bipyridine})_2(\text{bio-active molecules})_2$ into metal organic frameworks. **A.G. Giacalone**, L. Wojtas, R.W. Larsen

INOR 579. DNA binding studies of organorhenium picolinato, nicotinato, and tryptophanato complexes. **M. Stevenson**, S. Pramanik, S.K. Mandal

INOR 580. DNA binding studies of organorhenium mafenamato and tofenamato complexes. **T.V. Hinton**, S. Pramanik, S.K. Mandal

Section F

Walter E. Washington Convention Center Hall D

Many Colors of Copper

K. J. Franz, I. Garcia-Bosch, K. D. Karlin, T. H. Warren, *Organizers*

5:30 - 7:30

INOR 581. Electrocatalytic water oxidation by a copper(II) complex with an oxidation-resistant N,O-donor ligand. **K.J. Fisher**, K. Materna, B.Q. Mercado, R.H. Crabtree, G.W. Brudvig

INOR 582. Targeting drug-resistant bacteria with enzyme-activated prochelators. **A.C. Jackson**, J. Zaengle-Barone, D. Besse, K.J. Franz

INOR 583. Withdrawn.

INOR 584. Examination of NO reduction at monometallic sites. **C.M. Greene**, T.H. Warren

INOR 585. Investigating the role of copper in the cytotoxic mechanism of enzyme-activated prochelators. **J.M. Zaengle-Barone**, K.J. Franz

INOR 586. Cu-directed hydroxylation of sp^2 and sp^3 C-H bonds. **R. Trammell**

INOR 587. Prostate cancer targeted prodrug based on copper prochelator. **A. Dharani**, S. Bakthavatsalam, T. Zhang, K.J. Franz

INOR 588. Copper catalyzed C-H amidation. **I. Jayasooriya**, A. Bakhoda, T.H. Warren

INOR 589. Copper complexes featuring tris(pyrazolyl)borate ligands that mediate H-bonding interactions with bound functionalities. **C.R. Cobb**, E.J. Gardner, T.H. Warren

INOR 590. Trinuclear copper pyrazolates as precursors for di- and tetra-nuclear copper adducts. **R. Dias**

Section G

Walter E. Washington Convention Center Hall D

Center for Enabling New Technologies through Catalysis: Transforming Catalysis through Collaboration

A. Goldman, N. E. Gruhn, E. Ison, S. W. Kraska, L. T. Thompson, *Organizers*

5:30 - 7:30

INOR 591. Aerobic oxidation of KA oil to adipic acid with Ir^{III} complexes. **Z.H. Syed**, S.B. Rubashkin, A.M. Wright, K.I. Goldberg

INOR 592. Comparison of the reactivity of $(\mu\text{-Phebox})\text{Ir}(\text{CO})\text{R}_2(\text{H}_2\text{O})$ complexes with octane. **H. Yuan**, W.D. Jones

INOR 593. Pincer-ligated iridium(III) complexes for alkane dehydrogenation. **K.E. Kim**, K.I. Goldberg

INOR 594. Synthesis and catalytic activity of a novel pincer-osmium complex. **S. Murugesan**, X. Zhou, A.S. Goldman

INOR 595. Synthesis, characterization, and reactivity of a ruthenium complex of a new PSP pincer ligand. **X. Zhou**, S. Murugesan, A.S. Goldman

INOR 596. Continuous-flow heterogeneous alkane transfer dehydrogenation catalyzed by immobilized pincer-ligated iridium complexes. **B. Sheludko**, M.T. Cunningham, M.E. Gliedge, A.S. Goldman, F.E. Celik

INOR 597. Cross-dehydrogenative-coupling of styrene with non-functionalized aromatics and alkene. **B. Li**, M. Wilklow-Marnell, W.D. Jones, A.S. Goldman

INOR 598. Iridium hydride and dihydrogen complexes relevant to biomass deoxygenation. **J.M. Goldberg**, T. Lekich, L.M. Guard, B. Bark, G.W. Wong, J.C. Linehan, K.I. Goldberg, D.M. Heinekey

INOR 599. (Hexamethylbenzene) ruthenium catalysts for the aldehyde water shift reaction. **A.S. Phearman**, D. Bhagwandin, D.M. Heinekey, K.I. Goldberg

INOR 600. Ethanol upgrading to butanol and higher alcohols: A high-throughput approach using the Guerbet reaction. **C.E. Hayes**, N. Kulkarni, W.D. Jones, R. Baker

INOR 601. Catalytic upgrading of ethanol to 1-butanol via Guerbet reaction. **N. Kulkarni**, C. Hayes, R. Baker, W.D. Jones

INOR 602. Synthesis, characterization, and application of abnormal N-heterocyclic carbene complexes of palladium. **T. Yokley**, N.D. Schley, H. Kurtz, T.P. Brewster

INOR 603. Direct aniline formation through benzene and hydroxylamine. **N. Liu**, M. Sleck, W.D. Jones

INOR 604. $^{\text{p}}\text{PCPIr}_4$, para-benzoquinones, alcohols, electrons, and protons: Making everyone play nice. **M. Wilklow-Marnell**, W.D. Jones

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

INOR **605.** Homogeneous hydrogenation of amides: Investigation of C–N vs. C–O bond cleavage in the context of CO₂ hydrogenation. **N.M. Rezayee**, M.S. Sanford

INOR **606.** Heterogenization of homogeneous ester hydrogenation catalysts in metal-organic frameworks. **D. Samblanet**, M.S. Sanford

INOR **607.** Heterogeneous systems for low temperature CO₂ capture and hydrogenation. **S. Eady**, T. Silbaugh, M.A. Barteau, L.T. Thompson

INOR **608.** Hydracity calculation using computational methods: Potential-pKa method versus direct calculation. **H. Fallah**, K.R. Brereton, T.R. Cundari, A.J. Miller

INOR **609.** Electrochemical oxidation and deprotonation of iridium pincer catalysts: Understanding key steps on the road to alkane dehydrogenation. **A.M. Brasacchio**, A.G. Walden, B.M. Lindley, N. Lease, A. Goldman, A.J. Miller

INOR **610.** Synthesis of Zn(II)/SiO₂ material and the application towards the hydrofunctionalization of alkenes. **A.K. Cook-Sneathen**, C. Coperlet

INOR **611.** Rhenium and osmium pincer complexes for nitrogen reduction to ammonia. **N. Lease**, A. Casuras, A. Goldman

INOR **612.** Electrochemical reduction of (PNP)Ru ammonia complexes produces a variety of (pincer)Ru hydrido dinitrogen complexes. **Q.J. Bruch**, B.M. Lindley, A.J. Miller

INOR **613.** Cerium oxide as a hydrogen acceptor in catalytic alcohol dehydrogenation. **S.M. Laga**, T.M. Townsend, A.R. O'Connor, J.M. Mayer

Section H

Walter E. Washington Convention Center Hall D

Electrochemistry

B. L. Lucht, *Organizer*

5:30 - 7:30

INOR **614.** Electrochemical analysis of Fe-doped anatase nanoparticles for Li- and Na-ion battery applications. **J. Clapham**, S. Naik, B.D. Fahlman

INOR **615.** Electrochemical study of the promoting effect of Fe on oxygen evolution at thin Ni-borate films and the poisoning effect of Al in the borate electrolyte. **R. Fayad**, J. Dhainy, H. Ghandour, L.I. Halaoui

INOR **616.** Influence of deposition temperature on the morphology of electro-deposited CdTe thin films from BMImCl medium. **M. Walidiya**, D. Bhagat, **I. Mukhopadhyay**

INOR **617.** Electrodeposited micro/nano structured lead metal on FTO substrate at room temperature. **D. Bhagat**, M. Walidiya, **I. Mukhopadhyay**

INOR **618.** Synthesis of new hydrophobic, fluorinated, and cross-linked polymers and their use for corrosion protection of aluminum substrates. **W. Yaseen**, S. Marpu, T. Golden, M.A. Omari

INOR **619.** Band-edge modulation of Si(111): The effects of surface functionalization with aromatic and electron withdrawing moieties. **D.G. Boucher**, M.J. Rose

INOR **620.** Purity and stability of an electrolytically-generated hypochlorous acid solution. **L.I. Robins**, J. Williams, L. Contreras

INOR **621.** Electrochemical reductive grafting studies of diazonium gold(III) salts on glassy carbon electrodes. **B. Workie**, A. Mohamed

INOR **622.** Niobium speciation in chloride melts: Electrochemistry and spectroscopy. **I.B. Polovov**, G.L. Fofanov, D. Nikitin, M.V. Chernyshov, V.A. Volkovich, O.I. Rebrin

INOR **623.** Mechanistic studies of NO₃ conversion to NH₃ by a cobalt molecular electrocatalyst. **S. Xu**, D. Ashley, C. Chen, E. Jakubikova, J.M. Smith

Section I

Walter E. Washington Convention Center Hall D

Organometallic Chemistry

New Ligand Platforms

N. S. Radu, *Organizer*

5:30 - 7:30

INOR **624.** Multiyne chains as a platform for construction fused-ring metallaromatics. **Q. Zhuo**, H. Zhang, H. Xia

INOR **625.** Withdrawn.

INOR **626.** Bowl-shaped sumanenyl anions: Double concave metal encapsulation. **S.N. Spisak**, Z. Wei, A.Y. Rogachev, T. Amaya, T. Hirao, **M.A. Petrukhina**

INOR **627.** Tethered, axially-coordinating pyrrolidinone-phosphine ligands for dirhodium paddlewheel complexes. **B. Anderson**, A. Darko

INOR **628.** Small molecule activation with bimetallic complexes. **N. Gardner**, E.D. Bloch

INOR **629.** Improved synthetic route to heteroleptic alkyl phosphine oxides and their reduction to phosphines. **N.I. Rinehart**, **A.J. Kendall**, D.R. Tyler

Section J

Walter E. Washington Convention Center Hall D

Lanthanide & Actinide Chemistry

A. De Bettencourt Dias, *Organizer*

5:30 - 7:30

INOR **630.** Structural characterization of anionic rare earth metal complexes containing salen ligands. **P.K. Yuen**, C. Lau

INOR **631.** Novel bimetallic lanthanide-transition metal complexes. **P.K. Yuen**, C. Lau

INOR **632.** Coordination isomer analysis of the lanthanide complexes of a rigidified polymethylated DOTA ligand. **A. Opina**, M. Strickland, Y.S. Lee, N. Tjandra, R. Byrd, R.E. Swenson, O. Vasalaty

INOR **633.** Synthesis, structural analysis, and supramolecular assembly of a series of *in-situ* generated uranyl-peroxide complexes. **J.A. Ridenour**, C.L. Cahill

INOR **634.** Cyclic voltammetric studies of singly-bridged lanthanum polyoxometalates in the presence of potassium and its comparison to similar lanthanide-bridged systems. **J.F. Kirby**, A. Posillico

INOR **635.** Liposomal Eu complexes and zinc nanoparticles as a responsive contrast system for magnetic resonance imaging. **A. Zuhk**

INOR **636.** Circularly polarized luminescence study of chiral europium and samarium BINAPO complexes. **S. Dodder**, D. Cotter, T. Hopkins

INOR **637.** Halogenated LnPC₂ complexes as STM addressable qubits. **M. Dailey**, C. Besson

INOR **638.** Synthesis and solid-state characterization of actinide and lanthanide sandwich complexes. **K.M. Wyss**, E.E. Hardy, A.E. Gordon

INOR **639.** Behavior of uranium and rare earth elements in liquid metal systems. **V.A. Volkovich**, D.S. Maltsev, E.V. Raguzina, A.S. Dedyukhin, A.V. Shchetnikov, A. Chukin, **I.B. Polovov**, L.F. Yamshchikov

INOR **640.** Lanthanide and actinide borates for nuclear waste. **A. Gaiser**, T.E. Albrecht-Schmitt

INOR **641.** Explorations of high pressure behavior of uranyl complexes. **E. Warzecha**, T.E. Albrecht-Schmitt

INOR **642.** Homobimetallic lanthanide and actinide complexes. **R. Greer**, T.E. Albrecht-Schmitt

INOR **643.** Homoleptic dithiocarbamate complexes of the heavier actinides. **J.M. Sperling**

INOR **644.** Toward selective lanthanide extraction utilizing carbamoylmethylphosphine oxide chelators. **A.K. Mulville**, M.G. Patterson, A.T. Henry, E.K. Connor, S.M. Biros, E.J. Werner

INOR **645.** Lanthanide coordination chemistry and luminescence properties of complexes based on a tripodal iminopyridine ligand. **S.M. Polzin**, K.H. Felix, K.R. Johnson, E.J. Werner

INOR **646.** Lanthanide mixed donor complexes as potential bioimaging agents. **A. Hannaman**

Section K

Walter E. Washington Convention Center Hall D

Organometallic Chemistry

Applications to Materials & Polymer Science

N. S. Radu, *Organizer*

5:30 - 7:30

INOR **647.** Gold oligomeric light emitting materials with controllable color emission. **S.M. Gallagher**, K.S. Schanze, A.S. Veige

INOR **648.** New platinum complexes for use in platinum CVD. **S. Liu**, G.S. Girolami

INOR **649.** Interpenetrated triazole-based metal-organic framework with immobilized amine for CO₂ capture. **Q. Wang**

INOR **650.** Core@shell-like alginate@PEI composite with exceptional adsorption capacity, recycling performance for toxic Cr(VI) removal. **S. Zhai**

INOR **651.** Withdrawn.

Section L

Walter E. Washington Convention Center Hall D

Nanoscience

B. G. Trewyn, *Organizer*

5:30 - 7:30

INOR **652.** Liquid-phase production and application of boron-rich two-dimensional materials. **A. Yousaf**, A. Green

INOR **653.** Green synthesis of Nd-La doped Sr₂Cu₂Fe₂₆O₄₆ and Nd-La doped Sr₂Mg₂Fe₂₆O₄₆ nanoparticles and comparison their magnetic and microwave absorbing properties with Nd-La doped Sr₂CuMgFe₂₆O₄₆ nanoparticles. **P. Alimard**

INOR **654.** Highly selective detection of sub-ppm-level NO₂ using rGO-In₂O₃ hybrid structures on colorless polyimide substrates. **C. Na**, J. Kim, H. Kim, H. Woo, H. Kim, J. Lee

INOR **655.** Bimetallic nanocrystal catalysts for hydroxyoxgenation of 5-hydroxymethylfurfural. **J.D. Lee**, J. Luo, H. Yun, C. Wang, M. Monai, P. Fornasiero, R.J. Gorte, C.B. Murray

INOR **656.** Crystal Structures of fully dehydrated fully Cd²⁺-exchanged zeolite Y (FAU) and of its H₂S sorption complex containing the cationic cadmium sulfide clusters Cd₄S₆²⁺ and Cd(SHCd)⁴⁶⁺. **D. Moon**, Y. Kim, J. Kim, W. Lim

INOR **657.** Withdrawn.

INOR **658.** Phytochemical synthesis of metal nanoparticles using extracts of plants for sensing applications. **L. Bechdel**, E. Hobbs, M. Devadas

INOR **659.** Vanadium based type-II metamaterial superconductors. **T. Szekerczes**, K. Langford, V. Smolyaninova, M. Devadas

INOR **660.** Optical and antimicrobial properties of metal nanoparticles made from Japanese maple leaves. **D. Johnson**, L. Bechdel, E. Hobbs, M. Devadas

INOR **661.** Colloidal synthesis and photophysical characterization of SiGeSn alloy. **E. Eladgham**, T.A. Nakagawara, U. Ozgur, I.U. Arachchige

INOR **662.** Sulfur-based nanostructures for lithium-sulfur battery applications. **T. Liu**, T. Lee

INOR **663.** Gold-silver nanoshells coated with uniformly thin silica shells. **P. Srinoi**, T. Lee

INOR **664.** Synthesis and characterization of plasmonic nanoparticles coated with tin oxide shells. **R. Medhi**, T. Lee

INOR **665.** Withdrawn.

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INOR 666. Structural and optical effects of alloying with nitrogen in GaNAsP nanowires. M. Jansson, S. Chen, R. La, J. Stehr, C. Tu, W.M. Chen, I.A. Buyanova

INOR 667. Withdrawn.

INOR 668. Hard magnetic cores for exchange-spring magnets. L. Saucedo, D. Carnevale, M. Shatruk, G.F. Strouse

INOR 669. Janus gold-carbon nanoparticles. A. Farajallah, I. Karroun, H. Abdou, B. Workie, A. Mohamed

Section L

Walter E. Washington Convention Center
Hall D

Organometallic Chemistry

Synthesis & Characterization- Early Transition Metals

N. S. Radu, *Organizer*

5:30 - 7:30

INOR 670. Reversible ligand CH activation and isomerization at an iron(II) phosphine complex featuring pendant amines. A.J. Kendall, M.T. Mock, R. Bullock

INOR 671. Electrochemical investigation of CPAM group 6 dinuclear 'end-on-bridged' dinitrogen complexes and the corresponding dinuclear bis(μ -nitrido) products arising from N=N bond cleavage. M. Wallace, L.M. Duman, B. Yonke, L.R. Sita

INOR 672. Comparison of the photophysical and photochemical properties of vanadium and chromium polypyridyl complexes. R.I. Portillo, R. Dill, S. Shepard, C. Nite, A.K. Rappe, N.H. Damrauer, M.P. Shores

WEDNESDAY MORNING

Section A

Renaissance Washington, DC Downtown
Renaissance East

Inorganic Catalysts

S. A. Koch, *Organizer*

R. Hughes, J. Panetier, *Presiding*

8:30 INOR 673. Computational study of molecular electrocatalysts for CO₂ reduction. J. Panetier

8:50 INOR 674. Computational investigations of nickel based electrocatalysts for CO₂RR. K. McCardle, J. Panetier

9:10 INOR 675. Poly(3,4-ethylenedioxythiophene) (PEDOT) infused TiO₂ nanofibers for photocatalytic decontamination of mustard gas simulat. D. Dwyer, J.B. DeCoste, W.E. Bernier, W.E. Jones

9:30 INOR 676. Use of a multifunctional pincer in reductive conversions of carbonate. N. Maciulis, A.V. Polezhaev, M. Pink, C. Chen, Y. Lozovyy, R.L. Lord, K.G. Caulton

9:50 INOR 677. Probing homogeneous vs. heterogeneous reactivity by surface synthesis of metal complexes of redox-active ligands. K.G. Caulton, I. Huerfano, A.V. Polezhaev, C.D. Tempas, T. Morris, D. Wisman, S.L. Tait

10:10 INOR 678. Beta-elimination versus reductive elimination in the Fischer-Tropsch process catalyzed on small Ru clusters. S. Moncho Escrive, E.N. Brothers, B.G. Janesko

10:30 Intermission.

10:40 INOR 679. Redox study for a family of oxo-bridged iridium dimers relevant to water oxidation catalysis. S. Sinha, L.S. Sharninghausen, D.Y. Shopov, B.Q. Mercado, D. Balcells, G.W. Brudvig, R.H. Crabtree

11:00 INOR 680. Ir(IV) and V) and Rh(IV) with an N,O-donor ligand. L.S. Sharninghausen, S. Sinha, D.Y. Shopov, B.Q. Mercado, D. Balcells, G.W. Brudvig, R.H. Crabtree

11:20 INOR 681. RhRhM: The design and synthesis of multimetallic photocatalysts. W. Kender, C. Turro

11:40 INOR 682. Synthesis and characterization of titanium calix[5]arene complexes. T.B. Nsekpong, B.A. Martinez Ortega

12:00 INOR 683. Synthesis and characterization of dioxo-molybdenum(VI) heterobimetallic calix[5]arene compounds. C. Murphy, B.A. Martinez Ortega

12:20 INOR 684. Detrimental role of dissolved oxygen in the catalytic reduction of 4-nitrophenol by metal nanoparticles. R. Hughes, E. Menumerov, S. Neretina

Section B

Renaissance Washington, DC Downtown
Renaissance West A

Inorganic Spectroscopy

S. A. Koch, V. C. Popescu, *Organizers*

I. S. Butler, *Presiding*

8:30 INOR 685. Low energy absorbing dirhodium complexes: Potential application in solar energy conversion. C. Xue, H. Sayre, C. Turro

8:50 INOR 686. Photochemical scrubbing of oxygen from solution using transition metal chromophores. R.M. O'Donnell, T. Grusenmeyer, D. Stewart, T. Ensley, W. Shensky, J.E. Haley, J. Shi

9:10 INOR 687. Phosphorescent 2-, 3-, and 4-coordinate cyclic (alkyl)(amino) carbene (CAAC) Cu(I) complexes. R. Hamze, R. Jazzar, M. Soleilhavoup, P.I. Djurovich, G. Bertrand, M.E. Thompson

9:30 INOR 688. Investigating the role of excited-state mixing in ligand photodissociation from polypyridyl Ru(II) complexes. L.M. Loftus, K.L. Fillman, A. Li, J.J. Kodanko, C. Turro

9:50 INOR 689. Some recent applications of infrared and Raman spectroscopy in bioorganometallic carbonyl chemistry. I.S. Butler, R. Kengne-Momo, A. Vessieres, C. Polcar, G. Jaouen

10:10 INOR 690. Nature of the chemical bonding in Ti-Fe bimetallic complexes. J.T. Moore, L.J. Clouston, V. Bernales, K.M. Lancaster, E. Bill, L. Gagliardi, C. Lu, S. Chatterjee

10:30 INOR 691. Tuning spin states and quintet MLCT excited states in Fe(II) polypyridines using sterically demanding substituents. S.M. Fatur, S. Shepard, R. Higgins, M.P. Shores, N.H. Damrauer

10:50 INOR 692. Femtosecond M-edge XANES of open-shell transition metal porphyrins. E. Ryland, M. Carlson, K. Benke, K. Zhang, J. Vura-Weis

11:10 INOR 693. Direct observation of temperature dependent excited state equilibrium in a series of Re(I) bichromophores. J. Yarnell, F.N. Castellano

Section C

Renaissance Washington, DC Downtown
Grand Ballroom South

Bioinorganic Chemistry

Proteins & Enzymes & Model Systems

S. A. Koch, *Organizer*

P. Basu, *Presiding*

8:30 INOR 694. pH dependence of ferricytochrome c conformational transitions during binding to cardiolipin membranes: Evidence for histidine as the distal ligand at neutral pH. B. Milorey, D. Malyska, R. Schweitzer-Stenner

8:50 INOR 695. Investigation of the binding affinity and kinetics of the Ti(IV) enterobactin complex. C. Herbst-Gervasoni, A. Valentine

9:10 INOR 696. Carbon dioxide activation at a nickel center. Y. Lee

9:30 INOR 697. Fe-HNO vs. (NO) Fe-H formation from hydride attack at ferric nitrosyl porphyrins. E.G. Abucayon, R.L. Knade, D.R. Powell, M.J. Shaw, Y. Zhang, G.B. Richter-Addo

9:50 Intermission.

10:00 INOR 698. Role of redox levels in the hemilability of [NiN₂S₂Fe(NO)₂]+/0 complexes as electrocatalysts for proton reduction. P. Ghosh, S. Ding, M.B. Hall, M.Y. Darensbourg

10:20 INOR 699. Exploring photochemical processes of [FeFe]-hydrogenase analogues using DFT and TDDFT methods. S. Niu, M.B. Hall

10:40 INOR 700. Kinetic and spectroscopic investigation of the conserved catalytic triad in mercaptopyropinate dioxygenase (MDO) from Azotobacter Vinelandii. S. Sardar, B.S. Pierce, A. Weitz

11:00 INOR 701. Effects ligand oxidation state have on structure, electronic, and reactivity properties of DMSO reductase models. P. Basu

11:20 INOR 702. Chlorine oxyanion reduction by a non-heme iron system. C. Ford, Y. Park, E.M. Matson, Z. Gordon, A.R. Fout

Section D

Renaissance Washington, DC Downtown
Renaissance West B

Chemistry of Materials

Nanomaterials

C. G. Lugmair, *Organizer*

M. P. Hendricks, *Presiding*

8:30 INOR 703. Structure-selective cation exchange in the synthesis of zincblende MnS and CoS nanocrystals. J.L. Fenton, R.E. Schaak

8:50 INOR 704. Controlled etching of rare earth fluorides for upconverting nanophosphors with tunable morphologies. S. Najmr, M. Zhang, A. Keller, N. Greybush, C. Murray

9:10 INOR 705. Programmable assembly of stimuli-responsive nanoparticle arrays. J.A. Mason, C.A. Mirkin

9:30 INOR 706. Growth of inorganic thin films by chemical bath deposition on chemically modified graphene. W. Lee, S. Hangarter, J.T. Robinson, S. Walton, P. Sheehan

9:50 INOR 707. Transform carbides (MxCy) into graphene and M-self-doped graphene by a general chlorination strategy. Z. Kou, T. Peng, S. Mu

10:10 Intermission.

10:25 INOR 708. Tuning sizes, morphologies, and magnetic properties of mono- vs. multi-core iron oxide nanoparticles through controlled addition of water in the polyol synthesis. G. Hemery, A.C. Keyes, E. Garayo, I. Rodrigo, J. Garcia, F. Plazaola, E. Garanger, O. Sandre

10:45 INOR 709. Using precursors to control nanomaterial synthesis: Tunable libraries of thiourea and selenourea precursors for metal chalcogenide nanocrystals. M.P. Hendricks, M.P. Campos, L. Hamachi, G. Cleveland, I. Jen-La Plante, J.S. Owen

11:05 INOR 710. Monolayer 2D materials-molecular superlattices. C. Wang, Y. Huang, X. Duan

11:25 INOR 711. Phase-controlled synthesis of iron sulfide nanoparticles via sulfur precursor reactivity. J.M. Rhodes, J. Macdonald

11:45 INOR 712. Eu_(1-x)Gd_xS-ZnS core-shell nanocrystals: Synthesis, magnetic, and optical properties. D.J. James, S.L. Stoll

Section E

Renaissance Washington, DC Downtown
Grand Ballroom North

Many Colors of Copper

Contributed Talks

Cosponsored by B I O L

K. J. Franz, I. Garcia-Bosch, K. D. Karlin, T. H. Warren, *Organizers*

J. Cho, S. Kundu, *Presiding*

8:55 INOR 713. Intramolecular hydrogen bonding enhances stability and reactivity of mononuclear cupric superoxide complexes. M. Bhadra

9:15 INOR 714. Mononuclear copper-alkylperoxo complexes in stoichiometric and catalytic reactions. J. Cho

9:35 INOR 715. Nitric oxide promoted O-O bond cleavage of a dicopper(II)-side-on peroxide yielding a high valent dicopper(III) bis μ -oxo species. J.J. Liu, K.D. Karlin

9:55 INOR 716. Nitrite to nitric oxide conversion at copper(I) and copper(II) sites. Z. Sakhaei, S. Kundu, J. Donnelly, T.H. Warren

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

10:15 INOR 717. New insights into copper-nitrosyl chemistry and isolation and characterization of a trans-hypoonitrite-bridged dicopper(II) complex. **G.B. Wijeratne**, S. Hematian, M. Siegler, K.D. Karlin

10:35 INOR 718. Modeling nitric oxide signaling chemistry via nitrite at copper sites. **S. Kundu**, W.Y. Kim, T.H. Warren

10:55 Intermission.

11:05 INOR 719. Insights into the mechanism of N_2O reduction by reductively activated N_2O reductase. **S. Bagherzadeh**

11:25 INOR 720. Binding and activation of small molecules (NO , O_2) by a biomimetic heme-Cu ligand scaffold. **H. Kim**, S. Sharma, K.D. Karlin

11:45 INOR 721. Enhanced compound II reactivity in the presence of varying axial ligands and/or Lewis acids: Oxidation of C-H, phenol, and imidazole substrates. **M. EHUDIN**, K.D. Karlin

12:05 INOR 722. Investigation of the 4 H^+ /4 e^- reduction of oxygen performed by heme-copper oxidases. **A.W. Schaefer**, S.M. Adam, M.T. Kieber-Emmons, K.D. Karlin, E.I. Solomon

12:25 INOR 723. Axial base effects on heme-peroxo-copper adduct reactivity: Evaluating the role of axial base tether and type. **P.J. Rogler**, S. Sharma, S.M. Adam, K.D. Karlin

Section F

Renaissance Washington, DC Downtown
Grand Ballroom Central

Organometallic Chemistry

Synthesis & Characterization

N. S. Radu, *Organizer*

D. R. Weinberg, *Presiding*

8:30 INOR 724. Gold(III) complexes of 2-tert-butyl-1,10-phenanthroline and of *N*-(8-quinolyl)amides: Syntheses, structures, and a green gold(III) complex. **D.R. Weinberg**, K.M. Gilmore, J.E. Thompson, M. Sleck, D. Ohlson, N.A. Curry, R.L. Marley, A.L. Rheingold

8:50 INOR 725. Organometallic chemistry of ruthenium-gold carbonyl cluster complexes containing aryl and alkyl ligands. **J. Tedder**, R.D. Adams

9:10 INOR 726. Thermal reactivity of late-metal metallacyclobutene complexes: Reversible formation of dicobalt-vinylcarbene complexes. **J.M. O Connor**, P. Qin, K.D. Bunker, R.L. Holland, K.K. Baldrige, C. Moore, A.L. Rheingold

9:30 INOR 727. Regioselective synthesis of 1,3,4-trisubstituted cobalt(II) salts: Dehydroxymethylation of tetra-substituted cyclopentadiene ligands. **J.M. O Connor**, P. Qin, M. Melaimi, C. Moore, A.L. Rheingold, R.L. Holland

9:50 INOR 728. Elucidating the mechanism of the catalase-type reaction catalyzed by a cryptand-encapsulated dicobalt complex. **S. Bernales Candia**, L. Gagliardi, M.A. Ortuno, J. Stauber, D.G. Nocera, C.J. Cramer, C.C. Cummins

10:10 INOR 729. Stable dihydrogen complexes of cobalt(-I) suggest an inverse *trans*-Influence of Lewis acidic group 13 metalloligands. **M.V. Vollmer**, J. Xie, L. Gagliardi, C. Lu

10:30 INOR 730. Synthesis and characterization of phosphorescent two-coordinate copper(I) complexes bearing diamidocarbene ligands. **S. Shi**, L. Collins, M. Mahon, P.I. Djurovich, M.E. Thompson, M. Whittlesy

10:50 INOR 731. Synthesis and characterization of homoleptic copper (I) thiolate complexes. **J.K. Pratt**, P.P. Power

Section G

Renaissance Washington, DC Downtown
Congressional A

Main Group Chemistry

T. W. Hudnall, *Organizer*

R. E. Mulvey, *Presiding*

8:30 Introductory Remarks.

8:35 INOR 732. Synthesis and physical properties of tetrasila[2.2]thiophenophane derivatives for the luminescent and chiroptical materials. **M. Shimada**, Y. Yamanoi, K. Omoto, S. Tashiro, M. Shionoya, T. Ohto, S.T. Pham, R. Yamada, H. Tada, M. Hattori, K. Jimura, S. Hayashi, H. Koike, M. Iwamura, K. Nozaki, H. Nishihara

8:55 INOR 733. Triply-charged corannulene bowls: Experimental and computational studies. **A. Zabala**, S.N. Spisak, A.S. Filatov, A.Y. Rogachev, M.A. Petrukhina

9:15 INOR 734. $B(C_6F_5)_3$ -catalyzed selective chlorination of hydro-silanes. **R. Dobrovetsky**

9:35 INOR 735. Reactions of Zintl-ion clusters: New frontiers and discoveries. **L. Stevens**, Y. Wang, J. Hu, Y. Chen, P.Y. Zavaliij, K.H. Bowen, B.I. Dunlap, B.W. Eichhorn

9:55 Intermission.

10:05 INOR 736. Main group dihydropridine surrogate hydrides: Synthesis, structures, reactivity and catalytic applications. **R.E. Mulvey**, S. Robertson, R. McLellan, S. Orr, A. Kennedy, M. Uzelac

10:25 INOR 737. Oxygen atom insertion into salen based aluminum alkyl complexes. **V. Balasanthiran**, B.A. McKeown, T.B. Gunnoe

10:45 INOR 738. Effect of water contents on arsenic stabilization in mine waste using basic oxygen furnace (BOF) slags. **S. Kim**, H. Chung, S. Jeong, K. Nam

Section H

Renaissance Washington, DC Downtown
Congressional B

Chemistry of Materials

Materials for Energy & Catalytic Applications

C. G. Lugmair, *Organizer*

B. J. Melde, *Presiding*

8:30 INOR 739. Solid electrolyte interphase layers on sulfur cathodes in Li/Na-S batteries: Chemical compositions, functionality, the critical role of Li^+ and cation solvation structures. **L. Wang**, C. Wang, K. Xu, B.W. Eichhorn

8:50 INOR 740. Synthetic control of structural and electrochemical properties of high-Ni layered oxide cathodes for next-generation Li-ion batteries. **D. Wang**, M. Zhang, J. Bai, **F. Wang**

9:10 INOR 741. Developing new porous materials for fuel catalysis and energy storage devices. **V. Thoi**

9:30 INOR 742. One step low-temperature hydrothermal synthesis of $Na_3Fe_2(PO_4)_2F_3$: A new cathode for lithium-ion batteries. **D. Manna**, A. Choudhury

9:50 INOR 743. Metal-organic frameworks (COFs) and covalent organic frameworks (COFs) for energy storage. **D. Feng**, Z. Bao

10:10 Intermission.

10:25 INOR 744. Withdrawn.

10:45 INOR 745. Nanoporous sorbents for improved purification of biodiesel. **B.J. Melde**, B.J. Johnson, M.H. Moore

11:05 INOR 746. Strengthening silica aerogels through thermally induced phase separation of poly(methyl methacrylate) onto the alcogel colloidal structure. **H. Ma**, B. Wang, K.M. Frederick, **D.A. Loy**

11:25 INOR 747. Hot carrier photodetectors using inorganic semiconductors with nanometer-scale metallic optical coatings. **L. Kraye**, J. Munday

11:45 INOR 748. Titanium(IV)-induced formation of cristobalite in titanosilicates and its potential effect on heterogeneous catalysis: Induced Impact or Spectator? **A.S. Perera**, H. Yu, J. Cockcroft, P. Trogadas, M. Coppens

Chemistry Past Curium

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Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Heterocyclic Systems

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WEDNESDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown
Renaissance East

Chemistry of Materials

Metal Organic Frameworks

C. G. Lugmair, *Organizer*

W. A. Maza, *Presiding*

1:30 INOR 749. Hydrogen uptake by an iron amino-borohydride Zr(IV)-metal organic framework hybrid below 300 °C. **W.A. Maza**, B.L. Chaloux, A. Epshteyn

1:50 INOR 750. Synergistic effects of metal-organic framework containing polymer membranes for military applications. **J.B. DeCoste**

2:10 INOR 751. Porous scaffolds for electrically-transduced gas sensing and capture. **K. Mirca**

2:30 INOR 752. Diffusion rates and energetics of xylene isomer transport through UiO-66. **T. Grissom**, P. Usov, A.J. Morris, J.R. Morris

2:50 INOR 753. Ammonia adsorption in acid-modified HKUST-1. **A. Sharma**, P. Forster, L. Daemen, Y. Cheng, A. Ramirez-Cuesta, M. Hartl

3:10 Intermission.

3:25 INOR 754. Small molecule storage and activation with metal-organic polyhedra-based porous liquids. **E. Gosselin**, G.R. Lorzing, B.A. Trump, C.M. Brown, **E.D. Bloch**

3:45 INOR 755. Chemical neutralization of warfare agents using metal-organic frameworks. **T. Islamoglu**, A. Atilgan, S. Moon, G. Peterson, J.B. DeCoste, M. Hall, J.T. Hupp, O.K. Farha

4:05 INOR 756. Effect of guests in the pores of metal-organic frameworks on the adsorption and reactivity of toxic gases and chemical warfare agents. **A. Ploskonka**, J.B. DeCoste

4:25 INOR 757. Tuning the morphology and activity of electrospun polystyrene/UiO-66- NH_2 metal-organic framework composites. **G.W. Peterson**, A. Lu, T.H. Eggs

4:45 INOR 758. 3D printing polymer-MOF composites: Properties and design challenges. **M. Hartings**

Section B

Renaissance Washington, DC Downtown
Renaissance West A

Organometallic Chemistry

Synthesis & Characterization

N. S. Radu, *Organizer*

D. Powers, J. Robinson, *Presiding*

1:30 INOR 759. Synthesis and characterization of new fluorinated NHC transition metal complexes and their application in catalysis. **M. Jamil**, A.K. Brisdon

1:50 INOR 760. Mechanistic insight and structure determination of in-situ species in iron-catalyzed cross-coupling with aryl nucleophiles. **S.H. Carpenter**, M.L. Neidig

2:10 INOR 761. Carbolong complexes: Novel organometallic species with three to five metal-carbon bonds. **H. Xia**

2:30 INOR 762. Characterization of and group-transfer catalysis with lattice-confined reactive M-L multiple bonds. **D. Powers**, A. Das, C. Wang, W. Gao

2:50 INOR 763. Molecular engineering of blue emitting iridium (III) complexes for use in fully solution processed OLEDs. **A. Huckaba**, S. Aghazada, M. Nazeeruddin

3:10 INOR 764. Modulation of the reactivity of oxorhenium(V) complexes via coordination of Lewis acids to the oxo ligand. **C. Brown**, E. Ison

3:30 INOR 765. Nucleophilic palladium(II) carbenes: Small molecule activations. **M. Hoffbauer**

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3:50 INOR 766. Photo-switchable N-heterocyclic carbene functionalized arylazopyrazole ligands and their ruthenium(II)-arene complexes: Synthesis and photo-isomerization studies. **K.Y. Ghebreyessus, A. Almutiri**

4:10 INOR 767. Reactions of palladium and platinum methyl complexes with molecular oxygen. **H.E. Zeitler, W. Kaminsky, K.I. Goldberg**

4:30 INOR 768. Formation of Ta(V) imido complexes upon cooperative Lewis acid-Lewis base C-H activation of aryl- and alkynitriles. **D.V. Peryshkov, M. Rahman**

4:50 INOR 769. Synthesis and characterization of sterically stabilized diiron complexes. **M.R. Carlson, P. Zhao, T.B. Rauchfuss, C. Pham, S.P. Cramer**

5:10 INOR 770. Solid-state structure, solution equilibria and chemical reactivity of CPAM group 6 [M(V, d¹), M(V, d¹)] dinuclear bis(μ -nitrido) complexes for M = Mo and W that are relevant to dinitrogen fixation. **L.M. Duman, P.Y. Zavalij, L.R. Sita**

Section C

Renaissance Washington, DC Downtown
Grand Ballroom South

Chemistry of Materials

Nanomaterials

C. G. Lugmair, *Organizer*

H. D. Magurudeniya, S. J. Smith, *Presiding*

1:30 INOR 771. Crystalline DNA-protein nanomaterials self-assembled through three types of biological interactions. **S.J. Smith, R. Subramanian, L. Suominen, G. Cardone, T. Baker, F.A. Tezcan**

1:50 INOR 772. Cascade synthesis of gold nanoparticles in a self-assembled ionic liquid polymer nanocomposite. **H.D. Magurudeniya, B.S. Ringstrand, A. Joshi, C.J. Sheehan, M.A. Firestone**

2:10 INOR 773. Conjugates of water-soluble gold-carbon nanoparticles with proteins. **M. Hameed, I. Mohamed, M. Naggar, I.A. Shehadi, A. Mohamed**

2:30 INOR 774. Withdrawn.

2:50 INOR 775. Quantitative analysis of oxidation state in cerium oxide nanomaterials. **C.M. Sims, R. Maier, A.C. Johnston-Peck, J.M. Gorham, V.A. Hackley, B.C. Nelson**

3:10 Intermission.

3:25 INOR 776. Structures and properties of ultra-small TiO₂ and ZnO nanoparticles. **M. Chen, D.A. Dixon**

3:45 INOR 777. Quantifying the impact of sterics and electronics on ligand exchange at cadmium selenide nanocrystal surfaces. **N.C. Anderson, J.S. Owen**

4:05 INOR 778. Speciation of transition metal dopants in a CdS-based cluster. **F. Kato, K.R. Kittilstved**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

†Cooperative Cosponsorship

4:25 INOR 779. Withdrawn.

4:45 INOR 780. Light-induced ambient degradation of few-layer black phosphorus: Mechanism and protection. **J. Wang**

Section D

Renaissance Washington, DC Downtown
Renaissance West B

Nanoscience

B. G. Trewyn, *Organizer*

Z. Lin, R. Macfarlane, *Presiding*

1:30 INOR 781. Bottlebrush-like block copolymers enabled one-dimensional nanorods with precisely controlled dimensions, compositions, surface chemistry and architectures. **Z. Lin**

1:50 INOR 782. Microwave assisted synthesis and catalytic studies of palladium-gold alloy NPs. **P. Kunal, H. Li, S. Seraj, B. Dewing, L. Zhang, K. Jarvis, C.J. Werth, G. Henkelman, S.M. Humphrey**

2:10 INOR 783. Chemical functionalization and characterization of two dimensional tungsten disulfide. **A. Jinandra, E.L. Kahn, M. Terrones**

2:30 INOR 784. Synthesis of Au nanoparticle - CdSe quantum dot assemblies and study of their unique optical properties. **B. Szychowski, M. Daniel**

2:50 INOR 785. Hydrogenation catalysis by microwave-synthesized RhPd and RhPdAu nanoparticles: An experimental and theoretical examination of composition effects. **G.W. Piburn, H. Li, P. Kunal, G.A. Henkelman, S.M. Humphrey**

3:10 INOR 786. Nanostructured Au/Ag/Pd alloy aerogels as high efficiency alcohol oxidation electrocatalysts. **L. Nahar, A. Farghaly, R.J. Esteves, I.U. Arachchige**

3:30 INOR 787. Epitaxy of programmable atom equivalents. **R. Macfarlane**

3:50 INOR 788. Dispersion measurements and calculations of AlCu thin films. **A. Kaplan, C. Gong, M. Dias, M.S. Leite**

Section E

Renaissance Washington, DC Downtown
Grand Ballroom North

Many Colors of Copper

Contributed Talks

Cosponsored by BIOL

K. J. Franz, I. Garcia-Bosch, K. D. Karlin, T. H. Warren, *Organizers*

S. Hematian, H. R. Lucas, *Presiding*

1:45 INOR 789. Photophysical property of four-coordinate copper complexes supported by a diphosphinosilane ligand. **Y. Lee**

2:05 INOR 790. Stabilization of cupric superoxide species with intramolecular hydrogen bonding moieties. **D.E. Diaz Romero, D.A. Quist, K.D. Karlin**

2:25 INOR 791. Reactivity of Cu(II) compounds with peroxides: Roles of ligands in C-H bond activation. **A. Mukherjee**

2:45 INOR 792. Interconversion of reduced dioxygen species bound to binuclear copper complexes. **D.A. Quist, K.D. Karlin**

3:05 INOR 793. Coping with intruders: Exploitation of metals by histatin antimicrobial peptides. **S.E. Conklin, K.J. Franz**

3:25 INOR 794. Conformational changes of α -synuclein induced by copper versus iron. **H.R. Lucas**

3:45 Intermission.

3:55 INOR 795. Metals as mediators in the cross-talk between drug and fungal pathogen. **E.J. White, K.J. Franz**

4:15 INOR 796. Targeted pro-drugs to manipulate copper biology of prostate cancer. **S. Bakthavatsalam, T. Zhang, K.J. Franz**

4:35 INOR 797. Spectroscopic characterization of extracellular copper transport partners for human copper transporter 1. **K.L. Haas**

4:55 INOR 798. Copper in the tree of life. **D.L. Huffman**

5:15 INOR 799. New insight into the reaction mechanism of the formylglycine generating enzyme: A spectroscopic perspective. **K.K. Meier, M. Appel, E.I. Solomon**

5:35 INOR 800. Mechanistic investigations of a recombinant laccase from *Thermus thermophilus* HB27. **S. Hematian, B.C. Sanders, J. Shin, J.R. Winkler, H.B. Gray**

Section F

Renaissance Washington, DC Downtown
Grand Ballroom Central

Main Group Chemistry

T. W. Hudnall, *Organizer*

Z. M. Heiden, *Presiding*

1:30 Introductory Remarks.

1:35 INOR 801. Synthesis and characterization of diphenylsilyl nucleophiles. **E. Marro, E. Press, T.K. Purkait, M. Siegler, R.S. Klausen**

1:55 INOR 802. Triethylammonium cyanide: A recyclable reagent for cyanophosphine synthesis. **B.L. Chaloux, W.A. Maza, A. Epshteyn**

2:15 INOR 803. Synthesis, structure, and isomerization of phosphiranium cations. **J.A. Muldoon, D.H. Pham, R.P. Hughes, D.S. Glueck, C. Moore, A.L. Rheingold**

2:35 INOR 804. It takes a second phosphorus for Wittig to meet McMurry. **S. Ott, K. Eslandiartard, J. Mai**

2:55 Intermission.

3:05 INOR 805. Utilization of fluorescent dye molecules to introduce redox chemistry into main group complexes. **Z.M. Heiden, I. Kieffer**

3:25 INOR 806. Lewis adducts and protonation of nitriles. **T.H. Saal, R.M. Haiges, K.O. Christe**

3:45 INOR 807. Reactivity of Verkade's superbase with various strong Lewis acids. **S. Mummadi, D. Unruh, C. Krempner**

Section G

Renaissance Washington, DC Downtown
Congressional A

Lanthanide & Actinide Chemistry

A. De Bettencourt Dias, *Organizer*

S. M. Biros, D. A. Penchhoff, *Presiding*

1:30 INOR 808. Withdrawn.

1:50 INOR 809. Tripodal CMPO Ln and An extraction agents. **E.J. Werner, S.M. Biros**

2:10 INOR 810. Structural variations of thorium(IV) and uranium(IV)-carboxylates isolated from aqueous solution. **N.A. Vanagas, K.E. Knope**

2:30 INOR 811. Novel impact in actinide chemistry: Thorium sulfido and selenido compounds. **M.A. Ringgold, A.Y. Kornienko, D. Rehe, T. Emge, J. Brennan**

2:50 INOR 812. Uranyl reduction facilitated by a redox-active, donor-expanded dipyrin. **N.L. Bell, P.L. Arnold, J.B. Love**

3:10 intermission.

3:25 INOR 813. Discovery of lanthanide-based molecular corrosion inhibitors by high throughput methods. **A. Zabula, J.R. Robinson, R. Nahas, D. Cinoman, E.J. Schelter**

3:45 INOR 814. Selective extraction of lanthanides and actinides with carboxylic acids and beta diketones. **D.A. Penchhoff, C.C. Peterson, J.D. Auxier, G.K. Schweitzer, R.J. Harrison, H.L. Hall**

4:05 INOR 815. Th(IV)- and U(IV)- chlorides isolated from acidic aqueous media. **J. Wacker, M. Vasiliu, J.A. Bertke, D.A. Dixon, K.E. Knope**

4:25 INOR 816. Synthesis and investigation of metal-metal interactions in heterobimetallic Ni-Lu complexes. **B.L. Ramirez, P. Sharma, S. Dotzler, L. Gagliardi, C. Lu**

Section H

Renaissance Washington, DC Downtown
Congressional B

Chemistry of Materials

Metal Organic Frameworks

C. G. Lugmair, *Organizer*

R. W. Larsen, *Presiding*

1:30 INOR 817. Proton-coupled electron transport in anthraquinone-based metal organic frameworks. **P.J. Celis-Salazar, C. Epley, S. Ahrenholtz, W. Maza, P. Usov, A.J. Morris**

1:50 INOR 818. Extended singlet excited state lifetime via excimer formation as a function of MOF topology. **J. Yu, P. Deria**

2:10 INOR 819. Transformation from an insulator to superionic conductor by structural changes in nanoporous metal-organic frameworks. **M. Yoon**

2:30 INOR 820. Heterobimetallic active sites in a metal organic framework. **S. Desai, D. Pahlis, C. Malonzo, T. Webber, L. Gallington, M. Destefano, K.W. Chapman, O.K. Farha, J.T. Hupp, R. Penn, L. Gagliardi, A. Stein, C. Lu**

2:50 INOR 821. Understanding physical and chemical factors determining lithium-sulfur battery performance using metal-organic frameworks. **A. Baumann, G. Aversa, V. Thoi**

3:10 INOR 822. Guest-guest and guest-framework photoinduced electron transfer in metal organic frameworks. **R.W. Larsen, L. Wojtas, C. McKeithan, J. Mayers**

3:30 Intermission.

3:45 INOR 823. Metal organic frameworks as solid supports for catalytic aluminum species for use in transfer hydrogenations. **P. Larson**, J. Cheney, A.F. Cozzolino

4:05 INOR 824. Modification of the solution behavior of Pd₁₂L₂₄ metal organic nanocages via PEGylation. **H. Li**, J. Luo, T. Liu

4:25 INOR 825. Expanding the scope MOF-polymer hybrid materials toward functional textiles. **M.S. Denny**, S. Cohen

4:45 INOR 826. Synthesis and characterization of mixed-ligand metal-organometallic MIL-101 analogues incorporating [CpM]⁺-functionalized ligands. **A.N. Ley**, K.T. Holman

5:05 INOR 827. Reproducible synthesis and high porosity of mer-Zn(Im)₂ (ZIF-10): Exploitation of an apparent double-eight ring template. **J. Ramirez**, H. Yang, C. Kane, A.N. Ley, K.T. Holman

Chemistry Past Curium

Sponsored by NUCL, Cosponsored by INOR

Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Synthetic Methodology

Sponsored by POLY, Cosponsored by INOR and PMSE†

THURSDAY MORNING

Section A

Renaissance Washington, DC Downtown Congressional A

Bioinorganic Chemistry

DNA, RNA & Inorganic Drugs

S. A. Koch, *Organizer*

S. H. Bossmann, C. R. Goldsmith, *Presiding*

8:30 INOR 828. Organoferrous compounds for disruption of iron homeostasis in cells. **J.M. O Connor**, M. Aubrey, C. Hoong, M. Proetto, N.C. Gianneschi

8:50 INOR 829. Withdrawn.

9:10 INOR 830. Bis-picolinamide metal dihalide complexes: *Trans* isomers with significantly high potency and cancer cell selectivity. **R.M. Lord**, P. Caramés-Méndez, A. Basri, R. Phillips, P. McGowan

9:30 INOR 831. Improving the efficacy of gadolinium based theranostics. **A.J. Hall**, L.M. Rendina

9:50 INOR 832. Platinum anticancer drugs: The mechanistic study and new drug design. **Y. Liu**

10:10 Intermission.

10:20 INOR 833. Metallo-supramolecular cylinders that bind unusual DNA and RNA structures: From DNA nanoscience to bio-activity. **M.J. Hannon**

10:40 INOR 834. Withdrawn.

11:00 INOR 835. Novel 5 and 6-coordinated silver complexes derived from 2,6-(pyridyl)iminodiamantanes for bacterial eradication. **J. Jimenez**, P. Mascharak

11:20 INOR 836. Copper-activated drugs with NNSN-motif against MRSA. **S.H. Bossmann**, H. Wang, A.P. Malalasekera, A. Delpé-Acharige, F. Rahman, F. Wolschendorf

Section B

Renaissance Washington, DC Downtown Congressional B

Chemistry of Materials

Materials for Energy & Catalytic Applications

C. G. Lugmair, *Organizer*

A. G. Harris, J. Macdonald, *Presiding*

8:30 INOR 837. Synthesis and characterization of Pt and Ni-based bimetallic nanocrystal catalysts for biomass upgrading. **J.D. Lee**, J. Luo, H. Yun, C. Wang, M. Monai, P. Fornasiero, R.J. Gorte, C.B. Murray

8:50 INOR 838. Assembly of metal nanoparticles embedded into porous organic cages for heterogeneous catalysis. **S. Jiang**, S.K. Beaumont

9:10 INOR 839. Tandem one-pot oxidative esterification of allyl alcohol by gold nanoparticles and alcohol dehydrogenase enzyme supported on mesoporous silica nanoparticles. **M.M. Moyer**, X. Sun, B.G. Trewyn

9:30 INOR 840. Using a materials genome initiative approach to catalyst discovery. **A.G. Harris**, M. Green

9:50 INOR 841. Withdrawn.

10:10 INOR 842. Digging out of a hole problem. **J. Macdonald**, A. LaCroix, A. O'Hara, K. Reid, S. Rosenthal, S. Panetlides

10:30 Intermission.

10:45 INOR 843. Aerosol routes to fabricate highly stable perovskite solar cells under ambient conditions. **S. Kavadiya**, P. Biswas

11:05 INOR 844. Kinetically controlled thermal hysteresis forms the basis of metastability of the perovskite phase of cesium lead iodide. **S. Dastidar**, A.T. Fafarman

11:25 INOR 845. Degradation mechanisms of perovskite solar cells elucidated through in operando GIWAXS. **T. Kelly**, K. Fransishyn, S. Kundu

11:45 INOR 846. Amplification of solar energy conversion in Q-CdTe and type-II CdTe/CdSe quantum dots sensitized titania photonic crystals in selenide electrolyte. **N. Beydoun**, A.S. Nehme, F. Haydous, L.I. Halaoui

12:05 INOR 847. Charge-carrier diffusion length over one micrometer in solution-processed CsPbI₃. **A.T. Fafarman**

Section C

Renaissance Washington, DC Downtown Grand Ballroom South

Organometallic Chemistry

Catalysis-Late Transition Metals

N. S. Radu, *Organizer*

J. M. Hoover, L. Jia, *Presiding*

8:30 INOR 848. Withdrawn.

8:50 INOR 849. Catalytic synthesis of linear alkenyl arenes using capping arene ligand supported Rh(I) catalysts. **J. Chen**, A.C. Cole, M.S. Webster-Gardiner, B.A. McKeown, T.B. Gunnoe

9:10 INOR 850. Hydrogenation of hindered, unfunctionalized alkenes using redox-active α -diimine nickel catalysts. **N.G. Leonard**, P.J. Chirik

9:30 INOR 851. Withdrawn.

9:50 INOR 852. Nickel catalyzed Suzuki-Miyaura coupling of phenolic derivatives: Insight into the fate of nickel precatalysts. **A.G. Walden**, M.D. Mohadjer Beromi, R.M. Davis, N. Hazari

10:10 INOR 853. Rhodium catalyzed C-H borylation: Affecting selectivity through catalyst design. **M. Mantell**, M.S. Sanford

10:30 INOR 854. Mechanistic insights into catalytic oxidative decarboxylative coupling reactions. **J.M. Hoover**

10:50 INOR 855. Lewis-acid assisted catalytic hydrogenation of nitriles using an air-stable monoanionic biscarbene cobalt(III) pincer complex. **B. Jackson**, K. Tokmic, A. Slazar, A.R. Fout

11:10 INOR 856. Mechanistic studies of C-H amination processes mediated by dipyrin-cobalt imidos. **Y. Baek**, T. Betley

11:30 INOR 857. Direct boronic acid transmetalation to a Pd(II) halide. **L. Chen**, **B.P. Carrow**

Section D

Renaissance Washington, DC Downtown Congressional C

Coordination Chemistry

Synthesis & Characterization

S. A. Koch, A. Larsen, *Organizers*

G. Mezei, P. Portius, *Presiding*

8:30 INOR 858. Taming binary *p*-block azides with N-heterocyclic σ -donors as precursors for the formation of nitrogen-rich tetrazolato complexes. **P. Portius**, L. James, B. Peerless, Z. Smallwood, B. Crozier

8:50 INOR 859. Ligand exchange dynamics and controlled synthesis of isomeric oxorhenium(V) complexes. **J. Liu**, C. Ren, X. Su, M. Han, J.R. Shapley, T.J. Strathmann

9:10 INOR 860. Mercaptide-bridged dicopper(I) naphthyridine-diimine complexes bearing short metal-metal distances. **R. Conger**, R.R. Conry, S. Fox

9:30 INOR 861. Withdrawn.

9:50 INOR 862. Withdrawn.

10:10 Intermission.

10:20 INOR 863. Discrete multinuclear coordination complexes and selective anion binding attainable only by tethering ligands together. **G. Mezei**, B. Ahmed

10:40 INOR 864. Cobalt(0) PNP complexes: Synthesis and application. **M.R. Mills**

11:00 INOR 865. Further disordering for expanded metals: The liquid Li-NH₂-MeNH₂ system. **A. Seel**, N. Skipper, C. Howard, P. Edwards

11:20 INOR 866. Multielectron reactivity and electronic structure of first-row transition metal trinuclear complexes. **A.K. Bartholomew**, T. Betley

11:40 INOR 867. Syntheses and structures of bimetallic complexes supported by flexible di(imino)pyridine-based macrocycles. **S. Zhang**, P. Cui, N.C. Tomson

12:00 INOR 868. Engineering a potent nickel dioxxygen catalyst. **D.R. Heitger**, H.R. Lucas

Section E

Renaissance Washington, DC Downtown Grand Ballroom North

Nanoscience

B. G. Trewyn, *Organizer*

X. Roy, B. Sadtler, *Presiding*

8:30 INOR 869. Compositionally-induced twin defects control the shape of ternary silver halide nanocrystals. **B. Sadtler**

8:50 INOR 870. Investigating the Raman response of mono- and few-layer ReS₂. **A. McCreary**, J. Simpson, Y. Wang, D. Rhodes, K. Fujisawa, L. Balicas, M. Dubey, V. Crespi, M. Terrones, A.R. Hight Walker

9:10 INOR 871. Using Raman spectroscopy to observe the charge density wave states in metallic tantalum diselenide. **H.M. Hill**, J. Simpson, S. Chowdhury, A.R. Hight Walker

9:30 INOR 872. Mesoporous carbon nanoparticles for f-element separations. **G. Deodhar**, K. Kluherz, B.G. Trewyn

9:50 INOR 873. Synthesis and single-molecule conductance of metallocene-based electronic components. **M. Inkpen**, G. Lovat, A. Turkiewicz, X. Roy, L. Venkataraman

10:10 INOR 874. Molecular electronics using atomically precise redox-active nanoscale building blocks. **G. Lovat**, B. Choi, L. Venkataraman, **X. Roy**

10:30 INOR 875. Tracking the energy flow on nanoscale *via* sample-transmitted excitation photoluminescence spectroscopy. **P. Moroz**, M. Zamkov

10:50 INOR 876. Exploring energy, environmental, and biological challenges with mesoporous nanoparticle technology. **B.G. Trewyn**

Section F

Renaissance Washington, DC Downtown Grand Ballroom Central

Organometallic Chemistry

Applications to Materials & Polymer Science

N. S. Radu, *Organizer*

C. Cruz, G. Du, *Presiding*

8:30 INOR 877. Strategic synthesis and polymerization of a functionalized cyclohexasilane. **E. Press**, E. Marro, S. Surampudi, R.S. Klausen

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8:50 INOR 878. Manganese catalysis for polysilyl ethers via hydrosilylation and dehydrogenative coupling. **G. Du, S. Vijamari**

9:10 INOR 879. Non-transition metal catalyzed polymerization of acetylenic monomers. **C. Cruz, J.L. Barr**

9:30 INOR 880. Synthesis and characterization of alkyl and fluorinated alkyl manganese pentacarbonyl complexes as models for reversible-deactivation radical polymerization (RDRP). **R. Morales Cerrada, J. Daran, F. Gayet, C. Fiedel, V. Ladmiraal, R. Poli, B.M. Ameduri**

9:50 INOR 881. Synthesis of isotactic enriched poly(lactide) from *rac*-lactide via a Lewis acid catalyzed ring-opening of an epoxide. **V. Balasanthiran, M.H. Chisholm**

10:10 INOR 882. Heterobimetallic catalysts for ethylene homo- and copolymerization. **Z. Cai, L. Do**

10:30 INOR 883. Well-defined nickel- and palladium-diimine catalysts supported on sulfated zirconia for ethylene (Co)polymerization reactions. **H. Tafazolian, D. Culver, M. Conley**

10:50 INOR 884. Synthesis of unusual zirconophosphalkene through insertion of sodium phosphoethynolate, $\text{Na}[\text{OCP}]$. **J.M. Kieser, R.J. Gilliard, A.L. Rheingold, H. Grützmacher, J.D. Protasiewicz**

11:10 INOR 885. Investigation of electronic effects for the amidinate ligand of CPAM early transition metal complexes as catalysts for small molecule activation and olefin polymerization. **R.R. Thompson, L.R. Sita**

11:30 INOR 886. Voltage dependent light emitters from iClick and aurophilic interactions. **C. Beto, E. Holt, Y. Yang, J. Bullock, C. Zeman, I. Ghivringa, K.S. Schanze, A.S. Veige**

11:50 INOR 887. Preparation of aurolated porphyrinic materials with potential in photovoltaics: Application of iClick chemistry. **T.A. Makal, A.S. Veige, K.S. Schanze**

Section G

Renaissance Washington, DC Downtown Meeting Room 12

Environmental & Energy-Related Inorganic Chemistry

S. A. Koch, *Organizer*

A. W. Applett, T. C. Devore, *Presiding*

8:30 INOR 888. Modification of glassy carbon electrodes with Cu- and Zn-bis(thiosemicarbazones) as heterogeneous HER catalysts. **C.A. Grapperhaus, W. Zhang, R.M. Buchanan**

8:50 INOR 889. Formamidinate-bridged $\text{Rh}_2(\text{II},\text{II})$ dimer as both a robust, red-light absorbing photosensitizer and a catalyst for proton reduction. **H.J. Sayre, C. Turro**

9:10 INOR 890. Dynamics of the reversible dehydration of metal salts. **T.C. Devore, B.A. Reisner, A. Bagley, A. Morales**

9:30 INOR 891. Withdrawn.

9:50 INOR 892. Low-voltage fabrication of CZTS thin films by electrophoretic deposition of all-inorganic nanocrystals. **A.D. Dillon, S. Mengel, S. Dastidar, J.B. Baxter, A.T. Fafarman**

10:10 INOR 893. Investigation of electrochemical hydrogen evolution by metal-selenolate catalysts and related mechanistic studies. **C. Downes, S. Marinescu**

10:30 Intermission.

10:40 INOR 894. Electrocatalytic hydrogen production and hydrogen oxidation using tetradentate nickel (II) and zinc (II) complexes with P_2S_2 ligand framework: Synthesis, characterization and mechanistic insights. **R. Jain, A.Z. Haddad, M.S. Mashuta, R.M. Buchanan, C.A. Grapperhaus**

11:00 INOR 895. Promoting the interconversion of dinitrogen and reduced nitrogen species at copper through proton-coupled electron transfer. **E.J. Gardner, S. Zhang, C.R. Cobb, T.H. Warren**

11:20 INOR 896. Mobilization of cationic heavy metal from mine tailings by using fuel cell technology. **W. Ju, E. Jho, K. Nam**

11:40 INOR 897. Molecular electrocatalysts for ammonia oxidation based on earth abundant metals. **M. Raghbi Boroujeni, S. Kundu, T.H. Warren**

12:00 INOR 898. Sorption of heavy metals and uranium by nanocrystalline scheelite. **A.W. Applett, C.K. Perkins**

12:20 INOR 899. Fast single-site water oxidation catalysis by ruthenium bipyridine-phosphonate-carboxylate complexes. **D.W. Shaffer, Y. Xie, J.J. Concepcion**

12:40 INOR 900. O-O coupling: From detailed mechanistic understanding to enhanced water oxidation catalysis. **Y. Xie, D.W. Shaffer, J.J. Concepcion**

Nanoscale Sensing in Foods & Other Complex Media

Sponsored by AGFD, Cosponsored by AGRO, ANYL, COLL, ENVR and INOR

Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Optoelectronic Device Applications

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THURSDAY AFTERNOON

Section A

Renaissance Washington, DC Downtown Congressional A

Inorganic Catalysts

S. A. Koch, *Organizer*

L. Y. Kuo, X. Zhao, *Presiding*

1:30 INOR 901. Total utilization of biomass, lignin and carbohydrate: Using earth abundant nickel catalyst. **H. Luo**

1:50 INOR 902. New molybdenum complexes for sulfide oxidation and organophosphate degradation. **L.Y. Kuo**

2:10 INOR 903. Oxidative transformation of a Ru-bound ligand during chemically driven water oxidation. **H. Kagalwala, L. Tong, R. Zong, L. Kohler, M.S. Ahlquist, T. Fan, K.J. Gagnon, R.P. Thummel**

2:30 INOR 904. Electronic and steric effects on hydrogen production catalyzed by molecular Co complexes with pentadentate ligands in aqueous solution. **X. Zhao, P. Wang, G. Liang, M. Long, D. Reese, A. Bah, C. James, Y. Sun, L. Duan, C.E. Webster**

2:50 INOR 905. Tailor-made stereo-*n*-blocks copolymers of poly(lactic acid) by living polymerization catalysts. **T. Rosen, I. Goldberg, V. Venditto, M. Kol**

3:10 INOR 906. Earth-abundant molecular electrocatalysts for the reduction of CO_2 and O_2 . **C.W. Machan**

3:30 Intermission.

3:40 INOR 907. Withdrawn.

4:00 INOR 908. Lewis acid promoted catalytic oxidations by redox catalysts. **G. Yin**

4:20 INOR 909. Computational study for the CO_2 reduction reaction using homogeneous electrocatalysts. **X. Li, J. Panetier**

4:40 INOR 910. Electrochemical reduction of CO_2 catalyzed by $\text{Re}(\text{quinolin-oxazole})(\text{CO})_2\text{Cl}$ complexes. **A.M. Angeles Boza, J. Nganga**

5:00 INOR 911. Reductive coupling via disproportionation of activated alcohols using oxo-vanadium catalysts. **E.M. Steffensmeier, K.M. Nicholas**

5:20 INOR 912. Copper(I)-dioxygen chemistry supported by a tetrapodal ligand with cationic character in the secondary coordination sphere. **S. McCollom, A. Weberg, N.C. Tomson**

Section B

Renaissance Washington, DC Downtown Congressional B

Chemistry of Materials Synthesis & Properties

C. G. Lugmair, *Organizer*

K. V. Lawler, N. T. Plymale, *Presiding*

1:30 INOR 913. Moving beyond $\text{La}_3\text{Ni}_2\text{SbO}_3$: The search for relaxor ferromagnetism in $\text{LaSr}_2\text{Cr}_2\text{SbO}_9$ and $\text{PrSr}_2\text{Cr}_2\text{BO}_9$ (B=Sb, Ta, Nb). **E.C. Hunter, P.D. Battle, R. Paria Sena, J. Hadermann**

1:50 INOR 914. New methods of chemical vapor deposition for mid-infrared ZnSe optical fiber lasers. **M.G. Coco, S.C. Aro, S.A. McDaniel, A.T. Hendrickson, J.R. Sparks, V. Gopalan, P.J. Sazio, G. Cook, J.V. Badding**

2:10 INOR 915. Withdrawn.

2:30 INOR 916. Molecular and electronic structures of the group 7 heptoxides. **K.V. Lawler, B. Childs, D.S. Mast, K. Czerwinski, A.P. Sattelberger, F. Poineau, P. Forster**

2:50 INOR 917. Radius ratio rule rescue. **D.A. Vander Griend**

3:10 INOR 918. Reversible phase transition of NiBi: A new high-pressure modification. **S.M. Clarke, K.M. Powderly, C. Malliakas, Y. Meng, S.D. Jacobsen, D.E. Freedman**

3:30 Intermission.

3:45 INOR 919. Investigation of the radio-luminescence properties of nanosized core-shell cerium doped rare earth orthosilicate materials. **E. Zhang, A. Dickey, M.K. Burdette, I. Bandera, J. Weick, H. zur Loye, J.N. Anker, J.W. Kolis, S.H. Foulger**

4:05 INOR 920. Mechanistic insights into the oxidative reaction of hydrogen-terminated $\text{Si}(111)$ surfaces with liquid methanol. **N.T. Plymale, M. Dasog, B.S. Brunshwig, N.S. Lewis**

4:25 INOR 921. Withdrawn.

4:45 INOR 922. Multiple mechanisms for magnetoresistance in LnMnAsO pnictides. **E. Wildman, A. McLaughlin**

5:05 INOR 923. Properties of redox-active, ferromagnetically-coupled cobalt(III)semiquinone-containing polymers. **P. Hewitt, D.A. Shultz**

Section C

Renaissance Washington, DC Downtown Grand Ballroom South

Coordination Chemistry

Synthesis & Characterization

S. A. Koch, A. Larsen, *Organizers*

J. R. Miecznikowski, D. Rabinovich, *Presiding*

1:30 INOR 924. Synthesis and characterization of cobalt(II), copper(I), and copper(II) SNS pincer complexes. **J.R. Miecznikowski, S.C. Bonitatibus, E.M. Almanza, R. Kharbouch, J.P. Jasinski, M. Kaur**

1:50 INOR 925. Synthesis and characterization of porous aromatic frameworks for capturing cesium in water. **D. Parajuli, M. Taylor, J.R. Long**

2:10 INOR 926. Withdrawn.

2:30 INOR 927. Synthesis of a goldnanocluster used in metal pollution sensing. **K. Sanyal**

2:50 INOR 928. Effect of PNP pincer backbone structure on dinitrogen activation in ruthenium hydride complexes. **Q.J. Bruch, S. Schneider, A.J. Miller**

3:10 INOR 929. Synthesis, structural elucidation and cytotoxicity studies of ruthenium (II) polypyridine compounds with anionic $\text{N}^{\ominus}\text{O}^{\ominus}$ donor ligands. **J.A. Obaleye, A.O. Rajee, A.A. Ajibola, P.O. Obaleye**

3:30 Intermission.

3:40 INOR 930. Hexa & hepta iron clusters of linked $[\text{Fe}(\text{IO})\text{OH}]_7^{+8+}$ triangles with derivatized salicylaldoximes. **D.T. De Silva, G.B. Jameson, P.G. Plieger, G.N. Jameson, E.K. Brechin**

4:00 INOR 931. Synthesis and reactivity of N-heterocyclic thiones and selones with saturated backbones. **J.R. Patterson, J.J. Flanagan, D. Rabinovich**

4:20 INOR 932. Supramolecular aggregates of single-molecule magnets using dioximate linkers. **T. Ghosh, D. Takahashi, W. Wernsdorfer, K.A. Abboud, G. Christou**

4:40 INOR 933. Multinuclear copper(II), silver(I) and coordination polymers supported by the NNN-pincer ligand: Bis(3,5-dimethylpyrazolyl)methylpyrrole. **O. Jana**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

5:00 INOR 934. One-step synthesis of substituted 2-(2'-pyridyl)quinoline ligands and investigation of the solution and solid phase behavior of the corresponding gold(III) complexes. **M.D. Sterling**, L. Bishop, A.L. Rheingold, C.H. Larsen

5:20 INOR 935. Synthesis, structure and bonding in metal complexes of P-stereogenic phosphiranes. **J.A. Muldoon**, M. Deegan, R.P. Hughes, D.S. Glueck, C. Moore, A.L. Rheingold

Section D

Renaissance Washington, DC Downtown Congressional C

Bioinorganic Chemistry

Proteins & Enzymes & Model Systems

S. A. Koch, *Organizer*

M. I. Galinato, M. D. Pluth, *Presiding*

1:30 INOR 936. Selection of peptidic inhibitors against sortase A by using phage display library. **M. Koksai**, N. Ersoz, F. Dudak

1:50 INOR 937. Quantitatively probing photosystem II with a rotating ring disk electrode assembly. **N. Kornienko**, R. van Grondelle, A. Rutherford, E. Reisner

2:10 INOR 938. Fast hydrogen atom abstraction by a hydroxo iron(III) porphyrazine. **H. Gao**, J.T. Groves

2:30 INOR 939. Investigating the bioinorganic chemistry of H₂S using small molecule model systems. **M.D. Pluth**

2:50 INOR 940. OEC model complexes via application of a tunable carboxamide ligand scaffold. **N. McMillion**, J.S. Anderson

3:10 Intermission.

3:20 INOR 941. Spectroscopic and electrocatalytic reduction studies of nitrite to NO by human serum albumin-heme. **M.I. Galinato**, E.M. Luteran, G.A. Fye, J.A. Bennett

3:40 INOR 942. Functional role for the [4Fe4S] cluster in human DNA primase as a redox switch using DNA charge transport. **E. OBrien**, M. Holt, M.K. Thompson, L.E. Salay, A.C. Ehlinger, W.J. Chazin, J.K. Barton

4:00 INOR 943. Revision of hydroxylamine oxidoreductase activities and bacterial ammonia oxidation pathways. **J.D. Caranto**, K.M. Lancaster

4:20 INOR 944. Elucidating the reactivity of ferrous heme-P460 cofactors. **M. Smith**, K.M. Lancaster

4:40 INOR 945. Metallothiolenes revealed as unique chemical chameleons. **J.H. Enemark**, B.W. Stein, J. Yang, R. Mtei, N. Wiebelhaus, D. Kersi, D.L. Lichtenberger, M.L. Kirk

Section E

Renaissance Washington, DC Downtown Grand Ballroom North

Organometallic Chemistry

Applications to Organic Transformations

N. S. Radu, *Organizer*

D. Lehnher, A. N. Vedernikov, *Presiding*

1:30 INOR 946. Redox activity of carbene ligands: Convergent and divergent radical-type pathways of metal-bound carbene radicals. **B. de Bruin**

1:50 INOR 947. Cp*Ir(III)-catalyzed ortho halogenation of benzamides via C-H bond activation. **A.J. Guzman-Santiago**, E. Ison

2:10 INOR 948. Mechanistic studies of a Re-catalyzed mono-alkylation of phenols. **D. Lehnher**, M.D. Weisel, X. Wang, Y. Lam, H. Sheng, F. Peng, J.R. Naber, K.M. Maloney, I.W. Davies

2:30 INOR 949. Bioinspired Mn(II) catalysts for CO₂ hydrogenation and transfer hydrogenation reactions. **A. Dubey**, J.R. Khusnutdinova

2:50 INOR 950. Nonprecious metal catalysts for hydrogenation, hydrofunctionalization and dehydrogenative coupling reactions. **G. Zhang**

3:10 INOR 951. Withdrawn.

3:30 INOR 952. Large bite angle early transition metal biphenolate complexes as tunable catalysts for amine addition to alkenes. **J. Soltys**, A. Roller, K. Hultsch

3:50 INOR 953. Mechanistic studies of the Zn(II)/SiO₂-catalyzed hydroamination of alkynes. **A.K. Cook-Sneathen**, C. Cooperet

4:10 INOR 954. Formation of carbazoles and indolines via oxidative intramolecular C-N coupling of amido aryl and amido alkyl Pd(II) complexes with H₂O₂ as oxidant: A mechanistic analysis. **E. Abada**, P.Y. Zavalij, **A.N. Vedernikov**

4:30 INOR 955. Acceleration of Pd-catalyzed amide N-arylations using co-catalytic metal triflates: Substrate scope and mechanistic study. **J. Becica**, G. Dobreiner

4:50 INOR 956. Expansion of boracarboxylated vinyl arenes: Exploring the synthetic elaboration of the carbon-boron bond through cross-coupling. **T. Perrone**, S. Knowlden, B.V. Popp

5:10 INOR 957. Withdrawn.

Section F

Renaissance Washington, DC Downtown Grand Ballroom Central

Bioinorganic Chemistry

DNA, RNA & Inorganic Drugs

S. A. Koch, *Organizer*

A. G. Tennyson, Y. Zheng, *Presiding*

1:30 INOR 958. Synthesis, characterization, and biological activity of DNA mismatch-targeting rhodium complexes. **K. Boyle**, J.K. Barton

1:50 INOR 959. Photoactivation of two fluorescent dyes via ruthenium(II) polypyridyl ligand exchange. **T.N. Rohrabough**, J.K. White, C. Turro

2:10 INOR 960. Synthesis and characterization of dinuclear ruthenium complexes as mitochondrial calcium uptake inhibitors. **S.R. Nathan**, J. Urgiles, J. Woods, J. Wilson

2:30 INOR 961. Withdrawn.

2:50 INOR 962. Withdrawn.

3:10 Intermission.

3:20 INOR 963. Rhodium-cyanine fluorescent probes for detection and signaling of mismatches in DNA. **A. Nano**, J.K. Barton

3:40 INOR 964. Hydride donation by NAD⁺ in biologically-relevant redox catalysis. **A.G. Tennyson**

4:00 INOR 965. Nanoprecipitation of metal-locages for platinum-based anticancer drug delivery. **Y. Zheng**, Z. Yue, H. Wang

4:20 INOR 966. Withdrawn.

Nanoscale Sensing in Foods & Other Complex Media

Sponsored by AGFD, Cosponsored by ANYL, COLL, ENVR and INOR

MEDI

Division of Medicinal Chemistry

A. Stamford, *Program Chair*

OTHER SYMPOSIA OF INTEREST:

Chemical Biology of Infectious Disease (see *BIOL*, Wed)

Drug Discovery: Cheminformatic Approaches (see *CINF*, Wed)

Glycomimetics as Antibiotic-Sparing Therapeutics for Infectious Disease (see *CARB*, Sun)

Informatics & Chemical Biology: Identifying Targets & Biological Pathways (see *CINF*, Tue)

Toxicological Considerations in Antibody Drug Conjugate Design & Development (see *TOXI*, Tue)

What do Synthetic Chemists Want from Their Reaction Systems? (see *CINF*, Sun)

SOCIAL EVENTS:

MEDI Hall of Fame Reception (Open), 5:30 PM: Tue

Poster Session & Social Hour, 7:00 PM: Sun, Wed

BUSINESS MEETINGS:

Business Meeting (Open), 5:30 PM: Sun

Executive Committee Meeting (Closed), 8:30 AM: Sun

Long-Range Planning Committee Meeting (Closed), 5:30 PM: Mon

SUNDAY MORNING

Section A

Walter E. Washington Convention Center Room 146B

Treatment of Chronic Neuropathic Pain

K. A. Jacobson, D. Salvemini, *Organizers*, *Presiding*

8:30 MEDI 1. Purine receptors as drug targets in pain. **K.A. Jacobson**, D.K. Tosh, A. Ciancetta, D. Salvemini

9:05 MEDI 2. A₃ adenosine receptor subtype agonists as novel non-narcotic analgesics for neuropathic pain. **D. Salvemini**, K.A. Jacobson, D.K. Tosh, G. Bennett

9:40 MEDI 3. Design of new antagonists of P2X and P2Y receptors. **C.E. Mueller**

10:15 MEDI 4. Endocannabinoid system as a target for neuropathic pain treatment. **A. Makriyannis**

10:50 MEDI 5. Benzo[c][2,7]naphthyridin-5(6H)-one and 5H-chromeno[3,4-c]pyridine as potent inhibitors of a novel serine/threonine kinase for the potential treatment of neuropathic pain. **C.D. Dzierba**

11:25 MEDI 6. Biasing opioid receptor signaling away from opiate side effects. **L.M. Bohn**, T.D. Bannister

Section B

Walter E. Washington Convention Center Room 146A

General Orals

A. W. Stamford, *Organizer*

J. R. Allen, *Presiding*

8:30 MEDI 7. 6-((2-Oxo-1-substituted-1,2-dihydropyridin-3-yl)amino)imidazo[1,2-b]pyridazine derivatives as potent, selective, and orally active Tyk2 JH2 inhibitors. **C. Liu**, J. Lin, R. Moslin, J.S. Tokarski, J. Muckelbauer, H. Park, P. Li, D. Wu, J. Strnad, A. Zupa-Fernandez, L. Cheng, C. Chaudhry, C. Huang, J. Chen, C. Chen, H. Sun, P. Elzinga, C. D'Arienzo, K. Gillooly, T.L. Taylor, K.W. McIntyre, L.M. Salter-Cid, L. Lombardo, P.H. Carter, N. Aranibar, J.R. Burke, D.S. Weinstein

8:50 MEDI 8. Discovery of small molecule protease-activated receptor 2 (PAR2) antagonists and agonists using DNA-encoded library (DEL) screening technologies. **D.G. Brown**, A. Ferguson, H. Chen, L. Sundstrom, S. Geschwinder, A. Snijder, M. Saxin, J. Zhang, Y. Wu, H. Souter, D.M. Troast, C. Dumelin, G.A. Brown, R.K. Cheng, C. Fiez-Vandal, R. Cooke, R. Prihandoko, B. Tehan, G. Wiggan, A. Zhukov, M.S. Congreves, B. Teobald, O. Schlenker, Q. Liu, W. Yang, R. Chen, S. Johnstone, R. Burfi, N. Dekker

9:10 MEDI 9. Creating the ideal vaccine formulation: Attenuating inflammation while maintaining the adaptive response. **B. Moser**, R.C. Steinhardt, A.P. Esser-Kahn

9:30 MEDI 10. High confidence protein-ligand complex modeling by NMR-guided docking enables early hit optimization. **A. Lingel**, D. Bussiere, A. Proudfoot

9:50 MEDI 11. Identification of potent, selective, and cellularly-active KDM2B inhibitors by utilizing structure- and property-based design. **J. Liang**

10:10 MEDI 12. Selectively targeting MYC expression with nucleic acid binding small molecules. **D. Calabrese**, E. Leon, S. Gaikwad, X. Chen, S. Alden, Z. Phyo, W. Hewitt, T. Hillmire, K. Walters, B. Mock, J. Schneekloth

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10:30 MEDI 13. Different modes of activation of the four regulatory pyruvate dehydrogenase kinases by the E2 and E3 binding protein components of the human pyruvate dehydrogenase complex. **E.L. Guevara**, L. Yang, N.S. Nemeria, J. Zhou, F. Jordan

10:50 MEDI 14. Discovery of a selective androgen receptor degrader (SARD) for treatment of castration-resistant prostate cancer. **Z. Yao**, S.E. Wardell, I. Spasojevic, J.D. Norris, J.A. Katzenellenbogen, D.P. McDonnell, **J.S. Josan**

11:10 MEDI 15. EGFR triple mutant: Recent set-backs and new hopes in fighting mutant non-small cell lung cancer. **S.A. Laufer**, M. Guenther, M. Juchum, E. Doering, M. Keul, J. Lategahn, H. Tumberink, J. Engel, D. Rauh

11:30 MEDI 16. Development and optimization of a selective MYST histone acetyltransferase inhibitor that induces cellular senescence. **D.J. Leaver**, B. Cleary, N. Nuyen, M. Chung, B.N. Sheikh, H. Falk, A.K. Voss, T. Thomas, J.B. Baell

11:50 MEDI 17. Mnk1/2 and Abl inhibitions for the treatment of blast crisis chronic myelogenous leukemia. **K. Nacro**, J. Cherian, H. Yang, Y. Yeap, Z. Poh, L.R. Chennamaneni, S. Ang, E.S. Tan, A.J. Duraiswamy, A. Poulsen, J.K. Joy, B. Liu, E. Ong, M. Choon, P. Kwek, V. Pendharkar, V. Manoharan, V. Susmitha, C. Low, M. Lee, K. Sangthongpitag, S. Lim, C. Chua, S. Ong, J. Hill, T.H. Keller, A. Matter

Merck Research Award Symposium

Sponsored by WCC, Cosponsored by BIOL, COMP, MEDI, MPPG, ORGN, PMSE and PROF

Glycomimetics as Antibiotic-Sparing Therapeutics for Infectious Disease

Targeting P. Aeruginosa Bacterial Lectins & Other Anti-Virulence Strategies

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What do Synthetic Chemists Want from Their Reaction Systems?

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SUNDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 146B

General Orals

A. W. Stamford, Organizer, Presiding

1:30 MEDI 18. Integration of x-ray crystallography, computational modelling and NMR conformational analysis data in fragment-based drug design. **E. Tamanini**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

1:55 MEDI 19. NMR conformational signatures guide the design of macrocycle drug cell activity and permeability: AstraZeneca case studies. **A.Y. Balazs**, R. Carbajo, N. Davies, E. Chiarparin

2:20 MEDI 20. Discovery of CC-671: A TTK/CLK2 inhibitor for the treatment of triple negative breast cancer. **J.R. Riggs**

2:45 MEDI 21. Optimization of macrocyclic ring containing Mcl-1 inhibitors through SAR and rational design. **T. Kohn**

3:10 MEDI 22. Discovery of GDC-0077: A highly selective inhibitor of PI3K-alpha that induces degradation of mutant-p110 alpha protein. **M. Braun**, C. Chan, S. Clausen, K. Edgar, C. Eigenbrot, R. Elliott, N. Endres, L. Friedman, K. Gerland, X. Gu, P. Hamilton, C. Han, E.J. Hanan, R. Hong, P. Jackson, S. Kelly, J. Knight, M. Lee, A. Lu, C. MacLeod, A. McKenzie, M. Nannini, R. Narukulla, A. Nguyen, J. Pang, H.E. Purkey, L. Salphati, D. Sampath, S. Schmidt, L. Schutt, R. Heald, K. Song, M. Ultsch, J. Xin, K. Yeap, A. Young, Z. Zhong, S.T. Staben

3:35 MEDI 23. Discovery of the JAK1 selective kinase inhibitor AZD4205. **Q. Su**, J. Kettle, N. Grimster, M. Vasbinder, S. Kawatkar, S. Throner, R. Woessner, H. Chen, C. Chuaqui, G. Beberitz, K. Bell, E. Anderson, L. Ruston, J. Winter-Holt, W. Yang, P. Lyne

4:00 MEDI 24. Discovery of LY3200882: A highly specific and potent TGFβRI small molecule inhibitor. **S. Parthasarathy**

4:25 MEDI 25. Discovery of BMS-135: An orally active imidazo[2,1-f][1,2,4]triazine pan-CK2 inhibitor for the treatment of cancer. **A.V. Purandare**, K. Zimmermann, W. Johnson, H. Wan, A.C. Hart, C.M. Tarby, L. He, B.E. Fink, A.V. Gavai, G. Vite, Y. Zhao, W. Vaccaro, T. Huynh, H. Mastalerz, J.A. Inghrim, J.S. Tokarski, A. Sang, B. Rupnow, C. Yu, J. Fargnoli, B. Henley, F. Lee, A. Fura, M. Oberneier, P.A. Elzinga, W. Foster, B. Slezcska, P. Arunachalam, A. Gupta, M. Vetrichelvan, N. Raghavan, Z. Yang, A. Mathur, R. Rampulla, D. Wu, P. Li, H. Klei, G. Everlof, S. Zhong, G. Locke, J.T. Hunt, J. Muckelbauer, W. Yong, T. Wong

4:50 MEDI 26. Discovery of CC-90003: A covalent ERK1/2 inhibitor. **L. Qiao**

Section B

Walter E. Washington Convention Center Room 146A

Biophysical Methods in Drug Discovery

M. J. Blanco, Organizer

N. A. Meanwell, P. M. Scola, K. Yeung, Organizers, Presiding

2:00 Introductory Remarks.

2:05 MEDI 27. Two photon fluorescence polarization microscopy for imaging and quantifying drug target binding *in vitro* and *in vivo*. **C. Vinegioni**, R. Weissleder

2:40 MEDI 28. Cryo-EM applications from viruses to nanoparticles. **P.L. Stewart**

3:15 MEDI 29. Discovering drug leads by practical NMR strategies. **S. Laplante**

3:50 MEDI 30. Applications of SPR to drug discovery: Understanding LXRβ agonist binding profile to two key serum proteins. **M.R. Witmer**, K. Behnia, S. Johngahr, Q. Wang, J. Smalley, D. Calambur, P. Marathe, D. Rodrigues, E.K. Kick

4:25 MEDI 31. Not all sites are equal: Using biophysics to probe the biological relevance of fragment binding sites. **S. Saalau**

Glycomimetics as Antibiotic-Sparing Therapeutics for Infectious Disease

Targeting Uropathogenic E. coli Bacterial Adhesins & Other Anti-Virulence Strategies

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What do Synthetic Chemists Want from Their Reaction Systems?

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SUNDAY EVENING

Section A

Walter E. Washington Convention Center Hall E

General Posters

A. W. Stamford, Organizer

7:00 - 9:00

MEDI 32. New selective 5-HT_{2B} receptor antagonists for the treatment of fibrosis. **L. Pettersson**

MEDI 33. Novel piperidone derivatives: Potent antifibrotic agents. **Z. Ma**, C. Yu, Q. Chen, W. Huang, Z. Wang, C. Zhang, Z. Shen

MEDI 34. Discovery of novel benzo[b] thiophene tetrazoles as non-carboxylate GPR40 agonists. **M.R. Player**, H. Huang, M.P. Winters, S.K. Meegalla, S.P. Lee, T. Martin, J. Liu, M. Towers, F. Xu, H. Lim, J. Silva, M. Otieno, E. Arnoult, A. Poca

MEDI 35. GPR40 full agonists for the treatment of type 2 diabetes. **M.R. Player**, S.K. Meegalla, H. Huang, T. Martin, J. Xu, S. Zhao, J. Liu, M. Towers, J. Gunnert, Y. Wang, S.P. Lee, J. Silva, M. Otieno, E. Arnoult, A. Poca

MEDI 36. Discovery of clinical candidate MR1704: A novel isothiazole based GPR40 agonist for diabetes. **M. Okochi**

MEDI 37. Discovery of a novel series of heterocycles as potent EP3 antagonists for the treatment of type 2 diabetes. **X. Zhang**, L. Guo, I. Bakaj, M. Rankin, G. Ho, K. Jack, S.P. Lee, L. Norquay, M.J. Macielag

MEDI 38. Synthesis of 5-(3-(2-[18F] fluoroethoxy)phenyl)-1,3-dihydro-2H-benzofuro[3,2-e][1,4]diazepin-2-one as a new potential PET radioligand for P2X4 receptor. **M. Wang**, M. Gao, J. Meyer, J. Peters, H. Zarrinmayeh, P. Territo, G. Hutchins, Q. Zheng

MEDI 39. Novel and widely-applicable method to uncover pharmacologically active metabolites using metabolic biotransformation, affinity selection-mass spectrometry, and 2D NMR technique. **X. Yang**, P. Dandliker, T. Zhang, E.C. Sherer, R.M. Helmy

MEDI 40. Structural optimization of atropisomeric pyrrolopyrimidine RET kinase inhibitors. **S. Toenjes**

MEDI 41. Molecular docking of potent MmpL3 inhibitors based on the indole-2-carboxamide scaffold. **J. Stec**, O. Onajole, S. Lun, H. Guo, B. Merenbloom, G. Vistoli, W. Bishai, A.P. Kozikowski

MEDI 42. Longitudinal murine biodistribution and MRI study of a gavage-administered gadolinium pegylated metallofullerene nanoparticle. **Y. Kim**, T. Li, D. Smiley, A. Eltahir, D. Karolyi, S. LaConte, H.C. Dorn

MEDI 43. Withdrawn.

MEDI 44. Urea TrkA kinase inhibitors: How the hinge helped open the door to improved potency. **K. Jones**

MEDI 45. Repurposing of a conformationally locked nucleoside scaffold: Enhanced activity at the dopamine and norepinephrine sodium symporters. **D. Tosh**, A. Janowsky, A. Eshleman, E. Warnick, Z. Gao, Z. Chen, E. Gizewski, J. Auchampach, D. Salverini, K.A. Jacobson

MEDI 46. Structure-based fragment growing and serendipity: First discovery of S1 benzylamine-derived potent and selective reversible inhibitors binding to an 'unlocked' conformation of the serine protease Complement Factor D. **T. Yoon**, A. Vulpetti, N. Ostermann, O. Rogel, A. Mac Sweeney, F. Cumin, S. Randl, E. Lorthiois, O. Simic, S. Rüdiger, P. Erbel, **J.K. Maibaum**

MEDI 47. Organizing 3D project data for structure-based drug design. **E. Metwally**

MEDI 48. Targeting specific interactions to improve EGFR-ligand binding. **N. Li**

MEDI 49. MOEsaic: Application of matched molecular pairs to interactive SAR exploration. **A. Ajamian**

MEDI 50. Exploiting solvent effects in drug design and optimization. **C. Williams**

MEDI 51. Design, synthesis, and evaluation of potent and selective inhibitors of mono-(ADP-ribosyl)transferases, PARP1 and PARP14. **J. Holeczek**, R. Lease, A. Thorsell, R. Grant, A. Keen, T. Karlberg, H. Schuler, D. Ferraris

MEDI 52. Development of azole antifungal analogues to treat cancers dependent on Hedgehog signaling. **K.A. Teske**, J.R. Pace, A.M. DeBerardinis, M.K. Hadden

MEDI 53. Development of novel NK3 receptor antagonists with reduced environmental impact. **K. Yamamoto**, H. Ohno, N. Fujii, S. Oishi

MEDI 54. Synthesis of [11C]methyl 3-((2,2-difluoro-5H-[1,3]dioxolo[4',5':4,5]benzo[1,2-d]imidazol-6-yl)carbamoyl)benzoate as a new potential PET agent for imaging of casein kinase 1. **M. Gao**, **M. Wang**, Q. Zheng

MEDI 55. Strategies for improving flash chromatography efficiency. **J.R. Bickler**, E. Denton

MEDI 56. Mass-directed flash purification – a new tool for isolating natural products. **J.R. Bickler**, E. Denton

MEDI 57. Synthesis and Structure–Activity Relationship (SAR) of tetra-substituted cyclohexyl diol inhibitors of pan-PIM kinases. **W. Han**

MEDI 58. Morphing of antimicrobial peptides towards selective antibiotic agents. **A.T. Mueller**, J.A. Hiss, G. Schneider

MEDI 59. Problem-based learning in drug discovery with MOE. **A. Bonin**

MEDI 60. Identification and characterization of small molecule scaffolds as inhibitors of the translesion synthesis pathway. **Z. Ozen**, M.K. Hadden

MEDI 61. Development of affinity probes for identification of the molecular target for a novel series of Rho/MRTF/SRF-mediated gene transcription inhibitors. **D. Kahl**, E. Mathes Lisabeth, S. Haynes, B. Martin, R. Neubig, S.D. Larsen

MEDI 62. Asymmetric synthesis of novel antimalarial agents with fluorene core. **J. Schneider**, A. Dassonville-Klimpt, **J. Becker**, P. Sonnet

- MEDI 63.** Small molecule and peptidic ligands as PCSK9-LDLR inhibitors. **S.K. Bhattacharya**, M. Ammirati, K.A. Borzilleri, O. Cheneval, B. Chrunyk, D. Craik, N. Daly, R. Dullea, M.C. Griffor, A.S. Kamlet, C. Limberakis, P. Sahasrabudhe, S. Liu, P.M. Loria, K.F. McClure, E. Menhaji-Klotz, D. Petersen, D.W. Piotrowski, M. Popovska-Gorevski, D. Price, A. Reyes, R.B. Ruggeri, C. Schroeder, K. Song, J. Swedberg, I.A. Stock, M. Tu, J. Withka
- MEDI 64.** Novel Wnt/ β -catenin inhibitors for the treatment of colorectal cancer. **Y. Ai**, W. Yang, Y. Li, Y. Shu, F. Xue
- MEDI 65.** Selective inhibition of Hedgehog (Hh) signaling by analogues of vitamin D3 and calcitriol. **C. Maschinot**, M.K. Hadden
- MEDI 66.** Studies towards the identification of small molecule regulators of SWI/SNF chromatin remodeling. **A. Zaino**, M.K. Hadden
- MEDI 67.** Imine-based dynamic combinatorial chemistry for discovery of multivalent RNA-binding ligands. **A. Umuhire-Juru**, A. Jan, A.E. Hargrove
- MEDI 68.** Diversification of nitrogen containing fused heterocycles for selective recognition and binding to RNA. **N.N. Patwardhan**, B.S. Morgan, J. Forte, A.E. Hargrove
- MEDI 69.** Targeting the EWS-FLI1 pre-mRNA in Ewing sarcoma through small molecule microarray screening. **R. Boer**, C. Neckles, D. Calabrese, G. Rangel-Rivera, S. Kim, N.J. Caplen, J. Schneekloth
- MEDI 70.** Exploiting amino acid differences: Design, synthesis and biological evaluation of substituted pyrido[3,2-*d*]pyrimidines as potent and selective dihydrofolate reductase inhibitors for pneumocystis pneumonia infection. **A. Gangjee**, K.S. Shah, M.P. Ravindra, D.W. Seybert, M.T. Cushion
- MEDI 71.** Chemistry of Canadian medical cannabis. **M.M. Lewis**, Y. Yang, E. Wasilewski, L.P. Kotra
- MEDI 72.** Identification of a potent *in vivo* candidate inhibiting SHMT, an underexploited antimalarial target. **G. Schwartz**, M. Witschel, M. Rottmann, U. Leartsakulpanich, P. Chitnumsub, K. White, F.N. Diederich
- MEDI 73.** Macrocyclic triazolopyridines as potent inhibitors of myeloperoxidase. **C.H. Hu**, J.M. Smallheer, M.N. Valente, O.S. Halpern, S.J. Jusuf, J. Khan, S.A. Shaw, B.P. Vokits, G.A. Locke, L.M. Abell, F.J. Duclos, R.R. Wexler, E.K. Kick
- MEDI 74.** Design, synthesis, and anti-neoplastic evaluation of dimeric amino-naphthoquinones against acute myeloid leukemia (AML) cells. **F. Truong**, O. Kipe, V. Lam, B.A. Carter-Cooper, S. Dash, R.G. Lapidus, A. Emadi, D. Ferraris
- MEDI 75.** Discovery and characterization of 1*H*-pyrazol-5-yl-2-phenylacetamides as novel, non-urea containing GIRK1/2 potassium channel activators. **S. Sharma**, J.M. Wieting, A.K. Vadukoot, K.K. Abney, T.M. Bridges, B. Vo, A. Anderson, K.D. Wickmane, C. Weaver, C.R. Hopkins
- MEDI 76.** Design and development of new potent and selective inhibitors of NaV1.7. **P. Bergeron**, S. McKerrall, B. Safina, D.P. Sutherland, D.F. Ortwine, T. Nguyen, C.M. Dehnhardt, S. Sun
- MEDI 77.** Novel indole pharmacophore series of irreversible MPO inhibitors. **A. Patnaik**, L. Axford, N. Dales, L.G. Hamann, J. Marcinkiewicz, M. Marro, A.W. Patterson
- MEDI 78.** Novel inhibitors of the NLRP3 inflammasome. **J. Fulp**, L. He, Y. Jiang, S. Zhang
- MEDI 79.** Synthesis of novel tanshinones for probing the inflammatory response in zebrafish. **M.J. Foulkes**, S. Jones, S.A. Renshaw
- MEDI 80.** Small molecule activators of the leukotriene A4 hydrolase enzyme for pulmonary inflammation. **K. Lee**, G. Petrunco, M. Burdick, S.M. Noble, Y.M. Shim, M. Paige
- MEDI 81.** Synthesis, docking and biological evaluation of certain class of nonsteroidal anti-inflammatory drugs as fatty acid amide hydrolase inhibitors. **I.S. Saad**, F.A. Alasmay, M.E. EL-Araby
- MEDI 82.** Anti-proliferative and anti-inflammatory estrogen receptor modulators. **K. Cagasova**, S. Rajalekshmi Devi, A. Arneson, N. Fox, S. Srinivasan, K. Carlson, T. Martin, J.A. Katzenellenbogen, K. Nettles, J.S. Josan
- MEDI 83.** Synthesis of natural $1\alpha,20S$ -dihydroxyvitamin D3 as a potent vitamin D receptor agonist and anti-inflammatory agent. **Z. Lin**, H. Chen, A. Belorousova, J. Bolinger, E. Tang, Z. Janjetovic, T. Kim, J. Wu, D.D. Miller, A. Slominski, A. Postlethwaite, R. Tuckey, N. Rochel, W. Li
- MEDI 84.** Phospholipase A2: A pharmaceutical target to diminish inflammation. **V.D. Mouchlis**, J. McCammon, E.A. Dennis
- MEDI 85.** Design and synthesis of curcumin conjugates as potential anti-inflammatory agents. **S.S. Panda**, A.S. Girgis, S.J. Thomas
- MEDI 86.** Selective JAK1 inhibitors for treatment of inflammatory diseases: Design and synthesis. **M.D. Parikh**, R.P. Robinson
- MEDI 87.** Design and synthesis of *N*-alkylated tubulysin analogs and their folate conjugates. **I.R. Vlahov**, F. You, K.Y. Wang, H.K. Santhapuram, H.F. Klein, M. Vetzal, J. Reddy, C.P. Leamon
- MEDI 88.** Pro-Pyrrolbenzodiazepine (pro-PBD) bioconjugates, part 1: Design and synthesis of pro-PBD conjugates and synthesis of a cleavable disulfide linker. **I.R. Vlahov**, L. Qi, P.J. Kleindl, S.J. Hahn, K.Y. Wang, J.F. Vaughn, H.K. Santhapuram, M. Vetzal, M. Nelson, J. Reddy, C.P. Leamon
- MEDI 89.** Targeted folate-aminopterin anti-inflammatory conjugates: Synthesis and activity of an enzymatically labile lysine-linked conjugate and its pegylated analogs. **P.J. Kleindl**, F. You, H.K. Santhapuram, H.F. Klein, S.J. Hahn, J. Lu, S. Rao, M. Pugh, V. Cross, C.P. Leamon, I.R. Vlahov
- MEDI 90.** Targeted folate-aminopterin anti-inflammatory conjugates: Optimization of a reductively/enzymatically labile cysteine-derived linker system. **P.J. Kleindl**, F. You, H.K. Santhapuram, J.F. Vaughn, H.F. Klein, J. Lu, S. Rao, M. Pugh, V. Cross, C.P. Leamon, I.R. Vlahov
- MEDI 91.** Pro-Pyrrolbenzodiazepine (pro-PBD) bioconjugates, part 2: Design and synthesis of pro-PBD conjugates containing an enzyme-responsive linker. **I.R. Vlahov**, N. Zou, A. Felten, K.Y. Wang, S.J. Hahn, C.P. Leamon
- MEDI 92.** Withdrawn.
- MEDI 93.** Discovery of potent antialloodynic agents for neuropathic pain targeting P2X3 receptors. **Y. Jung**, Y. Kim, H. Lin, J. Cho, J. Park, S. Lee, J. Bae, K. Kang, Y. Kim, A. Pae, H. Ko, C. Park, M. Yoon, Y. Kim
- MEDI 94.** Pyrrolo-triazine derivatives as atypical antipsychotics for the treatment of schizophrenia. **M. Rasheed**, A.K. Shinde, M. Dasoju, S. Gagginapally, V. Middekadi, R. Subramanian, G. Bhyrapuneni, P. Jayarajan, V. Nirogi
- MEDI 95.** Preclinical characterization of indole carboxamide derivatives: Novel, potent and selective muscarinic M1 positive allosteric modulators. **A.K. Shinde**, M. Rasheed, R.K. Badange, V. Reballi, K. Bojja, S. Kommineni, S. Manchineela, V. Goyal, S. Pandey, V. Benade, P. Jayarajan, V. Nirogi
- MEDI 96.** Towards the development of a peptide-PROTAC conjugate targeting a viral protein: Rational design and optimization of a stapled alpha-helical peptide that binds HPV16 E2 protein. **S.L. Richardson**, M.C. Hartman
- MEDI 97.** Synthesis and biological evaluation of phosphoantigens for gamma-delta T cell stimulation. **M.M. Poe**, C. Hsiao, A.J. Wiemer
- MEDI 98.** Synthesis and evaluation of vitamin D3-based probes for cellular target(s) verification. **J. Wen**, M.K. Hadden
- MEDI 99.** Design and synthesis of siderophore-antibiotic conjugates. **J. Jourdan**, A. Dassonville-Klimpt, C. Mullié, J. Becker, P. Sonnet
- MEDI 100.** Design and validation of a peptidomimetic ligand as a translesion synthesis inhibitor. **R. Dash**, M.K. Hadden
- MEDI 101.** Strategies for the modulation of protease-activated receptors (PARs). **D. Gandhi**, M. Majeswski, R. Rosas, T.J. Foster, K. Kentala, A. Stephans, K. Kurtenbach, R. Engel, K. Lucknow, C. Dockendorff
- MEDI 102.** Withdrawn.
- MEDI 103.** Discovery of novel class of alpha selective PI3K inhibitors. **K. Garland**, E.J. Hanan, S.T. Staben, M. Braun, K. Edgar, N. Endrey, L. Friedman, A. Nguyen, J. Pang, H.E. Purkey, L. Salphati, S. Schmidt, K. Song, M. Utsch, A. Joachico, C. Chan, C. Eigenbrot, C. MacLeod, P. Jackson, R. Narukulla, J. Knight, K. Yeap, K. Messick, N. Valle, R. Heald, M. Nannini, P. Hamilton, S. Clausen, A. Young, D. Sampath, R. Hong, M. Lee, T. Blech, R. Elliott, A. Lu, X. Gu, J. Xin
- MEDI 104.** Discovery of pan-active and isoform selective inhibitors of class I phosphoinositide-3-kinases (PI3Ks) utilizing a DNA-encoded discovery platform. **C.D. Hupp**, D.I. Resnicow, D. Gikunju, M.A. Clark, Y. Zhang, A.D. Keefe, J.W. Cuzzo, E.A. Sigel, P.A. Centrella, M.A. Guie, S. Habeshian, K.M. Kennedy
- MEDI 105.** Potent and selective PI3K δ inhibitors: Structure-activity relationships of 8-alkoxy-2-(benzimidazol-1-yl)-6-morpholinopyrimines. **J. Li**, B. Safina, Z.K. Sweeney, D.P. Sutherland
- MEDI 106.** Discovery of naldemedine (S-297995): A potent and orally available opioid receptor antagonist for treatment of opioid-induced adverse effects. **M. Inagaki**, M. Kume, Y. Tamura, S. Hara, Y. Goto, T. Hasegawa, N. Haga, K. Koike, H. Chiba, M. Imai, T. Nakamura, S. Mihara, S. Ohnishi, Y. Ishihara, T. Kanemasa, H. Kai
- MEDI 107.** Synthesis and biological evaluation of matrix metalloproteinase 9 inhibitors for cancer therapeutics. **X. Ren**, V. Alford, Q. Gan, M. Awwa, I. Ojima
- MEDI 108.** Addressing a large active site: Inhibition of trypanothione reductase with cyclohexylpyrrolidine-based ligands. **R.E. De Gasparo**, E. Persch, S. Bryson, M. Kaiser, E.F. Pai, R. Krauth-Siegel, F.N. Diederich
- MEDI 109.** Stereoselective synthesis of rhodotorulic acid analogues with potential siderophore properties. **T. Garnerin**, A. Dassonville-Klimpt, J. Becker, P. Sonnet
- MEDI 110.** Structure-based drug design of novel ASK1 inhibitors using an integrated lead optimization strategy. **T.S. Gibson**, B. Johnson, A. Fanjul, P. Halkowycz, D.R. Dougan, D.C. Cole, S. Swann
- MEDI 111.** Lead identification of activators of the Nr2f2 pathway via targeting repression of Bach1. **H. Nie**, A. Davis, J.F. Callahan, R. Carr, J.K. Kerns, A. Lakdawala-Shah, T. Li, B. McClelland, J. Kou, R. Osborn, W. Rumsey, Y. Sanchez, T. Sweitzer, L. Wolfe, J. Yonchuk, H. Yan
- MEDI 112.** Novel thiophene analogs as potential MEK5/ERK5 inhibitor. **M. Gupta**, P.T. Flaherty, A. Bhatt, T. Wright, J. Cavanaugh
- MEDI 113.** Design and synthesis of phenylthiourea emetine analogs for studies in prostate cancer. **N. Idris**, E.S. Akinboye, O. Bakare
- MEDI 114.** Improving solubility, permeability and bioavailability of imatinib using crystal engineering approach with nicotinamide and glutamic acid. **M. Kumar Gautam**, M. Besan, R. Chadha
- MEDI 115.** Identification of novel 5,6-dimethoxy indan-1-one derivative as potent antiviral agent. **S.A. Patil**, V. Patil, R. Patil, K. Beaman, S. Patil
- MEDI 116.** Phosphatase-stable peptidomimetic ligands of the polo-like kinase 1 polo-box domain. **X. Hymel**, T.R. Burke
- MEDI 117.** Exploration of intramolecular protein-protein interaction inhibitors of polo-like kinase 1. **K. Tsuji**, D. Hymel, T.R. Burke
- MEDI 118.** Application of oxime-diversification to optimize ligand interactions within a cryptic pocket of the polo-like kinase 1 polo-box domain. **X. Zhao**, D. Hymel, T.R. Burke
- MEDI 119.** Novel 5-substituted pyrrolo[2,3-*d*]pyrimidines with pyridine glutamate side chain as selective folate receptors and proton-coupled folate transporter substrates: Potential targeted chemotherapeutic agents. **A. Gangjee**, A.B. Doshi, L.H. Matherly, Z. Hou, A. Dekhne, C. O'Connor, A. Wallace-Povirk
- MEDI 120.** Design of alkyarylsubstituted targeted thieno[2,3-*d*]pyrimidines as cancer chemotherapeutic agents with fluorine insertion on aryl the side chain. **N. Tong**, A. Gangjee, L.H. Matherly, Z. Hou, C.E. O'Connor, A.W. Povirk, A.S. Dekhne

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- MEDI 121.** Optimizing the cystargolide scaffold for the selective treatment of cancer by proteasome inhibition. **L. Hallada**, D. Niroula, S. Ganegamage, M. Groll, C. Le Chapelain, S. Rogelji, R. Tello-Aburto
- MEDI 122.** Coupled enzyme assay for screening of effector molecules of nicotinamide mononucleotide adenylyltransferase (NMNAT). **B.A. Haubrich**, C. Ramesha, D.C. Swinney
- MEDI 123.** Identification and characterization of a new series of calcium/calmodulin-dependent protein kinase kinase-2 (CAMKK2) inhibitors. **Y. Liang**, R. Counago, M. Stashko, T. Willson, C. Zhang, W.J. Zuercher, D. Drewry
- MEDI 124.** Palladacycle-facilitated ligand-free Suzuki coupling of hindered aryl bromides yields potent and selective COX-2 inhibitors. **M.S. Elsayed**, S. Chang, M. Cushman
- MEDI 125.** Design, synthesis and evaluation of 8-(methylamino)-2-oxo-1,2-dihydroquinoline derivatives as novel DNA gyrase and topoisomerase IV inhibitors. **F. Ushiyama**, H. Amada, T. Yoshizumi, Y. Mihara, J. Yamagishi, A. Masuko, K. Fujita, M. Mima, H. Okumura, H. Sugiyama, N. Ohtake
- MEDI 126.** Evaluation of a FLT3 inhibitor as an anti-leukemic agent for acute myeloid leukemia. **P. Jeong**, J. Lee, H. Lee, J. Baek, J. Choi, Y. Chin, Y. Choi, Y. Kim, S. Han
- MEDI 127.** Incorporation of a biguanide scaffold enhances uptake by organic cation transporters (OCT) 1 and 2. **A. Coutinho**, O.N. Obianom, W. Yang, H. Yang, F. Xue, Y. Shu
- MEDI 128.** P38 MAPK kinase inhibitor for steroid insensitive asthma. **L. Wu**, L. Zhang, L. Zhao, J. Sun, D. Yu, J. Wang, X. Li, S. Han, J. Li, S. Chen
- MEDI 129.** Design, synthesis and biological evaluation of heteroaryl amine derivatives as potential anticancer agents. **M. Besan**, S. Shrivastava, R. Srivastava
- MEDI 130.** Method for the analysis and quantification of 3-methylene furanone: A biomarker of oxidative damage to DNA. **H.T. Chienga**, M. Bedi, A.C. Bryant-Friedrich
- MEDI 131.** Discovery of (3S,4R)-1-(1-(2-chloro-6-cyclopropylbenzoyl)-4-fluoro-1H-indazol-3-yl)-3-hydroxypiperidine-4-carboxylic acid as potent and selective allosteric inhibitors of ROR γ t for the treatment of autoimmune diseases. **H. Zhang**, K.J. Barr, N.J. Anthony, C. Correll, H. Ferguson, G. Parthasarathy, J. Maclean, M. Richard, B. Trotter
- MEDI 132.** Design, synthesis, and biological evaluation of flexible acyclic nucleoside analogues against human coronaviruses and filoviruses. **M. Yates**, A. Falat, K.L. Seley-Radtke
- MEDI 133.** Identification of novel inhibitors of glucose transporter 3 (GLUT3) through structure-based virtual screening. **S. Zhang**, C. Libby, C.E. Augelli-Szafran, A.B. Hjelmeland, W. Zhang
- MEDI 134.** Withdrawn.
- MEDI 135.** Glutathione as an herbal molecule with potential for zinc chelation therapy. **M. Russo**, A. Mousavi
- MEDI 136.** Non-psychoactive cannabinoid CBD modulates the orphan receptor GPR3. **P. Morales Lázaro**, A. Laun, D. Hurst, Z. Song, P. Reggio
- MEDI 137.** Reduced synthesis time of an acidic α -dimine ligand using flow chemistry. **J.E. Silver**, C. Reber, R. Sörgo, E. Bltz, R. Ivy, R. Lewis
- MEDI 138.** Panamanian cyanobacterial metabolite with antitrypanosomal activity. **K. Ahmed**, C. Spadafora, K.J. Tidgewell
- MEDI 139.** Investigating the impact of pore size and chain length when purifying peptides. **J.E. Silver**, C. Reber, R. Sörgo, E. Bltz, R. Ivy, R. Lewis
- MEDI 140.** Optimal light conditions and nitrogen treatments for growth and for accumulation of phytochemical groups in *Calendula officinalis*. **P. Tuladhar**
- MEDI 141.** Identification and optimization of 4-anilinoquinolines as selective inhibitors of cyclin G associated kinase. **C.R. Asquith**, T. Laitinen, J.M. Bennett, P.H. Godoi, G.J. Tizzard, J.M. Elkins, T. Willson, W.J. Zuercher
- MEDI 142.** Targeted antitumor agents for the inhibition of one-carbon metabolism associated with purine biosynthesis: Altering sterics, electronics and conformation for tumor selectivity and potency. **A. Gangjee**, **M.P. Ravindra**, A. Wallace-Povirk, C. O'Connor, A. Dekhne, Z. Hou, L.H. Matherly
- MEDI 143.** Discovery of N-substituted 2-phenylcyclopropylmethylamines as functionally selective serotonin 2C (5-HT $_2$ C) receptor agonists for potential use as antipsychotic medications. **G. Zhang**, J. Cheng, J.D. McCorvy, P.J. Lorello, B.J. Caldarone, B.L. Roth, A.P. Kozikowski
- MEDI 144.** Design and synthesis of 1,4-benzodioxane-6-carboxylic acid derivatives for studies in prostate cancer drug development. **N. Idris**, O. Bakare
- MEDI 145.** Development of thiol specific fluorogenic agents for cell surface thiol imaging in live cells. **Y. Alqahtani**, S. Wang, X. Guan
- MEDI 146.** Efforts towards the development of new ERR γ modulators via structure-based drug design. **C.S. Hampton**, K.M. Haynes, S. Banerjee, S. Sitaula, C. Billon, K. Griffith, J.C. Chirvia, T.P. Burris, J.K. Walker
- MEDI 147.** Targeting inhibitor of apoptosis proteins: Identification of potent dimeric antagonists of IAPs. **H.L. Perez**, K.S. Kim, E.M. Stang, D.D. Wei, L. Zhang, G. Vite, J.T. Hunt, R.L. Talbott, J. Gan, R.M. Borzilleri
- MEDI 148.** Optimization of quinazolinone derivatives as selective MEK5 inhibitors. **S.B. Patel**, A.J. Motta, P.T. Flaherty, A. Bhatt, T. Wright, J. Cavanaugh
- MEDI 149.** Potent and selective inhibitors of receptor-interacting protein kinase 1 that lack an aromatic back pocket group. **G. Hamilton**
- MEDI 150.** Novel 6-substituted pyrrolo[2,3-d]pyrimidines with substituted nitrogen bridges and fluorinated benzoyl regioisomers as selective folate receptor substrates and antitumor agents. **A. Gangjee**, **X. Li**, A. Wallace-Povirk, C. O'Connor, A. Dekhne, Z. Hou, L.H. Matherly
- MEDI 151.** Design, synthesis and *in combo* antidiabetic bioevaluation of multitarget phenylpropionic acids. **G. Navarrete Vazquez**, B. Colin-Lozano, S. Estrada-Soto, J. Almanza-Pérez, X. Xie, U. Mura
- MEDI 152.** Phytochemical approach for therapeutic efficacy enhancement of FeNP: As biomedicine. **A. Mubayi**, G. Watal
- MEDI 153.** PTX-NPs encapsulated by metal-polyphenol: Synthesis and cytotoxicity. **M. Hung**, P. Li, W. Liu, Y. Yang
- MEDI 154.** Synthesis of α,β -unsaturated phosphonate esters as DXR inhibitors. **K. Heidel**, R.C. Brothers, R. Edwards, A. Haymond, H.I. Boshoff, M.J. Meyers, S. Arnett, A. Rodriguez, A.R. Odom, C.S. Dowd
- MEDI 155.** Synthesis of enantiopure 10-nornaltrexone as potential TLR-4 antagonist and opioid receptor ligand. **C.A. Herdman**, A.E. Jacobson, K.C. Rice
- MEDI 156.** Targeted BET protein degradation for the treatment of acute myeloid leukemia (AML) and acute lymphoma leukemia (ALL). **J. Hu**, F. Xu, E. Fernandez-Salas, D. McEachern, S. Przybranowski, B. Wen, D. Sun, S. Wang
- MEDI 157.** Design, synthesis and evaluation of potent DNA-alkylating agents for use in antibody-drug conjugates (ADCs). **E.E. Reid**, K.E. Archer, C. Bai, N.C. Yoder, D. Vitharana, L. Lanieri, M. Bogalhas, R. Wu, Q. Ou, E.K. Maloney, O. Ab, J.F. Ponte, R.V. Chari, **M.L. Miller**
- MEDI 158.** Towards a structure-based pharmacophore for the transient potential melastatin 8 (TRPM8) ion channel: Ligand recognition at the menthol receptor. **V.B. Journigan**, C.E. Heffner
- MEDI 159.** Development of bis(*N,N'*-rhodamine-7,7'-aminosulfonyl(benzoxycyl)[1,2,5]oxadiazol-4-yl)sulfane (BIROS) as a thiol specific fluorogenic agent for mitochondrial thiol imaging in live cells. **S. Wang**, H. Yin, Y. Li, X. Guan
- MEDI 160.** Design, synthesis, and evaluation of glutathione-cholesterol sulfide and its derivatives as brain-targeting agents. **Y. Huang**, S. Wang, A. Najimi, X. Guan
- MEDI 161.** Defining the pharmacokinetic and pharmacodynamic parameters of potent and selective heteroaryl sulfonamide NaV1.7 inhibitors with robust *in vivo* analgesic activity. **B. Milgram**
- MEDI 162.** Novel isoprenoid triazole bisphosphonates as potential GGDPS inhibitors. **R.A. Mattheissen**, M.L. Varney, S.A. Holstein, D.F. Wiemer
- MEDI 163.** Withdrawn.
- MEDI 164.** Design and synthesis of bicyclic piperazine sulfonamides leading to highly potent HIV protease inhibitors. **C.J. Bungard**
- MEDI 165.** Identification of potent 17 β -hydroxysteroid dehydrogenase type 3 (17 β -HSD3) inhibitors by systematic structural modifications of the lead compound RM-532-105. **F. Cortés-Benitez**, J. Roy, M. Perrault, R. Maltais, D. Poirier
- MEDI 166.** Targeting cancer cell metabolism using sugar-based small molecules. **F. Ndombera**
- MEDI 167.** Smart and targeted delivery of an anticancer active copper complex: *In vitro* and *in vivo* studies. **A. Pramanik**, K. Somasundaram, **A.G. Samuelson**
- MEDI 168.** Ferrocene based Fe-Sn heterobimetallics: Synthesis and DNA binding potentials. **A. Altaf**, N. Khan, A. Badshah, B. Lal
- MEDI 169.** Design and synthesis of novel pH-responsive multifunctional lipid-like carriers for siRNA delivery. **Z. Sun**, H. Jiang, J. Qin, D. Sun, Z. Lu
- MEDI 170.** 3D imaging detection method of HER2: Application of conjugated affinity-quantum dots probes and ratiometric analysis. **P.I. Pérez Treviño**, H. Hernández de la Cerdá, N. García, J. Altamirano
- MEDI 171.** Improving solubility of thieno[2,3-d]pyrimidine based FLT3 inhibitor via structural modifications at the C $_2$ and C $_6$ position. **C. Oh**, H. Kim, G. Han
- MEDI 172.** Dendrimer-based multifunctional conjugates of new-generation taxoids for tumor-targeted drug delivery. **Y. Sun**, L. Wei, I. Ojima
- MEDI 173.** Synthesis of flexible, purine analogue inhibitors of NCP7. **T. Ku**, K.L. Seley-Radtke, Y. Arefeayne
- MEDI 174.** Discovery of novel series of LasR quorum sensing inhibitors in *Pseudomonas aeruginosa*. **P. Suman**, L.J. Perez, **S.C. Jonnalagadda**
- MEDI 175.** Cefiderocol (S-649266): A new siderophore cephalosporin exhibiting potent activities against *Pseudomonas aeruginosa* and other gram negative-pathogens including multi-drug resistant bacteria: Structure activity relationship. **T. Aoki**, H. Yoshizawa, K. Yamawaki, K. Yokoo, J. Sato, S. Hisakawa, Y. Hasegawa, H. Kusano, M. Sano, H. Sugimoto, Y. Nishitani, Y. Yamano, T. Sato, M. Tsuji, R. Nakamura, T. Nishikawa
- MEDI 176.** Inhibiting effect of essential oils and methylglyoxal with carrier oils on the growth of *Pseudomonas aeruginosa*. **A. Patel**, J.P. Mack, A. Rojman
- MEDI 177.** Inhibition of the *Pseudomonas aeruginosa* heme oxygenase. **E. Robinson**, D. Liang, K. Hom, A. Wilks, F. Xue
- MEDI 178.** Discovery of 1H-benzo[d]imidazol-2-yl-methyl-spiro[cyclopropane-1,3'-indolin]-2'-one derivatives as fusion inhibitors for treatment of respiratory syncytial virus infection. **H. He**
- MEDI 179.** Molecular-based design, synthesis and docking studies of new benzimidazole derivatives as potential bacterial peptide deformylase inhibitors. **S.E. Kassab**
- MEDI 180.** Discovery of small molecules that inhibit the LRS-RagD interaction and their potential use as anti-cancer drugs. **K. Jung**, C. Lee, G. Han
- MEDI 181.** First insight into structure-activity relationships of selective Meprin B inhibitors. **D. Ramsbeck**, A. Hamann, D. Schlenzig, S. Schilling, M. Buchholz, H.U. Demuth
- MEDI 182.** Evaluating p97 inhibitor analogues for potency against different p97-p97 cofactor complexes. **T. Chou**
- MEDI 183.** Examining the activity of HIV protease inhibitors against human endogenous retrovirus-K: A potential treatment for amyotrophic lateral sclerosis. **R. Abrams**, R. Tyagi, W. Li, M. Bianchet, A. Nath

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MEDI 184. Evaluating fosmidomycin analogs as antimicrobial agents through 1-Deoxy-D-xylulose-5-phosphate reductoisomerase (Dxr) inhibition. **X. Wang, R. Edwards, A. Haymond, R.C. Brothers, H.I. Boshoff, R.D. Couch, A.R. Odom, C.S. Dowd**

MEDI 185. Withdrawn.

MEDI 186. N6-benzyladenosine derivatives inhibit replication of RNA viruses from *Flavivirus* and enterovirus geni. **A. Orlov, M.S. Drenichev, V.E. Oslovsky, L.I. Kozlovskaya, G.G. Karganova, V.A. Palyulin, S.N. Mikhailov, D.I. Osolodkin**

MEDI 187. Pharmacological protection of mitochondrial function mitigates acute limb ischemia/reperfusion injury. **X. Yan, S. Hou, L. Bi**

MEDI 188. Catch and release strategy to treat bacterial infections. **M. Royzen, J.M. Mejia Oneto**

MEDI 189. Multi-target molecular profiling using MOE: A CYP450 isoform selectivity case study. **M.R. Goldsmith, C. Williams, A. Ajamian, P. Labute**

MEDI 190. Phytoestrogens: New ligands targeting the estrogen receptor domains. **V. Thakor, A. Shaikh, M. Noolvi**

MEDI 191. Structure-based drug design of new indole and benzopyrazole analogs with expected activity. **A. Shaikh, V. Thakor**

MEDI 192. Rapid identification and optimization of a novel CGRP receptor antagonist chemotype. **B.M. Crowley, C.M. Potteiger, D.N. Nguyen, J. Lim, C. Wang, H. Mitchell, K. Schirripa, M. McWherter, R. Gilfillan, M. Patel, K.L. Arrington, E.L. Moore, J.G. Bruno, A. Kemmerer, A. Soni, R.B. White, D. Cui, A. Danziger, S.T. Harrison, J.C. Culbertson, H. Su, G. Parthasarathy, I.M. Bell, M.E. Fraley, S.D. Mosser, C. Fandozzi, C.A. Salvatore, C.S. Burgoy**

MEDI 193. Discovery of (*E*)-4-(3-methylbut-2-en-1-yl)-3-(3-phenylpropanamido) cinnamic acid as highly potent and selective inhibitor of AKR1C3 for the treatment of castration-resistant prostate cancer (CRPC) and acute myeloid leukemia (AML). **K. Verma, T. Zang, T.M. Penning, P.C. Trippier**

MEDI 194. Synthesis of β -monoadducts using oligonucleotides. **W.G. Aguilar, E. Champell**

MEDI 195. Profiling CD8 T cells in tumor microenvironment using PEGylated single domain antibodies and immunoPET. **M. Rashidian, M. Dougan, J. Ingram, A. Dongre, K. Whang, H. Ploegh**

MEDI 196. Synthesis of ^{13}C labeled RXR partial agonist CBT-PMN by [^{13}C] carbon dioxide fixation via organolithiation of trialkyltin precursor and PET imaging thereof. **O. Shibahara, M. Watanabe, M. Akehi, T. Sasaki, T. Hanada, A. Akahoshi, H. Hirano, H. Kakuta**

MEDI 197. Predicting ADME and PK properties of antivirals for Ebola. **M.A. Lingerfelt, K. Zorn, J.S. Freundlich, M. Anantpadma, G. Rao, R. Davey, P. Madrid, S. Ekins**

MEDI 198. Interdiction at a protein-protein interface: Structure-based design and optimization of spirocyclic Mcl-1 inhibitors. **K. Li, S.P. Brown**

MEDI 199. Indole-TEMPO conjugates alleviate ischemia-reperfusion injury via attenuation of oxidative stress and preservation of mitochondrial function. **S. Hou, X. Yan, L. Bi**

MEDI 200. Development of prolinol based derivatives targeting sphingosine kinase-1. **H. Li, Y. Kharel, K. Lynch, W.L. Santos**

MEDI 201. Aryl ring modifications of sphingosine kinase 2 selective inhibitors. **C. Sibley, Y. Kharel, K.R. Lynch, W. Santos**

MEDI 202. Investigation of the oprin protein from North American opossum (*Didelphis virginiana*) as a potential inhibitor of Western diamond-back rattlesnake (*C. atrox*) venom metalloproteinases. **R.M. Werner**

MEDI 203. Synthesis and cytotoxicity of Baylis-Hillman reaction derived betulinic acid analogs. **P. Suman, A. Patel, L. Solano, A. Indukuri, S.K. Kommineni, R.M. Rutkoski, M. Collins, S.C. Jonnalagadda**

MEDI 204. Design of α -(benzoboroxolyl) and α -(benzoboroxolymethyl) acrylamides as potential anti-cancer agents. **P. Suman, M. Ur Rahman, M. Islam, P.M. Mastoridis, R. D'Souza, S.C. Jonnalagadda**

MONDAY MORNING

Section A

Walter E. Washington Convention Center Room 146B

Insights on Medicinal Chemistry from Hardcore Practitioners

J. Barrow, *Organizer, Presiding*

8:30 MEDI 205. Roles of chemists and chemical technology in a changing drug discovery environment. **P.R. Bernstein**

9:05 MEDI 206. Adventures in the discovery of excitatory amino acid antagonist therapeutics: The value of perseverance. **P.L. Ornstein**

9:40 MEDI 207. Role of tacit knowledge in medicinal chemistry. **R.L. Dow**

10:15 MEDI 208. Find out what you don't know: A recurring lesson from years of lead generation research. **M.R. Wiley**

10:50 MEDI 209. Tales from the hood: Three vignettes focused on optimization of human dose. **H.B. Wood**

Section B

Walter E. Washington Convention Center Room 146A

Addiction: The Unmet Medical Need of the 21st Century

J. V. Aldrich, *Organizer*

M. J. Blanco, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 MEDI 210. Addictive diseases: Molecular neurobiology, behavior, human genetics, and treatments. **M. Kreek**

9:15 MEDI 211. Discovery of selective orexin-1 receptor antagonists. **B.T. Shireman, C. Preville, J.M. Ziff, C.A. Dvorak, H. Coate, C. Gelin, T. Lebold, P. Bonaventure, C. Dugovic, T. Koudriakova, B. Lord, D. Nepomuceno, J. Shelton, T. Lovenberg, N.I. Carruthers**

9:50 Intermission.

10:05 MEDI 212. Targeting the dopamine D3 receptor for treatment of opioid and cannabis use disorders. **A.H. Newman**

10:40 MEDI 213. Substance use disorders: Vaccination as a therapeutic strategy. **K.D. Janda**

11:15 MEDI 214. Development of M5 muscarinic acetylcholine receptor negative allosteric modulators for the treatment of opioid use disorder. **C.K. Jones**

11:50 Concluding Remarks.

Modeling & Measuring Protein-Ligand Kinetics & Residence Times

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MONDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 146B

Encoded Technologies for Lead Generation, Successes & Challenges

H. Deng, K. Leftheris, N. V. Prabhu, *Organizers*

J. Messer, *Organizer, Presiding*

K. Leftheris, *Presiding*

1:30 Introductory Remarks.

1:40 MEDI 215. ALIS affinity selection in pharmaceutical discovery. **P. Dandliker**

2:10 MEDI 216. Synthesis strategies to DNA-encoded small molecule libraries – of a chemoresistant sequence, and micellar nanoreactors. **A. Brunschweiler, M. Klika Skopic, H. Salamon**

2:40 MEDI 217. DNA-encoded library technology (ELT): Challenges and advances in chemistry and library development. **Y. Ding**

3:10 Intermission.

3:25 MEDI 218. *In vitro* selection assays: New approaches and applications. **C.J. Krusemark, K.E. Denton, D. Kim, R. Jetson**

3:55 MEDI 219. Revolution will be compartmentalized: Technology for next-generation small molecule discovery. **B. Paegel**

4:25 MEDI 220. Application of DNA-encoded technology to lead generation of challenging targets. **Y. Zhang**

Section B

Walter E. Washington Convention Center Room 146A

Off Targets No More: CYP450 Enzymes as Drug Discovery Targets

S. B. Hoyt, *Organizer*

S. Hoyt, *Presiding*

1:30 MEDI 221. Steroidogenic cytochrome P450 enzymes as drug targets. **R.W. Hartmann, J. Emmerich, L. Yin, A. Ali, S. Hoyt, Q. Hu, C. van Koppen**

2:20 MEDI 222. LFF269: A cortisol-sparing CYP11B2 inhibitor that lowers aldosterone in human subjects. **J.P. Papillon**

3:00 MEDI 223. Using fragment-based approaches to probe the Mycobacterium tuberculosis CYPome. **C. Abell**

3:40 MEDI 224. CYP51 inhibitors for Chagas disease. **G. Lepesheva**

4:20 MEDI 225. Discovery of selective CYP11B2 inhibitors as potential treatments for resistant hypertension. **S.B. Hoyt, W. Petrilli, M.K. Park, J.A. Taylor, C. London, A. Cooke, J. Cai, E. Carswell, J. Robinson, J. Maclean, L. Brown, S. Belshaw, T. Clarkson, D.J. Bennett, K. Liu, G. Liang, F. Ujjainwalla, J. Tata, Q. Hu, L. Yin, C. van Koppen, R.W. Hartmann, B. Kulkarni, S.K. Samanta, R. Saxena, M. Struthers, D. Cully, T. Wisniewski, N. Ren, C. Bopp, A. Sok, T. Cai, S. Stribling, L. Pai, X. Ma, J. Metzger, A. Verras, D. McMasters, Q. Chen, E. Tung, W. Tang, G. Salturo, N. Buist, J. Clemas, G. Zhou, M. Rosenbach, Y. Xiong, A. Ali**

Modeling & Measuring Protein-Ligand Kinetics & Residence Times

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Undergraduate Research Posters

Medicinal Chemistry

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MONDAY EVENING

Section A

Walter E. Washington Convention Center Halls D/E

Sci-Mix

A. W. Stamford, *Organizer*

8:00 - 10:00

51, 56, 61, 66, 70, 74-75, 78-79, 97, 101, 112, 119-120, 122-123, 130, 142-143, 146, 177-178.
See previous listings.

286, 303, 305, 318-320, 321, 323-324, 328, 331, 338, 343, 353, 364.
See subsequent listings.

TUESDAY MORNING

Section A

Walter E. Washington Convention Center Room 146B

Award Symposium

A. W. Stamford, *Organizer*

W. B. Young, *Presiding*

8:30 MEDI 226. Synthesis and evaluation of itraconazole analogues for the treatment of medulloblastoma. **J.R. Pace, M.K. Hadden**

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8:55 MEDI 227. Discovery of new quinazolinone antibiotics for the treatment of methicillin-resistant *Staphylococcus aureus*. **R. Bouley**, M. Suckow, J. Hermoso, M.F. Chang, S. Mobashery

9:20 MEDI 228. Harnessing a catalytic lysine residue for the rapid, one-step preparation of homogeneous antibody-drug conjugates. **A.R. Nanna**, X. Li, E. Walseng, L. Pedzisa, R.S. Goydel, D. Hymel, T.R. Burke, W.R. Roush, C. Rader

9:45 MEDI 229. Dual inhibition of the oncoproteins MCL-1 and BCL-2 by rationally designed polypharmacology. **B. Drennen**, S.J. Hughes, S. Fletcher

10:10 MEDI 230. Novel HIV-1 protease inhibitors: Design, synthesis, and biological evaluation. **H.L. Osswald**

10:35 MEDI 231. From endocrine regulation to bacterial quorum sensing (QS): Design and optimization of compounds for the treatment of endocrine disorders and infectious diseases. **R.W. Hartmann**, Q. Hu, C. van Koppen, S. Marchais-Oberwinkler, C. Maurer, M. Empting

11:20 MEDI 232. Activity-based proteomics: Protein and ligand discovery on a global scale. **B.F. Cravatt**

Section B

Walter E. Washington Convention Center Room 146A

Recent Advances in the Treatment of HIV-1 Infection & Approaches to a Cure

N. A. Meanwell, B. N. Naidu, S. Runyon, *Organizers, Presiding*
E. Velthuisen, *Presiding*

8:30 Introductory Remarks.

8:35 MEDI 233. Curing HIV infection: Going beyond N = 1. **R.F. Siliciano**

9:10 MEDI 234. Exploring epigenetic regulatory proteins and their inhibition for HIV latency disruption. **L.I. James**

9:45 MEDI 235. Long acting HIV antiretroviral agents: Moving beyond one pill once a day. **B.A. Johns**, E. Velthuisen

10:20 MEDI 236. Second generation HIV-1 maturation inhibitors: The discovery of BMS-955176. **A. Regueiro-Ren**

10:55 MEDI 237. Phosphoramidate prodrugs GS-7340 (tenofovir alafenamide) and GS-9131 for the treatment of HIV. **R.L. Mackman**

11:30 MEDI 238. Withdrawn.

Innovations in Healthcare in the Global Economy

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Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Informatics & Chemical Biology: Identifying Targets & Biological Pathways

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Modeling & Measuring Protein-Ligand Kinetics & Residence Times

Sponsored by *COMF*, Cosponsored by *MEDI* and *PHYS*

TUESDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 146B

Recent Advancements & Therapeutic Opportunities in Muscarinic Receptors

M. P. Bourbeau, R. Mazzola, *Organizers, Presiding*

1:30 MEDI 239. Mutant muscarinic receptors as novel chemogenetic tools to identify new therapeutic targets. **J. Wess**

2:00 MEDI 240. Allosteric regulation and oligomerization of muscarinic cholinergic receptors. **R.V. Shivnaraine**

2:30 MEDI 241. Convulsion and cholinergic toxicity of subtype selective M1 positive allosteric modulators (PAMs). **J.E. Davoren**

3:00 MEDI 242. Targeting positive allosteric modulators of the M1 muscarinic receptor: Identification of MK-7622. **D.C. Beshore**

3:30 MEDI 243. Discovery, development, mechanistic insights and therapeutic potential of M₁ PAMs. **C.W. Lindsey**

4:00 MEDI 244. Discovery and clinical progression of highly selective M₁ agonists utilizing structure-based drug design. **G.A. Brown**

Section B

Walter E. Washington Convention Center Room 146A

General Orals

A. W. Stamford, *Organizer*
J. Ramanjulu, *Presiding*

1:30 MEDI 245. Design of liver-targeting, glucose-responsive insulin. **D.A. Pissarnitski**, S. Lin, L. Yan, Z. Zhao, A. Kekec, Y. Zhu, D.N. Hunter, P. Huo, D. Feng, C. Moyes, B. Pipik, J.L. Duffy, E. Guidry, J. Mu, M. Van Heek, P. Zafian, T. Kelly, E. Carballo-Jane, R.P. Nargund

1:55 MEDI 246. Identification of potent and selective covalent monoacylglycerol lipase (MAGL) inhibitors for treatment of neuroinflammation. **L.A. McAllister**, E.M. Beck, M.A. Brodney, C. Butler, A.M. Gilbert, A.R. Harris, C.J. Helal, D.S. Johnson, S. Mente, J.I. Montgomery, S.V. O'Neil, J.R. Piro, B.N. Rogers, T. Samad, D. Webb

2:20 MEDI 247. Discovery of molidustat (BAY 85-3934): A small-molecule oral HIF-prolyl hydroxylase (HIF-PH) inhibitor for the treatment of renal anemia. **H. Beck**

2:45 MEDI 248. Discovery of potent and orally bioavailable macrocyclic FX1a inhibitors. **W. Yang**

3:10 MEDI 249. Cleavable photoprobes enable binding site identification of a gamma secretase inhibitor. **C. am Ende**, N. Gertsik, K.F. Geoghegan, C. Nguyen, P. Mukherjee, S. Mente, U.I. Senviratne, D.S. Johnson, Y. Li

3:35 MEDI 250. Identification of LYS228: A Novel monobactam with activity against extended spectrum β -lactamase expressing and carbapenem-resistant enterobacteriaceae. **A. Casarez**, A. Birmingham, J. Blais, V. Capka, R. Colvin, C. Dean, A. Fekete, W. Gong, E. Growcott, H. Guo, X. Lin, M. Lindvall, S. Lopez, D. McKenney, H. Moser, D. Rasper, V. Sethuraman, X. Shen, R. Simmons, D. Tang, M. Tjandra, N. Turner, T. Uehara, C. Vitt, S. Whitebread, A. Yifru, X. Zang, Q. Zhu, F. Reck

4:00 MEDI 251. Chemoinformatic-driven design and synthesis of an RNA-targeted small molecule library. **B. Morgan**, J. Forte, B. Sanaba, Y. Zhang, D. Karloff, D. Bertan, A.E. Hargrove

4:25 MEDI 252. Discovery and optimization of a novel class of selective Nav1.7 antagonists. **C.M. Dehnhardt**, S. Chowdhury, S. Sun, M.S. Wilson, A. Hasan, I. Hemeon, M.E. Grimwood, W. Gong, J. Andrez, T. Focken, P. Bergeron, S. Lin, Q. Jia, P. Bichler, G. Bankar, E. Chan, K. Khakh, D. Hackos, S. McKerrall, D.F. Ortwine, A. Zenova, S. Decker, J. Johnson, J. Chang, B.D. Sellers, C. Cohen, B. Safina, D. Sutherland

4:50 MEDI 253. Discovery of clinical candidate GDC-0276: A selective Nav1.7 inhibitor for the treatment of pain. **D.P. Sutherland**, S. Sun, S. Chowdhury, Q. Jia, A. Zenova, M.S. Wilson, T. Focken, J. Li, P. Bichler, S. Decker, M.E. Grimwood, I. Hemeon, T. Sheng, J. Andrez, D. Hackos, G. Bankar, K. Khakh, E. Chang, R. Kwan, S. Lin, K. Nelkenbrecher, D.F. Ortwine, J. Chang, J. Pang, L. Sojo, P. Chiang, A.N. Sambrone, M. Tagen, A. White, C. Chen, J. Chen, J. Lovelidge, X. Ding, R. Takahashi, M. Waldbrook, Z. Xie, C. Young, L. Robinette, C. Cohen, R. Oballa, C.M. Dehnhardt, B. Safina

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Toxicological Considerations in Antibody Drug Conjugate Design & Development

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WEDNESDAY MORNING

Section A

Walter E. Washington Convention Center Rooms 146B/C

First Time Disclosure of Clinical Candidates

J. B. Schwarz, *Organizer, Presiding*

9:00 MEDI 254. Discovery and initial clinical evaluation of trigiluzole: A tripeptide prodrug of riluzole for the treatment of glutamate-associated disorders such as ataxia. **J.C. Pelletier**, J. Wrobel, H. Bian, G.R. Smith, S. Chen, R.M. Berman, V. Coric, A.B. Reitz

9:35 MEDI 255. Allosteric antagonists of sigma-2/PGRMC1 complex: Brain penetrant orally active amyloid oligomer-displacing agents for the treatment and prevention of mild cognitive impairment and Alzheimer's disease. **G.M. Rishton**, G.C. Look, Z. Ni, J. Zhang, Y. Huang, X. Wu, N. Izzo, K. Mozzoni, C. Silky, C. Rehak, R. Yurko, S.M. Catalano

10:10 MEDI 256. Discovery of RG7314: A vasopressin 1a receptor antagonist for the treatment of social communication deficits in autism spectrum disorders. **P.D. Schneider**, B. Biemans, C. Bissantz, C. Dolente, E. Goetschi, R. Jakob-Roetne, W. Muster, N. Parrott, E. Pinard, H. Ratni, C. Risterucci, M. Rogers-Evans, M. Schmitt, C. Grundschober

10:45 MEDI 257. Discovery of TAK-041: Potent and selective GPR139 agonist for treatment of negative symptoms associated with schizophrenia. **H. Reichard**, H. Monenschein

11:20 MEDI 258. Discovery of a ketohep-kinase inhibitor for the treatment of NAFLD/NASH: Fragment-to-lead via structure-based drug design and parallel chemistry. **B. Raymer**, T.V. Magee, K. Futatsugi, A.C. Smith, K. Huard, M. Tu, G.J. Tesz, J. Gutierrez, J. Withka, K. Parris, J. Pandit, Y. Weng, G. Xing, S. Perez, A. Tsai, D. Fernando, M.S. Dowling, B. Thuma, A. Shavnya, H. Wisniewska, S.B. Coffey, K.A. Borzilleri, J.D. Knafels, K. Ahn, J. Zhou, D.A. Tess, S. Gut Ruggeri, V. Somayaji, A. Bergman, G.E. Sonnenberg, J.A. Pfefferkorn, D. Price, S. Liras

Section B

Walter E. Washington Convention Center Room 146A

Unusual Protein-Ligand Interactions in the Design of Novel Pharmaceuticals

D. F. Ortwine, *Organizer*

H. E. Purkey, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 MEDI 259. 40 Years of structure-based design: What have we learned? **F.N. Diederich**

9:20 MEDI 260. Binding pockets make the difference: Morphing banal water-ligand interactions into determining ones. **S.G. Krimmer**, J. Cramer, M. Betz, V. Fridh, R. Karlsson, A. Heine, G. Klebe

9:50 MEDI 261. Tales from the trenches: Case histories of exploiting surprising interactions in drug discovery. **N. Nevins**

10:20 MEDI 262. Quantum mechanical approaches to structurally informed design. **A. Heifetz**

10:50 MEDI 263. Noncovalent sulfur interactions in drug design: Conformational control and intermolecular association. **M.D. Barberger**

11:20 MEDI 264. How significant are unusual intermolecular interactions? **B. Kuhn**, O. Korb

WEDNESDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Rooms 146B/C

First Time Disclosure of
Clinical Candidates

J. B. Schwarz, *Organizer, Presiding*

2:00 MEDI 265. S-033188: A novel, first-in-class, orally bioavailable inhibitor of influenza virus cap-dependent endonuclease. **M. Kawai**, M. Miyagawa, T. Akiyama, Y. Taoda, K. Takaya, T. Shishido, R. Yoshida

2:35 MEDI 266. First time disclosure of BAY 1128688: A novel AKR1C3 inhibitor for the treatment of endometriosis. **U. Bothe**, M. Busemann, A. Steinmeyer, P. Droscher, O. Fischer, M. Peters, T. Zollner, F. Sohler, A. Rotgeri, K. Denner, N. Barak, M. Hillmann, P. Savy, N. Ray

3:10 MEDI 267. Discovery and evaluation of clinical candidate IDH305: A brain penetrant mutant IDH1 inhibitor. **Y. Cho**, J.R. Levell, G. Liu, T.R. Caferro, C.M. Shafer, A. Costales, J.R. Manning, Q. Zhao, M. Sendzik, M.D. Shultz, J. Dooley, G. Chenail, A. Farsidjani, J. Chen, R. Kulathila, X. Xie, S. Dodd, T. Gould, G. Liang, T. Heimbach, K. Slocum, M. Pu, R. Pagliarini, J.D. Growney

3:10 MEDI 268. Discovery of M2951: A selective, covalent inhibitor of BTK for the treatment of autoimmune diseases. **A. Goutopoulos**

3:45 MEDI 269. Discovery of a macrocyclic peptide inhibitor of programmed death-ligand 1 (PD-L1). **P.M. Scola**, E.P. Gillis, K.M. Boy, D. Langley, D. Donnelly, M. Miller, L. Lombardo, M. Poss, C. Mapelli, K. Gillman, K. Yeung, L. Sun, K. Grant-Young, M.P. Allen, M. Poirier, M.S. Bowsher, J. Zhu, L. Li, V. Lafont, N. Sanghvi, C. Yan, J.A. Easter, V. Lee, Y. Zhang, J. Goodrich, S. Bonacorsi, E. Cole, E. Mull, A. Mathur, J. Kempson, D. Wu, Q. Zhao, M. Wichroski, S. Campellone, M. Loubeau, M. Cockett, M. Gao, A. Korman, M. Selby, Y. Wang, V. Chauhan, P.C. Reid, J. Nishikawa, H. Goto, R. Logan, J. Cutrone, R. Denton, R. Haskell, K. Johnson, Y. Benitez, K. Robbins, D. Critton, M. Donoso, D. Drexler, X. Huang, H. Park, S. Du, J. Kim, A. Pena, W. Hayes, P. Chow, R.A. Smith, J. Newitt, M. Soars, D. Tenney, N.A. Meanwell, P.H. Carter

Section B

Walter E. Washington Convention Center
Room 146A

General Orals

A. W. Stamford, *Organizer*

A. Ali, *Presiding*

1:30 MEDI 270. Bayesian models for Chagas disease. **K.M. Zorn**, M.A. Lingerfelt, J.L. Siqueira-Neto, A. Clark, S. Ekins

1:50 MEDI 271. Identification of novel small molecule inhibitors against NS2B/NS3 serine protease from Zika virus. **H. Lee**, J. Ren, S. Nocadello, I. Ojeda, S. Light, G. Minasov, D. Nagarathnam, W.F. Anderson, M. Johnson

2:10 MEDI 272. Bacterial natural products as a renewed source of novel antibiotics: Isolation, characterization, and evaluation of antibacterial agents produced by soil bacteria. **A.L. Wolfe**

2:30 MEDI 273. Targeting the influenza RNA-dependent RNA polymerase. **D. Beylkin**, G. Kumar, W. Zhou, J. Park, T. Jeevan, C. Lagisetti, R. Harfoot, R. Webby, S.W. White, T. Webb

2:50 MEDI 274. Inhibitors of the DNA repair enzyme AAG as leads for potential new chemoprotectives and stroke treatments. **D. Whelligan**, B. Al Yahyaee, E. Mas, S. Chu, R. Elliott, B. Howlin, L. Meira

3:10 MEDI 275. Exploration of A, C, and D-ring SAR of the IspD-targeting antimalarial agent MMV008138. **M. Ghavamiz**, Z. Yao, L. Liu, E. Merino, J. Butler, M. Casasanta, D. Slade, M. Totrov, M. Cassera, P.R. Carlier

3:30 MEDI 276. Synthesis of ADMDP-typed iminosugars to develop pharmacological chaperones for the treatment of Fabry disease and potential enhancers to increase enzyme replacement therapy efficiency. **W. Cheng**

3:50 MEDI 277. Dipeptidyl boronates as C1p1P2 inhibitors: A novel approach to anti tuberculosis therapy. **A. Poulsen**, P. Gopal, S. Santhanakrishnan, K. Jihao, C. Huang, B. Chia, Y. Qiu, U. Lakshmanan, M. Li, J. Sarathy, W. Moreira, C. Low, M. Gengenbacher, K. Sangthongpitag, T.H. Keller, B.W. Dymock, T. Dick

4:10 MEDI 278. Discovery and synthesis of 4-phenylpiperidine-2-carboxamides as selective 5-HT_{2C} receptor positive allosteric modulators. **E.A. Wold**, C. Wild, N.C. Anastasio, R.G. Fox, S. Stutz, H. Chen, J.A. Allen, K.A. Cunningham, J. Zhou

4:30 MEDI 279. Selective small molecule Nociceptin (NOP) agonist for the treatment of anxiety related disorders. **T.M. Ross**, G. Bignan, P.J. Connolly, J. Moyer

4:50 MEDI 280. Modular total synthesis approach towards salvinorin A inspired designer opioids. **A.M. Sherwood**, S. Williamson, R.M. Saylor, T.E. Prisinzano

WEDNESDAY EVENING

Section A

Walter E. Washington Convention Center
Hall E

General Posters

A. W. Stamford, *Organizer*

7:00 - 9:00

MEDI 281. 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.O. Osuoha, M.O. Monanu

MEDI 282. Promising antibacterial sesquiterpenes: Cybastacine A and B from blue-algae cyanobacteria *Nostoc* sp. **V. Tena Pérez**, A. Hernández Cabanillas, D. Rosero Valencia, S. Maderuelo Corral, M. Ortega Doménech, Á. Rumbero Sánchez

MEDI 283. Organometallic iridium compounds: Cytotoxic potential against p53wt and p53-/- human colon cancer HCT116. **R.M. Lord**, I. Henderson, P. McGowan

MEDI 284. Novel ensemble approach to providing small molecule support for validation of cellular targets confirms that glycolysis is a viable antiproliferative strategy in leukemic cells. **A. Zweifach**

MEDI 285. Generation of natural products-based screening libraries for drug discovery. **F.A. Egbewande**, M.J. Coster, R.A. Davies

MEDI 286. Stabilization of quadruplex DNAs by tetraurea macrocycles: Synthesis, DNA binding and beyond. **C. Detchou**, B. Gong

MEDI 287. Production of the antidote of cyanide poison (sodium and hydrogen cyanide) known as sodasulphanecobalamin. **S.N. Olatunji**

MEDI 288. Design and structural modification of adamantane analogs for their anti-cancer activity. **V. Thakor**, A. Shaikh

MEDI 289. Design, synthesis and biological evaluation of new quinazolinone derivatives as potent antimicrobial agents. **S. Nanduri**, S. Gatadi, M.V. Yeddapanudi, S. Chopra

MEDI 290. Withdrawn.

MEDI 291. Discovery of a novel dual functional compound (IADB) as chemo-sensitizing and cardio-protective agent. **L. Bi**

MEDI 292. Design and synthesis of PC-PLC selective self quenching near-infrared fluorescing probes. **B.K. Liebov**, E.J. Delikatny, A.V. Popov

MEDI 293. Andrographolide: A versatile natural product for the generation of structurally diverse bioactive diterpenes. **S. Nanduri**, S.S. Kandamur, N. Golakoti

MEDI 294. Isoprenoid pathway as a valid target to control parasitic diseases. **J.B. Rodriguez**, S.H. Szajman, M.N. Chao

MEDI 295. Lead optimization and drug development of antiproliferative drug constituents from *Phyllanthus poilanei*. **A.C. Huntsman**, A. Young, J.L. Woodard, H. Chai, Y. Ren, M.A. Phelps, A.D. Kinghorn, J.E. Burdette, J. Fuchs

MEDI 296. Sensing bacterial growth and measuring antibiotic susceptibility via laser diffraction. **N.K. Kotoulas**, M. Goh

MEDI 297. Binding at the telomeric G-quadruplex-duplex interface: A computational study. **C. Radicella**, T. Fasano, V. Persaud, **C. Wu**

MEDI 298. Triggering a peptidomimetic's oxidative activity to reduce survival of intracellular pathogens. **A.M. Angeles Boza**, M. Libardo

MEDI 299. Addressing antibiotic-resistance targeting ketolide drugs by developing novel analogs generated via click & *in situ* click chemistry. **S. Daher**

MEDI 300. Synthesis, design and computational studies of anti-cancer agents. **M. Kuanar**

MEDI 301. New motif for targeting isoprenoid biosynthetic pathway enzymes. **N.H. Bhuiyan**, M.L. Varney, S.A. Holstein, D.F. Wiemer

MEDI 302. Design, synthesis, and biological evaluation of small molecule drug conjugates targeting carbonic anhydrase IX positive cancers. **I. Marks**

MEDI 303. Design, synthesis, and evaluation of derivatives of glutathione linked to cholesterol via a link for brain-targeting drug delivery. **A. Najmi**, S. Wang, Y. Huang, X. Guan

MEDI 304. Synthesis and evaluation of 1, 3, 5 (10) estratriene aminoalkoxy, 16-formyl derivatives of estrone as potential anti-breast cancer agents. **C. Sullen**

MEDI 305. Novel computer-assisted drug design (CADD) AKT pathway inhibitors. **N. Uko**, J. Shim, O.F. Guner, J.P. Bowen, D. Matesic

MEDI 306. Discovery of selective low molecular weight VAV1 guanine nucleotide exchange factor inhibitors. **M. Gerspacher**, P. Skaanderup, V.M. Stucke, E. Vangrevellinghe, M. Knapp, M. Klumpp, A. Lingel, P. Chene, D. Erdmann, M. Duckely, L. Leder, G. Pardee, J. Narberes, T. Tsang, P. Imbach-Weese, F. Sirockin, W.R. Sellers, F. Hofmann

MEDI 307. Synthesis and preliminary biological evaluation of [11C]methyl (2-amino-5-(benzylthio)thiazolo[4,5-d]pyrimidin-7-yl)-D-leucinate as a new potential PET radioligand for the fractalkine receptor (CX3CR1). **M. Gao**, M. Wang, J. Meyer, J. Peters, H. Zarrinmayeh, P. Territo, G. Hutchins, Q. Zheng

MEDI 308. Macrocyclic factor Xla inhibitors containing phenyl azole carboxamide P17 groups. **J.R. Corte**, D. Pinto, T. Fang, H. Osuna, W. Yang, Y. Wang, A. Lai, Y.T. Jeon, I. Delucca, P. Gilligan, K.B. Pabbisetty, L.M. Smith, M.J. Orwat, C.G. Clark, N.D. Yadav, K.A. Rossi, J.E. Myers, S. Sheriff, Z. Lou, J.J. Zheng, T.W. Harper, C. Huang, J.M. Bozarth, Y. Wu, P. Wong, C. Watson, E. Crain, J.M. Luetgten, D.A. Seiffert, P.Y. Lam, R.R. Wexler, W.R. Ewing

MEDI 309. Design of HIV co-receptor derived peptides that inhibit viral entry at submicromolar concentrations. **S. Mandadapu**, K. Bobyk, K. Lohith, C.A. Bewley

MEDI 310. Study co-aggregations of nucleic acid nanostructures with tetracycline molecules and their potential applications in smart drug delivery. **N. Alzahrani**, J. Fu, D. Yang, Z. Wang

MEDI 311. Investigation of a new DMC-DNA monoadduct. **O. Zacarias**, E. Champell

MEDI 312. Re-engineering the natural product, emetine, towards achieving a therapeutically useful drug. **O. Bakare**, E.S. Akinboye, N. Idris, N.Z. Brandy, M. Lewis, C.C. Mouamba, L. Abdulrahman

MEDI 313. Novel selective dopamine D3 receptor modulators for the treatment of cocaine addiction. **P. Chen**, B.E. Blass, J.C. Gordon, R. Luedtke, M. Taylor, K. Korzekwa, M. Ye

MEDI 314. Structure based discovery of host-targeted antiviral (HTA) small molecules: Ribosomal protein RACK1 as a potential broad antiviral target. **S. Dakshanamurthy**, I. Malli, H. Ullah

MEDI 315. Withdrawn.

MEDI 316. Formulating a toothpaste that introrally delivers vitamin D using penetration enhancers. **N. Kim**, J. Lee

MEDI 317. Synthesis and biological evaluation of novel thiophene, pyrrole and aromatic exo-cyclic carbohydrate enone derivatives. Part II. **A. Maciejaja**, J. Sarnik, A. Czubatka-Bienkowska, **Z.J. Witzak**, T. Poplawski

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- MEDI 318.** Novel cell directed glutaminase inhibitors as chemotherapeutic agents for hematological malignancies. **S. Zimmermann**, A. Gadiano, J. Alt, L. Tenora, G. Furtmueller, C. Garrett, P. Majer, R. Rais, B. Slussher
- MEDI 319.** Structure-activity relationships for rigid amphipathic fusion inhibitors suppressing tick-borne encephalitis virus reproduction. **A. Orlov**, A.A. Chistov, G.V. Proskurin, N.M. Ivanov, V.A. Palyulin, L.I. Kozlovskaya, G.G. Karganova, D.I. Osolodkin, V.A. Korshun
- MEDI 320.** Design and synthesis of selective histone deacetylase 6 inhibitors based on nextrastat A and evidence of efficacy in melanoma xenograft models. **S. Shen**, M.T. Tavares, M. Hadley, Z. Kutli, C. Barinka, A. Villagra, A.P. Kozikowski
- MEDI 321.** Design, synthesis, and biological evaluation of novel histone deacetylase inhibitors as anti-cancer agents. **A. Al-Hamashi**, L. Tillekeratne, S. Dlamini
- MEDI 322.** Surfing the kinetic and thermodynamic map in a hit to lead process. **S. Panchal**, R. Edalji, Y. Wang, H. Zhu, C. Jakob, S. Djuric, A. Vasudevan, C. Sun
- MEDI 323.** PROTAC design of Mdm2 degraders: A novel efficient approach for cancer therapy. **Y. Li**, J. Yang, A. Aguilar, J. Lu, D. McEachern, D. Bernard, S. Wang
- MEDI 324.** Synthesis of FR900098 analogs as inhibitors of *Plasmodium falciparum* and *Mycobacterium tuberculosis* 1-deoxy-D-Xylulose-5-Phosphate Reductoisomerase (Dxr). **R. Wang**, R. Edwards, A. Haymond, H.I. Boshoff, A.R. Odom, R.D. Couch, C.S. Dowd
- MEDI 325.** Revitalizing an old molecule: Investigating acidomycin as an inhibitor of *Mycobacterium tuberculosis* biotin synthase. **M. Bockman**, C. Engelhart, D. Schnappinger, C.C. Aldrich
- MEDI 326.** Withdrawn.
- MEDI 327.** Synthesis and microbiological evaluation of 2-amino-4,5,6,7-tetrahydrothieno[2,3-c]pyridines against sensitive and drug resistant *Mycobacterium tuberculosis*. **F. Salem**, S.J. Suheck, S. Thanna
- MEDI 328.** New carbapenem antibiotics with activity against *Mycobacterium tuberculosis* and *Mycobacterium abscessus*. **T. Nguyen**, M.A. Alqurafi, W. Chai, M. Netherton, R. Gupta, P. Nguyen, M. Cox, B. Meshram, J. Kim, C. Jacobson, O. Marx, S. Smriti, M. Bennett, C. Watanabe, A. Shi, L. Phung, D. Le, K. Rohde, J.D. Buynak
- MEDI 329.** Imparting intrinsic fluorescence as an approach towards rapid inhibitor screening and mechanistic evaluation of tuberculosis shikimate kinase. **R. Fuanta**, J. Smyth, T. Childers, A. Calderon, D.C. Goodwin
- MEDI 330.** Novel pyrimidine antituberculars discovered through machine-learning Bayesian method. **D. Inoyama**, S.D. Paget, R. Russo, P. Kumar, E. Singleton, M. Tuckman, M.D. Zimmerman, H. Ho, A.L. Perryman, V. Dartois, N. Connell, J.S. Freundlich
- MEDI 331.** Discovery of 2-aminobenzimidazoles that sensitize *M. smegmatis* and *M. tuberculosis* to β -lactam antibiotics in a pattern distinct from β -lactamase inhibitors. **V. Nguyen**, C. Melander
- MEDI 332.** Rational design, synthesis and preliminary biological evaluation of novel C8-linked pyrrolobenzodiazepine-5'-O-[N-(salicyl)sulfonyl]adenosine conjugates (PBD-Sal-AMS) as anti-tubercular probes with dual mode of action. **L. Ferguson**, S. Bhakta, F. Brucci
- MEDI 333.** Synthesis, optimization, and biological evaluation of novel analogs of DG85 as antitubercular agents. **R. Gallardo-Macias**
- MEDI 334.** Evaluation of 5-substituted 1,10-phenanthroline and nickel complexes as G4 ligands and telomerase inhibitors. **S. Wang**, W. Liu, I.A. Dotsenko, V.V. Samoshin, L. Xue
- MEDI 335.** Discovery of potent BET inhibitors as potential treatments for cancer: Optimization of pharmacokinetic and pharmaceutical properties. **M.D. Hill**, H. Fang, D. Norris, W.D. Schmitz, C. Huang, R. Westhouse, M. Kramer, J. Morrison, C. Tye, E. Shields, H. Zhang, M. Sinz, J. Simmermacher-Mayer, F. Lee, A.V. Gavai, A.P. Degnan
- MEDI 336.** Discovery of highly potent BET protein degraders based on novel inhibitors inducing complete and durable tumor regression in human acute leukemia xenografts. **C. Qin**, S. Wang
- MEDI 337.** N7-substituted pyrrolo[3,2-d]pyrimidine analogues - new small molecule anticancer agents. **B. Cawse**
- MEDI 338.** Late-stage modification of tigloyl moiety to ipomoeassin F to enable SAR studies of the natural product. **L. Whisenhunt**, G. Zong, Z. Hu, W. Shi
- MEDI 339.** Highly-active influenza endonuclease inhibitors developed from a designer metal-binding pharmacophore library screen. **C.V. Credille**, S. Cohen
- MEDI 340.** CholestosomeTM mediated delivery of nucleic acids into MCF7 cells. **A. Kovacs**, M. Irving, J. McArthur, J. Hughes, J. Schentag, L. Mielnicki, M. McCourt
- MEDI 341.** Thiohydroxypyridinones as a scaffold for the development of potent New Delhi metallo- β -lactamase-1 inhibitors. **R. Adamek**, C.V. Credille, P. Thomas, W. Fast, S. Cohen
- MEDI 342.** Therapeutic effects of novel benzylguanidine derivative on neuroblastoma tumor cells. **O. Ozen Karakus**, M. Rajabi, M. Yalcin, D.J. Bharali, S. Mousa
- MEDI 343.** Discovery of potent and selective AxI/Mer dual inhibitors. **T. Inukai**, K. Tsuboi, A. Hiramatsu, Y. Nomura, A. Yoshida, H. Kohno, K. Otsuki, M. Kurono, T. Fujimoto, S. Umemura, H. Egashira, R. Omi, T. Yasuhiro, R. Fujikawa, K. Tanaka, T. Yoshizawa, M.A. Wolf, V.D. Pawar, S.K. Chittimalla, C. Bandi, A. Chakrabarti, J. Takeuchi
- MEDI 344.** Design, synthesis and biological evaluation of 6-aminopenicillanic acid and 7-aminocephalosporanic acid derivatives of emetine. **C.C. Mouamba**, L. Abdulrahman, N. Idris, O. Bakare
- MEDI 345.** Synthesis of azotocyclin analogues as antibiotic leads. **N. Karadkhekar**
- MEDI 346.** Design, synthesis and *in vitro* antiproliferative evaluation of quinazoline 2,4,6-triamine and 6-aminoquinazoline-4-(3H)-one derivatives in ovarian cancer skov-3 cell line. **A. Matus-Meza**, F. Hernández-Luis, M. Velasco-Velazquez
- MEDI 347.** Withdrawn.
- MEDI 348.** Closing the loop between synthesis and design: Balancing optimisation of potency with selectivity. **P. Hunt**, T. Mansley, E. Champness, N. Foster, M. Segall
- MEDI 349.** Structure-based drug design (SBDD) and SAR of tetrapeptides competitive inhibitors of Y-49 β -lactamase. **C.C. Clement**, J. Gonzalez, M. Philipp
- MEDI 350.** Design and synthesis of novel uridine analogue with possible anti-HCV activity. **B. Alabdullah**, A.C. Bryant-Friedrich
- MEDI 351.** Synthesis of 2'-C-methyl pseudouridines for the inhibition of HCV RNA-polymerase. **I. Sappy**, A.C. Bryant-Friedrich
- MEDI 352.** Discovery of multi-target-directed ligands for the treatment of Alzheimer's disease. **W. Huang**, Z. Shen, C. Li, Q. Li, X. Zhen, Z. Ma, M. Liang
- MEDI 353.** Design and development of pramipexole-donepezil hybrids as potential therapeutics for Alzheimer's disease. **M.A. Barnade**, M. Shidore, S. Rajyaguru, J. Machhi, P.R. Murumkar, M. Yadav
- MEDI 354.** SUVN-502, A novel, potent and pure 5-HT6 receptor antagonist - proof-of-concept study design in moderate Alzheimer's disease patients. **V. Nirogi**, K.R. Sastry, A.K. Shinde, M. Rasheed, R.K. Badange, T. Bandyala, V. Bhatta, v. reballi, P. Achanta, K. kandukuri, K. Bojja, S. Saraf, K. Mudigonda, P. Jayarajan, G. Bhyrapuneni, V. Goyal, V. Jasti
- MEDI 355.** Pyrimidine carboxamide derivatives as muscarinic acetylcholine subtype 1 positive allosteric modulators (M1 PAM) for the treatment of cognitive deficits in Alzheimer's disease. **V. Nirogi**, M. Rasheed, A.K. Shinde, P. Kalukuri, D. Kancharla, N. Bogaraju, R. Subramanian, N. Muddana
- MEDI 356.** Design and synthesis of novel [F18]-labeled histone deacetylase inhibitors as potential molecular imaging agents for Alzheimer's disease. **L. Hsin**, Y. Chen
- MEDI 357.** REAL fragment-like covalent modifiers: N-arylsulfamoylbenzenesulfonyl fluorides as potent protease inhibitors. **O. Gavrylenko**, A. Chupryna, O. Vasychenko, M. Platonov, P. Borysko, Y. Moroz
- MEDI 358.** Synthesis and SAR studies of positive allosteric modulators of mGluR2 for treatment of neurological and psychiatric diseases. **Z. Meng**, R.J. Mattson, M. Parker, L. Gurenou, A. Easton, W. Kostich, M. Seager, C. Bourin, L. Bristow, K. Johnson, R. Miller, J. Hogan, V. Whiterock, M. Gulianello, M. Ferrante, Y. Huang, A. Hendricson, A. Alt, J. Macor, J.J. Bronson
- MEDI 359.** Design, synthesis and application of novel building blocks to Escape the Flatland. **P. Mykhailiuk**
- MEDI 360.** [2+2]-photochemical synthesis and application of bicyclic amines: Advanced building blocks for ME-Dicinal chemistry. **P. Mykhailiuk**
- MEDI 361.** Synthesis and application of unnatural Proline analogues: Advanced building blocks for ME-Dicinal chemistry. **P. Mykhailiuk**
- MEDI 362.** Rapid access to novel multifunctional spirocyclic cores for drug discovery. **Y. Moroz**
- MEDI 363.** Synthesis of triazole as GABA analogues. **L. Diaz**, M. Fernandez
- MEDI 364.** Novel deuterated GABAAR- $\alpha 6$ subtype selective ligands with improved metabolic stability and enhanced bioavailability: Targeting trigeminal orofacial pain, neuropsychiatric disorders, & depression. **D.E. Knutson**, R.S. Verma, M.R. Stephen, R. Kodali, L. Arnold, M.M. Savic, M.D. Mihovilovic, M. Ernst, W. Sieghart, J.M. Cook
- MEDI 365.** Second-generation inhibitors of the hepatitis C virus NS3/4A protease: Discovery of BMS-986144 with pan-genotypic antiviral activity. **L. Sun**, E. Mull, Q. Zhao, E.P. Gillis, M.S. Bowsher, S. D'Andrea, Z. Zheng, X.A. Wang, A. Mathur, R. Rampulla, S. Kandhasamy, N. Pulicharla, S. Vishwakrishnan, S. Reddy, R. Trivedi, S. Sinha, A. Rao, S. Desai, K. Ghosh, R. Rajamani, J. Friberg, S. Levine, C. Chen, P. Falk, Y. Wang, H. Fang, S. Jenkins, M. Kramer, R. Haskell, K. Johnson, J. Loy, P. Levesque, J. Zhu, M. Cockett, N.A. Meanwell, F. McPhee, P.M. Scola
- MEDI 366.** Toxicological evaluation of magnetic nanoparticles. **H. Huang**, V. James, P. Villarreal, S. Bashir, J.L. Liu

NUCL

Division of Nuclear Chemistry and Technology

J. Terry, Program Chair

SUNDAY MORNING

Section A

Grand Hyatt Washington
Constitution D

General Topics in Radiochemistry

L. H. Delmau, Organizer, Presiding

8:30 Introductory Remarks.

8:35 NUCL 1. Chromatographic separation of medically-related radionuclides from proton-irradiated thorium targets. **T. Mastren**, V. Radchenko, J.W. Engle, A. Owens, R. Copping, M. Brugh, F.M. Nortier, E.R. Birnbaum, K.D. John, M.E. Fassbender

9:00 NUCL 2. Building a reference database for thermodynamic sorption modelling. **F. Bok**, A. Richter, V. Brendler

9:25 NUCL 3. Dabco/quinuclidine increases the radiofluorinations of 2-halopyridines. **L. Cai**, G.R. Naumiec, S. Lu, V.W. Pike

9:50 Intermission.

10:15 NUCL 4. Accumulation of specific radioisotopes by fish in offshore Fukushima, Japan. **H. Katsura**

10:40 NUCL 5. Cesium ion partitioning with ionophores in ionic liquid-water biphasic systems. **R. Biswas**, T. Banerjee, P. Ghosh, S. Ali

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

11:05 NUCL 6. Change of electronic structure in U-10Zr metallic fuel from high-temperature annealing. **Y. Youn,** J. Lee, J. Kim, H. Song, J. Park, J. Kim

11:30 Intermission.

11:40 NUCL 7. Progress towards online isotope harvesting at the NSCL. **G. Severin,** S. Lapi, J.D. Robertson, G.F. Peaslee, D.J. Morrissey

12:05 NUCL 8. Withdrawn.

SUNDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution D

General Topics in Radiochemistry

L. H. Delmau, *Organizer, Presiding*

1:30 Introductory Remarks.

1:35 NUCL 9. Analysis of γ -ray emitting radionuclides in food matrices using cerium bromide γ -ray spectrometry. **T. Scott,** C. Wei, K. Garnick, J. Szymanski, E. Malkin

2:00 NUCL 10. Investigation of covalency in the transuranic elements under non-aqueous conditions. S. Galley

2:25 NUCL 11. New chemical media for superheavy element study. **E. Tereshatov,** M. Boltoeva, M. Volia, C.M. Folden

2:50 Intermission.

3:15 NUCL 12. Initial attempts into characterizing surrogate nuclear fireballs with UV-Vis spectroscopy. **J.D. Auxier,** C. Nizinski, E.J. Francis, B.L. Magocs, H. Hall

3:40 NUCL 13. Precise control of polyhydroxamate ligand topology for selective actinide coordination. **K. Sockwell,** M. Wetzler

4:05 Intermission.

4:30 NUCL 14. Withdrawn.

4:55 NUCL 15. Design and efficient synthesis of a bifunctional octadentate ligand for immunoPET imaging with Zr-89. **M. Abdalrahman**

Structural & Supramolecular Aspects of Metal Ion Separations

Sponsored by I&EC, Cosponsored by NUCL

MONDAY MORNING

Section A

Grand Hyatt Washington
Constitution D

Materials Science in Nuclear Waste Disposal

Cosponsored by INOR

T. E. Albrecht-Schmitt, *Organizer*

D. E. Hobart, I. R. Triay, *Organizers, Presiding*

8:30 Introductory Remarks.

8:40 NUCL 16. Radioactive waste forms for the future. **R.C. Ewing**

9:20 NUCL 17. Role of Np(V) solid phases in the solution chemistry of neptunium under alkaline pH conditions. **X. Gaona,** D. Fellhauer, J. Lee, K. Hinz, V. Petrov, M. Silver, D.T. Reed, T.E. Albrecht-Schmitt, M. Altmaier, H. Geckels

9:40 NUCL 18. Mystery of red technetium oxide. **K.V. Lawler,** B. Childs, D.S. Mast, K. Czerwinski, A.P. Sattelberger, F. Poineau, P. Forster

10:00 NUCL 19. Probing the electronic structure and chemical bonding of d- and f-element compounds: A theoretical study of XAS spectra. **J. Su,** M. Ferrier, J.N. Cross, S.A. Kozimor, E.R. Batista, P. Yang

10:20 Intermission.

10:40 NUCL 20. Au ion irradiation damage in glass-ceramics for immobilisation of waste actinides. **E. Vance,** D. Gregg, T. Wei, A. Xu, Y. Zhang, I. Karatchevseva

11:00 NUCL 21. Inorganic Ba-Sn composite materials for remediation of legacy nuclear waste contaminants. **I. Johnson,** S. Chatterjee, G.B. Hall, M. Fujimoto, T.G. Levitskaia

11:20 NUCL 22. Metal flux growth of uranium intermetallics. **W. Potter,** T.E. Albrecht-Schmitt, **S.E. Lattner**

11:40 NUCL 23. Insights into the phase relations in the U-N system using cluster formula. **X. Wang**

12:00 NUCL 24. Salt-inclusion materials: A potential novel hierarchical wasteform. **H. zur Loye**

Structural & Supramolecular Aspects of Metal Ion Separations

Sponsored by I&EC, Cosponsored by NUCL

MONDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution D

Materials Science in Nuclear Waste Disposal

Cosponsored by INOR

I. R. Triay, *Organizer*

T. E. Albrecht-Schmitt, D. E. Hobart, *Organizers, Presiding*

12:30 NUCL 25. New gas electrode for molten salt electrochemistry with metal-free, corrosion-resistance and real-time monitoring properties. **G. Wei**

12:50 NUCL 26. Tips and tricks for solid state assembly of actinyl cations. **C.L. Cahill,** R. Surbella, K. Carter

1:10 NUCL 27. Withdrawn.

1:30 NUCL 28. Investigation of Ln(III), An(III), and UO₂²⁺ binding properties of soft N⁻ and S⁻ donor site ligands. **I. Lehman-Andino,** M. Twomey, L. Mathivathanan, R. Raptis, T. Eaton, J.K. Gibson, J. Su, P. Yang, E.R. Batista, C.J. Dares, **K. Kavallieratos**

1:50 NUCL 29. Intensification of liquid-liquid two-phase mass transfer in a high-throughput oscillating feed-back micro extractor. **T. Xie,** C. Xu

2:10 Intermission.

2:30 NUCL 30. Untangling intermediate products in flux-derived f-element borates. **A. Chemey**

2:50 NUCL 31. Effects of pi donation on the inverse trans influence. **S.A. Pattenaude,** M. Zeller, S.C. Bart

3:10 NUCL 32. Assessment of radiation dose to workers from depleted uranium containing radioactive waste. **J. Lee**

3:30 NUCL 33. Influence of inner- and outer- coordination sphere interactions on the structural chemistry of actinide(IV) chloride complexes. **K.E. Knope**

3:50 NUCL 34. Composite metal-organic frameworks modified membranes for liquid-phase filtration adsorption of uranium. **B. Yu,** G. Ye, J. Chen

Structural & Supramolecular Aspects of Metal Ion Separations

Sponsored by I&EC, Cosponsored by NUCL

TUESDAY MORNING

Section A

Grand Hyatt Washington
Constitution D

Materials Science in Nuclear Waste Disposal

Cosponsored by INOR

D. E. Hobart, *Organizer*

T. E. Albrecht-Schmitt, I. R. Triay, *Organizers, Presiding*

8:30 NUCL 35. Formation of metallic nanoparticles in a ceramic matrix. **R. Devanathan,** M. Conroy, W. Jiang

8:50 NUCL 36. Spectroscopic characterization of Tc(I) tricarbonyl species relevant to the Hanford tank waste. **T.G. Levitskaia,** S. Chatterjee, Y. Du, M. Engelhard, G.B. Hall, E.D. Walter, N.M. Washton

9:10 NUCL 37. Oxidative stabilities of low-valent technetium species relevant to their separations from Hanford tank waste. **S. Chatterjee,** T. Levitskaia, G.B. Hall, Y. Du, M. Engelhard, N.M. Washton, V. Shutthanandan, E.D. Walter

9:30 Intermission.

9:50 NUCL 38. Highly selective detection of aqueous pertechnetate using square-planar platinum(II) complexes. **S. Chatterjee,** A.E. Norton, W.B. Connick, T.E. Albrecht-Schmitt, T. Levitskaia

10:10 NUCL 39. f-Block borates: From structure evolution to new separation methods. **T.E. Albrecht-Schmitt**

10:30 NUCL 40. Influence of organic ligands on Pu sorption to mineral surfaces: Characterization of aging processes and ternary complexes. **B.A. Powell,** N. Conroy, J. Wong, A. Kersting, M. Zavarin

10:50 Intermission.

11:10 NUCL 41. ¹⁵N Pulsed EPR experiments on lanthanides and actinides bis-triazinyl pyridine (BTP) complexes. **D. Dan,** T.E. Albrecht-Schmitt

11:30 NUCL 42. Defect perovskites for the sequestration of volatile nuclear waste. **S.M. Scott,** W. Zhu, J. Lian

11:50 NUCL 43. Actinide target/source preparation and use in the Physics Division at ANL. **J.P. Greene**

TUESDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution D

Chemistry Past Curium

Cosponsored by INOR

T. E. Albrecht-Schmitt, D. E. Hobart, I. R. Triay, *Organizers, Presiding*

12:30 Introductory Remarks.

12:35 NUCL 44. Improving extraction of +4 actinides. **S.K. Schrell,** M. Livshits, J.N. Cross, M. Ferrier, V. Mocko, B.W. Stein, K.T. Bennett, B.L. Scott, J. Rack, S.A. Kozimor

1:00 NUCL 45. Exploring oxidation states of berkelium and californium in the gas phase. **J.K. Gibson,** M. Vasiliu, P.D. Dau, K.A. Peterson, A. Kovács, D.A. Dixon

1:25 NUCL 46. Atomic physics studies of heaviest elements. **M. Block**

1:50 Intermission.

2:15 NUCL 47. X-ray absorption spectroscopy of actinium and comparison with actinide +3. **M. Ferrier,** B.W. Stein, E.R. Batista, J.M. Berg, E.R. Birnbaum, J.N. Cross, J.W. Engle, S.A. Kozimor, J.S. Lezama Pacheco

2:40 NUCL 48. Chemical studies of Fl (element 114): Heaviest chemically studied element. **L. Lens,** A. Yakushev, C. Duellmann, M. Asai, M. Block, H. David, J. Despotopoulos, A. Di Nitto, K. Eberhardt, M. Goetz, S. Goetz, H. Haba, L. Harkness-Brennan, F. Hessberger, R. Herzberg, D. Hinde, J. Hoffmann, H. Annett, E. Jaeger, D. Judson, K. Jadambaa, B. Kindler, J. Konki, J. Kratz, J. Krier, N. Kurz, M. Laatiaoui, S. Lahiri, B. Lommel, M. Maiti, A. Mistry, C. Mokry, K. Moody, Y. Nagame, J.P. Omtvedt, P. Papadakis, V. Pershina, D. Rudolph, J. Runke, M. Schaedel, P. Scharrer, T. Sato, D.A. Shaughnessy, B. Schausten, J. Steiner, P. Thörle-Pospiech, N. Trautmann, K. Tsukada, J. Uusitalo, A. Ward, M. Wegrzecki, E. Williams, N. Wiehl, V. Yakusheva

3:05 Intermission.

3:30 NUCL 49. Einsteinium-255 generator for off-line studies of fermium-255? **C. Duellmann,** M. Block, K. Eberhardt, S. Raeder, D. Renisch, N. Trautmann, K. Wendt

3:55 NUCL 50. Theoretical exploration of covalency in heavy actinides. **M. Kelley,** E.R. Batista, P. Yang

WEDNESDAY MORNING

Section A

Grand Hyatt Washington
Constitution D

Chemistry Past Curium

Cosponsored by INOR

T. E. Albrecht-Schmitt, D. E. Hobart, I. R. Triay, *Organizers, Presiding*

8:30 NUCL 51. Ionization potential measurements of the heaviest actinides. **T.K. Sato**

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8:55 NUCL 52. Exploring redox coordination chemistry in transuranic elements with various crown ethers and cryptands through lanthanides. **F.D. White, M.L. Marsh, D.E. Hobart, T.E. Albrecht-Schmitt**

9:20 NUCL 53. Electrochemical studies to stabilize divalent californium. **M.L. Marsh, F.D. White, D.E. Hobart, T.E. Albrecht-Schmitt**

9:45 Intermission.

10:10 NUCL 54. Chelation past curium: Exploring trends in f-orbital bonding. **R.J. Abergel, G. Deblonde, J. Rees, C. Booth, W. Dejong, R. Strong**

10:35 NUCL 55. Redox studies of the heaviest actinides. **Y. Nagame, A. Toyoshima**

11:00 Intermission.

11:25 NUCL 56. Heavy element chemistry research at Texas A&M University. **C.M. Folden**

11:50 NUCL 57. Studying the fundamental chemistry toward the end of the periodic table: The Heavy Element Chemistry program. **P. Wilk**

WEDNESDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution D

Chemistry Past Curium

Cosponsored by INOR

T. E. Albrecht-Schmitt, D. E. Hobart, I. R. Triay, *Organizers*

2:30 NUCL 58. Reactor production of actinide materials for super-heavy element research. **D.J. Dean, J. Roberto**

2:55 NUCL 59. TODGA-based solvent extraction system: An alternative to CLEANEX for Cf production. **L.H. Delmau, C. Dryman**

3:20 NUCL 60. Heavy actinide complexation thermodynamics: Chemical signatures arising from limited materials. **J. Braley, N. Bessen, M. Urban, P. Yang**

3:45 Intermission.

4:10 NUCL 61. Structural and thermodynamic considerations in the post-curium break. **T.E. Albrecht-Schmitt**

4:35 NUCL 62. Single-ion manipulation in gas catchers and RF systems. **G. Savard**

5:00 NUCL 63. Chemical studies of the transactinide elements. **A. Tuerler**

WEDNESDAY EVENING

Section A

Grand Hyatt Washington
Constitution C

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Nuclear Forensics

J. F. Corbey, K. L. Pellegrini, *Organizers*

J. D. Auxier, *Organizer, Presiding*

5:30 Introductory Remarks.

5:35 NUCL 64. High temperature uranium chemistry in condensing laser ablation plasmas. **D. Weisz, J.C. Crowhurst, H. Radousky, T. Rose, B. Koroglu, W. Siekhaus, J.M. Zaig, M. Azer, M. Finko, D. Curreli**

5:55 NUCL 65. Preparation of surrogate post-detonation debris using a plasma torch. **P.A. Taylor**

6:15 NUCL 66. High temperature aging study of UO₂ and U₃O₈ for nuclear forensics. **A.M. Olsen, L.W. McDonald**

6:35 NUCL 67. Quantitative morphological analysis of actinide materials. **K.L. Pellegrini, J.A. Soltis, E. Buck, L. Sweet, D.E. Meier**

6:55 Intermission.

7:10 NUCL 68. Dependence of UO₂ surface morphology on synthesis route. **E. Abbott, L.W. McDonald**

7:30 NUCL 69. Three-dimensional morphological signatures for nuclear forensics. **B. Chung, D. Roberts, W. Talbot, D. Ashley, N. Teslich**

7:50 NUCL 70. Impact of controlled storage conditions on the hydration and morphology of UO₃. **I. Schwerdt, L.W. McDonald**

8:10 Intermission.

8:25 NUCL 71. Multi-variate statistical analysis enhancing preliminary morphological signature development strategies for nuclear forensic-related materials. **A.D. Lesiak**

8:45 NUCL 72. NNSA Graduate Fellowship Program experience. **A. Gillens**

THURSDAY MORNING

Section A

Grand Hyatt Washington
Constitution D

Nuclear Forensics

J. D. Auxier, K. L. Pellegrini, *Organizers*

J. F. Corbey, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 NUCL 73. Detailed *in-situ* chemical characterization and Pb-Pb age dating of uraninite from North American deposits. **S. Lewis, L. Corcoran, A. Simonetti, P.C. Burns**

8:55 NUCL 74. Atomistic insight into phase formation and alteration of uranium phases. **L.C. Shuller-Nickles**

9:15 NUCL 75. Deposit type average rare earth element signatures for nuclear forensics. **T.L. Spano, A. Simonetti, G. Carpenter, D. Freet, E. Balboni, T. Wheeler, C. Dorais, P.C. Burns**

9:35 Intermission.

9:55 NUCL 76. Chemical characterization of altered and unaltered uraninites from various geological settings. **L. Corcoran, A. Simonetti, T.L. Spano, S. Lewis, P.C. Burns**

10:15 NUCL 77. Novel dissolution chemistry for post detonation nuclear debris. **J.D. Brockman, N.T. Hubley, C. Mason, D. Wegge, J.D. Robertson**

10:35 NUCL 78. Extraction of cesium ion with dibenzo-18-crown-6 from aqueous solutions using organic solvents. **R. Biswas, T. Banerjee, P. Ghosh, S. Ali**

10:55 Intermission.

11:15 NUCL 79. Withdrawn.

11:35 NUCL 80. Phase-field modeling of the U₂C-UC liquid-solid interface for the formation of UC microstructures. **D. Abrecht**

11:55 NUCL 81. Chemist's stint with nuclear forensics at the State Department. **C.L. Cahill**

THURSDAY AFTERNOON

Section A

Grand Hyatt Washington
Constitution D

Nuclear Forensics

J. D. Auxier, J. F. Corbey, *Organizers*

K. L. Pellegrini, *Organizer, Presiding*

12:30 Introductory Remarks.

12:35 NUCL 82. Age dating of Sr-90 using DGA resin. **D. McLain**

12:55 NUCL 83. Development of a Cs-Ba radiochronometry reference material for nuclear forensics. **K.B. Lavelle, K.P. Carney, J.T. Cessna, R.M. Essex, C.R. Hexel**

1:15 NUCL 84. Gas chemical adsorption characterization of lanthanide chelates. **S. Stratz, H. Hall, J.D. Auxier**

1:35 Intermission.

1:50 NUCL 85. New K-edge densitometry calibration technique. **M.D. Yoho, D.T. Vo, D.R. Porterfield**

2:10 NUCL 86. FBI nuclear forensics. **J. Blankenship**

2:30 Intermission.

2:45 NUCL 87. Nuclear Forensics International Technical Working Group collaborative materials exercises: Advancing the state and practice of nuclear forensic analysis since 1999. **J.M. Schwantes**

3:05 NUCL 88. Software and analysis methods for the determination of americium in plutonium via alpha spectrometry. **M.D. Yoho, D.R. Porterfield, J. Rim**

ORGN

Division of Organic Chemistry

R. Broene and S. Silverman, Program Chairs

OTHER SYMPOSIA OF INTEREST:

Insights on Medicinal Chemistry from Hardcore Practitioners (see *MEDI*, Mon)

Organometallic Chemistry (see *INOR*, Sun, Tue, Wed, Thu)

Synthesis & Chemistry of Agrochemicals (see *AGRO*, Thu)

SOCIAL EVENTS:

Social Hour, 8:00 PM: Wed

BUSINESS MEETINGS:

Business Meeting, 1:00 PM: Sun

SUNDAY MORNING

Section A

Walter E. Washington Convention Center
Room 207A

Young Investigator Symposium

J. Aube, *Organizer, Presiding*

9:00 ORGN 1. mPGES-1 inhibitors from start to clinic. **M. Schiffler**

9:20 ORGN 2. Asymmetric hydrogen bonding catalysis for the synthesis of dihydroquinazoline-containing antiviral, letermovir. **Z. Liu**

9:40 ORGN 3. Development of a robust process for venetoclax. **V.S. Chan**

10:00 ORGN 4. Discovery, development and mechanistic study of catalytic transformations for the multi-kilogram scale synthesis of pharmaceutical intermediates. **E. Simmons**

10:20 ORGN 5. New chemistries for antibody-drug conjugates. **T. Pillow**

10:40 ORGN 6. Fueling the Alzheimer's BACE1 race with genetic insights and cyclopropyloxazine BACE1 inhibitors. **A.E. Minatti**

11:00 ORGN 7. Synthesis of photo-reactive chemical probes through late-stage heterocyclic C-H functionalization of unmodified biologically active molecules. **K. Hesp**

11:20 ORGN 8. New opportunities for synthetic chemistry to enable drug discovery: Discovery of [18F] MK-6240 a novel PET imaging agent for tau pathology. **A.M. Walji**

Section B

Walter E. Washington Convention Center
Room 202A

Flow Chemistry & Continuous Processes

R. D. Broene, *Organizer*

Z. Li, *Presiding*

8:10 ORGN 9. Continuous generation of anhydrous *tert*-butyl hydroperoxide and its application in flow oxidation. **Z. Li, S. Guinness, S.M. Hoagland, H.K. Kim, R.J. Maguire, J.C. McWilliams, J. Mustakis, J.W. Raggon, D. Campos, C. Voss, E. Sohodski, B. Feyock, H. Murnen, M. Gonzalez, M. Johnson, J. Lu**

8:30 ORGN 10. Use of carbon monoxide gas in flow chemistry: Oxidative and reductive carbonylation chemistry. **C. Kappe**

8:50 ORGN 11. Continuous flow synthesis of 1,4-benzoxazinones via a fully integrated nitration/hydrogenation/cyclization sequence. **D. Cantillo, B. Wolf, R. Goetz, C. Kappe**

9:10 ORGN 12. Development of efficient and scalable amidation processes in flow: An inverse disconnection strategy. **J.D. Williams, S. Leach, W.J. Kerr**

9:30 ORGN 13. High-throughput synthesis: A platform for rapid reaction development. **D. Battersby, R. Grainger, M. Gaunt**

9:50 ORGN 14. On-demand electrochemical generation of oxidants and their applications in organic synthesis. **B.J. Deadman, S. Ghan, X. Jin, L. Adrio, J. Zhu, K. Hellgardt, M. Hii**

10:10 ORGN 15. Shining new light on old reactions: A photocatalyst free, light enabled, Polonovski reaction for amide synthesis. M.P. Walsh, M. Baumann, M.O. Kitching, I.R. Baxendale

10:30 ORGN 16. Enabling organic synthesis with diazo acetonitrile: Technology and chemistry driven solutions. R.M. Koenigs

10:50 ORGN 17. New synthetic route for the preparation of efavirenz. S. Chada

11:10 ORGN 18. Scale up of continuous process in flow. G. Kai, X. Li

Section C

Walter E. Washington Convention Center
Room 206

Catalysis & Computation

R. Ruck, E. C. Sherer, *Organizers*

D. Lehnerr, *Presiding*

8:00 Introductory Remarks.

8:05 ORGN 19. Insights into catalysis via gas phase methods. J. Lee

8:35 ORGN 20. Computational insights into asymmetric organocatalysis. K.N. Houk

9:05 ORGN 21. Understanding and design of organometallic reactivity with experimental and computational tools. F. Schoenebeck

9:35 Intermission.

9:50 ORGN 22. Discovery and optimization of enantioselective catalysis through chemoinformatics. S.E. Denmark

10:20 ORGN 23. Application of computational tools for process chemistry. E.C. Sherer

10:50 ORGN 24. Computation of catalytic processes to guide reaction development including pathways involving dispersion or unpaired electrons. M. Kozlowski

11:20 ORGN 25. Applying modern physical organic analysis tools to prediction in organic chemistry. M.S. Sigman

Section D

Walter E. Washington Convention Center
Room 207B

Biologically Related Molecules & Processes

R. D. Broene, *Organizer*

M. A. Bertucci, *Presiding*

8:00 ORGN 26. Isolation, functional evaluation, and total synthesis of Macrophilone A: A biologically active iminoquinone from the marine hydroid *Macrorhynchia philippina*. W.M. Hewitt, K. Zlotkowski, P. Yan, H.R. Bokesch, M.L. Peach, M.C. Nicklaus, B.R. O'Keefe, J.B. McMahon, K.R. Gustafson, J. Schneekloth

8:20 ORGN 27. Search for secondary structure: Synthesis and characterization of hydrophilic peptoids. P.W. Peterson, J.G. Schmidt, R.D. Gilbertson, R.F. Williams, C.E. Strauss

8:40 ORGN 28. New tools for the study of O-GlcNAc transferase in disease. S.E. Martin, Z.W. Tan, H. Itkonen, J. Janetzko, D.Y. Duveau, C.J. Thomas, P. Sliz, M.B. Lazarus, S. Walker

9:00 ORGN 29. Discovery of new heterocycle ligands for a hepatitis C virus RNA switch. W. Frauman, T. Hermann

9:20 ORGN 30. Self-immolative chemiluminescent polymers. S. Gnam

9:40 ORGN 31. Monitoring of protein interactions in frozen and freeze-dried solution states using small angle scattering techniques. V. Cristiglio, M. Castellanos, J.E. Curtis, I. Grillo, E. Shalaev

10:00 ORGN 32. Synthesis of phosphorodiamidate morpholino oligonucleotides and their chimeras using phosphoramidite chemistry. S. Paul, M.H. Caruthers

10:20 ORGN 33. Thiophosphoramidate morpholino: A new class of antisense oligonucleotides. S. Paul, M.H. Caruthers

10:40 ORGN 34. Strain-promoted double-click functionalised stapled peptides for inhibiting protein-protein interactions. K. Sharma, D.R. Spring

11:00 ORGN 35. Harnessing intrinsic reactivity to understand covalent cancer metabolites. R. Kulkarni, T.T. Zenggeya, D. Crooks, W. Linehan, J.L. Meier

11:20 ORGN 36. X-Sept: Synthesis of indoxyl septanosides as chromogenic glycosidase substrates. A. Pote, Z. Cannone, A. Planas, M.W. Pecuh

11:40 ORGN 37. Experimental evidence of a stabilizing n \rightarrow π^* interaction in N-acyl homoserine lactone (AHL) hydrolysis. D. Schmucker, S.R. Dunbar, M.A. Bertucci

Section E

Walter E. Washington Convention Center
Room 201

Heterocycles & Aromatics

R. D. Broene, *Organizer*

J. Xu, *Presiding*

8:00 ORGN 38. Catalytic double carbon-boron bond formation for the synthesis of cyclic diarylborinic acids as versatile building blocks for π -extended heteroarenes. T. Igarashi, M. Tobisu, N. Chatani

8:20 ORGN 39. Metal-free regioselective construction of indolin-3-ones via hypervalent iodine oxidation of N-substituted indoles. C. Jiang, C. Yang, G. Cheng, B. Huang, F. Xue

8:40 ORGN 40. Improved synthesis of a nitrogen rich heterocyclic intermediate toward a RORc ligand. J. Xu, L. Sirois, R. Angelaud, D. Lao, F. Gosselin

9:00 ORGN 41. BN heterocycles for molecular diversity. H.L. Van De Wouw, J. Lee, R.S. Klausen

9:20 ORGN 42. Strained alkyne derived from 2,2'-dihydroxy-1,1'-biaryls: Synthesis and copper-free cycloaddition with azides. M. Wills, A. Del Grosso, L. Galanopoulos, C.K. Chiu, G. Clarkson, P.B. O'Connor

9:40 ORGN 43. Biocatalysis meets organolithiums: Asymmetric synthesis of heterocyclic α -tertiary amines. W. Zawodny, N. Turner, J. Clayden

10:00 ORGN 44. Stereocontrolled synthesis of 2-substituted azetidines and spirocyclic 1,2-diazetidines. A. Pancholi, J. Geden, G. Clarkson, M. Shipman

10:20 ORGN 45. Bisthiourea based efficient synthesis of iminothiazolidinone heterocycles. H. Rafique

10:40 ORGN 46. Revisiting and extending the chemical and functional behavior of benzo[1,2-b:4,5-b']dithiophen-4-ol. A. Sotuyo, K.A. Abboud, I. GHIRIRIA, R.K. Castellano

11:00 ORGN 47. Building a library of 2-(hetero)arylchromanones via photoredox catalysis. J.K. Matsui, G.A. Molander

11:20 ORGN 48. Microwave-assisted synthesis of imidazo[4,5-c]quinoxin-2-ones. X. Lu, H. Li, W. Huang

Section F

Walter E. Washington Convention Center
Rooms 204A/B

New Reactions & Methodology

Alkynes & Rearrangements

R. D. Broene, *Organizer*

Y. Xing, *Presiding*

8:20 ORGN 49. Transition metal accelerated disrotatory 6pi-electrocyclization reactions: Isolation of the first hexahapto metal complexes of acyclic conjugated trienes. J.M. O Connor, K.M. Veccharelli, S. Cope, K.K. Baldrige, C. Moore, A.L. Rheingold

8:40 ORGN 50. Eneidyne cycloaromatization with incorporation of a halogen-atom from haloform and a hydrogen-atom from 1,4-cyclohexadiene. J.M. O Connor, D. Hitt, S. Cope, A.G. Raub, K.M. Veccharelli, C. Moore, A.L. Rheingold

9:00 ORGN 51. Unlocking the elusive generation of carbyne equivalents with photoredox catalysis. Z. Wang, A.M. del Hoyo, A.G. Herraiz, M.G. Suero

9:20 ORGN 52. Aryne-mediated metal-free Csp³-H bond activation. C. Majeste, F. Idiris, G. Craven, C.R. Jones

9:40 ORGN 53. *In situ* generation of iminoketenes from ynamides: Application in cycloadditions. E. Romero, M. Bencheikroun, C. Minard, S. Ventre, K. Cariou, R. Dodd

10:00 ORGN 54. Exploration on di-functionalization of alkynes and alkenes. Y. Xing

10:20 ORGN 55. Regioselective reactions of new aryne precursors induced via 1,3-silyl group migration. Y. Kwon, Y. Jeon, W. Kim

10:40 ORGN 56. Transition-metal-free cyclic iminium induced one-pot double annulation cascade: Direct access to dihydroisoquinolinium (DHIQ) based privileged scaffolds. V. Babu, S. Arepally, S.S. Duddu

11:00 ORGN 57. From amino acids to octahydroquinolines: A new, facile and efficient one-pot five-transformation cascade. S. Gallagher Duval, G. Belanger

11:20 ORGN 58. C-H activation and functionalization by Pd(II)/LA catalysts in organic synthesis. G. Yin

Merck Research Award Symposium

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What do Synthetic Chemists Want from Their Reaction Systems?

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SUNDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Room 207A

Young Investigator Symposium

J. Aube, *Organizer, Presiding*

1:10 ORGN 59. Next generation RET kinase inhibitor: Improved physicochemical and PK properties enhance local GI tissue distribution. M.P. Demartino, J. Russell, H.S. Eidam, G. Huiping, P.D. Gorycki, D. Rieman, M. Cooper, R. Groseclose, S. Castellino, E. Mohammadi, B. Greenwood-Van Meerveld, A. Oliff, S. Kumar, M. Cheung

1:30 ORGN 60. Discovery of 2-pyridinone animals: A prodrug strategy to advance a second generation of HIV-1 integrase strand transfer inhibitors. I.T. Raheem

1:50 ORGN 61. Synthesis of active pharmaceutical ingredients (APIs): Difficulties in the synthesis of the parts can be greater than that of the whole. S. Bader

2:10 ORGN 62. Development of a practical synthesis of small molecule intermediate for THIOMAB-antibiotic conjugates (TACs). X. Linghu

2:30 ORGN 63. Design and synthesis of novel natural product-inspired e1f4A inhibitors. C. Nilewski, G.K. Packard, T.D. Michels, A.X. Xiang, C. Tran, P.A. Sprengeler, J.T. Ernst, S.H. Reich, B. Eam, S. Fish, N.P. Young, J. Chen, P.A. Thompson, K.R. Webster, C.J. Wegerski, A. Nevarez, J. Clarine, S. Sperry

2:50 ORGN 64. Discovery and early enablement of PF-06747775: A next generation irreversible inhibitor of mutant EGFR for the treatment of NSCLC. D. Behenna

3:10 ORGN 65. Design of highly potent allosteric integrase inhibitors. E. Velthuisen

3:30 ORGN 66. Aldehyde oxidase metabolism in drug discovery. A.C. Burns

Section B

Walter E. Washington Convention Center
Room 202A

JOC OL Lectureship

T. Hanna, *Organizer*

S. J. Miller, A. B. Smith, *Organizers, Presiding*

1:15 Introductory Remarks.

1:20 ORGN 67. Unusual tools for the design of selective cyclization reactions of alkynes. I. Alabugin

1:50 ORGN 68. Functionalization of sp² and sp³ C-H bonds via deprotonative zincation. Q. Wang

2:20 ORGN 69. Iron(III)-catalyzed carbonyl-olefin metathesis. C. Schindler

2:50 ORGN 70. Palladium in peptide/protein synthesis and modification. A. Brik

3:20 The Journal of Organic Chemistry Award Presentation.

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

- 3:25 ORGN 71.** Industrial and academic applications of high throughput experimentation in reaction optimization. **M. Christensen**
- 4:10 ORGN 72.** Nickel-catalyzed alkene hydrosilylation. **I. Buslov, X. Hu**
- 4:55** Organic Letters Award Presentation.

Section C

Walter E. Washington Convention Center
Room 206

Small Splash, Big Waves: Research at Primarily Undergraduate Institutions

Financially supported by Shimadzu Corp., Norton Publishing

S. M. Biros, T. A. Davis, *Organizers, Presiding*

1:10

- 1:15 ORGN 73.** Synthesis of readily diversified cyclopropyl peptidomimetics as enzyme inhibitors. **N.K. Dunlap**

- 1:40 ORGN 74.** Design, synthesis and characterization of starch-functionalized dibromomaleimide for peptide delivery. **J.G. Schellinger**

- 2:05 ORGN 75.** Trimethylsilyl trifluoromethanesulfonate as both silylating agent and Lewis acid catalyst in organic reactions new and old. **C.W. Downey**

- 2:30 ORGN 76.** Lesson learned about resonance effects and inductive effects: Application of a vinyllogue methodology toward fundamental organic systems. **J.M. Karty**

2:55

- 3:10 ORGN 77.** Microwave-assisted copper-catalyzed amidation of aryl chlorides via concurrent tandem catalysis. **B.P. Clairmont, S. Lin, A.H. Roy MacArthur**

- 3:35 ORGN 78.** Effect of ligand and carboxylic acid structure on under air direct arylation reactions. **J.A. Fritz, J. McAfee, L. Armstrong**

- 4:00 ORGN 79.** Employing homogeneous gold catalysis to synthesize complex molecular structures. **T.A. Knoerzer, M. Marchioretto, J.L. Mascarenas**

- 4:25 ORGN 80.** Synthesis, structure, and properties of supramolecular porphyrin metallocubes. **J.D. Thoburn**

Section D

Walter E. Washington Convention Center
Room 207B

Biologically Related Molecules & Processes

R. D. Broene, *Organizer*

D. Bandyopadhyay, *Presiding*

- 1:00 ORGN 81.** Small-molecule organic NIR-II fluorophores for *in vivo* tumor imaging and image-guided surgery. **X. Hong**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

- 1:20 ORGN 82.** Probing protein prenyltransferase specificity using metabolic labeling with isoprenoid analogs. **K.F. Suazo, C. Palsuledesai, P. Lange, A. Jeong, C.C. Hsu, C. Schaber, A. Odorn John, W.A. Tao, V. Tarakanova, L. Li, M.D. Distefano**

- 1:40 ORGN 83.** Probe-guided strategy for selective C-H functionalization and late-stage diversification of the natural product micheliolide via P450-mediated chemoenzymatic synthesis. **H. Alwaseem, S. Giovanni, J. Ponder, C.T. Jordan, R. Fasan, M. Crotti**

- 2:00 ORGN 84.** Bio-orthogonal metalloporphyrin catalyzed modification of lantibiotics. **R. Maaskant, G. Roelofs**

- 2:20 ORGN 85.** Efficient one-pot synthesis of FRET probes for *in vivo* and *in vitro* detection of redox homeostasis in cell. **Y. Li, T. Wang**

- 2:40 ORGN 86.** Synthesis of oligosaccharides via construction of non-glycoside linkages. **S. Truong, D.R. Mootoo**

- 3:00 ORGN 87.** Chemical tools for carbonyl sulfide (COS) and hydrogen sulfide (H₂S) delivery. **M.D. Pluth**

- 3:20 ORGN 88.** Structural tuning of cyanine fluorophores for mitochondria and lysosome targeting: Highly selective series of fluorescent probes. **C.S. Abeywickrama, H.J. Baumann, L. McDonald, D. Dahal, F. Gombedza, N. Alexander, C. Wesdemiotis, M. Konopka, L. Shriver, S.M. Paruchuri, Y. Pang**

- 3:40 ORGN 89.** Synthesis of novel flavonoid based dyes and their potential applications in zebrafish and eukaryotic cell imaging. **L. McDonald, B. Liu, F. Gombedza, A. Taraboletti, Q. Liu, Y. Pang**

- 4:00 ORGN 90.** First synthesis of quaternary, α -(1'-fluoro)vinyl amino acids via formal fluorovinylolation of AA enolates: A new class of potential mechanism-based PLP enzyme inactivators. **C.D. McCune, M.L. Beio, J.M. Sturdivant, R. de la Saluda-Bea, B.M. Darnell, D.B. Berkowitz**

- 4:20 ORGN 91.** Fluorescent sensors for lipids. **T.E. Glass, C.W. Littlefield, C. Ren, M. Xu**

Section E

Walter E. Washington Convention Center
Room 201

Heterocycles & Aromatics

R. D. Broene, *Organizer*

R. J. Hinkle, *Presiding*

- 1:10 ORGN 92.** Gram scale synthesis of a β -secretase 1 (BACE 1) inhibitor. **B.D. Allison**

- 1:30 ORGN 93.** Synthesis of novel ligands for platinum drugs. **A. Fraeyman, W. Jones, C.S. Chow, K.J. Friedrich**

- 1:50 ORGN 94.** Synthesis of electronically diverse pyridine-triazoles: Structure and catalytic activity of corresponding palladium(II) complexes in Suzuki-Miyaura coupling reactions. **Z.L. Palchak, M.D. Sterling, C.H. Larsen**

- 2:10 ORGN 95.** BODIPY-bacteriochlorin energy transfer arrays with tunable absorption and near-infrared emission. **A. Meares, A. Satrias, M. Ptasek**

- 2:30 ORGN 96.** Direct access to highly functionalized heterocycles through the condensation of cyclic imines and α -oxoesters. **A.Q. Cusumano, J.G. Pierce**

- 2:50 ORGN 97.** Synthetic strategy for rapid access to *bis*(phenalenyl)-based polycyclic aromatic hydrocarbons. **M.S. Chen, C.M. Wehrmann**

- 3:10 ORGN 98.** Synthesis of heterocycles driven by auto-tandem catalysis with acid catalysts. **G. Yanlong**

- 3:30 ORGN 99.** Asymmetric synthesis of homoallylic amines for construction of substituted piperidines. **M.G. Donahue**

- 3:50 ORGN 100.** Efficient preparation of oxazoles from 6-amino-5,6-dihydro-1,10-phenanthroline-5-ol derivatives. **E. Schoffers, D.L. Sellers, L. Kohler**

- 4:10 ORGN 101.** Double palladium-catalyzed reductive N-heterocyclization: Synthesis of pyrroloindoles. **N.H. Ansari, M. Cummings, C.A. Dacko, B. Soderberg**

- 4:30 ORGN 102.** Electronic effects in domino reactions toward tricyclic 1,4-dihydro-2H-benzo[*f*]isochromenes: Concerted alkynyl-Prins and Friedel-Crafts reactions. **R.J. Hinkle, Y. Chen, S. Lewis, C. Nofi**

Section F

Walter E. Washington Convention Center
Rooms 204A/B

New Reactions & Methodology

Main Group

R. D. Broene, *Organizer*

S. D. Townsend, *Presiding*

- 1:20 ORGN 103.** Sequential diboration/allylation/cross-coupling: A powerful method for diastereoselective carbocycle synthesis. **J.D. Shields, M. Eno, W.K. Chang, J.P. Morken**

- 1:40 ORGN 104.** Chemoselective oxidation of aryl organoboron systems enabled by boronic acid-selective phase transfer. **J. molloy, A.J. Watson**

- 2:00 ORGN 105.** Substrate-assisted, transition metal-free diboration of alkynamides with an unsymmetrical diboron reagent. **F. Astha, R. Snead, Y. Dai, C. Slebodnick, Y. Yang, H. Yu, F. Yao, W. Santos**

- 2:20 ORGN 106.** Boronic acid catalyzed direct and ambient Beckmann rearrangement of oximes. **X. Mo, T.D. Morgan, D.G. Hall**

- 2:40 ORGN 107.** Synthesis of tri-substituted alkenyl boronic esters: A second-generation boryl-Heck reaction. **W.B. Reid, D.A. Watson**

- 3:00 ORGN 108.** Frustrated Lewis pair hydrogenation of α,β -unsaturated carbonyl compounds. **I. Khan, L. Morrill**

- 3:20 ORGN 109.** Uncatalyzed 1,2-carboration of seven-membered-ring trans-alkenes. **J.R. Sanzone, K.A. Woerpel**

- 3:40 ORGN 110.** Metal-free synthesis of unsymmetrical aryl, di-aryl, and glycosyl organoselenides. **S.D. Townsend**

- 4:00 ORGN 111.** Progress towards the development of novel hypervalent iodine reactions. **I.D. Hyatt**

- 4:20 ORGN 112.** Decoupling the Arrhenius equation via mechanochemistry. **J.M. Andersen, J. Mack**

- 4:40 ORGN 113.** Synthesis of diverse imidazolidinones through a unified approach. **F. Xu, S. Shuler, D.A. Watson**

- 5:00 ORGN 114.** Fluorinated diazokanes and beyond. **R.M. Koenigs**

Science Communications: The Art of Developing a Clear Message

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What do Synthetic Chemists Want from Their Reaction Systems?

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SUNDAY EVENING

Section A

Walter E. Washington Convention Center
Hall D

Asymmetric Reactions & Syntheses

S. M. Silverman, *Organizer*

5:30 - 7:30

- ORGN 115.** Carbometallation/oxidation of cyclopropenes: An oasis of diastereomerically and enantiomerically enriched cyclopropanols and aldehydes possessing quaternary carbon stereocenters. **M. Simaan, I. Marek**

- ORGN 116.** Asymmetric autoinduction in the copper/phosphine catalyzed alkylation of carbonyl compounds. **T. Pellegrini, A.J. Minnaard, S.R. Harutyunyan**

- ORGN 117.** Exploitation of antagonistic electronic densities for the stereoselective reduction of ketones bearing masked amino surrogates. **R. Chew, M. Wills**

- ORGN 118.** Enantioselective synthesis of fluoro-dihydroquinazolones and -benzooxazinones by fluorination-initiated asymmetric cyclization reactions. **K. Hiramatsu, T. Honjo, V. Rauniyar, D. Toste**

- ORGN 119.** Synthesis of enantiomerically pure α -trifluoromethyl α -amino acids and conformational studies of their L-leucine-based peptides. **A. Ueda, T. Kasae, M. Oba, M. Doi, M. Tanaka**

- ORGN 120.** Stereoselective O-H insertion of α -benzyl diazoesters by carboxylic acids activated by chiral oxazaborolidinium ion. **K. Kang, S. Kim, D. Ryu**

- ORGN 121.** Improvement of organocatalytic Robinson annulation by acid additives. **R. Fallek, Y. Shiloni, M. Portnoy**

- ORGN 122.** One-pot synthesis of perylene tetracarboxylic diester monoanhydride with labile substituents. **X. Zhao, B. Wang, H. Zhang, S. Jin**

- ORGN 123.** Withdrawn.

- ORGN 124.** Asymmetric Michael addition reactions catalyzed by α,α -diphenyl- β -keto ester. **T. Umeno, A. Ueda, M. Doi, M. Tanaka**

- ORGN 125.** Enantioselective organocatalytic addition of carbon and sulfur nucleophiles to trisubstituted nitroalkenes via enantioselective protonation. **J. Phelan**

- ORGN 126.** 1-Hydrosilatane: A chiral Lewis base activated reducing agent for the asymmetric reduction of prochiral ketones to alcohols. **S. Varjosaaari, V. Skrypai, T.M. Gilbert, M.J. Adler**

- ORGN 127.** Stereoselective Lewis-base catalyzed TMSCF₃ additions of 2-halogenated carbonyls. **T.A. Davis, S. Rouleau, K. Russell, N. Heth**

ORGN **128.** Stereodiverse synthesis of chiral aryl fluoroalkyl sulfones, from a single chiral precursor. **W. Wei**, R.K. Khangarot, L. Stahl, P. Pradhan, C. Veresmortean, B. Zajc

ORGN **129.** Ni(II)-diamine complexes catalyzed asymmetric sequential Michael reactions of vinylketoesters and nitroalkenes for the synthesis of multifunctionalized cyclohexene derivatives. **B. Ni**, S. Huang

ORGN **130.** Green direct reductive aminations using 1-hydrosilatrine. **V. Skrypai**, S. Varjosaaari, T.M. Gilbert, M.J. Adler

ORGN **131.** Mechanistic investigation of reactions of rhodium(II) azavinyl carbenes. **J. Li**, J. Celaje, V.V. Fokin

Section B

Walter E. Washington Convention Center Hall D

CH Activation

S. M. Silverman, *Organizer*

5:30 - 7:30

ORGN **132.** Exploring biosynthetic P450s as biocatalysts for multi-functional C-H oxidation. **J.L. Stachowski**, M. Demars, D.H. Sherman, J. Montgomery

ORGN **133.** Chelation-directed amidation of aryl ketones using a heterogeneous Pd(II)-catalyzed C-H activation method. **Y. Timsina**, M. Burkholder, F. Gupton, K.C. Ellis

ORGN **134.** Bridging C-H activation: Mild and versatile cleavage of the 8-aminoquinoline directing group. **M. Berger**, R. Chauhan, C. Rodrigues, N. Maulide

ORGN **135.** Design and synthesis of scaffold and pincer catalysts. **A.A. Oppong**, B.L. DeBoef

ORGN **136.** Iodine-catalyzed oxidative cyclizations for the construction of thienocarbazole derivatives. **A. Kivrak**, H. Koca

ORGN **137.** Chemistry in water: Radical reactions of ketones using Fenton's reagent. **J.L. Meyer**, A. Duelli, K.M. Baker, K.B. Mapes, **R.P. Hotz**, A.R. Pinhas

ORGN **138.** Copper catalyzed functionalization of un-activated sp³ C-H bonds via carbon-carbon bond formation. **O.E. Okoromoba**, T.H. Warren

ORGN **139.** Intramolecular C-H functionalization for the synthesis of structurally unique triazole-fused vinyl sulfams. **A. Cassidy**, J. Jun, N.M. Windmon, N. Asad, A. Diepenbrock, C.D. Clay, P.R. Hanson

ORGN **140.** Amide-directed alkane C-H borylation reactions. **S.N. Hyland**, M. Tortosa, T.B. Clark

Section C

Walter E. Washington Convention Center Hall D

Metal-Mediated Reactions & Syntheses

S. M. Silverman, *Organizer*

5:30 - 7:30

ORGN **141.** Asymmetric catalysis of ketone reduction using ruthenium and iron-based catalysts. **M. Willis**, T. Hall, A. Del Grosso, Z. Fang, R. Hodgkinson

ORGN **142.** Efficient and selective palladium-catalyzed direct aerobic oxidation of alcohols to esters. **Y. Hu**, B. Li

ORGN **143.** High-throughput transition metal-catalyzed chemistry workflows at Pfizer. **J. Magano**, S. Monfette, N. Thomson

ORGN **144.** Studies towards the total synthesis of trocheliophorolide A: A unique effort toward a one-pot hydroboration cyclization protocol. **K. Houghtling**, D. Verrico, T.G. Goudreau Collison, H.M. Simpson

ORGN **145.** Synthesis of gold clusters with PNNP ligands. **J. Yang**, A.M. Echavarren

ORGN **146.** Towards novel perfluoroalkylation of arenes. **K. Suppan**

ORGN **147.** Rhodium(I)-complexes catalyzed 1,4-conjugate addition of arylzinc chlorides to N-boc-4-pyridone. **M. Jeffries**, B. Graves, S. Graham, F. Guo

ORGN **148.** Michael-Michael ring closing reactions promoted by TpMo(NO) (DMAP)(η²-naphthalene). **J.T. Myers**, M. Sabat, W.H. Myers, W.D. Harman

ORGN **149.** Developing a modular synthesis of Eumelanin oligomers. **A.H. Aeby**, J.M. Belitsky

ORGN **150.** Synthesis of small functionalized molecules using copper-catalyzed atom transfer radical addition (ATRA) and [3+2] azide-alkyne cycloaddition (CuAAC). **S. Fischer**, M. Baldwin, T. Pintauer

ORGN **151.** Aluminum (III)-catalyzed synthesis of symmetrical Schiff base for aluminum sensor. **L. McDonald**, J. Wang, Y. Pang

ORGN **152.** Sequential tandem addition reactions to a tungsten-trifluorotoluene complex. **K.B. Wilson**, J.T. Myers, M. Sabat, W.D. Harman

ORGN **153.** Titanium-proline derived system for the asymmetric synthesis of propargyl alcohols. **C. Sweet**, D. Moustafa, P. Kaur

ORGN **154.** Toward (Z)-selective alkene isomerization catalysts and potential anti-cancer agents. **E. Delgado**, E.R. Paulson, D.B. Grotjahn

ORGN **155.** Dirhodium-mediated transfer of carbamate-derived nitrenes for aziridination-ring opening: A study on optimization and substrate scope. **E.C. McLaughlin**, M. Lasky, C.P. Anyanwu

Section D

Walter E. Washington Convention Center Hall D

Peptides, Proteins & Amino Acids

S. M. Silverman, *Organizer*

5:30 - 7:30

ORGN **156.** Synthesis and conformational analyses of stapled peptides derived from allyl-tethered carbocyclic α,α-disubstituted α-amino acids. **K. Hirayama**, A. Ueda, M. Doi, M. Tanaka

ORGN **157.** Characterizing proteins using SAXS on a hybrid laboratory x-ray scattering instrument. **J.E. Quinn**, N. Dadvanyan, A. Schierbeek, J. Bolze

ORGN **158.** Thioamides: Improved incorporation methods and effects on protein stability. **D. Szantai-Kis**, C.R. Walters, T. Barrett, E. Petersson

ORGN **159.** Synthesis and conformational analyses of peptides having α,α-disubstituted α-amino acids with (–)-menthyl skeleton. **A. Ueda**, S. Matsumoto, M. Doi, M. Tanaka

ORGN **160.** Withdrawn.

ORGN **161.** Development of a peptide library based on naturally occurring proteins from North American opossum (*Didelphis virginiana*) as potential inhibitors of snake venom metalloproteinases. **R.M. Werner**, J.M. Wickens, D. Webber

ORGN **162.** Chiroptical sensing of cysteine in complex mixtures. **F.Y. Thanzeel**, C. Wolf

ORGN **163.** Role of disulfide linkages in the folding and activity of scyllatoxin-based BH3 domain mimetics. **D.M. Berugoda Arachchige**, M. Harris, Z. Coon, J. Carlsen, J.M. Holub

ORGN **164.** Spiro-cyclopropane type α-helix/β-strand mimetics targeting protein-protein interactions. **T. Kuwahara**, A. Mizuno, H. Fukuda, M. Watanabe, S. Shuto

ORGN **165.** Small antimicrobial agents based on acylated reduced amide scaffold. **P. Teng**, J. Cai

ORGN **166.** Helical 1:1 α/sulfono-γ-AA heterogeneous peptides with antibacterial activity. **F. She**, A. Nimmagadda, P. Teng, M. Su, X. Zuo, J. Cai

ORGN **167.** High-throughput cyclic γ-AApeptides screening library against EPHA2. **Y. Shi**, J. Cai

ORGN **168.** Solid-phase synthesis of various peptide structures. **S. Kim**, J. Song, H. Lim, Y. Kwon

ORGN **169.** Conformational ensemble calculations of proteolytically stable β-hairpins containing bulky α,β-dehydroamino acids. **D. Kastner**, A. Jalan, S.L. Castle

ORGN **170.** Development of a biaryl oxidative coupling-based route to the anti-tumor natural products TMC-95. **S. Burgeson**, E. Martin, L. Sanchez

ORGN **171.** Alternative strategies for purification of fully protected peptides using flash chromatography. **E. Denton**, J.R. Bickler

Section E

Walter E. Washington Convention Center Hall D

Physical Organic Chemistry: Calculations, Mechanisms, Photochemistry & High-Energy Species

S. M. Silverman, *Organizer*

5:30 - 7:30

ORGN **172.** High performance nitrogen dioxide sensor based on organic field-effect transistor utilizing ultrathin CuPc/PTCDI-C8 heterojunction. **H. Fan**, J. Yu

ORGN **173.** Mechanism of hydrolysis reactions of 2,2-disubstituted sila- and germanes. **Y.A. Vereshchagina**, D. Chachkov, R. Khanafieva, E. Ishmaeva

ORGN **174.** Neighboring group participation in disulfide oxidation. **K. Fukuta**, T. Yamamoto, Y. Esaka, B. Uno

ORGN **175.** Computational study on the stereospecific cross-coupling reactions of anomeric stannanes for the synthesis of C-aryl glycosides. **I. Kevlishvili**, P. Liu, M.A. Walczak, F. Zhu, T. Yang

ORGN **176.** NMR spectroscopic studies for the behaviors of carbonyl compounds in various solvents. **S. Niwayama**, Y. Hiraga, S. Chaki

ORGN **177.** Rh-catalyzed intramolecular C-H insertion reactions: Important considerations for controlling side products. **S.R. Hare**, D. Tantillo

ORGN **178.** Analyzing the binding relationship between curcuminoids and HSA by steady state fluorescence spectroscopy. **O. Michels**, G.J. Myres

ORGN **179.** Photoinduced bacterial inactivation by azosulfones. **R. Viswanathan**, S. Zachariah, S. Protti, M. Fagnoni, **A. Greer**

ORGN **180.** Effect of irradiance on singlet oxygen generation and photobleaching of photosensitizer molecules immobilized on silica surfaces. **G. Ghosh**, Y. Liu, A. Lyons, **A. Greer**

ORGN **181.** Evidence for peroxide intermediates in intralipid photooxidations from 31P and 1H NMR studies: Implications for lipid peroxidations, photodynamic therapy, and tissue-siemulating phantoms. **P.P. Mohapatra**, C. Chiermezie, A. Kligman, M. Kim, T. Zhu, **A. Greer**

ORGN **182.** Sensitized photooxidations of mono-, di-, and tri prenylated phloroglucinol derivatives. **P.P. Mohapatra**, **A. Greer**

ORGN **183.** Computational analysis of substitution effects on oxyluciferin and its analogues. **V.B. Satakar**, E. Benassi, **Y. Shao**

ORGN **184.** Combination calculation with experiment: Nitration mechanism for the one pot synthesis of 1-methyl-3,4,5-trinitropropazole. **Y. Xu**, C. Shen, P. Wang, M. Lu

ORGN **185.** Synthesis of borazines derived from 1,2-aminoalcohols. **M. De Jesus**, M. Ortiz-Marciales

ORGN **186.** Docking studies on novel 1-benzazepine analogues as potential multi-target drugs for the treatment of Alzheimer's disease. **C. Garcia**, S. Espinosa-Diaz, S. Ortiz, M. Ortiz-Marciales

ORGN **187.** Lysosomes targeting probes with large Stokes' shifts via cyanine coupling with excited state intramolecular proton transfer (ESIPT). **D. Dahal**, L. McDonald, Y. Pang

ORGN **188.** Realizing Aza Paternò-Büchi reaction. **S.K. Kandappa**, E. Kumarasamy, R. Raghunathan, S. Jockusch, J. Sivaguru

ORGN **189.** Photoene vs. [2+2] photocycloaddition: A case study involving maleimides and alkenes. **S. Ahuja**, J. Sivaguru

ORGN **190.** Bis-acetyl carbazole: Photoremovable protecting group for sequential release of two different functional groups and its application for therapeutic release. **Y. Venkatesh**, N. Pradeep Singh

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9:00 ORGN 191. Decarboxylation rates determined by measurement of dissolved CO₂. A. Campanella, M.D. Mosher

ORGN 192. Synergy between solvation and aromatic substituent effects in CH-aryl interactions. B.U. Emenike, R. Spinelle, A. Rosario

ORGN 193. Controlling intramolecular [2+2] photocycloaddition of enones by axial chirality. A. Clay

MONDAY MORNING

Section A

Walter E. Washington Convention Center Room 207A

Robert Burns Woodward Centennial Symposium

P. A. Jacobi, R. M. Williams, *Organizers*

P. N. Confalone, *Organizer, Presiding*

8:30 ORGN 194. R. B. Woodward: A larger-than-life chemist. J. Seeman

9:30 ORGN 195. Building bridges: Strategies and tactics for the synthesis of polycyclic natural products. S.E. Reisman

10:30 ORGN 196. Robert Burns Woodward: Bridging art and science. C. Woodward

Section B

Walter E. Washington Convention Center Rooms 202A/B

Organometallics Distinguished Author Award

P. J. Chirik, *Organizer, Presiding*

9:00 Introductory Remarks.

9:05 ORGN 197. Design and application of 3,4-diazaphospholane ligands for enantioselective hydroformylation. C.R. Landis, J. Wildt, J. Eshon, A.C. Brezny

9:40 ORGN 198. Ti-catalyzed nitrene transfer reactions. I. Tonks

10:15 Intermission.

10:30 ORGN 199. Catalytic α -C-H alkylation of secondary amines: No directing auxiliary? No problem. L. Schafer

11:05 ORGN 200. New developments in the organometallic chemistry of high valent nickel. M.S. Sanford

Section C

Walter E. Washington Convention Center Room 206

Modern Chemistry of the Amide Bond

J. Aube, *Organizer, Presiding*

8:10 Introductory Remarks.

8:20 ORGN 201. Testing delocalization of the nitrogen lone pair in bridgehead bicyclic lactams. A. Greenberg

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

9:00 ORGN 202. Twists and turns of lactam research. B.M. Stoltz

9:40 ORGN 203. Twisted-amide mechanism of Pin1. F.A. Etzkon

10:20 ORGN 204. Cross-coupling of amides by N-C activation. M. Szostak

11:00 ORGN 205. Breaking amides using nickel catalysis. N.K. Garg

Section D

Walter E. Washington Convention Center Room 207B

Biologically Related Molecules & Processes

R. D. Broene, *Organizer*

L. J. Perez, *Presiding*

8:00 ORGN 206. Synthesis of oligodeoxynucleotides containing electrophilic groups using 1, 3-dithiane-2-yl-methoxycarbonyl (Dmoc) protection. B. Halami, X. Lin, J. Chen, S. Shahsavari, N. Green, D. Goel, S. Fang

8:20 ORGN 207. Truncated analogs of actin-targeting natural products: Synthesis and *in vitro* activity. R.L. Grange, J.S. Allingham, A.W. Craig, P. Evans, S. Nersesian, D. Trofimova, R. Williams, J. Zhou

8:40 ORGN 208. Design, synthesis, and antiviral evaluation of aryl and biaryl α -hydroxypropolones against herpes simplex virus -1 and -2. A. Garimalla, L. Morrison, B. Patel, S. Hoft, S. Datla, J. Tavis, R.P. Murelli

9:00 ORGN 209. Optochemical control of protein dimerization in living cells. C. Aonbangkhen, H. Zhang, M. Lampson, D.M. Chenoweth

9:20 ORGN 210. Synthesis of dimeric lysosomal inhibitors and their evaluation as anticancer agents. M. Nicastri, J.D. Winkler, R. Amaravadi, V. Rebecca

9:40 ORGN 211. Protein engineering for chemical synthesis: Rational design of a biocatalyst to enable a novel preparation of blockbuster statin drugs. K. Belecki

10:00 ORGN 212. Vitamin B2 related molecules that activate T cells. J.Y. Mak, W. Xu, R.C. Reid, A.J. Corbett, B.S. Meehan, H. Wang, Z. Chen, J. Rossjohn, J. McCluskey, L. Liu, D.P. Fairlie

10:20 ORGN 213. Genetic code and putative messages. J. DeMassa

10:40 ORGN 214. Sulfurization agents as capping reagents for phosphorothioate oligonucleotide synthesis. J. Yang

11:00 ORGN 215. Chemical signaling in *Pseudomonas aeruginosa* and design of species-specific inhibitors of this bacteria. L.J. Perez

Section E

Walter E. Washington Convention Center Room 201

Physical Organic Chemistry: Calculations, Mechanisms, Photochemistry & High-Energy Species

R. D. Broene, *Organizer*

G. O. Jones, *Presiding*

8:10 ORGN 216. Photooxidative crosslinking and photoaffinity labeling of proteins with naphthalene imides and diimides. S. Sova, L. Kelly

8:30 ORGN 217. Photophysical & photoacoustic properties of dimethyl-amino terminated curcuminoid dyes containing the phenyl, naphthyl and thienyl *n*-spacers. R.E. Borg, J.J. Rochford

8:50 ORGN 218. Photochemical expulsion of leaving groups from a naphthothio-phenene-2-carboxamide anilide linked to a chromophore by a flexible polymethylene chain. L. Li, G. Ndzaidze, M.G. Steinmetz

9:10 ORGN 219. Photoreactions with a twist: Employing restricted bond rotations for controlling excited state transformations. J. Sivaguru

9:30 ORGN 220. Wavelength dependent rate acceleration in hybrid "photoisomerization-Brønsted acid catalysis". J. Hioe, P. Renzi, G. Ruth Maria

9:50 ORGN 221. Photophysics of naphthalene dimers controlled by the sulfur bridge oxidation. C. Climent, D. Casanova

10:10 ORGN 222. Chemistry of fingerprint visualization: New insights in the initiating step of the ethyl-2-cyanoacrylate polymerization reaction. S.C. van der Lubbe, R. de Jong, F. Loadsman-Wammes, C. Fonseca Guerra, F. Bickelhaupt, M.A. van Bochove

10:30 ORGN 223. Substituent effect on stability for rubrene analogues. J.T. Ly, S. Thomas, M. Yamashita, H. Yamada, J.E. Bredas, L. Zhang, A.L. Briseno

10:50 ORGN 224. Tuning the photochemical and redox properties of ethyl-flavinium ion. B.D. Etz, S. Vyas

11:10 ORGN 225. Evaluating stereospecificity of metal free visible light mediated acyl-migration. A. Clay

11:30 ORGN 226. Toward the origin of small chemical shift differences in diastereotopic X-CH₂D groups. O. Ogba, S. Elliott, D. Kolin, L.J. Brown, S. Cevallos, S. Sawyer, M. Levitt, D.J. O'Leary

Section F

Walter E. Washington Convention Center Rooms 204A/B

New Reactions & Methodology

Metals

R. D. Broene, *Organizer*

V. W. Shurtleff, *Presiding*

8:00 ORGN 227. Electrochemical methods for Ni-catalyzed sp²-sp³ cross-couplings. R.J. Perkins

8:20 ORGN 228. Synthesis of selectively difluorinated carbocycles through a novel gold(I) catalyzed cyclisation. A. McCarter, C. Jamieson, J. Percy, D. Hirst

8:40 ORGN 229. Construction of 1-heteroaryl-3-azabicyclo[3.1.0]hexanes by sp²-sp³ Suzuki-Miyaura and Chan-Evans-Lam coupling reactions of tertiary trifluoroborates. M. Harris, Q. Li, Y. Lian, J. Xiao, A.T. Londregan

9:00 ORGN 230. Applications of light-gated cobalt catalysis to a [2+2] cycloaddition polymerization. B. Ravetz, K.E. Ruhl, T. Rovis

9:20 ORGN 231. Cobalt-catalyzed asymmetric hydroboration of prochiral 1,3-dienes. K. Duvvuri, K.R. Dewese, T. RajanBabu

9:40 ORGN 232. Palladium catalyzed decarboxylation of polyenoic acids. M.H. Alhunit, M. Garr, M.P. Croatt

10:00 ORGN 233. SmCpR₂-mediated coupling of allyl and propargyl ethers with ketoesters and a one-pot approach to complex cycloheptanols. M. Plesniak, X. Just-Baringo, F. Ortu, D. Mills, D. Procter

10:20 ORGN 234. Ni-catalyzed oxidative decarboxylative arylation of unactivated C-H bonds with (hetero)aryl benzoates. A.P. Honeycutt, J.M. Hoover

10:40 ORGN 235. Rhodium-catalyzed [(3+2)+1] carbocyclization reactions of alkynylidene cyclopropanes with carbon monoxide: Construction of polysubstituted dienones. A. Burnie, P. Evans

11:00 ORGN 236. Development of practical methods for tantalum-catalyzed hydraminoalkylation. P.M. Edwards, L. Schafer

11:20 ORGN 237. Mechanistic investigation of reactions of 1-iodoaryl alkynes with organic azides in the copper (I)-catalyzed cycloaddition reaction. A. Nazarova, V.V. Fokin

11:40 ORGN 238. Reductive conversion of acyclic esters to ethers using ReactIR. J.A. Pigza

Building a Safety Culture across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

MONDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 207A

Robert Burns Woodward Centennial Symposium

P. N. Confalone, R. M. Williams, *Organizers*

P. A. Jacobi, *Organizer, Presiding*

1:00 ORGN 239. R. B. Woodward's insights into theory and mechanism. K.N. Houk

2:00 ORGN 240. Development of organocatalytic and photoredox catalyzed reactions. D.W. MacMillan

3:00 ORGN 241. Withdrawn.

4:00 ORGN 242. Working with Woodward. R. Hoffmann

Section B

Walter E. Washington Convention Center Rooms 202A/B

Tetrahedron Prize for Creativity in Organic Chemistry Symposium

Financially supported by Elsevier

S. F. Martin, *Organizer*

J. L. Wood, *Presiding*

1:10 Introductory Remarks.

1:15 ORGN 243. Rise and promise of the mechanical bond in chemistry and beyond. C. Pezzato, M.T. Nguyen, C. Cheng, J.F. Stoddart

2:05 ORGN 244. New stereoselective, catalytic fluorination reactions. E.N. Jacobsen

2:55 ORGN 245. Hydrogel-actuated integrated responsive systems (HAIRS): Moving towards adaptive, homeostatic materials. J. Aizenberg

3:45 Introduction of Awardee.

3:55 ORGN 246. Designing dynamic molecular systems: From switches to motors. B. Feringa

4:55 Concluding Remarks.

Section C

Walter E. Washington Convention Center Room 206

Cross-Electrophile Coupling

Financially supported by Pfizer, Novartis, Boehringer-Ingelheim

E. R. Jarvo, *Organizer*

D. J. Weix, *Organizer, Presiding*

1:20 ORGN 247. Enantioselective Ni-catalyzed cross-electrophile coupling. S.E. Reisman

2:00 ORGN 248. Nickel-catalyzed stereospecific reductive cross-electrophile coupling reactions. E.R. Jarvo

2:40 ORGN 249. Controlling selectivity and reactivity in nickel-catalyzed cross electrophile couplings. E.C. Hansen

3:20 ORGN 250. Cross-electrophile coupling of tertiary alkyl halides with other electrophiles. H. Gong

4:00 ORGN 251. Cross-electrophile coupling of challenging substrates. D.J. Weix

4:40 ORGN 252. Cobalt: A versatile catalyst to promote reductive cross-coupling reactions. C. Gosmini

Section D

Walter E. Washington Convention Center Room 207B

Asymmetric Reactions & Syntheses

Miscellaneous

R. D. Broene, *Organizer*

Y. Yang, *Presiding*

1:20 ORGN 253. Developing chemical tools for accessing indolizidine alkaloids from dendrobatid frogs: Synthetic versatility of α -methyl 2, 3-dihydropyridinones in building polyfunctional piperidines. Y. Yang

1:40 ORGN 254. Studies directed towards the synthesis of a sparteine surrogate. T.F. Higgins, J.D. Winkler

2:00 ORGN 255. Enantioselective total synthesis of cycloclavine. S.R. McCabe, P. Wipf

2:20 ORGN 256. Asymmetric synthesis of a HCV nucleoside cyclic prodrug. Y. Zhong, E. Cleator, Z. Liu, J. Yin, W. Morris, M. Alam, B. Bishop, A. Dumas, J. Edwards, A. Goodyear, P. Mullens, M. Shevlin, Z. Song, D. Thaisrivongs, H. Li, R. Cohen, J. Yin, L. Tan, N. Yasuda, J. Limanto, P. Bulger, A. Davies, K.R. Campos

2:40 ORGN 257. Development of new Lewis-acid catalyzed methods for organic synthesis. P.S. Riehl, C. Schindler

3:00 ORGN 258. Asymmetric catalytic reactions: Recent use of TOX and SaBOX ligands. Y. Tang

3:20 ORGN 259. High-throughput phase-transfer catalyst synthesis and evaluation coupled with QSAR modeling as enabling tools for efficient catalyst optimization. K.M. Belyk, K. Lexa, E.C. Sherer, R. Ruck

3:40 ORGN 260. Metal-free stereospecific isomerization of electron-deficient allylic alcohols and allylic ethers. S. Martinez Erro, A. Sanz-Marco, A. Bermejo Gómez, A. Vázquez-Romero, M.S. Ahlquist, B. Martín-Matute

4:00 ORGN 261. H₃PO₂-catalyzed intramolecular stereospecific nucleophilic substitution of the hydroxyl group in stereogenic alcohols. A. Bunrit, R.A. Watile, C. Dahlstrand, S. Olsson, P. Srida, G. Huang, S. Biswas, F. Hirno, J.S. Samec

Section E

Walter E. Washington Convention Center Room 201

Physical Organic Chemistry: Calculations, Mechanisms, Photochemistry & High-Energy Species

R. D. Broene, *Organizer*

H. Banks, *Presiding*

1:00 ORGN 262. Chemistry at the edges of doped graphenes: A computational study. H. Banks

1:20 ORGN 263. Exploring energetics in dirhodium paddle-wheel complexes with π -donors of different topologies. J. Li, A.Y. Rogachev

1:40 ORGN 264. Solving the density functional conundrum: Elimination of systematic errors to derive highly accurate reaction enthalpies of complex organic reactions. A. Sengupta, K. Raghavachari

2:00 ORGN 265. Conformational preferences and anomeric effect in light of attractive Coulomb interactions. M.J. Schmittel, A. Rana

2:20 ORGN 266. Theoretical studies on ring-opening polymerizations by alkoxides and (thio)ureas. G.O. Jones, X. Zhang, B. Lin, J. Hedrick, R.M. Waymouth

2:40 ORGN 267. Computational studies on the Z- and E-selective molybdenum catalysts for olefin metathesis. X. Dong, K.N. Houk

3:00 ORGN 268. Reductive desulfurization of thionated naphthalene diimides: Isolation of a new naphthalene derivative depicting attractive photophysical and electrochemical properties. A.J. Ayitou

3:20 ORGN 269. Excited state equilibria and geometrical effects during fluorescence quenching of sterically-graded pyrenes by tertiary aliphatic amines and N,N-dialkylanilines. M.J. Bertocchi, R.G. Weiss, J. Moorthy, X. Zhang, A. Bajpai

3:40 ORGN 270. Mechanistic studies of samarium diiodide (SmI₂) - amine complexes. C. Bartulovich, S. Maity, R.A. Flowers

4:00 ORGN 271. Pharmaceutical process development: Kinetic investigations and modeling. A.L. Dunn

4:20 ORGN 272. Design of stable organic electrolytes for Li-O₂ batteries. S. Feng, L. Giordano, M. Chen, J.A. Johnson, Y. Shao-Horn

4:40 ORGN 273. Racemization of cyclopropyl fused dihydroisoxazoles. K. Quasdorf, M.D. Bartberger

Section F

Walter E. Washington Convention Center Rooms 204A/B

New Reactions & Methodology

Organocatalysis & General

R. D. Broene, *Organizer*

A. R. Narayan, *Presiding*

1:30 ORGN 274. Discovery and optimization of a new formal thiocyanopalladation/carbocyclization transformation via enzymatic screening. R.A. Swyka, G. Malik, G.A. Applegate, X. Fei, D.B. Berkowitz

1:50 ORGN 275. Organocatalyzed synthesis of epoxides from alkenes utilizing amino acids. S. Russell, J.J. Kiddle

2:10 ORGN 276. Organocatalytic methods for site-selective aliphatic C-H bond hydroxylation. W. Shuler, S.L. Johnson, D. Wang, C. Pierce, M.K. Hillinski

2:30 ORGN 277. Stereoselective synthesis of α -hydroxy phosphonates/ α -amino phosphonates using manganese-proline derived catalytic system. P. Kaur, H. Lim, V. Datilus, R. Teriak, P. Chohan

2:50 ORGN 278. Chemoselective direct transformation of common amides: The chemistry for medicinal chemistry and total synthesis of natural products. P. Huang

3:10 ORGN 279. Withdrawn.

3:30 ORGN 280. Cofactors as a source of inspiration for discovering new modes of catalytic activation. M.D. Clift

3:50 ORGN 281. Transaminase triggered aza-Michael approach for the enantioselective synthesis of chiral alkaloids. J. Ryan, B. Maciá, E. O'Reilly, V. Caprio

4:10 ORGN 282. Directing electrophilic aromatic substitution reactions from above and underneath aromatic rings. S.T. Schneebeli

4:30 ORGN 283. Phosphorus and sulfur ylide mediated C(sp³)-C(sp³)-coupling reactions. K.J. Hock, U.P. Tran, L. Mertens, C.P. Gordon, J. Ho, T.V. Nguyen, R.M. Koenigs

4:50 ORGN 284. How mass spectrometry enables automatization and late stage functionalization workflows. I. Zamora, T. Radchenko, E. Ortega, B. Serra, G. Plasencia Gallofré, L. Morettoni, F. Fontaine

5:10 ORGN 285. Development of methods utilizing biocatalysts from natural product pathways. A.R. Narayan

Building a Safety Culture across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

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MONDAY EVENING

Section A

Walter E. Washington Convention Center Halls D/E

Sci-Mix

S. M. Silverman, *Organizer*

8:00 - 10:00

116, 125, 130, 133-134, 138, 140-141, 147, 174, 177, 182, 184, 192. See previous listings.

387, 389, 392, 394, 403-405, 411, 415, 418, 433, 437-438, 447, 451, 454-455, 460, 462, 570-571, 578, 581-582, 586-587, 592-593, 598, 601, 604, 611, 619, 622, 624, 636-638, 640-641, 643, 646-647, 653, 659. See subsequent listings.

TUESDAY MORNING

Section A

Walter E. Washington Convention Center Rooms 202A/B

Arthur C. Cope Award Symposium

M. K. Boyd, *Organizer*

K. L. Lee, *Organizer, Presiding*

8:00 ORGN 286. Award Address (Arthur C. Cope Early Career Scholars Award Sponsored by Arthur C. Cope Fund). C-C and C-H functionalization of ketones. G. Dong

8:40 ORGN 287. Award Address (Arthur C. Cope Late Career Scholars Award Sponsored by Arthur C. Cope Fund). Transition metal catalysis and chemistry of bioactive molecules. M. Sodeoka

9:20 ORGN 288. Award Address (Arthur C. Cope Mid Career Scholars Award Sponsored by the Arthur C. Cope Fund). New vistas in the asymmetric construction of C-C bonds: Total synthesis of complex bioactive agents. P. Evans

10:00 ORGN 289. Award Address (Arthur C. Cope Mid Career Scholars Award Sponsored by the Arthur C. Cope Fund). Stereoselective saturated heterocycle synthesis via copper-catalyzed alkene difunctionalizations involving polar/radical cascades. S.R. Chemler

10:40 ORGN 290. Award Address (Arthur C. Cope Early Career Scholars Award Sponsored by Arthur C. Cope Fund). Chemically stable polycyclic aromatic hydrocarbon semiconductors for organic electronic applications. A.L. Briseno

11:20 ORGN 291. Award Address (Arthur C. Cope Late Career Scholars Award Sponsored by Arthur C. Cope Fund). Click, carry, and release: Building and transporting molecular function. M. Finn

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Section B

Walter E. Washington Convention Center
Room 207A

Young Academic Investigator Symposium

H. M. Davies, L. McElwee-White, *Organizers, Presiding*

8:10 Introductory Remarks.

8:15 ORGN 292. Synthetic nucleic acid topology and their biological applications. Y. Weizmann

8:40 ORGN 293. New fluorophore scaffolds for chemical biology. C.I. Stains

9:05 ORGN 294. New recipes for biocatalysis: Expanding the cytochrome P450 chemical landscape. E.M. Brustad

9:30 ORGN 295. Chemical methods for tailoring glycan interactions at the cell-matrix interface. K. Godula

9:55 Intermission.

10:05 ORGN 296. Mechanistically-defined methods for synthesis of neuroactive small molecules. T.R. Newhouse

10:30 ORGN 297. Synthesis of designer organic nanowires and nanoribbons. A.A. Gorodetsky

10:55 ORGN 298. Strategic nanomaterial synthesis. R.S. Klausen

11:20 ORGN 299. Can single-molecule spectroscopy be a tool for mechanistic organometallic chemistry? R.H. Goldsmith

Section C

Walter E. Washington Convention Center
Room 206

Process Chemistry: New Developments in Pharmaceutical Process Development (IV)

J. A. Pesti, R. Vaidyanathan, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ORGN 300. Science and innovation in API process design and continuous improvement. S. Cui

8:50 ORGN 301. Commercial route development of an SMO inhibitor. N. Do

9:35 ORGN 302. Development of scalable and cost-effective API synthesis through chemical innovation. C.H. Senanayake

10:20 ORGN 303. Invention of catalytic asymmetric methods for the commercial manufacture of complex drug targets. K.R. Campos

11:05 ORGN 304. Taming down those nitrogens: Design and development of the commercial synthesis of a novel tyrosine kinase inhibitor. K. Chen

11:50 Concluding Remarks.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section D

Walter E. Washington Convention Center
Room 207B

Asymmetric Reactions & Syntheses

Metals

R. D. Broene, *Organizer*

A. R. Angeles, *Presiding*

8:00 ORGN 305. Symmetric disubstituted heteroaryl-olefins: A new challenge for the enantioselective addition of Grignard reagents to electrophiles. T. Pellegrini, R.P. Jumde, S.R. Harutyunyan

8:20 ORGN 306. Enantioconvergent cross-coupling of racemic secondary organozinc reagents. R. Oost, A. Preinfalk, A. Misale, N. Maulide

8:40 ORGN 307. Pd-catalyzed synthesis of highly functionalized piperidines. B. Allen, J.P. Harrity

9:00 ORGN 308. Enantio-, diastereo-, and regioselective Pd-catalyzed allylic alkylation of fluoroenolates: Access to enantioenriched 3-fluorooxindoles with vicinal and four contiguous chirality centers. B. Kaluvu, C. Wolf

9:20 ORGN 309. Enantioselective oxidative homocoupling reaction: Vanadium(V)-catalyzed synthesis of novel 1,1'-bicarbazole-2,2'-diols. V. Peddiahgari, H. Kang, Y. Eun Lee, K. Niederer, P. Sung, M. Kozlowski

9:40 ORGN 310. Copper(I)-catalyzed enantioselective alkylation of oxocarbenium and iminium ions to set diaryl tetra-substituted stereocenters. S. Dasgupta, J. Liu, T.E. Rivas, C. Shoffler, M.P. Watson

10:00 ORGN 311. Catalytic asymmetric synthesis of alkylsilanes enabled by stereoconvergent nickel-catalyzed cross-coupling. G.M. Schwarzwalder, G.C. Fu

10:20 ORGN 312. Pd-catalyzed enantioselective intermolecular hydroamination of dienes with aliphatic amines. S. Malcolmson, N. Adamson, E. Hull

10:40 ORGN 313. Enantioselective cascade reaction for synthesis of quinolones via synergistic catalysis using Cu-pybox and chiral benzotamisole as catalysts. X. Wu, X. Lu, L. Ge, C. Cheng

11:00 ORGN 314. *N*-sulfinyl metallo-dienamines in the total synthesis of (-)-albicycline. R.B. Andrade, V.K. Chatare

11:20 ORGN 315. Asymmetric synthesis of an active pharmaceutical ingredient: Discovery and development of novel photoredox-minisci formylation and KRED reactions. A.R. Angeles

Section E

Walter E. Washington Convention Center
Room 201

Peptides, Proteins & Amino Acids

R. D. Broene, *Organizer*

L. Witus, *Presiding*

8:20 ORGN 316. Selective covalent derivatization of hexahistidine tag of recombinant proteins. A. Melman, V. Kadambar

8:40 ORGN 317. Metal-assisted folding of prolinomycin allows facile design of functional peptides. W. Wang, A.S. Hosseini, J. Gao

9:00 ORGN 318. Development of a colorimetric competitive displacement assay for the evaluation of catalytic peptides. A. Gest, E. Aguiluz Ramirez, L. Witus

9:20 ORGN 319. Role of single disulfide linkages in the folding and activity of scyllatoxin-based BH3 domain mimetics. J.M. Holub, D.M. Berugoda Arachchige, M.M. Harris, Z. Coon, J. Carlsen

9:40 ORGN 320. Engineered luciferases as off-the-shelf reporters of pathogenic bacteria. Z. Reinert, J.A. Prescher

10:00 ORGN 321. Lasso peptide benenod-1 is a thermally actuated [1]rotaxane switch. C. Zong, M. Wu, J. Qin, A. Link

10:20 ORGN 322. Novel ¹⁹F-amino acids as labels to study peptides by ¹⁹F NMR. P. Mykhailiuk

10:40 ORGN 323. c-Myc reversibly associates into dynamic aggregates. V.S. Dobrev, A.C. de Dios, S.J. Metallo

Section F

Walter E. Washington Convention Center
Rooms 204A/B

New Reactions & Methodology

General

R. D. Broene, *Organizer*

C. Brindle, *Presiding*

8:00 ORGN 324. Stereoselective cyclization reactions: New approaches to indole alkaloids. L. Wang, J. Zhu, L. Feng, H. Ren, Y. Tang

8:20 ORGN 325. Advancements using alkylsilicates for C-C bond construction. C. Kelly, S.B. Lang, N.R. Patel, R.J. Wiles, K. Lin, A.P. Siegenfeld, G.A. Molander

8:40 ORGN 326. Hydrazine and diethylenetriamine mediated direct cleavage of unactivated amides, carbamates, and ureas. M. Noshita, Y. Shimizu, H. Morimoto, T. Ohshima

9:00 ORGN 327. Phosphine oxide-catalyzed amide synthesis. P.H. Toy

9:20 ORGN 328. Withdrawn.

9:40 ORGN 329. Electrochemical synthesis and characterization of dicationic ionic liquids as electrolytes for safer lithium ion batteries. R.N. Manchanayakage

10:00 ORGN 330. Simple workup procedure for the removal of aldehydes. C. Brindle

10:20 ORGN 331. Catalytic insertion of isatins and aldehydes into aryl dihalonitromethyl ketones. R. Ding, P.R. Bakshi, C. Wolf

10:40 ORGN 332. Oxidative cyclization reactions and the importance of controlling the nature of reactive intermediates. R. Feng, R.J. Perkins, K.D. Moeller

11:00 ORGN 333. Use of branched and dendritic scaffolds for controlling selectivity in organocatalysis. M. Portnoy, N. Ashush, A. Fallek, R. Palakuri, J. Karabline-Kuks, M. Weiss-Shtofman

11:20 ORGN 334. Oxidative C(sp²)-H trifluoromethylation of enamides using TMSCF₃. S.B. Munoz, V. Krishnamurti, G.S. Prakash

11:40 ORGN 335. Bench-validated retrosynthetic cheminformatics tool to simplify the synthesis of novel chemical compounds. S.L. Trice

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TUESDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Rooms 202A/B

Arthur C. Cope Award Symposium

K. L. Lee, *Organizer*

M. K. Boyd, *Organizer, Presiding*

1:00 ORGN 336. Award Address (Arthur C. Cope Late Career Scholars Award Sponsored by Arthur C. Cope Fund). Themes and schemes: Some small molecule syntheses. K.A. Parker

1:40 ORGN 337. Award Address (Arthur C. Cope Mid Career Scholars Award Sponsored by Arthur C. Cope Fund). Synthesis of complex and diverse compounds from natural products leads to discovery of a broad-spectrum antibiotic. P.J. Hergenrother

2:20 ORGN 338. Award Address (Arthur C. Cope Late Career Scholars Award Sponsored by Arthur C. Cope Fund). Three-component hexadehydro-Diels-Alder (HDDA) reactions. T.R. Hoye

3:00 ORGN 339. Award Address (Arthur C. Cope Mid Career Scholars Award Sponsored by Arthur C. Cope Fund). Efforts in natural product synthesis design. C.D. Vanderwal

3:40 ORGN 340. Award Address (Arthur C. Cope Award Sponsored by the Arthur C. Cope Fund). Wild world of bioorthogonal chemistry. C.R. Bertozzi

4:40 Concluding Remarks.

Section B

Walter E. Washington Convention Center
Room 207A

Young Academic Investigator Symposium

H. M. Davies, L. McElwee-White, *Organizers, Presiding*

1:10 ORGN 341. Strategies and methods for the synthesis of topologically complex natural products. J.L. Stockhill

1:35 ORGN 342. Catalysis at metal-metal bonds. C. Uyeda

2:00 ORGN 343. Transition metal catalyzed amination and amidation reactions. K.L. Hull

2:25 ORGN 344. Catalytic carbon-olefin metathesis. C. Schindler

2:50 ORGN 345. Catalytic hydroacylation and carboacylation of olefins: A platform for synthesis of heterocyclic and carbocyclic ketones. L.M. Stanley

3:15 Concluding Remarks.

Section C

Walter E. Washington Convention Center
Room 206

Using Organic Chemistry to
Illuminate Biological Systems

M. J. Schnermann, *Organizer, Presiding*

1:15 ORGN 346. Photocatalytic induction of tetrazine ligation with near IR light. J. Fox

1:45 ORGN 347. TMP-Tag: A chemical surrogate to the fluorescent proteins for live cell imaging. V.W. Cornish

2:15 ORGN 348. Optical control of protein function through genetic code expansion. A. Deiters

2:45 Intermission.

3:00 ORGN 349. Designing brighter dyes for advanced imaging experiments. L.D. Lavis

3:30 ORGN 350. Illuminating the path for drug delivery. D.S. Lawrence

Section D

Walter E. Washington Convention Center
Room 207B

Asymmetric Reactions & Syntheses

R. D. Broene, *Organizer*

C. Allais, *Presiding*

1:15 ORGN 351. Kinetic resolution of chiral racemic secondary allylboronates and their application in the synthesis of homoallylic amines. L. Villar, N. Orlov, N. Kondratyev, J.L. Vicario, A.V. Malkov

1:35 ORGN 352. Consecutive cross-coupling reaction of bis(alkenyl) borates to afford enantioenriched allylboron reagents. E. Edelstein, S. Namirembe, J.P. Morken

1:55 ORGN 353. Two are better than one: New processes involving 1,1-diboron acids. P. Starkov

2:15 ORGN 354. Enantio- and diastereoselective synthesis of 1,5-syn-(Z)-aminoalcohols via imine double allylboration: Synthesis of trans-1,2,3,6-tetrahydropyridines and total synthesis of and-rachicine. C. Allais, W.R. Roush

2:35 ORGN 355. Synthesis of axially chiral heterobiaryl alkynes via dynamic kinetic asymmetric alkylation. V. Hornillos, A. Ros, P. Ramirez-López, J. Iglesias-Sigüenza, R. Fernández, J.M. Lassaletta

2:55 ORGN 356. Merging photoisomerization and Bronsted acid catalysis: Insight into transition states. P. Renzi, J. Hioe, G. Ruth Maria

3:15 ORGN 357. Chiral Lewis acid catalyzed enantioselective synthesis of cyclopropane and its retro-Claisen rearrangement to 2,5-dihydrooxepine. S. Shim, D. Ryu

3:35 ORGN 358. Chirality transfer intramolecular [2+2] cycloadditions of electron deficient allenes and alkenes. Y. Xu, M.K. Brown

3:55 ORGN 359. First two-step asymmetric α,α -bis-functionalization of ynones via unprecedented *tetra*-substituted 1,2-dialkynyl enamines. S. Peng, Z. Wang, Y. Huang

Section E

Walter E. Washington Convention Center
Room 201

Metal-Mediated Reactions
& Syntheses

R. D. Broene, *Organizer*

C. Meyet, *Presiding*

1:10 ORGN 360. Choose your own adventure: Three-component copper chemistry reveals exclusive routes to either allene or propargylamine. C. Meyet, H. Banovetz, T. Beckwith, S. Kiledal, Z. Nusbaum, J. Oiberding, J. Parker, K. Royer, J. Russell, S. Saccoman, E. Shankin, K.B. Shillingstad, E. Steger, Y. Xia

1:30 ORGN 361. Mechanistic studies on the conversion of metallacyclobutenes to highly substituted cyclopentadienes. J.M. O Connor, P. Qin, R.L. Holland, K.K. Baldrige, A.L. Rheingold, C. Moore

1:50 ORGN 362. Iron mediated *N*-arylation reactions. G. Douglas, S. Raw, S. Marsden

2:10 ORGN 363. Nickel-catalyzed reductive cross-electrophile coupling reactions of alkyl fluorides for cyclopropane synthesis. E. Lucas, L. Erickson, E. Tollefson, E.R. Jarvo

2:30 ORGN 364. Palladium catalyzed cross-coupling of 3-methylthiophene-2-carbonyl chloride with aryl/het-aryl boronic acids: A convenient method for synthesis of thienyl ketones. K. Rizwan, I. Karakaya, M. Zubair, N. Rasool, Z. Nazli, G.A. Molander

2:50 ORGN 365. One-pot cascade Suzuki-Miyaura/Diels-Alder approach to steroidal cores enabled by nucleophile chemoselectivity. J. Molloy, A.J. Watson

3:10 ORGN 366. Photosensitized, energy transfer-mediated organometallic catalysis through electronically excited nickel(II). E. Welin, C. Le, D.M. Arias-Rotondo, J.K. McCusker, D.W. MacMillan

3:30 ORGN 367. Iron-mediated aziridination. M. Shehata, S. Ayer, J.L. Roizen

3:50 ORGN 368. Development of cheap, recyclable cellulose-bonded palladium catalyst for cross coupling reactions. Z. Lu, J. Jasinski, S. Handa, G.B. Hammond

4:10 ORGN 369. Palladium-catalyzed tandem C-H functionalization/cyclization strategy for the synthesis of 5-hydroxy-benzofuran derivatives. S. Ichake, C. Yao

4:30 ORGN 370. Application of cyclic metal carbyne complexes in classical organic reactions. H. Zhang

Section F

Walter E. Washington Convention Center
Rooms 204A/B

New Reactions & Methodology

Photoinduced & General

R. D. Broene, *Organizer*

T. Wang, *Presiding*

1:00 ORGN 371. Radical conjugate addition of alkyl bromides to α,β -unsaturated amides and esters by visible-light photoredox catalysis. A. El Marrouni, J. Balsells

1:20 ORGN 372. Withdrawn.

1:40 ORGN 373. Withdrawn.

2:00 ORGN 374. Visible light mediated construction of pyrroloindolines via an amidyl radical cyclization/intermolecular radical alkene addition cascade: Total synthesis of (\pm) flustramide B. T. Wang

2:20 ORGN 375. Withdrawn.

2:40 ORGN 376. Withdrawn.

3:00 ORGN 377. Synthesis and photophysical properties of novel organometallic hdroporphyrins. N. Esemoto, M. Ptaszek

3:20 ORGN 378. Withdrawn.

3:40 ORGN 379. Development of a new methodology for synthesis of 1,4-oxazepines. M. Zora, Y. Kelgokmen, Y. Cayan

4:00 ORGN 380. Toward the ideal manufacturing process of active pharmaceutical ingredients at Merck. S.M. Silverman

4:20 ORGN 381. Base dependent chemo-divergent cascade reaction of dihydroxyfumarate with aldehydes. G.W. Ward, S.A. France, C.L. Liotta, R. Krishnamurthy, N.V. Hud

4:40 ORGN 382. Tandem reactions for the direct, catalytic synthesis of alpha-tetrasubstituted amines. C.H. Larsen, Z.L. Palchak, K.G. Nelson, M.D. Sterling

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TUESDAY EVENING

Section A

Walter E. Washington Convention Center
Hall D

Biologically Related
Molecules & Processes

S. M. Silverman, *Organizer*

5:30 - 7:30

ORGN 383. High-throughput post-synthetic chemical modification of RNA. D. Zewge, D.M. Tellers, I.W. Davies

ORGN 384. Dynamic detection and visualization of RNA methylation by photochemical organic transformations. D. Kong, R. Wang, L. Xie, L. Cheng

ORGN 385. Derivatizing lanosterol with improved water solubility for cataract treatment. Y. Cheng, H. Hsu

ORGN 386. Sesterterpenoids from the marine sponge *Phorbas* sp. activate latent HIV-1 provirus expression. M. Wang, I. Tietjen, M. Chen, D.E. Williams, J. Daoust, M.A. Brockman, R.J. Andersen

ORGN 387. Design and synthesis of C2-substituted 8-aza-7-deaza-2'-deoxyadenosines as environmentally sensitive fluorescent nucleosides. Y. Saito, M. Yanagi

ORGN 388. Detection of organochlorine pesticides in contaminated biological systems via cyclodextrin-promoted fluorescence modulation. J. Lynch, M. Levine, D.J. DiScenza

ORGN 389. Glass surface adhered probe plate assay for characterization of protein binding partners of small molecules. S.J. Ramos-Hunter, K. Brandvold, C. Whidbey, A.T. Wright

ORGN 390. Chemical route optimization of VACHT gamma-carboline compounds. D. Billen, D.M. Sobieray, V. Westrick, O. Goethe

ORGN 391. Inspired from naturally occurring bicyclic iminosugars to develop new molecular scaffolds and libraries. W. Chen, C. Chen, H. Lee, W. Cheng

ORGN 392. Synthesis of a fluorinated C-glycoside of the immunostimulatory glycolipid KRN7000. K. Ali, A.S. Altiti, D.R. Mootoo

ORGN 393. Development and optimization of Glaser-Hay bioconjugations. D. Young

ORGN 394. Targeting regulatory non-coding RNAs with druglike small molecules. C.M. Connelly, R.E. Boer, M.H. Moon, R.S. Sinniah, P. Gareiss, J. Schneckloth

ORGN 395. Activity-based protein profiling of bile acid metabolism and host signaling in the gut microbiome. K. Brandvold, C. Whidbey, A.T. Wright

ORGN 396. Water green synthesis of antitubercular dicoumarols. D. Bandyopadhyay, V.M. Cano, I.M. Chapa, A. Velasco, M.L. Vigilar, O. Espino, G. Rivera

ORGN 397. Chemical investigation of avocado (*Persea americana*) seed husk: A waste of waste. D. Bandyopadhyay, O. Castillo, D. Villicana, V.M. Cano, T. Eubanks

ORGN 398. Medicinally privileged compounds from *Magnolia grandiflora* green seed cones. D. Bandyopadhyay, A. Echeverria, B. Garza, T. Eubanks

ORGN 399. Chemical investigation of southern live oak (*Quercus virginiana*) galls. D. Bandyopadhyay, A. Rodriguez, J.A. Rodriguez, J. Garcia, T. Eubanks

ORGN 400. Poecillasirin A: A new tri-indole alkaloid from a deep water *Poecillastra* sp. H. Liu, G. Lauro, R. O'Connor, K. Lohith, G. Bifulco, C.A. Bewley

ORGN 401. Scalable synthesis and spectroscopic analysis of mercaptobenzamide thioester (SAMT) HIV inhibitors. H. Nikolayevskiy, M.T. Scerba, D.H. Appella

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ORGN **402.** Withdrawn.

ORGN **403.** Design, synthesis and biological evaluation of fucose-truncated monosaccharide analogues of ipomoeassin F. **M. Hirsch**, G. Zong, C. Mondrik, Z. Hu, W. Shi

ORGN **404.** Stereoselective synthesis of flavonoid analogues and evaluation of biological performance diversity. **L.N. Aldrich**, E.M. Gerlach, T.R. Helgren, M.A. Korkmaz, M. Oleksyuk, I. Pavlinov, L.L. Xu

ORGN **405.** Synthesis of solvatochromic probes to label the mycobacterial cell wall and their use in studies of host-pathogen interactions. **S. Keyser**, A. Utz, M. Kamariza, C.R. Bertozzi

ORGN **406.** Withdrawn.

ORGN **407.** Synthesis of amide isosteres of schweinfurthin-based stilbenes. **D.P. Stockdale**, J.A. Beutler, D.F. Wiemer

ORGN **408.** Near-infrared fluorescent probes for sensitive and selective detection of pH changes in live cells through visible and near-infrared channels. **W. Mazzi**, M. Fang, R. Adhikari, N. Dorh, J. Bi, J. Wang, A. Tiwari, F. Luo, H. Liu

ORGN **409.** Efficient acylation of DNA-conjugated carboxylic acids with amines in aqueous media. **M. Chung**, H. Huang

ORGN **410.** Tetraethylene glycol succinate 7-dehydrocholesterol derivative as vitamin D3 precursor. **I. Jeong**, H. Ryu, S. Bang, B. Chung

ORGN **411.** Towards site-selective transformations in complex mixtures: DNA-catalyst conjugates for targeted ester hydrolysis. **M.L. Flanagan**, Y. Yao, Y. Zhang, A. Arguello, D. Colman, S. Krejci, D.J. Gorin

ORGN **412.** Substitution effect on the luminescence of terpyridine zinc complexes: A study via low temperature fluorescence spectroscopy. **X. Bi**, Y. Pang

ORGN **413.** Pushing the limits of biocatalysis with DERA variants to access the chiral side chain required for statin activity. **C.M. Amarasekara**, L.M. Foreman, K. Belecki

ORGN **414.** Synthesis of ebselen derivatives and evaluation against *Mycobacterium tuberculosis*. **A.D. Landgraf**, S. Thanna, S.J. Sucheck

ORGN **415.** Development of peptide nucleic acids for the optimization of assay sensitivity for quantitative determination of HIV viral load. **M. Gould**, E.E. Rastede, D.H. Appella

ORGN **416.** Fluorescent kinase inhibitors: Novel modality for HER2 status of breast cancer cells. **H. Lee**, W. Liu, A. Brown, R. Landgraf, J.N. Wilson

ORGN **417.** Synthesis and characterization of novel carbohydrate based macrocycles. **A. Chen**, L. Samankumara, G. Wang

ORGN **418.** Antihypertensive coumarins from *Mammea americana*. **R. Fayyad**, D. Amaker, K. Jackson, O.E. Christian

ORGN **419.** Design, synthesis and study of N-acetyl D-glucosamine based triazole derivatives as organogelators. **D. Wang**, A. Chen, G. Wang

ORGN **420.** Antihypertensive activity of 7-epiclusanone and other bicyclic nonanes from *Hypericum hypericoides*. **E. Hicks**, K. Jackson, O.E. Christian

ORGN **421.** Use of small molecule probe substrates, active site mutagenesis and molecular modeling to gain mechanistic insight into the PLP-enzyme, human serine racemase. **D.L. Graham**, M.L. Beio, D.L. Nelson, G.A. Applegate, **D.B. Berkowitz**

ORGN **422.** 15-oxo-Lipoxin A₂: Synthesis and use as a probe of electrophilic signaling. **S.R. Woodcock**, B. Singh, S. Gelhaus Wendell, F. Schopfer, B.A. Freeman

ORGN **423.** Use of ¹⁹F NMR to monitor thiol reactions of sultams, sulfonamides, and known drugs. **C.D. Clay**, J. Jun, A. Cassity, J.S. Jha, P.R. Hanson

Section B

Walter E. Washington Convention Center Hall D

Chemistry of Fullerenes, Carbon Nanotubes & Graphene

S. M. Silverman, *Organizer*

5:30 - 7:30

ORGN **424.** Synthesis and characterization of a [9]cycloparaphenylene derivative bearing three indeno[2,1-a]fluorene-11,12-dione-2,9-diyl units. **S. Li**, M. Aljhdli, H. Thakellapalli, B. Farajidzaji, Y. Zhang, N. Akhmedov, C. Milsman, B.V. Popp, K.K. Wang

ORGN **425.** Design of novel graphene stabilisers. **A. Alwattar**

ORGN **426.** Five regioisomers of dimethyl dodecahedrane derivatives: A hybrid DFT B3LYP study. **K.H. Lee**, S. Lee, Y. Cho

ORGN **427.** Eclipsed isomer of C₂₀ fullerene by the hybrid density functional B3LYP methods. **K.H. Lee**, Y. Cho

ORGN **428.** Influence of perfluoroalkylated fullerene acceptors on morphology and photodegradation of organic photovoltaic active layers. **C.P. Brook**, B. Larson, V.N. V., P.C. Ramamurthy, G. Paul, O.V. Boltalina, S.H. Strauss, A.J. Pal, W.A. Braunecker

Section C

Walter E. Washington Convention Center Hall D

Flow Chemistry & Continuous Processes

S. M. Silverman, *Organizer*

5:30 - 7:30

ORGN **429.** Withdrawn.

ORGN **430.** Rapid total synthesis of ciprofloxacin hydrochloride in continuous flow. **H. Lin**

Section D

Walter E. Washington Convention Center Hall D

Materials, Devices & Switches

S. M. Silverman, *Organizer*

5:30 - 7:30

ORGN **431.** Study of carrier adjusting layer on electroluminescent and ultraviolet detective performances of organic optoelectronic integrated device. **D. Zhou**, J. Yu

ORGN **432.** Synthesis of a new hole-transport material (HTM) of conjugated reduced graphene oxide-thiophene for application in perovskite solar cells. **B.A. Bregadiolli**, L.C. da Silva Filho

ORGN **433.** Visible light driven molecular rotary motors. **G.D. Roke**, S.J. Wezenberg, B. Feringa

ORGN **434.** Water-soluble conventional and upconversion near-infrared luminescent probes for sensitive detection of pH changes in living cells. **M. Fang**, S. Zhang, H. Liu

ORGN **435.** Synthesis and luminescence of novel organic viologens for electro-optic applications. **E.N. Patel**, R.B. Arthur, A.D. Nicholas, M. Brichacek, H.H. Patterson

ORGN **436.** Non-symmetric dithienylene-based carboxylic acid photoswitches: Synthesis and acid-base properties. **A.D. Sponza Mata**

ORGN **437.** Synthesis of rotaxane-based probes for hyperpolarized xenon-129 MRI. **P.I. Fernando**, B.L. DeBoef

ORGN **438.** Cationic core-functionalized pyromellitic diimides. **A.J. Greenlee**, D.D. Cao

ORGN **439.** Responsive luminescent dimethylamino-substituted dibenzoylmethane materials. **F. Wang**, T. Butler, M. Sabat, C.L. Fraser

ORGN **440.** Photophysical studies, electronic properties, and computational modeling of 6,6'-diarylsubstituted indosindigo compounds. **T.H. El-Assaad**, D. Patra, B. Wex, **B.R. Kaafarani**

ORGN **441.** Pyromellitic diimides tethered together. **M.M. Modan**, L. Schaller, D.D. Cao

ORGN **442.** Ratiometric near-infrared fluorescent probes for sensitive detection of pH in live cells. **J. Wang**, M. Fang, H. Liu

ORGN **443.** Modular form of CB6 for HYPER_CEST imaging. **D. Robinson**

ORGN **444.** Borane-functionalized polyaromatic hydrocarbons. **K. Liu**, M. Yusuf, R. Lalancette, F. Jaekle

Section E

Walter E. Washington Convention Center Hall D

Molecular Recognition & Self-Assembly

S. M. Silverman, *Organizer*

5:30 - 7:30

ORGN **445.** Probing the implications of tightness on molecular knot. **L. Zhang**, J. Lemonnier, F. Zerbetto, D.A. Leigh

ORGN **446.** Synthesis and photophysical properties of multicomponent self-assemblies. **M. Saha**, Z. Zhou, X. Yan, H. Sepehpour, P.J. Stang

ORGN **447.** Chirality sensing via reversible Schiff base formation with a stereodynamic UV/CD probe. **Z. De Los Santos**, R. Ding, C. Wolf

ORGN **448.** Self-assembly of cucurbit[7]uril based triangular [4]molecular necklaces and their fluorescence properties. **S.K. Samanta**, **K. Brady**, L.D. Isaacs

ORGN **449.** Biomimetic comprehensive chirality sensing with pyridoxal-5'-phosphate. **S.L. Pilicer**, P.R. Bakhshi, K. Bentley, C. Wolf

ORGN **450.** Chemosensors for rapid detection of fluoride ion in water. **S. Bae**, N. Kim, Y. Choi

ORGN **451.** Nanoreactors of self-assembled benzophenone bis-urea macrocycles: Improving the selectivity of singlet oxygen induced photooxidations. **N. Noll**, B. DeHaven, L.S. Shimizu

ORGN **452.** Synthesis of (3, 8) torus knot via coordination-driven self-assembly. **D. Kim**, N. Singh, K. Chi

ORGN **453.** Molecular recognition of amino acid amides by acyclic cucurbiturils. **S. Zebaze Ndendjio**, L.D. Isaacs

ORGN **454.** Development of organic porous materials for the photo-reactivity of small molecules. **A. Sindt**, M.D. Smith, L.S. Shimizu

ORGN **455.** pH switched assembly of a self-complementary supramolecular motif in polar solvent. **X. Duan**, J.W. Canary

ORGN **456.** Tetrameric pseudo-peptide receptors with allosteric properties and [2]-catenanes with a responsive noncovalent network mimicking long-range responses in proteins. **M. Chung**, P.S. White, S.J. Lee, M.L. Waters, M.R. Gagne

ORGN **457.** Stepwise self-assembly of giant metallo-supramolecules with multiple types of metal ions based on terpyridine ligand. **L. Wang**, X. Li

ORGN **458.** Organoboron conjugated macrocycles. **N. Baser-Kirazli**, F. Jaekle

ORGN **459.** Hydrated anions binding within the water-soluble hosts. **W. Yao**, M.R. Sullivan, P. Sokkalingam, B.C. Gibb

ORGN **460.** Supramolecular catalyst for halogenation reaction. **X. Cai**, B.C. Gibb

ORGN **461.** Withdrawn.

Section F

Walter E. Washington Convention Center Hall D

Nanomaterials

S. M. Silverman, *Organizer*

5:30 - 7:30

ORGN **462.** Structure directing agents for organic polyhedral nanoparticles. **D.K. Jones**, N. Gawwalapalli

ORGN **463.** Electronic and computational characterization of donor-acceptor nanostructures. **N.N. Baughman**, C. Huang, B. Farajidzaji, H. Thakellapalli, S. Li, K.K. Wang, B.V. Popp

ORGN **464.** Phosphonic acid derivatives of DOTAZA for immobilization on nanoparticles. **M. Holzapfel**, W. Maison

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

WEDNESDAY MORNING

Section A

Walter E. Washington Convention Center
Rooms 202A/B

Alfred Bader Award in Bioinorganic or Bioorganic Chemistry: Symposium in honor of Kim D. Janda

R. D. Broene, *Organizer*

R. M. Williams, *Presiding*

8:20 ORGN 465. Enantiomeric natural products: Synthesis, biogenesis and evolutionary origins. R.M. Williams

9:05 ORGN 466. Antibiotic adjuvants based upon nitrogen dense marine alkaloids. C. Melander

9:50 ORGN 467. Structure and mechanism of a nicotine degrading enzyme, NicA2: Toward design of tools and therapeutics. K.N. Allen

10:35 Introduction of Awardee.

10:40 ORGN 468. Award Address (Alfred Bader Award in Bioinorganic or Bioorganic Chemistry Sponsored by the Alfred R. Bader Fund). Merging of chemistry and biology: In search of molecules with translational function. K.D. Janda

Section B

Walter E. Washington Convention Center
Room 207A

Technical Achievements in Organic Chemistry

T. D. White, *Organizer, Presiding*

8:20 Introductory Remarks.

8:25 ORGN 469. Synthetic modifications on amidine fused-ring scaffolds in a series of BACE inhibitors. J.C. Murray, J. Dutra, K. Ogilvie, P.J. Mikochik, L. Buzon, L.A. Martinez-Alsina, E.A. LaChapelle, B.T. Oneill

8:55 ORGN 470. Complex organic synthesis in drug discovery: Examples from Lilly's BACE inhibitor program. L.L. Winneroski

9:25 ORGN 471. Control of a key hydrogenolysis-derived desfluoro impurity in the synthesis of LY2886721. R.J. Linder, M.M. Hansen, N. Zaborenko, M.D. Johnson, B. Campbell, T. Braden

9:55 Intermission.

10:10 ORGN 472. Investigations into the SAR of Isoclast™. A. Buysse, B.M. Nugent, M.R. Loso, R. Rogers, Y. Zhu, J.M. Babcock, N. Breaux, T. Johnson, T. Martin, M.P. Oliver, M. Ober, T.C. Sparks, N. Wang, G. Watson

10:40 ORGN 473. Opportunity, chirality, and mentors: A retrospective across therapeutic areas. J.G. Varnes

11:10 ORGN 474. Synthetic efforts towards enablement of spliceostatin and calicheamicin natural products for antibody drug conjugate development. K.J. DiRico

Section C

Walter E. Washington Convention Center
Room 206

From Bioinspired to Biocompatible Material Design for Organic Electronics

R. K. Castellano, J. D. Tovar, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 ORGN 475. Structural and sequential factors affecting charge transport in self-assembled peptide fibrils. N. Ashkenasy

8:35 ORGN 476. Protein-inspired self-assembly of perylene diimide nanofibers. J. Hodgkiss

9:05 ORGN 477. Self-assembly of co-axial nanotube-polymer hybrids. J.R. Parquette, M. Ji

9:35 ORGN 478. Peptide-conjugated block copolymers and sequence controlled peptide-graphite composites: Conductive peptide hybrid materials with electronic activity. S.A. Sydlik, B. Holt, A. Arnold, Z. Wright

10:05 Intermission.

10:25 ORGN 479. Self-sorted peptide-based gelators for organic electronics. D. Adams, E. Draper, E. Cross, R. Saberri Moghaddam

10:55 ORGN 480. Design rules for optimizing emergent optoelectronic properties in donor-acceptor films. A.B. Braunschweig, A. Levine

11:25 ORGN 481. Long-lived charge carriers in one-dimensional organic semiconductor nanostructures. H. Frauenrath

Section D

Walter E. Washington Convention Center
Room 207B

Asymmetric Reactions & Syntheses Organocatalysis

R. D. Broene, *Organizer*

R. Foster, *Presiding*

8:20 ORGN 482. Organocatalytic stereoconvergent synthesis of α -CF₃ amides: Triketopiperazines and their heterocyclic metamorphosis. R. Foster, E. Lenz, N. Simpkins, D. Stead

8:40 ORGN 483. Design of experiments (DoE): A rational approach towards non-covalent asymmetric organocatalysis. P. Renzi

9:00 ORGN 484. Enantioselective copper-catalyzed arylation-driven semi-pinacol rearrangement of allylic alcohols with diaryliodonium salts. D. Lukamto, M. Gaunt

9:20 ORGN 485. Asymmetric synthesis of multi-quaternary centre containing cyclopentanoids via the Nazarov reaction. R. Volpe, B.L. Flynn

9:40 ORGN 486. Fe(OTf)₃-catalyzed intramolecular stereospecific substitution of stereogenic alcohols. R.A. Watlie, A. Bunrit, E. Lagerspets, T. Repo, J.S. Samec

10:00 ORGN 487. Oligourea foldamer-based asymmetric catalysis. D. Bécart, V. Diemer, G. Guichard, C.N. Palomo

10:20 ORGN 488. Two steps, (4+1) cycloaddition and kinetic resolution by Michael Henry-cascade reactions, leading to highly functionalized enantiomerically enriched spiro[4.5] decanes and spirooxindole polycyclics. M. Sohail, J. Huang, F. Tanaka

10:40 ORGN 489. Application of chiral *N,N'*-dioxide-metal complex catalysts in asymmetric rearrangement reactions. X. Feng

Section E

Walter E. Washington Convention Center
Room 201

Metal-Mediated Reactions & Syntheses

R. D. Broene, *Organizer*

R. Lundgren, *Presiding*

8:10 ORGN 490. Withdrawn.

8:30 ORGN 491. Synthesis of substituted or π -extended triphenylenes via multiple C-H activations. S. Hong

8:50 ORGN 492. Cross-coupling of α -hydroxy alkyltrifluoroborate with aryl electrophiles under photoredox/Ni dual catalysis. R. Alam, G.A. Molander

9:10 ORGN 493. Recoverable ruthenium-based olefin metathesis catalysts via host-guest complexation. H. Chung, B. Ondrusek, C. Kim

9:30 ORGN 494. Chan-Evans-Lam amination and etherification directly from organoboronate esters. T.B. Clark, K.A. McGarry, J. Marcum, V. Pérez, C.J. Ferber

9:50 ORGN 495. Pd-catalyzed Suzuki coupling reactions of aryl chlorides containing basic nitrogen centers with arylboronic acids in water in the absence of added base. Z. Li, C. Gelbaum, Z. Campbell, P. Gould, J. Fisk, B. Holden, A. Jaganathan, G. Whiteker, P. Pollet, C.L. Liotta

10:10 ORGN 496. Synthesis and evaluation of dithiolate-modified ruthenium olefin metathesis catalysts. T.P. Montgomery, R.H. Grubbs

10:30 ORGN 497. Chemo- and stereoselective rhodium-catalyzed ene-cycloisomerization of thioether-substituted alkenylidenecyclopropanes: Metal-mediated β -sulfide migration. Y. Su, P. Evans

10:50 ORGN 498. Palladium-catalyzed alkene difunctionalization reactions of heteroaromatic nucleophiles. J.K. Kirsch, J.P. Wolfe

11:10 ORGN 499. Binaphthyl-based scaffold for a chiral dirhodium(II) biscarboxylate ligand with α -quaternary carbon centers. K. Sethakam, P. Chen, J. May

11:30 ORGN 500. Ambient decarboxylative cross-coupling reactions enabled by oxidative copper catalysis. R. Lundgren

Section F

Walter E. Washington Convention Center
Rooms 204A/B

Molecular Recognition & Self-Assembly

R. D. Broene, *Organizer*

N. J. Van Zee, *Presiding*

8:00 ORGN 501. Synthesis of bisalix[4] arene derivatives and their applications in molecular sensing and organogel materials. W. Chung

8:20 ORGN 502. G-quadruplex-templated oligomerization of a pore-forming peptide. L. Cozzoli, L. Gjonaj, G. Maglia, B. Poolman, G. Roelfes

8:40 ORGN 503. Stimuli-responsive multi-block molecules. T. Muraoka

9:00 ORGN 504. Chiral triarylamine-based supramolecular polymers: From pathway complexity to functional materials. B. Adelizzi, A. Palmans, E.W. Meijer

9:20 ORGN 505. Tailoring guanosine hydrogels for various applications. T.N. Plank, J. Davis

9:40 ORGN 506. Supramolecular orientational memory: A new route to complex supramolecular architectures. M. Peterca, D. Sahoo, B.E. Partridge, M.R. Imam, E. Aqad, P.A. Heiney, R. Graf, H.W. Spiess, X. Zeng, V. Percec

10:00 ORGN 507. 5' Modified guanosine-based hydrogel: Properties and environmental applications. S. Xiao, J. Davis

10:20 ORGN 508. Acyclic cucurbit[n]uril molecular containers with triptycene walls. X. Lu, S.K. Samanta, P.Y. Zavalij, L.D. Isaacs

10:40 ORGN 509. Synthesis and application of higher order cyclodextrin architectures for improved sensing and identification of medium-sized environmental toxicants. S. Chaudhuri, M. Levine

11:00 ORGN 510. Molecular containers bind drugs of abuse *in vitro* and reverse the hyperlocomotive effect of methamphetamine in rats. S. Ganapati, S.D. Grabitz, S.L. Murkli, F. Scheffenbichler, P.Y. Zavalij, M. Eikermann, L.D. Isaacs

11:20 ORGN 511. Consequences of water content on the formation of chiral hydrogen-bonded aggregates. N.J. Van Zee, A. Palmans, E.W. Meijer

WEDNESDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Room 202A

CH Activation

R. D. Broene, *Organizer*

D. Kalyani, *Presiding*

1:20 ORGN 512. Thiourea-catalyzed cross-dehydrogenative coupling of sp³ C-H with nucleophiles: Mechanism and scope. Z. Zhang, K. Gu, Z. Bao, H. Xing, Q. Yang, Q. Ren

1:40 ORGN 513. Design and synthesis of novel thieno-dibenzothiophene derivatives. A. Kivrak, M. Alsgo

2:00 ORGN 514. Direct C-H arylation of simple arenes: Ligand effect and mechanism. S. Hong

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- 2:20 ORGN 515.** Computational study of Ni-catalyzed C–H functionalization: Factors that control the competition of oxidative addition and radical pathways. **H.B. Omer**, K.M. Brummond, P. Liu
- 2:40 ORGN 516.** Electrochemical approach towards palladium-catalyzed C–H oxidation. **A. Shrestha**, M.S. Sanford
- 3:00 ORGN 517.** Copper-catalyzed intramolecular C–H amination for the synthesis of quinazolinone derivatives and rutaecarpine *via* ring-opening cyclization (ROC) strategy. **S. Malipatel**
- 3:20 ORGN 518.** Exploration of advance synthetic processes for generating heterocyclic scaffolds: Synthetic scope and mechanistic insight. **S. Sharma**, D.M. Sawant, R. Pardasani
- 3:40 ORGN 519.** Nickel catalyzed direct arylations of azoles using phenolic electrophiles and aromatic nitriles. **D. Kalyani**

Section B

Walter E. Washington Convention Center Room 207A

Technical Achievements in Organic Chemistry

T. D. White, *Organizer*

T. Braden, *Presiding*

1:05 Introductory Remarks.

1:10 ORGN 520. Process development of GS-5734: An antiviral nucleotide analog for the treatment of Ebola. **S. Neville**

1:40 ORGN 521. Development of a commercial viable, highly regioselective copper catalyzed *N*-arylation of 3-methyl-1,2,4-triazole. **J. Fan**, W.P. Gallagher, M.C. Soumeillant, V. Iyer, J. Zhu, G. Beutner, A. Glace, A. Freitag, B. Cohen, K. Chen, M.D. Eastgate, D.A. Conlon

2:10 ORGN 522. Discovery of reversible LSD1 inhibitors. **T. Kanouni**

2:40 ORGN 523. Preparation of Rinskor™ active standards to support registration studies. **P. Johnson**, G. Whiteker, N. Giampietro, J.M. Renga, R. Ross, B. Canturk, C.V. Galliford, B. Peterson

3:10 Intermission.

3:25 ORGN 524. Leveraging analytical technologies to impact medicinal chemistry projects. **W.P. Farrell**

3:55 ORGN 525. Reflections on the discovery of HCV polymerase, HCV NS5A, and bromodomain and extra-terminal domain (BET) inhibitors. **J.K. Pratt**

4:25 ORGN 526. Vignettes from my career in medicinal chemistry. **C. Wang**

4:55 Concluding Remarks.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section C

Walter E. Washington Convention Center Room 206

From Bioinspired to Biocompatible Material Design for Organic Electronics

R. K. Castellano, J. D. Tovar, *Organizers, Presiding*

1:15 ORGN 527. Bio-integrated electronics: Interfacing semiconducting polymers with biology. **E. Egap**

1:45 ORGN 528. Bioinspired design of synthetic polymer-based Ca²⁺ sensor for the realization of extracellular Ca²⁺ imaging. **F. Ishiwari**, T. Fukushima

2:15 ORGN 529. Redefining melanin starting with Eumelanin-inspired materials. **T.L. Nelson**

2:45 ORGN 530. Functional conducting polymers: The molecules, the nano, the smart. **H. Yu**

3:15 Intermission.

3:35 ORGN 531. Multicomponent macrocyclic assemblies from a DNA base toolkit. **D. Gonzalez-Rodriguez**

4:05 ORGN 532. Harnessing biologically relevant stimuli to control the structure and dynamics of hierarchical supramolecules. **J.M. Rivera-Ortiz**

4:35 ORGN 533. DNA architectonics: DNA-based assembly of chromophores. **H. Wagenknecht**

5:05 Concluding Remarks.

Section D

Walter E. Washington Convention Center Room 207B

Materials, Devices & Switches

R. D. Broene, *Organizer*

M. Kertesz, *Presiding*

1:10 ORGN 534. Carbon-carbon bond formation by a small molecule artificial molecular machine. **C.T. McTernan**, G. De Bo, D.A. Leigh

1:30 ORGN 535. Gated photochromism in a molecular motor - dithienylethene hybrid. **G.D. Roke**, C. Stuckhardt, W. Danowski, S.J. Wezenberg, B. Feringa

1:50 ORGN 536. Pancake bonded molecules as redox mechanical switches. **M. Kertesz**

2:10 ORGN 537. Sequence-specific beta-*homo* peptide synthesis by an artificial small-molecule machine. **G. De Bo**, M.A. Gall, M. Kitching, S. Kuschel, D.A. Leigh, D.J. Tetlow, J.W. Ward

2:30 ORGN 538. Rotary and linear molecular motors driven by pulses of a chemical fuel. **U. Karaca**, S. Erbas-Cakmak, S. Fielden, D.A. Leigh, C.T. McTernan, D.J. Tetlow, M. Wilson

2:50 ORGN 539. Artificial molecular machines that assemble oligomeric asymmetric catalysts. **G. De Bo**, M.A. Gall, S. Kuschel, J. De Winter, P. Gerbaux, D.A. Leigh

3:10 ORGN 540. Frame suspended into four Cucurbituril wheels: Meet the Ohio Bobcat Nanowagon. **M. Raehsi**, K. Kotturi, K. Perumal, R. Rabbani, S. Hla, E. Masson

3:30 ORGN 541. Efficient synthesis of N-heteroarenes, 1D graphene analogues, for organic electronics. **R.C. Garcia**, W. Zhang, C.B. Gorman

3:50 ORGN 542. Molecular electronic devices from selectively fluorinated self-assembled monolayers with controllable surface dipoles. **R.C. Bruce**, L. You, S. Pookpanratana, O. Pomerenk, C.A. Hacker

4:10 ORGN 543. Photoinduced electron transfer in conjugated oligomers. **A.L. Jones**, K.S. Schanze

4:30 ORGN 544. Development of high potential catholyte and low potential anolyte materials and their application in organic, non-aqueous redox flow batteries. **K.H. Hendriks**, C. Sevov, M. Cook, M.S. Sanford

Section E

Walter E. Washington Convention Center Room 201

Total Synthesis of Complex Molecules

R. D. Broene, *Organizer*

M. G. Donahue, *Presiding*

1:15 ORGN 545. Enantioselective total synthesis of the alkaloid (-)-haliclonin A. **P. Huang**

1:35 ORGN 546. Total synthesis of (+)-7-deoxypancratistatin from benzene. **L.W. Hernandez**, J. Pospech, U. Klöckner, D. Sarlah

1:55 ORGN 547. Synthetic studies toward dilemmaones A-C. **K.E. Lambson**, C.A. Dacko, J.M. McNeill, B. Soderberg

2:15 ORGN 548. Total synthesis and route optimization of Mcl-1 antagonist clinical candidate drug AZD5991. **Q. Ye**, A. Hird, J.W. Johannes, B. Peng, X. Zheng, Y. Wu, H. Wang, S. Mlynarski, D. Perkins, C.A. Roberts, S. Stokes, D. Robbins, H. Huynh, M. Rego, M. Lindhagen, S. Karlsson, L. Thunberg, S. Swallow, C. Stewart, S. Li, C. Wu, Z. Liu, X. Zhao, X. Liu, H. Shen

2:35 ORGN 549. Selective, safe, scalable synthesis of a CC-90003, a covalent trifluoromethyl pyrimidine ERK 1&2 kinase inhibitor. **J.F. Traverser**, J. Han, N. Zou, R.M. Heid, A. Ferretti, K. Yong

2:55 ORGN 550. Chemical synthesis and absolute stereochemical determination of a ladderane phospholipid. **C. Cohen**, N.Z. Burns

3:15 ORGN 551. Enantioselective total synthesis of cannogenol and cannogenol-3-O- α -L-rhamnopyranoside. **B.T. Bhattarai**, P. Nagorny

3:35 ORGN 552. Spiro[4.5]cyclohexadienones as a platform for the synthesis of alkaloids and terpenes. **M.G. Donahue**

Section F

Walter E. Washington Convention Center Rooms 204A/B

Molecular Recognition & Self-Assembly

R. D. Broene, *Organizer*

M. Levine, *Presiding*

1:20 ORGN 553. Withdrawn.

1:40 ORGN 554. Intrahost interactions enhanced cation binding and π - π interactions in competitive solvents. **X. Xing**, Y. Zhao

2:00 ORGN 555. Water-soluble molecularly imprinted nanoparticles (MINPs) as turn-on fluorescence sensors. **X. Xing**, Y. Zhao

2:20 ORGN 556. Multistimuli-responsive release of dye/drug from cucurbit[7]uril functionalized MOP-based theranostic nanoparticle. **S.K. Samanta**, L.D. Isaacs

2:40 ORGN 557. Utilizing the G-quadruplex as a scaffold for [2+2] photocycloadditions of cinnamate esters. **K. Sutyak**, J. Davis

3:00 ORGN 558. Chiral self-recognition and supramolecular polymerization of [2.2]paracyclophane. **D.E. Fagnani**, M.J. Meese, K.A. Abboud, R.K. Castellano

3:20 ORGN 559. Molecularly imprinted cross-linked nanoparticles as artificial enzymes for biometric hydrolysis of activated esters. **L. Hu**, Y. Zhao

3:40 ORGN 560. Step-wise self-assembly and dynamic exchange of super snowflake shaped metallo-supramolecules. **H. Wang**, Z. Zhang, X. Li

4:00 ORGN 561. Metal ions fluorometric sensor based on [5]helicene derivatives. **T. Sooksimuang**, N. Wanichacheva, A. Petdum, N. Kaewnok, S. Jarutikorn, W. Klinpetch, W. Panchan, K. Kwanplod

4:20 ORGN 562. Self-assembly of oriented 2D porous organic cage crystals. **S. Jiang**, Q. Song, T. Hasell, A.I. Cooper

4:40 ORGN 563. Functionalized organic macrocycles for tunable anion and PAH detection. **M. Levine**, I. Tamgho

WEDNESDAY EVENING

Section A

Walter E. Washington Convention Center Hall E

New Reactions & Methodology

S. M. Silverman, *Organizer*

7:00 - 9:00

ORGN 564. Highly regioselective hydrochlorination of alkyne with a novel chlorinating reagent. **S. Liang**

ORGN 565. Efficient metal-free synthesis of perfluoroalkylated fluorenes. **Z. Sun**, Y. Wu, D. He, J. Chen, J. Han, H. Zhang, W. Cao

ORGN 566. Efficient synthesis of trifluoromethylated 5H-spiro[furan-2,3'-indolin]-2'-ones. **L. Tao**, J. Han, Z. Fan, J. Chen, H. Zhang, W. Cao

ORGN 567. Rh-catalyzed transannulation of 1,2,3-thiadiazoles with nitriles for the synthesis of isothiazoles. **B. Seo**, P.H. Lee

ORGN 568. Catalyst-dependent selectivity in sulfonium ylide cycloisomerisation reactions with pi-acid catalysts. **R. Oost**, J.D. Neuhaus, A. Oppedisano, N. Maulide

ORGN 569. Regioselective synthesis of [2H]-indazoles from N-methoxyanthranilamides. **E.J. Salaski**, J. Esguerra, J. Etersque, M. Orlando, T. Puleo

ORGN 570. Development of enantioselective conjunctive cross-coupling reactions. **E. Edelstein**, L. Zhang, G. Lovinger, A. Szymaniak, M. Chierchia, S. Namirembe, J.P. Morken

ORGN 571. Efficient copper-catalyzed amination from aryl chlorides to primary arylamines. **J. Song**, T. Yun, H. Jeon

ORGN **572**. NBS oxidation: The formation of esters. **J.D. Fair**, V. Bouch, M. Luderer, V. Causer

ORGN **573**. Design and synthesis of highly branched organocatalysts for site-selective acylation. **N. Ashush**, R. Palakuri, M. Portnoy

ORGN **574**. Bronsted base mediated regio- and stereoselective silylation of alkynamides. **R. Fritzeimer**, W. Santos

ORGN **575**. PhI-catalyzed α -tosyloxylolation of cyclopropyl methyl ketone. **W. Ma**, R.S. Ma, D.Z. Fang

ORGN **576**. Metal-free catalytic esterification of aldehydes with a variety of alcohols in the presence of poly(3,4-dimethyl-5-vinylthiazolium) iodide/DBU. **S. Chun**, Y.K. Chung

ORGN **577**. N-allylation by palladium-catalyzed cross-coupling of potassium allylBF₃K and amines. **M. Al-Masum**, **S. Alyahya**, K. Liu

ORGN **578**. Diastereoselective intermolecular synthesis of medium sized cyclic ethers via prins-type cyclization. **A.J. Tomaine**, A.K. Ghosh

ORGN **579**. Chemoselective Baylis-Hillman reaction catalysis by Lewis base – metal bifunctional system. **A. Falck**, M. Portnoy

ORGN **580**. One-pot concurrent synthesis of thiazolidinones and benzothiazepinones: A greener route. **D. Bandyopadhyay**, J. Strong

ORGN **581**. Stereochemical aspects of T3P amidations. **R.D. Barrows**, Z. Wang, T. Emge, S.A. Knapp

ORGN **582**. Reactivity of phenol in sulfur(VI) fluoride exchange chemistry. **J. Gurjar**, V.V. Fokin

ORGN **583**. Nucleophilic (radio)fluoro-click reaction enabled by of hydrogen bonding clusters. **X. Zeng**, B. Xu, G.B. Hammond

ORGN **584**. Development of iminium salt catalyzed nitrogen transfer reactions. **L.A. Combee**, B. Raya, D. Wang, M.K. Hlinski

ORGN **585**. Syntheses and electrochemical oxidation of disulfide compounds juxtaposing carbonyl groups. **T. Yamamoto**, K. Fukuta, Y. Esaka, B. Uno

ORGN **586**. Accessing highly substituted and functionalized beta-hydroxyboronate esters via dimerization and homologation of aldehydes. **T. Thane**, M.A. Nistler, C.J. Ferber, A.A. Ogtong, T.B. Clark

ORGN **587**. Synthesis of α , α , -dibromoketone catalyzed by 2-ast organosilane from alkynes. **J. Domena**, C. Chong, Y. Xing, B. Chauhan

ORGN **588**. Cobalt-catalyzed aerobic oxidative cyclization of 2-aminophenols with isocyanides. **J. Liu**, J. Hoover

ORGN **589**. Palladium catalyzed mono- γ -arylation of 4-methylcoumarin. **M. Sexton**, J.R. Schminck

ORGN **590**. New method to synthesize thienopyridinone and thienodiazepinone derivatives. **N. Korkmaz Cokol**, M. Balci

ORGN **591**. Mn ter-pyridine complex catalyzed synthesis of imines through acceptorless dehydrogenation reaction of alcohol with amine. **H. Lim**, P. Chohan, P. Kaur

ORGN **592**. Transforming α -amino acids to α -aryl acids via nickel-catalyzed C–N bond activation. **K. Baker**, C. Basch, C. Shoffler, M. Hoerner, M.P. Watson

ORGN **593**. C–H trifluoromethylation of enamides: An oxidative approach. **V. Krishnamurti**, S.B. Munoz, G.S. Prakash

ORGN **594**. Shapiro elimination/epoxidation-based strategy for the synthesis of cage molecule building blocks. **L. Richert**, L. Sanchez

ORGN **595**. Development of metal-free bifunctionalization reaction of olefins leading to higher functionalized lactones. **S. Maejima**, A. Itoh, E. Yamaguchi

ORGN **596**. Investigating the reactivity of HCl/DMPU and HBr/DMPU reagents with unsaturated systems. **R. Ebule**

ORGN **597**. Novel synthesis of phenanthridinones via oxidative C–H amidation using iodobenzene (PhI)-catalysis. **N.K. Nguyen**, D. Liang, W. Yu, J. Deschamps, G. Imler, Y. Li, A. MacKerell, C. Jiang, F. Xue

ORGN **598**. Methyl transfer from methylboronic acid or dimethyl carbonate for O–H and C–H alkylation. **M. Bartlett**, B. Habtesellassie, Y. Zhu, N. Martinez-Munoz, C. Jacobson, S. Abreu, D.J. Gorin

ORGN **599**. Synthesis of 2-acylbenzo[b]thiophenes via Cu-catalyzed α -C–H functionalization of 2-haloalcohols using xanthate. **S. Subramani**, S. Govindasamy

ORGN **600**. Progress towards the cross-coupling of sp³ carbons using hypervalent iodine. **C. Mowdawalla**, F. Ahmed, L. Dave, G. Kim, I.D. Hyatt

ORGN **601**. Accessing fused ring systems through trimethylene-methane intermediates by initiation with hypervalent iodonium alkynyl triflates. **T. Li**, K. Pham, I.D. Hyatt

ORGN **602**. Novel synthesis of asymmetrical substituted diaziridinones from simple isocyanates. **R.M. Dare**, N. Cinti, L. Gerstein, G. Moura-Letts

ORGN **603**. Diastereoselective synthesis of complex heterocycles from the intramolecular cycloaddition of substituted alkenyldiaziridines. **A. Paneque**, A. Zinsky, G. Haun, G. Moura-Letts

ORGN **604**. Studies towards the stereoselective haloamination of alkenes. **L. Mir**, N. Chang, B. Selover, G. Moura-Letts

ORGN **605**. Multicomponent reactions for the direct stereoselective synthesis of complex vinyl-isooxazolidines. **D. Quinn**, **L. Tumbelty**, E. Moscarello, A. Paneque, A. Zinsky, M. Russ, **G.J. Haun**, G. Moura-Letts

ORGN **606**. Applying process intensification principles to the synthesis of the anti-retroviral drug lamivudine. **S.A. James**, F. Gupton, K. Belecki

ORGN **607**. Withdrawn.

ORGN **608**. Synthesis of cyclic ethers via oxidative rearrangement with (poly) cationic hypervalent iodine reagents. **J.C. Walters**, A.F. Tierno, S. Wengryniuk

ORGN **609**. Withdrawn.

ORGN **610**. Novel synthesis of fused-cyclic ethers via cycloaddition reactions of aldehydes and substituted cyclopropanes. **N.T. Bonney**, J.D. Horgan, G. Moura-Letts

ORGN **611**. Recyclable synthesis of α , α , -dibromoketones catalyzed by organosilanes from alkynes. **C. Chong**, J. Domena, Y. Xing, B. Chauhan

ORGN **612**. Electrophilic activation and domino reaction of arylated propargyl alcohols toward naphthyl(aryl)iodonium salts. **R.J. Hinkle**, S.E. Bredenkamp, S.I. Cheon

Section B

Walter E. Washington Convention Center Hall E

Heterocycles & Aromatics

S. M. Silverman, *Organizer*

7:00 - 9:00

ORGN **613**. Photophysical investigations of the solvent effect on the properties of emitting thiophene-quinoline derivatives. **G.C. Santos**, **L.C. da Silva Filho**

ORGN **614**. Synthesis and effect of acid-base on the ultraviolet-visible absorption properties of new anthrazoline derivatives. **G.C. Santos**, B.S. da Silva, L.C. da Silva Filho

ORGN **615**. Synthetic studies towards the indole alkaloids kottamides **A-E**. **R. White**, B. Copp, D. Barker

ORGN **616**. Withdrawn.

ORGN **617**. Synthesis of squaraine and croconine dyes for potential use in OPV solar cells. **J.A. Cody**, C.J. Collison, C. Zheng, **A. Snyder**, A. Murphy Shaw

ORGN **618**. Synthesis of pyrazole-fused 7-membered lactones via regioselective Claisen rearrangement and hydroesterification. **H. Ichikawa**, H. Takashima

ORGN **619**. Synthesis of bicyclic pyridines by iron mediated intramolecular radical cyclization. **J. Starr**, S. Bordi

ORGN **620**. Regiospecific *p*-brominations and *p*-iodinations: Perturbing secondary electronic effects. **S. Gumus**, J.R. Thomas, D.W. Slocum

ORGN **621**. Sustainable catalytic C–C bond formation with fluoroenolates. **M. Moskowitz**, C. Wolf

ORGN **622**. Regioselective alkylation of 5-alkyl-pyrazole-3-carboxylic esters: Application in the efficient synthesis of potent tankyrase inhibitors. **D. Dorsch**, D. Radtke, H. Buchstaller

ORGN **623**. Synthesis and cytotoxicity of functionalized heterocycles via multicomponent coupling reactions. **P. Suman**, A. Patel, D.C. Morgan, A.J. Vendola, R.M. Rutkoski, P.M. Mastoridis, **S.C. Jonnalagadda**

ORGN **624**. Green chemistry reaction of 1,4-naphthoquinones with anilines through an EDA complex. **E. Leyva**, A. Cárdenas-Chaparro, S. Loredó-Carrillo, M. Méndez-Sánchez, A. Martínez-Richa

ORGN **625**. Development and utilization of Mitsunobu glycosylation conditions to install pyrrolopyrimidine nucleobases onto a ribose core. **F. Wang**, D. Bernhardson, D. Richter, R. Patman, R. Maguire, I.J. McAlpine

ORGN **626**. Transition-metal-catalyzed one-pot synthesis of indole-fused polyaromatic heterocycles. **P. Sang**, J. Cai

ORGN **627**. Synthesis and chiral resolution of *N*-substituted 8-hydroxyphenylmorphans: Potential ligands for the Mu and delta opioid receptors. **T. Irvin**, Y. Peng, A.E. Jacobson, K.C. Rice

ORGN **628**. Synthesis of heterocyclic indolizines and its antibacterial activity study. **M. Zhang**, Y. Xing, K. Martin

ORGN **629**. Conformational changes in polyaromatic substituted 5,15-calix[4]pyrroline upon anion binding. **S. Arora**, S. Chauhan

ORGN **630**. Synthesis of 2-(iodomethylene)-2,3-dihydro-1,4-oxazepines. **M. Zora**, E. Dikmen, Y. Kelgokmen

ORGN **631**. Strategies for the synthesis of Romeo and Juliet blue. **B. Dawson**, M.J. Samide, G.D. Smith, A.M. Wilson

ORGN **632**. Cyclization of α,β -unsaturated oximes. **N.A. Burr**, M.D. Mosher

ORGN **633**. 2-(Pyrrole-2-yl)vinyl-substituted BODIPY as near-IR fluorophore. **S. Ansteatt**, M. Ptaszek

ORGN **634**. Synthesis of 2-substituted α -carboline via synergistic methods. **F.G. Nguete Meke**, S. Wrenn, B. Cho, B.L. DeBoef, **S.P. Mulcahy**

ORGN **635**. Three-component cyclization of disubstituted pyrrol-2-ones: Synthesis and biological evaluation of the 5-hydroxyindole natural product, violacein. **A. Oppong-Holmes**, Z.E. Oppong-Holmes, J. Kaplitt, M.W. Norman, M. Hwee, E.C. McLaughlin

Section C

Walter E. Washington Convention Center Hall E

Photoredox Chemistry

S. M. Silverman, *Organizer*

7:00 - 9:00

ORGN **636**. Photoredox multicatalysis: Novel methods for the construction of C–C and C–heteroatom bonds. **V.W. Shurtleff**, J.A. Terrett, M. Shaw, J. Cuthbertson, D.W. MacMillan

ORGN **637**. Synthesis of aliphatic ketones via N–C bond cleavage of imides under photoredox/Ni dual catalysis. **R. Alam**, J. Amani, S. Badir, G.A. Molander

ORGN **638**. Direct diazomethylation of aromatic C–H bonds via photoredox catalysis. **Z. Wang**, A.M. del Hoyo, A.G. Herranz, M.G. Suelo

ORGN **639**. Visible-light induced redox-neutral multicomponent radical reaction of β -functionalized δ -diketones. **F. Pettersson**, G. Bergonzini

ORGN **640**. Photoredox catalyzed CH alkylation of heteroarenes: A mild approach for late stage functionalization. **J.K. Matsui**, G.A. Molander

ORGN **641**. Accessing *gem*-difluoroalkenes via photoredox catalysis. **R. Wiles**, S.B. Lang, C. Kelly, G.A. Molander

ORGN **642**. Withdrawn.

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- ORGN **643.** Accessing uncharted chemical space via photoredox catalysis. C. Kelly, S.B. Lang, R. Wiles, K. Lin, G.H. Davies, C. Remeur, N. Patel, G.A. Molander
- ORGN **644.** Enantioselective α -alkylation of ketones by synergistic Lewis acid - photoredox catalysis: Formation of β -cyano ketones via a chiral iridium complex. J. Zbieg, A. Cholewczynski, L. Smith

Section D

Walter E. Washington Convention Center
Hall E

Total Synthesis of Complex Molecules

S. M. Silverman, *Organizer*

7:00 - 9:00

- ORGN **645.** Total synthesis, analysis and theoretical studies towards the characterization of bioactive grape and wine metabolites. S. Tan, D. Barker, B. Fedrizzi
- ORGN **646.** Ligand synthesis for aqueous metal detection. M.W. Fultz, M. Bright, J.P. Rickett
- ORGN **647.** Asymmetric total synthesis of (+)-psiguadial B. M. Kinebuchi, R. Uematsu, K. Tanino
- ORGN **648.** Total synthesis of four tricyclic azepinoindole alkaloids: Auranthoclavine, clavicipitic acid and hyrtioreticulon C and D. G. Ghimire, B. Soderberg
- ORGN **649.** Synthesis and biological evaluation of 5,7-dihydroxyflavanone derivatives as potential antimicrobial agents. X. Zhang, O. Khalidi, S. Kim, R. Wang, V. Schultz, B. Cress, R.A. Gross, M. Koffas, R.J. Linhardt
- ORGN **650.** Total synthesis of bioactive diterpene, parvifloron F. Y. Saito, M. Goto, K. Goto
- ORGN **651.** Total synthesis of dictyodendrins by the gold-catalyzed intermolecular cascade cyclization of conjugated diynes with pyrroles. J. Matsuoka, Y. Matsuda, Y. Kawada, S. Oishi, H. Ohno
- ORGN **652.** Withdrawn.
- ORGN **653.** Synthesis of novel N6-substituted S-adenosyl-L-methionine analogues. N. Bremner-Hay, L. Comstock
- ORGN **654.** Studies toward the synthesis of *ent*-artemisin: A potential anti-malarial compound. E. Steiner, M. Hejna, L. Sanchez
- ORGN **655.** Synthetic studies towards the total synthesis of opaliferin. G. Opiyo, D.P. Furkert, M. Brimble
- ORGN **656.** Progress toward the synthesis of the diosponins and related natural products. J. More, J. Deegan, M. Kirpas, D. Napack
- ORGN **657.** Synthesis of ipomeoassin F analogs with a tail modified aglycone. A. May, G. Zong, E. Barber, W. Shi

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

- ORGN **658.** Synthetic pathway to a modulator of mGluR5. W. Arce, B. Curtis, A. Cox, M. Flores, S. Sapati, E. Jurado Bustamante, K.J. Friedrich
- ORGN **659.** Efforts towards the total synthesis of sanctolide A and the C2-epimer of sanctolide A. C.N. Ndi, J.L. Markley, G.C. Dissanayake, P.R. Hanson
- ORGN **660.** Synthesis of complex small molecules with various biological activities: Total synthesis and structure design. R. Rafferty

THURSDAY MORNING

Section B

Walter E. Washington Convention Center
Room 207A

CH Activation

R. D. Broene, *Organizer*

D. Powers, *Presiding*

- 8:10 ORGN **661.** Catalytic reductive *ortho*-C-H silylation of phenols with traceless, versatile acetal directing groups. P. Asgari, Y. Hua, T. Avullala, J. Jeon
- 8:30 ORGN **662.** Constructing new chemical bonds via transition metal catalyzed C-H activation and functionalization. L. Wang
- 8:50 ORGN **663.** Pseudohalide assisted aerobic oxidation of alcohols and alkanes in presence of visible-light. S. Shah, N.P. Singh
- 9:10 ORGN **664.** Palladium mediated C-H tritiation. A. Hoover, H. Yang, D. Hesk, N. Rivera
- 9:30 ORGN **665.** C-H fluorination mediated by a non-heme manganese complex. X. Chen, J.T. Groves
- 9:50 ORGN **666.** Pd(II) catalyzed allylic C-H oxidative amidation: Sustainable approach for functionalization of *N*-heterocycles. S. Vemula, D. Kumar, G.R. Cook
- 10:10 ORGN **667.** Cu catalyzed sp³ C-H amidation: Catalyst controlled site selectivity. T.H. Warren, A. Bakhoda
- 10:30 ORGN **668.** New redox mediators for aerobic C-H oxidation chemistry. D. Powers, A. Maitly, S. Hyun

Section C

Walter E. Washington Convention Center
Room 206

Chemistry of Fullerenes, Carbon Nanotubes, Nanomaterials & Graphene

R. D. Broene, *Organizer*

K. E. Whitener, *Presiding*

- 8:20 ORGN **669.** Ultra-high thermal effusivity materials for resonant, ambient thermal energy harvesting. A. Cottrill, A.T. Liu, Y. Kunai, M. Strano
- 8:40 ORGN **670.** Synthesis and characterization of cucurbit[7]uril-based conjugated polyrotaxanes and further enhancement of their fluorescent quantum yields by embedding them into crystalline matrices. D. Tuncel

- 9:00 ORGN **671.** Development of prodrug approaches for long-acting nanoformulations of emtricitabine-based regimens. A. Al-Khouja, J.J. Hobson, D. Meyers, P. Curley, J.M. Siliciano, R.F. Siliciano, M. Siccardi, A. Owen, C. Flexner, S. Rannard, C.L. Meyers

- 9:20 ORGN **672.** Rational design of covalent organic cages via alkyne metathesis. T.P. Money Penny, J.S. Moore

- 9:40 ORGN **673.** Preserving chemically modified graphene from thermal and chemical loss of functionality. K.E. Whitener, W. Lee, R. Stine, J.T. Robinson, D.A. Kidwell, C. Tamasaha, P.E. Sheehan

- 10:00 ORGN **674.** Molecular dyads and triads based on phenothiazine, Ru(II) bisterpyridine complexes and fullerene. A. Winter, K. Barthelme, Y. Luo, J. Kübel, M. Wächter, B. Dietzek, U.S. Schubert

- 10:20 ORGN **675.** Boranephosphonate DNA mediated metallization of single walled carbon nanotubes. S. Ganguly, S. Paul, O. Yehezkeili, J. Cha, M.H. Caruthers

- 10:40 ORGN **676.** Impact of graphitic nitrogen on bowl-shaped π -conjugated molecules: Supramolecular chemistry and reactivity. S. Hiroto, H. Yokoi, M. Takeda, H. Shinokubo

Section D

Walter E. Washington Convention Center
Room 207B

Materials, Devices & Switches

R. D. Broene, *Organizer*

H. Liu, *Presiding*

- 8:10 ORGN **677.** Influences of out-of-plane lattice alignment on the OFET performance of TIPS-PEN crystal arrays. K. Wu, C. Wang
- 8:30 ORGN **678.** Organic optical material for broadband sensor protection. J. Shi, R. O'Donnell, W. Shensky, M. Ferry, T. Enslay
- 8:50 ORGN **679.** Novel oligo and polyacenes towards intramolecular singlet fission devices. A. Pun, L. Campos
- 9:10 ORGN **680.** Withdrawn.
- 9:30 ORGN **681.** Self-organizing derivatives of benzo[e][1,2,4]triazinyl and their magnetic behavior. P. Kaszynski, M. Jasinski, S. Kapuscinski, J. Szczytko, D. Pocięcha, A.C. Friedli
- 9:50 ORGN **682.** Are guanidinium organodisulfonates formally microporous? I. Brekalo, D. Deliz, K.T. Holman
- 10:10 ORGN **683.** Expanding the role of PDI in small molecule non-fullerene acceptors. J.A. Schneider, Y. Zheng, H. Wang, H. Nakayama, F. Wudl
- 10:30 ORGN **684.** Near-infrared fluorescent probes for selective and sensitive detection of lysosomal pH in live cells. H. Liu, H. Lee, A. Tiwari
- 10:50 ORGN **685.** New types of container molecules that can transport MCl₂ fragments. S. Kharel, J.A. Gladysz, J. Blumel
- 11:10 ORGN **686.** Boron dipyrromethene (DIPYR) dyes: Shedding new light on pyridine-based chromophores. J.H. Golden, D.S. M. R., M.E. Thompson
- 11:30 ORGN **687.** Tuning of charge carriers using electron deficient thiophenes. J. Low, B. Capozzi, J. Cui, S. Wei, L. Venkataraman, L.M. Campos

Section E

Walter E. Washington Convention Center
Rooms 204A/B

Total Synthesis of Complex Molecules

R. D. Broene, *Organizer*

R. Rafferty, *Presiding*

- 8:30 ORGN **688.** One-pot sequential strategies for the synthesis of natural products and their analogues. C.N. Ndi, P.R. Hanson

- 8:50 ORGN **689.** Synthesis and antibacterial screening of (\pm)-6,8-dihydroxy-3-undecyl-3,4-dihydroisochroman-1-one: A structural analog of metabolites from *Ononis natrix*. H. Rafique

- 9:10 ORGN **690.** Withdrawn.

- 9:30 ORGN **691.** Phosphate tether-mediated approach for the efficient syntheses of 13-desmethyl-lyngbouillose and simplified analogs. A. Ganguly, S. Javed, G.C. Dissanayake, D. Vithanage, P.R. Hanson

- 9:50 ORGN **692.** Total synthesis and SAR studies of the melokhanine family of natural products. P. Williams, J.G. Pierce

- 10:10 ORGN **693.** Lagunamide C: The quest for structural confirmation via total synthesis and biological evaluation. C. Weese, A. Fatino, L. Lawlor, Y. Zhang, R. Rafferty

- 10:30 ORGN **694.** Brocazine F&G: Total synthesis efforts and small molecule construction for investigations into molecular transport about complex barriers. W. Hulanganmuwa, P. Desman, A.I. Lansakara, R. Rafferty

- 10:50 ORGN **695.** Synthesis of a regiomeric-7*N*-methyl-aspidostomide D, through epoxide opening strategy with Lewis acid. M.H. Althaf Hussain, F.A. Khan

Section F

Walter E. Washington Convention Center
Room 201

Molecular Recognition & Self-Assembly

R. D. Broene, *Organizer*

M. D. Pluth, *Presiding*

- 8:00 ORGN **696.** Hierarchical assembly of a low energy gap p -conjugated oligomer via synergetic halogen and hydrogen bonding. A. Weldeab, S.T. Nyguen, D.J. Starckenburg, K.A. Abboud, J. Xue, R.K. Castellano, D.L. Watkins
- 8:20 ORGN **697.** Host-guest systems derived from deconstructed Hamilton receptors. M.D. Pluth
- 8:40 ORGN **698.** Foldamer-mediated structural rearrangement in A β and vice-versa: A possible strategy for Alzheimer's therapeutics. S. Kumar, A. Hamilton
- 9:00 ORGN **699.** Design and self-assembly of different generation of metallomacrocycles from triphenylamine motif. L. Wang, X. Li
- 9:20 ORGN **700.** Reversed Hofmeister effects in synthetic hosts. J.H. Jordan, C.L. Gibb, A. Wishard, B.C. Gibb
- 9:40 ORGN **701.** Dual-stimuli induced shape transition of programmable DNA block copolymers. C. Kim, S. Park

10:00 ORGN 702. Artificial zinc enzymes based on molecularly imprinted cross-linked micelles for selective hydrolysis. **M. Arifuzzaman, Y. Zhao**

10:20 ORGN 703. Probing interactions between hydrocarbons and auxiliary guests inside cucurbit[8]uril. **R. Rabbani, E. Masson**

10:40 ORGN 704. Sequence control in dynamic metallo-supramolecular oligomers assembled with cucurbit[8]uril. **K. Kotturi**

Synthesis & Chemistry of Agrochemicals

Sponsored by AGRO, Cosponsored by ORGN

THURSDAY AFTERNOON

Synthesis & Chemistry of Agrochemicals

Sponsored by AGRO, Cosponsored by ORGN

PHYS

Division of Physical Chemistry

J. Shea, Program Chair

OTHER SYMPOSIA OF INTEREST:

Advanced Electrocatalysis for Energy Conversion & Storage (see *CATL*, Sun, Mon)

Simulations of Polymeric Materials: Molecular- to Macroscale (see *POLY*, Sun, Mon)

Advances in Computational Catalysis (see *CATL*, Mon, Tue, Wed)

Photoresponsive Nanoparticles: From Fundamentals of Excitation to Applications Systems (see *ENVR*, Mon, Tue, Wed, Thu)

New Directions in Conformational Sampling Methods (see *COMP*, Tue)

SOCIAL EVENTS:

JPC-PHYS Reception, 5:00 PM: Tue

SUNDAY MORNING

Section A

Walter E. Washington Convention Center Room 156

Molecules in Space: Linking the Interstellar Medium to (Exo)-Planets

PAHs & the Organic Inventory of the Gas Phase: Observations, Theory & Experiments

P. Bera, X. Tielens, Organizers

J. Bouwman, Presiding

8:00 PHYS 1. Some key questions involving PAHs and astrochemistry. **L.J. Allamandola**

8:35 PHYS 2. Polycyclic aromatic hydrocarbons and related forms of interstellar carbon. **G. Sloan**

9:05 PHYS 3. Astronomical modelling of interstellar PAHs. **O. Berné**

9:35 Intermission.

10:05 PHYS 4. High-resolution IR spectroscopy of the isolated aromatic universe: Bad vibrations at work. **W.J. Buma, E. Maltseva, A. Petrignani, J. Oomens, C. Mackie, A. Candian, X. Tielens, T.J. Lee, X. Huang**

10:35 PHYS 5. Computation of the infrared spectra of polycyclic aromatic hydrocarbons. **C.W. Bauschlicher**

11:05 PHYS 6. Signatures and evolution of astronomical aromatic molecules. **S.D. Wiersma, A. Candian, W. Roeterdink, J. Bakker, J. Oomens, W.J. Buma, A. Petrignani**

Section B

Walter E. Washington Convention Center Room 152B

Theoretical Models of Chemical Bonding & Reactivity Spanning the Periodic Table: A Symposium in Honor of Roald Hoffmann

Electronic Structure & Reactivity of Organic and Organometallic Compounds

W. Grochala, E. Zurek, Organizers

O. G. Eisenstein, Presiding

8:00 Introductory Remarks.

8:20 PHYS 7. Structural chemistry, fuzzy logic and the law. **J. Bernstein**

8:50 PHYS 8. Rational design of Fe-based catalysts for Fischer-Tropsch synthesis from theoretical prediction to experimental confirmation. **X. Wen, Y. Yang, Y. Li**

9:20 PHYS 9. Ligand noninnocence in metallocorroles: Insights from optical and X-ray absorption spectroscopies. **A. Ghosh**

9:40 PHYS 10. π -stacking pancake bonding. **M. Kertesz**

10:00 Intermission.

10:20 PHYS 11. Planar hypercoordinate carbon atoms. **G. Merino**

10:50 PHYS 12. Roald Hoffmann's role in the development of the Woodward-Hoffmann Rules. **J. Seeman**

11:20 PHYS 13. Orbital control of single molecule conductivities and electrical switching properties of organometallic complexes. **H. Berke, F. Lissel, F. Schwarz, G. Kastlunger, E. Lörtscher, R. Stadler, K. Venkatesan, H. Riel**

11:40 PHYS 14. Organic chemistry at Stony Brook: Learning the basics with a glimpse at the complex yet to come. **J.W. Lauher**

Section C

Walter E. Washington Convention Center Room 152A

Liquid Theory: Symposium in honor of Ben Widom

K. Koga, R. F. Loring, Organizers

D. Ben-Amotz, Organizer, Presiding

8:00 Introductory Remarks.

8:05 PHYS 15. RNA branching, and the size of long RNA molecules. **W.M. Gelbart, S. Singaram, A. Ben-Shaul**

8:35 PHYS 16. From complex fluids and interfaces to very complex fluids and even more complex interfaces. **K.A. Dawson**

9:05 PHYS 17. Topology in biology. **J. Yeomans**

9:35 PHYS 18. Withdrawn.

10:05 Intermission.

10:20 PHYS 19. Van der Waals disappointed: First experimental tests of mean-field theory. **J. Levelt Sengers**

10:40 PHYS 20. Finding simplicity in complexity: Lessons I have learned from Ben Widom. **M.A. Anisimov**

11:00 PHYS 21. Integral equation theory of coarse-graining. **M. Guenza**

11:20 PHYS 22. Are there two forms of liquid water? Can the Widom Line settle the dispute? **H.E. Stanley**

Section D

Walter E. Washington Convention Center Room 151A

Electronic Structure Methods for Complex Chemical Systems

Many-body Perturbation Theory, Random Phase Approximation & Beyond

Cosponsored by COMP

F. U. Furche, S. Sharifzadeh, J. J. Shepherd, Organizers

A. Grüneis, Presiding

8:00 Introductory Remarks.

8:05 PHYS 23. Excited-state phenomena in condensed matter: GW, GW-BSE, and beyond. **S.G. Louie**

8:30 PHYS 24. Electronic excitations at solid-liquid interfaces. **J. Lischner**

8:55 PHYS 25. Real-space representation of electron-hole interaction kernel in excitonic systems. **A. Chakraborty**

9:10 Intermission.

9:20 PHYS 26. Effect of crystal packing on the electronic properties of molecular crystals. **N. Marom**

9:45 PHYS 601. Effect of crystal packing on the excitonic properties of rubrene polymorphs. **X. Wang, T. Garcia, S. Monaco, B. Schatschneider, N. Marom**

10:00 PHYS 27. The optical properties of stilbene from first-principles. **K. Lewis, C.B. Rinderspacher, S. Sharifzadeh, J. Andzelm**

10:15 PHYS 28. Beyond RPA: Kernels and renormalization. **A. Ruzsinszky**

10:40 PHYS 29. Convergence behavior of RPA renormalized many-body perturbation theory and applications to periodic systems. **J.E. Bates, N. Sengupta, J. Sensenig, A. Ruzsinszky**

10:55 Intermission.

11:05 PHYS 30. Self-consistent temperature dependent Green's function methods applied to solids and molecules. **D. Zgid, A. Ruskakov, S. Isakov**

11:30 PHYS 31. Combining density functional theory and Green's function theory: Range-separated, non-local, dynamic hybrid functional. **A. Kananenka, D. Zgid**

11:45 PHYS 32. Towards rigorous *ab initio* quantum embedding for realistic systems in the framework of Green's function theory. **L. Tran, A. Kananenka, D. Zgid**

Section E

Walter E. Washington Convention Center Rooms 159A/B

Spectroscopic & Computational Insights into Solid/Liquid Interfaces for Energy Conversion

First Principles Modeling of Liquid/Solid Interfaces

K. L. Jungjohann, J. A. Keith, Organizers

A. Heyden, Presiding

8:00 PHYS 33. Modelling metal electrolyte interfaces from density functional theory based molecular dynamics. **J. Le, M. Iannuzzi, A. Cuesta, J. Cheng**

8:20 PHYS 34. Quantum/continuum simulations of solid/liquid interfaces under applied voltage. **I. Dabo**

8:55 PHYS 35. Integrating first principles theory and experimental characterization at the solid/liquid interface. **K. Letchworth-Weaver**

9:30 PHYS 36. Catalysis at the solid-liquid interface: Tools and challenges. **A. Heyden, M.S. Saleheen**

10:05 Intermission.

10:20 PHYS 37. Cation effects on Pt electrode surface chemistry – insights from DFT. **M.J. Janik, I.T. McCrum**

10:55 PHYS 38. Modeling solid-liquid interfaces in batteries: Degradation/acid-base reactions, electric double layers, and challenges. **K. Leung**

11:30 PHYS 39. *Ab initio* studies of ultrathin ionic liquid films on Au (111) surface. **M. Liu, Q. Wu**

Section F

Walter E. Washington Convention Center Rooms 158A/B

Experimental & Computational Advances In Understanding Enzyme Specificity & Promiscuity

Catalytic Promiscuity & the Emergence of New Proteins

Cosponsored by BIOL and COMP

Financially supported by Gaussian, Elsevier, Pfizer, DSM, SCM: Software for Chemistry and Materials, PCCP: Physical Chemistry Chemical Physics, F1000: Faculty of 1000

Q. Cui, G. J. Poelarends, N. Tokuriki, Organizers

S. C. Kamerlin, Organizer, Presiding

8:00 Introductory Remarks.

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8:10 PHYS 40. Adaptation of phosphatases as regulators, catalysts, and housekeepers. K.N. Allen

8:50 PHYS 41. Structural and functional innovations in the real-time evolution of new ($\beta\alpha$)8 barrel enzymes. W. Patrick

9:30 PHYS 42. Identical active sites in hydroxynitrile lyases show opposite enantioselectivity and reveal possible ancestral mechanism. B. Jones, S. Bata, R.J. Kazlauskas

9:50 Intermission.

10:20 PHYS 43. Three-dimensional structure and substrate profile for a newly identified phosphotriesterase that catalyzes the hydrolysis of organophosphate flame retardants and plasticizers. F.M. Raushel, A.N. Bigley, D.F. Xiang, M.F. Mabanglo

11:00 PHYS 44. Insight on the role of an active site scaffold in TET2 required for the step-wise oxidation of 5-methylcytosine. H. Torabifard, M.Y. Liu, R.M. Kohli, G.A. Cisneros

Section G

Walter E. Washington Convention Center Room 151B

PHYS Awards Symposium

PHYS Early-Career Award in Experimental Physical Chemistry: Symposium in honor of Professor Wei Min

J. E. Shea, *Organizer*

X. Xie, *Presiding*

8:00 Introductory Remarks.

8:05 PHYS 45. SRS microscopy: The quest for sensitivity. X. Xie

8:45 PHYS 46. Electric fields and enzyme catalysis. S.G. Boxer

9:25 Intermission.

9:40 PHYS 47. Recent advances in surface-enhanced femtosecond stimulated Raman scattering (SE-FSRS). R.P. Van Duyne

10:20 PHYS 48. Size, dimensionality and strong electron correlation in nanoscience. L.E. Brus

11:00 PHYS 49. Stimulated Raman imaging of vibrational tags for biomedicine. W. Min

Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms

The Exascale Challenge

Sponsored by COMP, Cosponsored by PHYS

Nanotechnology & Single Cell Analysis in Biology & Medicine

Sponsored by ANYL, Cosponsored by BIOL, COLL and PHYS

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding

Sponsored by COMP, Cosponsored by PHYS

ACS COMP Symposium in honor of Peter Pulay

Gradients, Properties & Electron Correlation

Sponsored by COMP, Cosponsored by PHYS

SUNDAY AFTERNOON

Section A

Walter E. Washington Convention Center Room 156

Molecules in Space: Linking the Interstellar Medium to (Exo)-Planets

Spectroscopy: Meeting the Needs of Astronomers with Experiments & Theory

P. Bera, X. Tielens, *Organizers*

J. Pearson, *Presiding*

1:00 PHYS 50. Dehydrogenation of polycyclic aromatic hydrocarbons. A. Candian
1:20 Discussion.

1:30 PHYS 51. Laboratory spectroscopy in astrochemistry. S.L. Widicus Weaver

2:05 PHYS 52. TISA. J. Cernicharo

2:35 Intermission.

3:05 PHYS 53. Complex chemistry of star formation: New insights from the atacama large millimeter/submillimeter array. J. Jorgensen

3:35 PHYS 54. Accurate IR line lists for SO₂ isotopologues. X. Huang, T.J. Lee, D. Schwenke

4:05 PHYS 55. New virtual tools for astrochemistry. V. Barone, N. Tasinato, C. Puzzarini, D. Licari, L. Spada

Section B

Walter E. Washington Convention Center Room 152B

Theoretical Models of Chemical Bonding & Reactivity Spanning the Periodic Table: A Symposium in Honor of Roald Hoffmann

Electronic Structure & Reactivity of Organic and Organometallic Compounds

W. Grochala, E. Zurek, *Organizers*

X. Wen, *Presiding*

1:00 PHYS 56. Minding the gap: Quantum studies of the singlet-triplet splittings in aromatic diradicals. C.A. Parish

1:30 PHYS 57. On some differences between low-coordinate carbon and silicon compounds. Y. Apeloig

2:00 PHYS 58. Supramolecular chemistry of highly reduced buckybowls. A.Y. Rogachev

2:30 PHYS 59. Molecular orbitals: A powerful tool from structure, reactivity to NMR. O.G. Eisenstein, C. Raynaud, C. Coperet

3:00 Intermission.

3:20 PHYS 60. Sigma-hole supported interactions across the periodic table. K. Donald

3:50 PHYS 61. Activation of small molecules by mono and dinuclear Ni(II) and Cu(II) Schiff base complexes. M.J. Calhorda

4:20 PHYS 62. Dawn rise of new M-M' bonds: An experimental/theoretical 21st-century approach to Alchemize gold en route to sensitizing genuine, ligand-unassisted d10-d10 covalent metal-metal bonds. M.A. Omary, B.M. Otten, K. Melancon, M. Ghimire, M. Raweshdeh-Omary

4:40 PHYS 63. Metalla-[2 + 1] and [2 + 4] cycloadditions of 2-metalla-butadienes and ethylene. E. Greer, K. Kwon, C. Cosgriff, E. Votto, A. Badziaz, X. Cui

Section C

Walter E. Washington Convention Center Room 152A

Liquid Theory: Symposium in honor of Ben Widom

D. Ben-Amotz, K. Koga, *Organizers*

R. F. Loring, *Organizer, Presiding*

1:00 PHYS 64. Crystalline ordering and large fugacity expansions for hard core lattice particles. J.L. Lebowitz, I. Jauslin

1:30 PHYS 65. New thermodynamic model for asymmetric solutions. A. Karmakar, E.R. Batista, P. Yang

1:50 PHYS 66. Chiral symmetry breaking in isotropic liquids. F. Stillinger

2:20 PHYS 67. Improved estimates of the excess chemical potential from particle insertion and removal. J.C. Rasaiah, G. Hummer

2:40 PHYS 68. Surface interactions mediated by a liquid: Shape, orientation and heterogeneity. A. Luzar

3:10 Intermission.

3:30 PHYS 69. Structural crossover in binary hard-sphere mixtures: Experiment and theory. R. Evans

4:00 PHYS 70. Changes in the hydration structure of imidazole upon protonation: Neutron scattering and molecular simulations. P. Jungwirth

Section D

Walter E. Washington Convention Center Room 151A

Electronic Structure Methods for Complex Chemical Systems

Extended Systems

Cosponsored by COMP

F. U. Furche, S. Sharifzadeh, J. J. Shepherd, *Organizers*

J. Lischner, *Presiding*

1:00 PHYS 71. Single- and multi-excitation phenomena in organic systems from first principles. J. Neaton

1:25 PHYS 72. Singlet-fission from first-principles: Role of crystal symmetry and structure. S. Refaely-Abramson, F.H. da Jornada, S.G. Louie, J. Neaton

1:40 PHYS 73. Unraveling excitation energy transfer mechanisms in plasmonic nanoantennas. N.V. Ilawe, M.B. Oviedo, B.M. Wong

1:55 PHYS 74. Stochastic electronic structure methods: Improving scaling by introducing a controlled statistical error. E. Rabani, R. Baer, D. Neuhauser

2:20 PHYS 75. Probing the mechanism of tip-molecule charge transfer in the STM setup: A non-adiabatic molecular dynamics study. J. Jankowska, O.V. Prezhdo

2:35 Intermission.

2:45 PHYS 76. High-accuracy trial wave functions on the cheap: Stochastic variational algorithms for quantum chemistry. B.M. Rubenstein

3:10 PHYS 77. Fully quantum simulation of surface enhanced Raman scattering from real-time *ab-initio* methods. J. Kretschmer, G. Chan

3:25 PHYS 78. GPU-enabled real-time electron dynamics of nitrogen-doped graphene nanoflakes. S. Allec, M.B. Oviedo, B.M. Wong

3:40 Intermission.

3:50 PHYS 79. Finite size corrections in coupled cluster theory calculations of solids and surfaces. A. Grüneis

4:15 PHYS 80. Random phase approximation calculations based on patching exchange-correlation potential. C. Huang

4:30 PHYS 81. Condensed-phase spin-unrestricted MP2 forces: A complex case of hydrated electron. V. Rybkin, J. Wilhelm

4:45 PHYS 82. Finite-temperature second-order Green's function approach to electronic correlations in solids. A. Rusakov, L. Tran, S. Iskakov, D. Zgid

Section E

Walter E. Washington Convention Center Rooms 159A/B

Spectroscopic & Computational Insights into Solid/Liquid Interfaces for Energy Conversion

Insights for Catalysis and Charge Transport

K. L. Jungjohann, J. A. Keith, *Organizers*

M. Sfeir, *Presiding*

1:00 PHYS 83. Characterizing transport in electrochemical energy conversion devices with X-ray computed tomography. I. Zenyuk

1:35 PHYS 84. In situ transient optical studies of charge transport in nanostructured photocatalytic materials. M. Sfeir

2:10 PHYS 85. Electron transfer in thermally heterogeneous environments: A new paradigm for heat transport between molecules and at molecule-metal interfaces. G. Craven, A. Nitzan

2:45 Intermission.

3:05 PHYS 86. Interplay of mass transfer and local pH effects in CO₂ reduction electrocatalysis. D. Raciiti, C. Wang

3:40 PHYS 87. Central role of bicarbonate in the electrochemical reduction of carbon dioxide on gold. M. Dunwell, Q. Lu, J.G. Chen, Y. Yan, F. Jiao, B. Xu

4:15 PHYS 88. Spectroscopic investigation of oxygenate adsorption, diffusion, and reaction at solid catalyst surfaces in the presence of semi-aqueous solvent systems. L. Qi, A. Chamas, W. Elliott, D.W. Hoyt, N.M. Washton, R.M. Rioux, S.L. Scott

Section F

Walter E. Washington Convention Center
Rooms 158A/B

Experimental & Computational Advances In Understanding Enzyme Specificity & Promiscuity

Computational Tools for Enzyme Evolution & Functional Annotation

Cosponsored by BIOL and COMP

Financially supported by Gaussian, Elsevier, Pfizer, DSM, SCM: Software for Chemistry and Materials, PCCP: Physical Chemistry Chemical Physics, F1000: Faculty of 1000

Q. Cui, S. C. Kamerlin, G. J. Poelarends, N. Tokuriki, *Organizers*

D. Major, *Presiding*

1:00 PHYS 89. Evolution of enzyme specificity. **J.M. Thornton**, J.D. Tyack, A.J. Ribeiro, G.L. Holliday, I. Sillitoe, C.A. Orengo, S. Martinez Cuesta, S. Rahman, N. Furnham

1:40 PHYS 90. From big data to enzyme chemical function: The nitroreductase superfamily as a model system. **E. Akiva**, J.N. Copp, N. Tokuriki, P.C. Babbitt

2:20 PHYS 91. QM/MM computations and experimental studies reveals an unexpected intermediate in thymidylate synthase catalysis. **S.A. Kholodar**, V. Moliner, **A. Kohen**

2:40 Intermission.

3:10 PHYS 92. Understanding allosteric modulation of beta lactamase function and bacterial drug resistance. **P. Kasson**, G. Cortina, M. Latalo

3:50 PHYS 93. Don't forget to set the function to low: Predicting modifiable protein residues and effects of their variation. **Y. Bromberg**

4:30 PHYS 94. Towards engineering radical enzymes: Thermodynamic reaction profiling and mechanistic insights into QueE. **C.M. Jaeger**

Section G

Walter E. Washington Convention Center
Room 151B

PHYS Awards Symposium

PHYS Early-Career Award in Theoretical Chemistry: Symposium in honor of Professor Lasse Jensen

J. E. Shea, *Organizer*

L. Jensen, *Presiding*

1:00 PHYS 95. Nanoscale optical interactions in precise assemblies. **P.S. Weiss**

1:30 PHYS 96. New strategies for surface-enhanced sensing: Carbenes as thiol replacements and hyper-Raman based detection. **J.P. Camden**

2:00 PHYS 97. Electronic structure theory and plasmonics. **G.C. Schatz**

2:30 Intermission.

2:45 PHYS 98. Atomistic simulations of surface-enhanced spectroscopies. **L. Jensen**

3:15 PHYS 99. Tip-enhanced Raman spectroscopy with Angstrom resolution. **R.P. Van Duyne**

3:45 PHYS 100. Molecular force spectro-microscopy through tip-enhanced Raman scattering. **J. Lee**, N. Tallarida, L. Rios, **V.A. Apkarian**

Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms

New Architectures

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Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding

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ACS COMP Symposium in honor of Peter Pulay

Gradients, Properties & Electron Correlation

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MONDAY MORNING

Section A

Walter E. Washington Convention Center
Room 156

Molecules in Space: Linking the Interstellar Medium to (Exo)-Planets

Hot Cores & Corinos

P. Bera, X. Tielens, *Organizers*

T. J. Lee, *Presiding*

8:00 PHYS 101. Recent advances in molecular excitation studies. **L. Wiesenfeld**, A. Faure

8:20 PHYS 102. Photolysis of astrochemically relevant ammonia ices. **C.R. Arumainayagam**, C. Buffo, H. Schneider

8:40 PHYS 103. Rotational spectroscopy as a tool to investigate molecules in space: Laboratory measurements and quantum-chemical calculations. **C. Puzzarini**

9:00 PHYS 104. Synthesis of biomolecules in interstellar medium. **S.K. Chakrabarti**, A. Das, L. Majumdar

9:20 PHYS 105. Temperature dependent 3.3 μm spectra of PAHs: An anharmonic theoretical approach. **C. Mackie**

9:40 Discussion.

9:50 Intermission.

10:20 PHYS 106. Molecular complexity in hot cores and hot corinos. **C. Ceccarelli**

10:55 PHYS 107. ALMA and Herschel observations of hot cores and corinos. **L.C. Darek**

11:25 PHYS 108. Phosphorus-bearing molecules in massive star-forming clouds. **F. Fontani**, V. Rivilla, P. Caselli, A. Vasyunin, M. Beltran

Section B

Walter E. Washington Convention Center
Room 152B

Theoretical Models of Chemical Bonding & Reactivity Spanning the Periodic Table: A Symposium in Honor of Roald Hoffmann

Progress in Inorganic Chemistry

W. Grochala, E. Zurek, *Organizers*

R. Dronskowski, *Presiding*

8:00 PHYS 109. Oriented electric fields as future smart reagents in chemistry. **S.S. Shaik**, D. Mandal, R. Ramanan

8:30 PHYS 110. Chemical bonds: A lucky bag (eine Wundertüte). **G. Frenking**

9:00 PHYS 111. Three independent concepts: Oxidation state, effective charge, pair charges - bonding of elements in high oxidation states. **W. Schwarz**

9:20 PHYS 112. Oxidation states, naturally: A NBO view of counting electrons. **J.S. D'Acchioli**

9:40 PHYS 113. Exploring the structure, dynamics and reactivity of solvated electrons: From alkali metal-water explosions to non-explosive ways. **P. Jungwirth**

10:00 Intermission.

10:20 PHYS 114. Ab initio theory of electronic Berry phase effect and topological materials: The role of symmetry and chemical bonding. **J. Feng**

10:50 PHYS 115. Could we make shorter Zn-Zn bonds? **S. Alvarez**, J. Echeverría, A. Falco

11:20 PHYS 116. Chemistry of boron and physics of frustration in boron and boron compounds. **T. Ogitsu**

11:40 PHYS 117. Silicon borides at 1atm and under pressure. **G. Gao**, X. Liang, L. Wang, C. Shao

Section C

Walter E. Washington Convention Center
Room 152A

Liquid Theory: Symposium in honor of Ben Widom

D. Ben-Amotz, R. F. Loring, *Organizers*

K. Koga, *Organizer, Presiding*

8:00 PHYS 118. Solvation, structure, and scaling in models for simple and complex mixtures. **J.D. Weeks**, A. Gao

8:30 PHYS 119. Widom's formula and the utility of chemical modeling in the theory of solutions. **L.R. Pratt**

9:00 PHYS 120. Thermodynamics of hydrophobic hydration: Experimental facts. **C. Cerdeirina**

9:30 PHYS 121. How are hydrophobic and pH-responsive polymers functioning in nanochannels? **I. Szleifer**, K. Huang

10:00 Intermission.

10:20 PHYS 122. Lattice-based adsorption isotherms for solute activities and surface tensions of complex aqueous solutions. **C. Dutcher**, L. Nandy, H. Boyer

10:40 PHYS 123. Cosolvent effects on hydrophobic polymer collapse. **N. van der Vegt**

11:00 PHYS 124. Curious case of non-equilibrium finance. **M. Lipkin**

11:20 PHYS 125. Onset of turbulence. **B.J. Alder**

Section D

Walter E. Washington Convention Center
Room 151A

Electronic Structure Methods for Complex Chemical Systems

Noncovalent Interactions, Nanosystems & Solvation

Cosponsored by COMP

F. U. Furche, S. Sharifzadeh, J. J. Shepherd, *Organizers*

C. Isborn, *Presiding*

8:00 PHYS 126. First-principles exciton models, with application to singlet fission. **J. Herbert**, A. Morrison, J. Liu

8:25 PHYS 127. Unravelling singlet fission mechanism in quinoindal systems. **M. Momeni**

8:40 PHYS 128. Photochemical dynamics for intramolecular singlet fission in covalently-bound pentacene dimers. **Z. Lin**, H. Iwasaki, T.A. Van Voorhis

8:55 PHYS 129. Equilibrium geometries and binding energy scaling relationships for aromatic excimers and exciplexes: A TDDFT and NEVPT2 study. **R. Krueger**, G. Blanquart

9:10 Intermission.

9:20 PHYS 130. Fully converged GW quasiparticle calculations for large systems. **P. Zhang**

9:45 PHYS 131. Excited-state forces in TDDFT and the Bethe-Salpeter equation. **D.A. Strubbe**

10:10 PHYS 132. Evolution from the plasmon to exciton state in atomically precise gold nanoparticles. **M. Zhou**, M. Steir, C. Zeng, Y. Chen, S. Zhao, T. Higaki, R. Jin

10:25 PHYS 133. Dressed atom design of charge-transfer force fields. **S.R. Atlas**, G. Amo-Kwao

10:40 Intermission.

10:50 PHYS 134. Computational design of asymmetric organocatalysts. **S.E. Wheeler**

11:15 PHYS 135. Simplified methods for the computation of electronic absorption and circular dichroism spectra. **C. Bannwarth**, S. Grimme

11:30 PHYS 136. Quantum yields made easy: Towards an evaluation of non-radiative rates. **A.W. Kohn**, Z. Lin, T.A. Van Voorhis

11:45 PHYS 137. Unique electronic structure of iron carbene photosensitizers. **L.A. Fredin**, P. Persson

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Section E

Walter E. Washington Convention Center
Rooms 159A/B

Spectroscopic & Computational Insights into Solid/Liquid Interfaces for Energy Conversion
Liquid/Carbon Interfaces & Excited States

K. L. Jungjohann, J. A. Keith, *Organizers*
A. J. Morris, *Presiding*

8:00 PHYS 138. Understanding the intrinsic water wettability of graphitic surfaces. L. Li

8:35 PHYS 139. Electrochemical properties of clean graphite electrodes. H. Liu, L. Li

9:10 PHYS 140. Sulfur composite for high capacity lithium sulfur battery. U. Gulzar, R. Proietti, C. Capiglia

9:45 Intermission.

10:05 PHYS 141. Bridging the divide: Metal organic frameworks as molecular solids and their solution reactivity. A.J. Morris

10:40 PHYS 142. Development of electron-hole multicomponent coupled-cluster theory (eh-mcCC): An excite-first correlate-later approach to electronic excitation. A. Chakraborty

11:15 PHYS 143. Multi-electron transfer via photo-excited quinoidal bithiophene to anthraquinone. H. Kim, N. Abeyasinghe, R. Ho Wu, R. Vázquez, B. Keller, T.G. Goodson, P.M. Zimmerman

Section F

Walter E. Washington Convention Center
Rooms 158A/B

Experimental & Computational Advances In Understanding Enzyme Specificity & Promiscuity
Computational Approaches to Enzyme Design

Cosponsored by BIOL and COMP

Financially supported by Gaussian, Elsevier, Pfizer, DSM, SCM; Software for Chemistry and Materials, PCCP; Physical Chemistry Chemical Physics, F1000; Faculty of 1000

S. C. Kamerlin, G. J. Poelarends, N. Tokuriki, *Organizers*

Q. Cui, *Organizer, Presiding*

8:00 PHYS 144. Computational design and screening of mutant enzyme libraries. D. Janssen, H. Arabnejad, X. Niu, E. Lanfranchi, H.J. Wijma

8:40 PHYS 145. Design and evolution of gated protein tunnels. J. Damborsky, D. Bendar, S. Marques, P. Kokkonen, M. Musil, J. Stourac, L. Sumbalova, O. Vavra, R. Nemeth, Z. Prokop

9:20 PHYS 146. Redefining enzyme catalysis: Chemical control in the biosynthesis of terpenes. D.T. Major

9:40 Intermission.

10:10 PHYS 147. Application of computational modeling in biocatalysis and enzyme design. A. Rodriguez-Granillo

10:50 PHYS 148. Enzyme catalysis: Insights from valence bond. A. Sharir-Ivry, V. Rajapandian, A. Shurki

11:30 PHYS 149. Hamiltonian replica exchange molecular dynamics: A fast and reliable method in the computational enzymology toolbox. D. Petrovic, B. Strodel

Section G

Walter E. Washington Convention Center
Room 151B

PHYS Awards Symposium
PHYS Award in Theoretical Chemistry Symposium in honor of Professor David Reichman

J. E. Shea, *Organizer*

E. Rabani, *Presiding*

8:00 PHYS 150. Theoretical studies of neutral and charged quasiparticle dynamics in novel materials. D.R. Reichman

8:35 PHYS 151. Molecules on metal surfaces: Exciting but highly non-intuitive nonadiabatic dynamics. J.E. Subotnik, W. Dou

9:10 PHYS 152. Condensed phase quantum chemistry. G. Chan

9:45 Intermission.

10:00 PHYS 153. Towards accurate first-principles spectroscopy in condensed phases. T.C. Berkelbach

10:35 PHYS 154. Gardner transition: A new lens for glasses. P. Charbonneau

11:10 PHYS 155. Ultra-high transient photocurrent peak in PbSe nanocrystals arrays. J. Gao, L. Kidon, P. Alivisatos, E. Rabani

Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms
Large Scale Electronic Structure

Sponsored by COMP, Cosponsored by PHYS

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Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding

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Modeling & Measuring Protein-Ligand Kinetics & Residence Times

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ACS COMP Symposium in honor of Peter Pulay
Gradients, Properties & Electron Correlation

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MONDAY AFTERNOON**Section A**

Walter E. Washington Convention Center
Room 156

Molecules in Space: Linking the Interstellar Medium to (Exo)-Planets
Solar Eclipse Viewing & Discussion

X. Tielens, *Organizer*

P. Bera, *Organizer, Presiding*

1:00 PHYS 156. Solar eclipse. P. Bera, X. Tielens

2:00 PHYS 157. Solar eclipse: Viewing and discussion. A. Tielens, P. Bera

3:00 PHYS 158. Solar eclipse: Discussions. P. Bera, A. Tielens

Section B

Walter E. Washington Convention Center
Room 152B

Theoretical Models of Chemical Bonding & Reactivity Spanning the Periodic Table: A Symposium in Honor of Roald Hoffmann
Concepts & Methodology

W. Grochala, E. Zurek, *Organizers*

S. S. Shaik, *Presiding*

1:00 PHYS 159. What we can learn from the DOE (and LOBSTER providing it). R.V. Dronskowski

1:30 PHYS 160. Intrinsic resolution of molecular electronic wave functions and energies in terms of quasi-atoms and their interactions. K. Ruedenberg

1:50 PHYS 161. First-principles derived descriptors for rational design of functional molecular materials. E. Berquist, D. Lambrecht

2:10 Intermission.

2:30 PHYS 162. Self-adaptive force matching for molecular dynamics simulation of reactive materials under extreme conditions. N. Goldman

2:50 PHYS 163. Label algorithm for oriented quasi-atomic orbitals. A.C. West, M.W. Schmidt, M. Gordon, K. Ruedenberg

3:10 PHYS 164. Chemistry with semi-classical electrons: Reaction trajectories auto-generated by sub-atomistic force fields. C. Bai, S. Kale, J. Herzfeld

3:30 PHYS 165. Understanding hydrogen bonds from a Kohn-Sham molecular orbital perspective: Pauli matters. S.C. van der Lubbe, C. Fonseca Guerra

Section C

Walter E. Washington Convention Center
Room 152A

Liquid Theory: Symposium in honor of Ben Widom

D. Ben-Amotz, K. Koga, *Organizers*

R. F. Loring, *Organizer, Presiding*

1:00 PHYS 166. Current-generating double layer shoe with a porous sole. A. Kolomeisky, A. Kornyshev

1:30 PHYS 167. Mapping electronic structure Hamiltonian to an Ising type Hamiltonian. S. Kais

1:50 PHYS 168. How high is the entropy of a high entropy alloy? M. Widom

2:20 PHYS 169. Statistical mechanical modeling of quasiparticles in condensed phases. R. Remsing

2:40 PHYS 170. Classical engine with ideal efficiency and nonzero power: Is it possible? J. Koning, J.O. Indekeu

3:10 Intermission.

3:30 PHYS 171. Thermodynamics and kinetics of nano-scale drying transitions. Y. Altabet, P.G. Debenedetti

4:00 PHYS 172. Understanding and characterizing the context-dependent hydrophobicity of nanostructured solutes. E. Xi, V. Venkateshwaran, A. Patel, S. Garde

4:20 PHYS 173. Confinement-induced compression and high pressure phases in nanopores. K.E. Gubbins

Section D

Walter E. Washington Convention Center
Room 151A

Electronic Structure Methods for Complex Chemical Systems
Emerging Directions in Electronic Structure

Cosponsored by COMP

F. U. Furche, S. Sharifzadeh, J. J. Shepherd, *Organizers*

F. A. Evangelista, *Presiding*

1:00 PHYS 174. Potential energy surfaces and Berry phases beyond the Born-Oppenheimer approximation. E. Gross

1:25 PHYS 175. Quasiparticle spectra from stochastic many-body methods. V. Vlcek, R. Baer, E. Rabani, D. Neuhauser

1:40 PHYS 176. Exchange-correlation functionals for chemical applications from the strong-coupling limit of DFT. S. Vuckovic

1:55 PHYS 177. Beyond Koopmans: Modelling ionization energies in solution. P. Slavicek

2:10 Intermission.

2:20 PHYS 178. Progress in excited state variational principles for molecules and solids. E. Neuscamman

2:45 PHYS 179. Correlated electronic structure methods based on spin-projection for open-shell systems. T. Tsuchimochi

3:10 PHYS 180. Symmetry breaking and restoration by similarity transformation. M. Degroote, G.E. Scuseria

3:25 Intermission.

3:35 PHYS 181. Quantum embedding for complex systems. G. Chan

4:00 PHYS 182. Projection-based quantum embedding for molecular and periodic systems. D. Chulhai, J. Goodpaster

4:15 PHYS 183. Simulation of atomic force microscopy with density embedding theory and its implementation to realspace DFT code PARSEC. Y. Sakai

4:30 PHYS 184. Colle-Salvetti based functional for the inclusion of electron-proton correlation in multicomponent density functional theory. K. Brorsen, Y. Yang, M. Pak, S. Hammes-Schiffer

4:45 PHYS 185. Machine learning acceleration of non-local density functional theory. N. Geva, T.A. Van Voorhis, T. Thonhauser

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section E

Walter E. Washington Convention Center
Rooms 159A/B

Spectroscopic & Computational Insights into Solid/Liquid Interfaces for Energy Conversion

Insights for Batteries

K. L. Jungjohann, J. A. Keith, *Organizers*

B. L. Lucht, *Presiding*

1:00 **PHYS 186.** Generation and evolution of materials in the anode solid electrolyte interphase (SEI) of lithium ion batteries. B.L. Lucht

1:35 **PHYS 187.** Grand challenge in battery designs through better understanding of the interfaces. B. Liaw

2:10 **PHYS 188.** Heterogeneity in the SEI and failure statistics in Li ion battery pouch cells. S.J. Harris, P. Lu

2:45 Intermission.

3:05 **PHYS 189.** In-situ spectro-imaging of lithium transport and reactions at electrolyte/electrode interface in batteries. W. Zhang, B. Swartzentruber, W.M. Mook, K.L. Jungjohann, F. Wang

3:40 **PHYS 190.** Revealing mechanisms for electrolyte decomposition from first-principles consistent with operando X-ray photoemission spectra. D. Prendergast, A.J. Baskin, Y. Yu, C. Valero-Vidal, N. Hahn, Q. Liu, K.R. Zavadil, B.W. Eichhorn, E. Crumlin

4:15 **PHYS 191.** Withdrawn.

Section F

Walter E. Washington Convention Center
Rooms 158A/B

Experimental & Computational Advances In Understanding Enzyme Specificity & Promiscuity

Discovery & Engineering of Industrially Relevant Enzymes

Cosponsored by BIOL and COMP

Financially supported by Gaussian, Elsevier, Pfizer, DSM, SCM: Software for Chemistry and Materials, PCCP: Physical Chemistry Chemical Physics, F1000: Faculty of 1000

Q. Cui, S. C. Kamerlin, N. Tokuriki, *Organizers*

G. J. Poelarends, *Organizer, Presiding*

1:00 **PHYS 192.** Discovery of a reductive aminase for chiral amine synthesis. N. Turner

1:40 **PHYS 193.** Engineering nature's protein repertoire for food, pharma and the bio-based economy. R. de Jong

2:20 **PHYS 194.** Using experimental and computational data to expand the utility of a suite of flavin-dependent monooxygenases. A.R. Narayan

2:40 Intermission.

3:20 **PHYS 195.** Re-engineering esterases for amide bond synthesis. J.J. Lalonde, D. Entwistle, C. Micklistch, R. Voladri

4:00 **PHYS 196.** Atom- and step efficient modular synthetic enzyme cascades to chiral building blocks and active pharmaceutical ingredients. R. Oegg, J. Wachtmeister, V. Erdmann, J. Kullig, T. Sehl, A. Jakoblinert, D. Rother

4:40 **PHYS 197.** Characterization of site- and stereoselective Rieske oxygenases from the saxitoxin biosynthetic pathway. A.L. Lukowski, M. Hinze, A.R. Narayan

Section G

Walter E. Washington Convention Center
Room 151B

PHYS Awards Symposium

PHYS/Journal of Physical Chemistry Lectureship Award: Symposium in honor of Professor Zahra Fakhraai

J. E. Shea, *Organizer*

Z. Fakhraai, *Presiding*

1:00 **PHYS 198.** Electron-plasmon and plasmon-exciton interactions in molecular junctions. A. Nitzan, M. Galperin, M. Sukharev

1:35 **PHYS 199.** Assembly of anisotropic nanoparticles in polymer nanocomposite films. R.J. Composto

2:10 **PHYS 200.** Rationalizing simulations with experiments on the dynamics of confined glasses. R. Riggleman, Z. Fakhraai

2:45 Intermission.

3:15 **PHYS 201.** Theories of activated diffusion and structural relaxation in multi-component polymer liquids and glasses. K.S. Schweizer

3:50 **PHYS 202.** Using surface structure and mobility to build more organized glasses with physical vapor deposition. M.D. Ediger

4:25 **PHYS 203.** Long-range correlated dynamics in organic and inorganic glasses. Z. Fakhraai, Y. Zhang, T. Liu, R. Stephens, E. Glor, K. Wahid, G. Angrand, R. Riggleman

Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms

Electronic Structure

Sponsored by COMP, Cosponsored by PHYS

Nanotechnology & Single Cell Analysis in Biology & Medicine

Sponsored by ANYL, Cosponsored by BIOL, COLL and PHYS

Transformative Research & Excellence in Education Award

Sponsored by COMSCI, Cosponsored by BIOL, COLL, COMP, ENFL, INOR, PHYS and PRES

Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding

Sponsored by COMP, Cosponsored by PHYS

Modeling & Measuring Protein-Ligand Kinetics & Residence Times

Sponsored by COMP, Cosponsored by MEDI and PHYS

MONDAY EVENING

Section A

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

S. O. Kelley, J. E. Shea, *Organizers*

8:00 - 10:00

127, 129, 135, 143, 176, 197.
See previous listings.

231, 277, 289, 313, 316-317, 329, 335, 346, 361, 394-395, 398, 403, 416-418, 425, 427, 437, 439, 457, 460, 461-462, 465, 469-470, 474-477, 480, 483, 485, 487-489, 492, 495, 497, 504, 509-510, 518-519, 522, 527, 532, 538, 540-541. See subsequent listings.

TUESDAY MORNING

Section A

Walter E. Washington Convention Center
Room 156

Molecules in Space: Linking the Interstellar Medium to (Exo)-Planets

Hot Cores & Corinos

P. Bera, X. Tielens, *Organizers*

E. Herbst, *Presiding*

8:00 **PHYS 204.** Astronomical model studies related to the composition of hot cores and hot corinos. S. Charnley

8:30 **PHYS 205.** SOFIA/EXES high spectral resolution observations of Orion IRc2. N. Rangwala, X. Huang, K. Acharyya, R. Le Gal, S. Colgan, T.J. Lee, E. Herbst

9:00 Intermission.

9:30 **PHYS 206.** Ion-induced reactions in hot cores and corinos. W.D. Geppert, M. Larsson

10:00 **PHYS 207.** Complex organic molecules in star-forming regions: hot cores and hot corinos. V. Rivilla

10:20 Discussion.

Section B

Walter E. Washington Convention Center
Room 152B

Theoretical Models of Chemical Bonding & Reactivity Spanning the Periodic Table: A Symposium in Honor of Roald Hoffmann

Recent Advances in High Pressure Chemistry

W. Grochala, *Organizer*

E. Zurek, *Organizer, Presiding*

8:00 **PHYS 208.** Borophenes, borospherenes and boron. E.D. Jemmis

8:30 **PHYS 209.** Bonds vs bands, or how it is easier to understand electronic structure and phase diagram of ice: Canondrums and smoking guns. A.L. Tchougreff

9:00 **PHYS 210.** Thermodynamic stabilization of nitrogen pentafluoride. D. Kurzydowski, P. Zaleski-Ejgierd

9:20 **PHYS 211.** Withdrawn.

9:40 **PHYS 212.** Novel superconductivity in hydrides at high pressures. H. Liu, I. Naumov, R. Hoffmann, N. Ashcroft, R. Hemley

10:00 Intermission.

10:20 **PHYS 213.** Topological study of chemical bonds under pressure: The case of solid hydrogen. V. Labet, V. Riffet, J. Contreras-Garcia

10:50 **PHYS 214.** Cobalt-hydrogen system under high pressure: A theoretical perspective. T. Jaron, W. Grochala

11:10 **PHYS 215.** Superconducting phases of phosphorus hydride under pressure: Stabilization via mobile molecular hydrogen. T. Bi, D.P. Miller, A. Shamp, E. Zurek

11:30 **PHYS 216.** Superconductivity in scandium hydrides under pressure. X. Ye, N. Zarifi, E. Zurek, R. Hoffmann, N. Ashcroft

11:50 Discussion.

Section C

Walter E. Washington Convention Center
Room 152A

Gaseous Ion Chemistry & Surface Reactions

The Chemistry of Cold Ions

A. K. Badu-Tawiah, H. Chen, *Organizers*

C. Bleiholder, *Presiding*

8:00 **PHYS 217.** Unraveling the spectral signatures of divalent metal binding to surfactants at the air-water interface with cryogenic ion vibrational (CIVP) spectroscopy. M.A. Johnson

8:40 **PHYS 218.** Observation of excited quadrupole-bound states in cryogenically-cooled deprotonated 4-cyanophenol anions. G. Zhu, Y. Liu, L. Wang

9:00 **PHYS 219.** Cryogenic linear ion trap with expanded electrode spacing designed for fluorescence spectroscopy of excited state charge transfer complexes. A.L. Ferzoco, V. Rajagopal, C. Stokes

9:40 Intermission.

10:00 **PHYS 220.** Single-Conformation spectroscopy and isomerization of cryocooled peptide ions. A.F. Deblase, C.P. Harrilal, J.T. Lawler, S.A. Mlucckey, T.S. Zwier

10:40 **PHYS 221.** From multiply-charged anions to ultracold anions: High-Resolution resonant photoelectron imaging via dipole-bound excited states. L. Wang

Section D

Walter E. Washington Convention Center
Room 151A

Electronic Structure Methods for Complex Chemical Systems

Correlated Electronic Structure Methods for Complex Systems

Cosponsored by COMP

F. U. Furche, S. Sharifzadeh, J. J. Shepherd, *Organizers*

E. Neuscammann, *Presiding*

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8:00 PHYS 222. Single-reference coupled-cluster and equation-of-motion coupled-cluster methods for multi-reference problems: CC(P;Q) formalism. P. Piecuch, J. Shen, N.P. Bauman, I. Magoulas

8:25 PHYS 223. Electron correlation methods for near-degenerate states based on the driven similarity renormalization group. F.A. Evangelista, C. Li

8:50 PHYS 224. Attenuated coupled cluster: A novel single-reference approach for strongly correlated systems. J.A. Gomez, G.E. Scuseria

9:05 PHYS 225. Extending the reach of the CCSD(T) method by massive parallelism and reduced scaling. C. Peng, F. Pavosevic, E.F. Valeev

9:20 Intermission.

9:30 PHYS 226. Correlation energies through incremental full configuration interaction. P.M. Zimmerman

9:45 PHYS 227. Truncating the configuration interaction (CI) expansion through modified orthogonalization of molecular orbitals. A.C. West, M.W. Schmidt, M. Gordon, K. Ruedenberg

10:00 PHYS 228. Multiconfiguration quantum embedding methods. S. Bernales Candia, H. Pham, G.E. Scuseria, L. Gagliardi

10:15 PHYS 229. Multi-reference calculations of NMR shifts in open-shell actinide complexes. F. Gendron, J. Autschbach

10:30 Intermission.

10:40 PHYS 230. One-particle many-body Green's function theory: Algebraic recursions, linked-diagram and irreducible-diagram theorems, and general-order algorithms. S. Hirata

11:05 PHYS 231. Orbital-free density functional theory with atom-centered density matrices. W.C. Witt, J. Dieterich, F. Libisch, E.A. Carter

11:20 PHYS 232. Charge transfer excited states: A balanced and efficient wave function ansatz in variational Monte Carlo. N.S. Blunt, E. Neuscamman

Section E

Walter E. Washington Convention Center
Rooms 159A/B

Spectroscopic & Computational Insights into Solid/Liquid Interfaces for Energy Conversion

Insights for Batteries & Liquid/Oxide Interfaces

K. L. Jungjohann, J. A. Keith, *Organizers*
M. F. Fernandez-Serra, *Presiding*

8:00 PHYS 233. Coupling in-situ TEM and ex-situ analysis to understand heterogeneous sodiation of antimony. D. Mitlin

8:35 PHYS 234. Towards tunable electrochemistry of two-dimensional materials. M. Velicky, R.A. Dryfe

9:10 PHYS 235. Mechanistic insights into oxygen reduction reactions in non-aqueous metal-air batteries. Y. Zhang, X. Zhang, J. Wang, S. Ma, L. Guo, S. Rawal, W.C. McKee, Y. Xu, Z. Peng

9:30 Intermission.

9:45 PHYS 236. Molecular dynamics simulations of alkali halide adsorption to water-alumina interfaces. R. Wang, K. Millan, R. Remsing, S. Piontek, A. Tuladhar, L. Magidson, V. Carnevale, M. Klein, E. Borguet

10:05 PHYS 237. Simulations of the liquid/solid interface. H. Metiu, H. Kristoffersen, R. Liu, J.E. Shea

10:40 PHYS 238. Withdrawn.

11:15 PHYS 239. Interplay between surface termination and polarization in photocatalysis on perovskite oxide surfaces. M.F. Fernandez-Serra, M. Dawber, B. Pamuk, M. Kallak

Section F

Walter E. Washington Convention Center
Rooms 158A/B

Membrane Proteins: Structure, Activity & Drug Development

Structure & Dynamics of Membrane Proteins

F. Marassi, *Organizer*

M. J. Cocco, *Organizer, Presiding*

O. Beckstein, *Presiding*

8:00 PHYS 240. Signaling-related mobility changes in functional chemotaxis receptor arrays by solid-state NMR. M. Kashefi, L.K. Thompson

8:30 PHYS 241. Cellular structural biology probing prokaryotic and eukaryotic membrane protein complexes *in-situ* at atomic resolution. M. Kaplan

9:00 PHYS 242. Blocking the neurite outgrowth inhibitor (Nogo) to promote neuroregeneration. M.J. Cocco

9:20 Intermission.

9:40 PHYS 243. Probing the conformational rearrangements in Bcl-2 proteins, Bax and Bid at the initiation of apoptosis. N. Tjandra

10:10 PHYS 244. Intrinsically disordered membrane enzymes selenoprotein S and selenoprotein K. Z. Zhang, J. Liu, R. Cheng, S. Rozovsky

10:40 Intermission.

11:00 PHYS 245. Structure and function of electrogenic sodium/proton antiporter membrane proteins. O. Beckstein, D.L. Dotson, M. Coincon, P. Uzdavinyis, E. Nji, C. Lee, S. Yashiro, Y. Huang, W. Chen, J. Shen, A.D. Cameron, D. Drew

11:30 PHYS 246. Reverse q-titration of integral membrane proteins in nanodiscs. A. Laguerre, F. Loehr, E. Henrich, B. Hoffmann, F. Bernhard, V. Doetsch

Section G

Walter E. Washington Convention Center
Room 151B

Physical Chemistry Research at Undergraduate Institutions

Materials

T. Hopkins, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 PHYS 247. Shedding light on colloidal surfaces: Exposing molecular behavior and chemical reactivity at the solid-liquid interface. M. Subir

8:45 PHYS 248. Finding Goldilocks in nanoscience research at PUI institutions. J.J. Peterson

9:05 PHYS 249. Microwave spectra and molecular structures of 2-(trifluoromethyl)-oxirane and 2-vinyloxirane, two candidates for chiral analysis via noncovalent chiral tagging. M.D. Marshall, H.O. Leung, M. Acha, K. Wang

9:25 PHYS 250. Unlocking the electronic genome of halogenated polycyclic aromatic hydrocarbons with undergraduate students. S. Jezowski, B. Schatschneider

9:45 Intermission.

10:05 PHYS 251. Cation exchange in colloidal nanocrystals: New advances and new possibilities. P.G. Van Patten

10:45 PHYS 252. Computational molecular dynamics study of heteroepitaxial growth patterns comparing Cu/Ni and Pt/Ni on Ni(111) and Ni(100). K. Haug, B. Nguyen, P. Ly

11:05 PHYS 253. Guided-wave plasmon polariton modes. J. Leger, H. Nguyen, R. Owen, S. Clark, B. Johnson

Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms

Molecular Dynamics

Sponsored by COMP, Cosponsored by PHYS

Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding

Sponsored by COMP, Cosponsored by PHYS

Modeling & Measuring Protein-Ligand Kinetics & Residence Times

Sponsored by COMP, Cosponsored by MEDI and PHYS

TUESDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Room 156

Molecules in Space: Linking the Interstellar Medium to (Exo)-Planets

Organic Inventory of Protoplanetary Disks

P. Bera, X. Tielens, *Organizers*

P. Caselli, *Presiding*

1:00 PHYS 254. Organic inventory of protoplanetary disks: Recent insights and future prospects with ALMA and JWST. C. Walsh

1:35 PHYS 255. ALMA observation of molecules in protoplanetary disks. S. Guilloteau

2:05 PHYS 256. Molecular clues from inner planet-forming disks. J. Najita

2:35 Intermission.

3:00 PHYS 257. Planet formation in protostellar disks. G. Laughlin

3:30 PHYS 258. Properties and origins of cometary and asteroidal organic matter delivered to the early Earth. S. Messenger, A.N. Nguyen

4:00 PHYS 259. Possibility to locate the position of the H₂O snowline in protoplanetary disks through spectroscopic observations. S. Notsu, H. Nomura, C. Walsh, T. Hirota, M. Honda, E. Akiyama, T. Millar

4:20 PHYS 260. Measurements of the thermo-chemical evolution of the planet-forming region in disks. A. Banzatti, K.M. Pontoppidan, C. Salyk, G. Herczeg, E. van Dishoeck, G.A. Blake, I. Pascucci

4:40 Discussion.

Section B

Walter E. Washington Convention Center
Room 152B

Theoretical Models of Chemical Bonding & Reactivity Spanning the Periodic Table: A Symposium in Honor of Roald Hoffmann

Bonding in Bioorganic Systems

W. Grochala, E. Zurek, *Organizers*

J. Feng, *Presiding*

1:00 PHYS 261. Understanding the emergence of contractility in actomyosin networks. J. Komianos, G. Papoian

1:20 PHYS 262. Chemistry of the nitrogenase P-cluster: Structural and electronic flexibility. K. Tatsumi, G. Moula

1:40 PHYS 263. Role of dynamics in enzymatic electrophilic aromatic substitution. K.M. Merz

2:00 PHYS 264. From metal-based chirality to second coordination sphere chirality... and back: Artificial metalloenzymes. T.R. Ward

2:20 PHYS 265. Speciation at solid/liquid interfaces in the thermal or electrochemical hydrogenation of organic compounds. D. Cantu, R.S. Weber, Y. Wang, M. Lee, M.T. Nguyen, S. Akhade, A. Padmaperuma, M. Liiga, V. Glezakou, R. Rousseau

2:40 Intermission.

3:00 Discussion.

3:40 PHYS 266. Bonding with Roald. B.Z. Shkhashiri

Section C

Walter E. Washington Convention Center
Room 152A

Gaseous Ion Chemistry & Surface Reactions

Ion/Surface Interactions

H. Chen, *Organizer*

A. K. Badu-Tawiah, *Organizer, Presiding*

1:00 PHYS 267. Ion-based synthesis of functional materials. T. Pradeep

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

1:40 PHYS 268. Synthesis, stability, and immobilization on surfaces of phosphine-ligated gold clusters. G.E. Johnson, M. Ligare, U. Reveles, J. Laskin

2:20 Intermission.

2:40 PHYS 269. Understanding and exploiting surface chemistry to direct the *in situ* synthesis and placement of nanostructures. A.V. Walker

3:20 PHYS 270. Electron induced surface reactions of $C_3H_2Fe(CO)_2Mn(CO)_5$: Metal center impact on the behavior of organic ligands. I. Unlu

Section D

Walter E. Washington Convention Center Room 151A

Electronic Structure Methods for Complex Chemical Systems

Ultra-efficient Electronic Structure Methods & Molecular Dynamics

Cosponsored by COMP

F. U. Furche, S. Sharifzadeh, J. J. Shepherd, *Organizers*

S. Refaely-Abramson, *Presiding*

1:00 PHYS 271. Coherent exciton-vibrational dynamics and energy transfer in conjugated organics. S. Tretiak

1:25 PHYS 272. Exciton coupled-cluster theory for large-scale electronic structure calculations: Test application on Ben clusters. Y. Liu, A.D. Dutoi

1:40 PHYS 273. Modeling excited states in the condensed phase. C. Isborn

2:05 PHYS 274. First-principles derived descriptors for linear response properties. E. Berquist, D. Lambrecht

2:20 Intermission.

2:30 PHYS 275. Computational synthesis and characterization by large quantum and reactive molecular dynamics simulations. A. Nakano

2:55 PHYS 276. Non-adiabatic dynamics of the 1,2-dioxetane chemiluminescence. M. Vacher, I.F. Galvan, A. Brakestad, H.O. Karlsson, R. Lindh

3:10 PHYS 277. Accelerating the simulation of nonadiabatic dynamics through an efficient augmented surface hopping algorithm in Q-Chem. G.R. Medders, J.E. Subotnik

3:25 Intermission.

3:35 PHYS 278. Scalable algorithms for real-space and real-time first-principle calculations. E. Polizzi

4:00 PHYS 279. Interpolative separable density fitting decomposition for accelerating large-scale hybrid functional calculations. W. Hu, L. Lin, C. Yang

4:15 PHYS 280. Density-to-potential inversions in density functional theory with atom-centered bases and multi-wavelet bases. X. Zhang, E.A. Carter

4:30 PHYS 281. Projector augmented wave based Kohn-Sham density functional theory simulations with reduced order scaling. G.J. Martyna

4:45 Concluding Remarks.

Section E

Walter E. Washington Convention Center Rooms 159A/B

Experimental & Computational Advances In Understanding Enzyme Specificity & Promiscuity

Structure-Function Relationships in Enzyme Evolution

Cosponsored by BIOL and COMP

Financially supported by Gaussian, Elsevier, Pfizer, DSM, SCM: Software for Chemistry and Materials, PCCP: Physical Chemistry Chemical Physics, F1000: Faculty of 1000

Q. Cui, S. C. Kamerlin, G. J. Poelarends, *Organizers*

N. Tokuriki, *Organizer, Presiding*

1:00 PHYS 282. Capturing and designing for electrostatic preorganization in enzymes. A. Alexandrova

1:40 PHYS 283. Computation of enzyme cold adaptation. J. Åqvist

2:20 PHYS 284. What makes enzymes work? Using pressure and temperature to probe properties needed for enzyme activity. J.M. Rodgers, R. Hemley, T. Ichiye

2:40 Intermission.

3:10 PHYS 285. Resurrected ancestral proteins as scaffolds for protein engineering. J. Sanchez-Ruiz

3:50 PHYS 286. Role of conformational dynamics in the evolution of novel retro-aldolase activity. S. Osuna, A. Romero-Rivera, M. Garcia-Borrás

4:30 PHYS 287. Mechanism-informed refinement reveals altered substrate binding mode for catalytically competent nitroreductase. A.F. Miller, W. Pitsawong, R.L. Koder, C. Haynes, D. Rodgers

Section F

Walter E. Washington Convention Center Rooms 158A/B

Membrane Proteins: Structure, Activity & Drug Development

Structure & Dynamics of Membrane Proteins

M. J. Cocco, F. Marassi, *Organizers*

C. D. Schwieters, W. D. Van Horn, *Presiding*

1:00 PHYS 288. NMR study of the pre-fusion to post-fusion transition of the gp41 ecto domain. C.S. Chiliveri, J. Roche, J.L. Baber, R. Ghirlando, J. Ying, J. Louis, A. Bax

1:30 PHYS 289. Dissecting the poly-modal gating and modulation of TRP channels. W.D. Van Horn

2:00 PHYS 290. Hidden dynamics in the unfolding of individual bacteriorhodopsin proteins. M. Siewny, H. Yu, D. Edwards, A. Sanders, T. Perkins

2:20 PHYS 291. Revealing the structural basis for GPCR signaling through atomic-level simulation. R.O. Dror

2:50 Intermission.

3:10 PHYS 292. Solid-state NMR of membrane proteins. S. Opella

3:40 PHYS 293. Software tools to assist membrane structure determination. C.D. Schwieters

4:10 PHYS 294. Enabling proton transfer in classical simulations. T. Lazaridis

4:40 PHYS 295. Structure base analysis of production and purification of human leukemia interferon. Y.S. Ting

Section G

Walter E. Washington Convention Center Room 151B

Physical Chemistry Research at Undergraduate Institutions

Photophysics & Reactivity

T. Hopkins, *Organizer*

J. Leger, *Presiding*

1:00 PHYS 296. Organic chemistry catalyzed by undergraduate theorists. R.J. Cave

1:40 PHYS 297. Elucidating the excited-state proton and electron transfer processes in substituted anthraquinone dyes using single-molecule spectroscopy. K.L. Wustholz

2:20 Intermission.

2:40 PHYS 298. Utilizing ionic liquids as solvents to control chirality. T. Hopkins

3:00 PHYS 299. Onset of oscillations in the Belousov-Zhabotinsky reaction: Undergraduate research experience. H.M. Hastings, D.R. Myers, P. Dooley, S.G. Sobel, R.J. Field, D. Guralnick, S. Rafikova, M. Zahed

3:20 PHYS 300. Characterization of excited electronic states by cavity ringdown spectroscopy. S. Drucker

4:00 PHYS 301. Photophysics of cyano-substituted hydroquinones: Promising candidates as super photoacids with tunable acidity. M. Zahid, A. Mansha, G. Grampp, I.A. Bhatti, P. Jacques, S. Asim

Extending Accuracy & Scales with Emerging Computing Architectures & Algorithms

Data & Automation

Sponsored by COMP, Cosponsored by PHYS

Molecular Recognition: Revealing the Effects Associated with Receptor-Ligand Binding

Sponsored by COMP, Cosponsored by PHYS

Computational Studies of Membranes & Membrane-Bound Systems

Membrane Bilayers

Sponsored by COMP, Cosponsored by PHYS

WEDNESDAY MORNING

Section A

Walter E. Washington Convention Center Room 156

Molecules in Space: Linking the Interstellar Medium to (Exo)-Planets

Chemistry of Dark Clouds: Chemical Networks Connecting Gas & Dust

P. Bera, X. Tielens, *Organizers*

T. Millar, *Presiding*

8:00 PHYS 302. Gas-grain chemistry in dark clouds: Successes and remaining puzzles. E. Herbst

8:35 PHYS 303. Molecular inventory of dark clouds: Observations and theory. P. Caselli

9:05 PHYS 304. Formation of complex organics and nitrogen-containing organics by ion-molecule and intracluster reactions. M.S. El-Shall

9:35 PHYS 305. Time-resolved reactive scattering to study atom-addition reactions on ices: A case study of $H+O_3>OH+O_2$. G. Vidali, J. He, S. Emrtiaz

9:55 Intermission.

10:00 PHYS 306. Chemical kinetics and tunneling on dust grains. G. Nyman

10:30 PHYS 307. Exotic organosilicon chemistry in molecular clouds: From crossed molecular beams to computational chemistry. R. Kaiser

11:00 PHYS 308. Complex organic molecule formation under dark cloud conditions: The laboratory view. H. Linartz

11:30 PHYS 309. Production and infrared spectra of hydrogenated free radicals and protonated species important in interstellar media. Y. Lee, M. Tsuge, K.A. Haupa

11:50 Discussion.

Section B

Walter E. Washington Convention Center Room 152B

Theoretical Models of Chemical Bonding & Reactivity Spanning the Periodic Table: A Symposium in Honor of Roald Hoffmann

Structure & Properties of Materials

W. Grochala, E. Zurek, *Organizers*

P. Edwards, *Presiding*

8:00 PHYS 310. Towards rational design of chemical reactions. F. Bickelhaupt

8:30 PHYS 311. Li insertion in SiCO anode materials: On the way to understand capacity and mechanisms. P. Kroll, S. Haseen

9:00 PHYS 312. Tuning the band-edge orbitals of perovskite photovoltaic materials via strain, layering, and doping. R. Berger, C. Grote, N. Onishi, K. Tsui

9:20 PHYS 313. Theory prediction of a novel Si-He compound: Structure, property and synthesis. E. Xu, T. Li

9:40 PHYS 314. Orbital approach to superconductivity and superfluidity. P. Love

10:00 Intermission.

10:20 PHYS 315. New bridges with the isolobal analogy: Electron counting in intermetallic phases and strategies for materials discovery. D. Fredrickson

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10:50 PHYS 316. Electron delocalization in σ -bonded one-dimensional chains. **M. Jovanovic, J. Michl**

11:10 PHYS 317. Layered chalcogenides and the density-of-energy (DOE) function. **P. Konze, M. Küpers, R. Dronskowski**

11:30 PHYS 318. Computational discovery of high-pressure materials. **M. Amsler, C. Wolverton, V. Hegde**

11:50 Discussion.

Section C

Walter E. Washington Convention Center
Room 152A

Gaseous Ion Chemistry & Surface Reactions

Solution Chemistry in the Gas-Phase

A. K. Badu-Tawiah, H. Chen, *Organizers*

G. E. Johnson, *Presiding*

8:00 PHYS 319. Structural biology in the gas phase: New techniques for the rapid analysis of protein sequence, structure and stability. **J.D. Eschweiler, Y. Tian, D. Polasky, B.T. Ruotolo**

8:40 PHYS 320. Protein structure prediction guided by covalent labeling mass spectrometry data. **M.L. Aprahamian, S.H. Hinckley, V.H. Wysocki, S. Lindert**

9:20 Intermission.

9:40 PHYS 321. Two-dimensional, time-resolved trapped ion mobility spectrometry-mass spectrometry (TIMS/TIMS-MS) to study conformations of peptides and proteins. **F. Liu, M. Ridgeway, M. Park, C. Bleholder**

10:20 PHYS 322. Effects of charge state on the structures of protein ions: Results from cation-to-anion proton-transfer reactions (CAPTR). **M.F. Bush**

Section D

Walter E. Washington Convention Center
Room 151A

Spectroscopic & Computational Insights into Solid/Liquid Interfaces for Energy Conversion

New Methods for Measuring & Modeling Liquid/Solid Interfaces

K. L. Jungjohann, J. A. Keith, *Organizers*

B. Peters, *Presiding*

8:00 PHYS 323. Nanoscale electrochemistry probed by tip-enhanced Raman spectroscopy. **M. Mattei, G. Goubert, G. Kang, G.C. Schatz, R.P. Van Duyne**

8:20 PHYS 324. Modeling atomically dispersed catalysts on amorphous supports at multiple scales. **A. Fong, Y. Wang, S.L. Scott, B. Peters**

8:55 PHYS 325. *In situ* molecular imaging of the solid-liquid interface using microfluidics. **X. Yu**

9:30 PHYS 326. Computational insights to charge transfer reactions at the complex electrode/SEI/electrolyte interface. **Y. Li, Y. Qi**

10:05 Intermission.

10:20 PHYS 327. Probing liquid-solid interfaces. **G. Veith, R. Sacchi, J. Browning, M. Doucet, J. Kim**

10:55 PHYS 328. *In-operando* neutron reflectometry: Depth profiles of solid liquid interfaces. **J. Dura**

11:30 PHYS 329. Towards high-resolution ultra-low-field NMR and MRI of heterogeneous systems endowed by nuclear spin hyperpolarization. **D. Barskiy, C. Slack, T. Sjolander, J. King, A. Pines**

Section E

Walter E. Washington Convention Center
Rooms 159A/B

Experimental & Computational Advances In Understanding Enzyme Specificity & Promiscuity

New Strategies to Expand the Scope of Enzyme Engineering

Cosponsored by BIOL and COMP

Financially supported by Gaussian, Elsevier, Pfizer, DSM, SCM: Software for Chemistry and Materials, PCCP: Physical Chemistry Chemical Physics, F1000: Faculty of 1000

Q. Cui, G. J. Poelarends, N. Tokuriki, *Organizers*

S. C. Kamerlin, *Organizer, Presiding*

8:00 PHYS 330. Antibody-enzyme conjugates for targeted glyco-calyx editing. **C.R. Bertozzi**

8:40 PHYS 331. Evolution and applications of split RNA polymerase biosensors. **B.C. Dickinson**

9:20 PHYS 332. Peptide affinity reagents for Rivax vs. Abrax: A combined computational/experimental approach to untangle selectivity in structurally similar proteins. **M. Hurley, D.A. Sarkes, D.N. Stratis-Cullum**

9:40 Intermission.

10:10 PHYS 333. Promiscuity, serendipity and metabolic innovation. **S.D. Copley, J. Kim, J. Flood, J. Kershner, M. Kristofich**

10:50 PHYS 334. Designing highly specific protein-based small molecule biosensors. **V. Raman**

11:30 PHYS 335. Computational studies of laboratory-evolved tryptophan synthase variants for stand-alone function. **M. Maria Solano, J. Iglesias, S. Osuna**

11:50 Concluding Remarks.

Section F

Walter E. Washington Convention Center
Rooms 158A/B

Membrane Proteins: Structure, Activity & Drug Development

Structure & Dynamics of Membrane Proteins

M. J. Cocco, *Organizer*

F. Marassi, *Organizer, Presiding*

W. Im, *Presiding*

8:00 PHYS 336. (Passive to active) chaser: NMR and MD of membrane proteins. **W. Im**

8:30 PHYS 337. Loop dynamics of outer membrane protein OprG contribute to amino acid transport in *Pseudomonas aeruginosa*. **L.K. Tamm**

9:00 PHYS 338. NMR structure and function of membrane proteins in membranes. **F. Marassi**

9:20 Intermission.

9:40 PHYS 339. Receptor mediated uptake: Structure and function of *Neisseria Opa* proteins. **L.M. Columbus**

10:10 PHYS 340. Solid-state NMR of protein/lipid contacts of viral fusion peptides. **D.P. Weliky**

10:40 Intermission.

11:00 PHYS 341. Role of membrane on the function of cytochrome-P450. **A. Ramamoorthy**

11:30 PHYS 342. Magic angle NMR studies of bacteriorhodopsin (bR) and the voltage dependent anion channel (VDAC). **Q. Ni, T. Can, M. Eddy, Y. Su, R. Silvers, L. Andreas, L. Clark, G. Pintacuda, L. Emsley, G. Wagner, J. Herzfeld, R.G. Griffin**

Section G

Walter E. Washington Convention Center
Room 151B

Physical Chemistry Research at Undergraduate Institutions

Biophysical

T. Hopkins, *Organizer*

J. G. Navea, *Presiding*

8:00 PHYS 343. Expanding the vocabulary of vibrational probe functional groups. **C.H. Londergan**

8:40 PHYS 344. Condensed-phase effects on the structural and energetic properties of molecular complexes: Computations and low-temperature IR spectroscopy. **J.A. Phillips**

9:00 PHYS 345. Simulations reveal new insights into the mechanism of Ubc13-catalyzed ubiquitination. **W. Jones, A. Davis, R.H. Wilson, S.G. Zamfir, I. Sumner**

9:40 Intermission.

10:00 PHYS 346. Application of chirped-pulse Fourier transform microwave spectroscopy to study the structure and dynamics of biomolecules in the gas phase. **R.G. Bird**

10:20 PHYS 347. Research with undergraduates: A fabulous career. **G.C. Shields**

10:40 PHYS 348. Binding modes and pathway of RHPS4 to human telomeric G-quadruplex and duplex DNA probed by all-atom molecular dynamics simulations with explicit solvent. **K. Mulholland, F. Siddiquei, C. Wu**

11:00 PHYS 349. Getting over the curve: Early experiences in computational chemistry. **J. Kua**

Molecular Mechanics

Force Fields

Sponsored by COMP, Cosponsored by PHYS

Computational Studies of Membranes & Membrane-Bound Systems

Biology in the Membrane

Sponsored by COMP, Cosponsored by PHYS

WEDNESDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Room 156

Molecules in Space: Linking the Interstellar Medium to (Exo)-Planets

The DIBs: Solving a Century Old Problem

P. Bera, X. Tielen, *Organizers*

N. Cox, *Presiding*

1:00 PHYS 350. Diffuse interstellar bands: Solving a century old problem. **F. Salama**

1:35 PHYS 351. ESO diffuse interstellar bands large exploration survey (EDIBLES). **N. Cox, M. Cordiner, F. Salama, H. Linnartz, R. Lallemand, M. Yajouri, E. Consortium**

2:05 PHYS 352. Electronic spectroscopy of C60+ and its identification in interstellar space. **J. Maier**

2:35 Intermission.

3:05 PHYS 353. Diffuse interstellar bands: 100-years-old mystery beginning to be solved. **T. Oka**

3:35 PHYS 354. Interstellar C₆₀⁺: Pro et contra. **G. Galazutdinov**

3:55 PHYS 355. Constant intensities of diffuse interstellar bands in the spectrum of AE Aur. **J. Krelowski**

4:15 PHYS 356. Search for infrared DIBs in Barnard 68. **M. Yajouri, N. Cox, R. Lallemand**

4:35 Discussion.

Section B

Walter E. Washington Convention Center
Room 152B

Theoretical Models of Chemical Bonding & Reactivity Spanning the Periodic Table: A Symposium in Honor of Roald Hoffmann

Structure & Properties of Materials

E. Zurek, *Organizer*

W. Grochala, *Organizer, Presiding*

1:00 PHYS 357. Decarbonisation of fossil fuels: Microwave-promoted deep catalytic dehydrogenation of liquid alkanes. **P. Edwards, X. Jie, S. Gonzalez-Cortes, T. Xiao, J. Wang, B. Yao, D. Slocumbe, H. Al-Megren, J. Dilworth, J.M. Thomas**

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Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

1:30 PHYS 358. Engineering chemical bonds at the inorganic-organic interface: A strategy to design high-performance hybrid phosphor materials for energy-efficient lighting technologies. J. Li

2:00 PHYS 359. Journey with Roald: Coherence in molecular junctions – control, structure, insights and measurements. M.A. Ratner

2:20 PHYS 360. Exploring structural space searching for carbon allotropes. D.M. Proserpio, V.L. Deringer, G. Csányi, A.A. Golov, A.A. Kabanov

2:40 PHYS 361. Corannulene η^5 -coordination with transition metals: A theoretical study. X. Lu, A.Y. Rogachev

3:00 Intermission.

3:20 PHYS 362. Phosphorene meets metal fragments. A. Ienco, G. Manca, C. Mealli, M. Peruzzini

3:50 PHYS 363. Effect of temperature on the symmetry of molecules and solids: A continuous symmetry measures study. P. Alemany

4:20 PHYS 364. On the Curie-Weiss temperature of a magnetic system composed of nonvalent magnetic ions. K.H. Lee, C. Lee, H.J. Koo, M. Whangbo

4:40 PHYS 365. Bonding and dynamics in the synthesis of K_2MSb_3H ($M = Zn, Cd$). C. Zheng, X. Zhang, R. Hoffmann, F. Huang

Section C

Walter E. Washington Convention Center Room 152A

Gaseous Ion Chemistry & Surface Reactions

Ion Energetics: Gas-Phase versus Micro-Solvated Systems

A. K. Badu-Tawiah, H. Chen, *Organizers*
M. F. Bush, *Presiding*

1:00 PHYS 366. Anion photoelectron/photodissociation spectroscopy: Radical thermochemistry and solvation dynamics. W. Lineberger

1:40 PHYS 367. Exploring the thermochemistry of neutral acetonitrile and methanol solvation onto ionized halogenated benzenes. A.C. Pearcy, K. Mason, S. Platt, M.S. El-Shall

2:00 PHYS 368. Chemistry on a slide: Hydration gradient effects on rates and mechanisms at the air-water interface. A.J. Colussi

2:40 Intermission.

3:00 PHYS 369. Field-induced droplet ionization illuminates stepwise oxidation of cell membrane lipids by hydroxyl radicals at the air-water interface. X. Zhang, K. Barraza, J.L. Beauchamp

3:40 PHYS 370. Amine substitution studies of atmospherically relevant anionic clusters. E. Castracane, E. Racow, Y. Yang, S.E. Waller, J. Kreinbühl, C.J. Johnson

4:00 PHYS 371. Thermochemistry and mechanisms of the deamidation of asparagine containing peptides. P.B. Armentrout, G.C. Boles

Section D

Walter E. Washington Convention Center Room 151A

Physical Chemistry Research at Undergraduate Institutions

Atmospheric & Gas Phase

T. Hopkins, *Organizer*

M. Subir, *Presiding*

1:00 PHYS 372. Collaborative experimental and computational investigations of unimolecular reactions of halocarbon species in the gas-phase. B.E. Holmes, G.L. Heard

1:40 PHYS 373. Quantum chemical and statistical rate theory investigations of atmospheric oxidation reactive intermediates. K.T. Kuwata

2:00 PHYS 374. Microwave spectroscopy at Coker College. G.G. Brown, S. Gaster, C. Funderburk, T. Taylor

2:40 PHYS 375. Withdrawn.

3:00 Intermission.

3:20 PHYS 376. Vector correlations in the photodissociation of NO-containing molecules. J.A. Bartz

4:00 PHYS 377. Towards and understanding of CO_2 microsolvation: Microwave spectroscopy of CO_2 complexes with fluoroethylenes. R.A. Peebles, S.A. Peebles, A.M. Anderson, C.L. Christenholz, R.E. Dorris, W.C. Trendell

4:20 PHYS 378. Automating the analysis of high-resolution rotational spectra. S.T. Shipman, J.H. Westerfield, K. Ervin, E. Riffe, E. Johnson

Section F

Walter E. Washington Convention Center Rooms 158A/B

Membrane Proteins: Structure, Activity & Drug Development

Structure & Dynamics of Membrane Proteins

M. J. Cocco, F. Marassi, *Organizers*

R. Martin, A. Nevzorov, *Presiding*

1:00 PHYS 379. Functional consequences of membrane protein oligomerization illustrated with proteorhodopsin. S. Han, C. Han, M. Idso, S. Hussain

1:30 PHYS 380. SAS NMR methods development for investigation of biological membranes and membrane proteins. J. Kelly, M.H. Uhelkar, J. Kelz, R.W. Martin

2:00 PHYS 381. Identification of receptor binding to the biomolecular corona of nanoparticles. Y. Yan, S. Lara, F. Alnasser, K. Dawson

2:20 Intermission.

2:40 PHYS 382. Structural studies of the drug transporter EmrE using NMR spectroscopy. N. Traaseth

3:10 PHYS 383. Sensitivity enhancement in solid-state NMR of oriented membrane proteins. S. Koroloff, D. Tesch, S. Milikisilyants, A.I. Smirnov, A. Nevzorov

3:40 Intermission.

4:00 PHYS 384. Insights into structure and dynamics of membrane proteins. S. Wang, D. Good, C. Ing, S. Emami, R. Pomes, L. Brown, V. Ladizhansky

4:30 PHYS 385. M2 proton channel: Structure, dynamics and proton exchange data for understanding drug binding and functional rates. T.A. Cross, R. Fu, Y. Miao, A. Wright, J. Paulino

Section G

Walter E. Washington Convention Center Room 151B

PHYS Awards Symposium

PHYS/Journal of Physical Chemistry Lectureship Award: Symposium in honor of Professor Randall Goldsmith

J. E. Shea, *Organizer*

J. Vura-Weis, *Presiding*

1:00 PHYS 386. New variables to dissect in vitro biochemistry with single-molecule resolution. Q. Wang

1:40 PHYS 387. Multidimensional super-resolution imaging. S.F. Lee

2:20 Intermission.

2:35 PHYS 388. Carrier-specific femtosecond extreme ultraviolet spectroscopy of semiconductors. J. Vura-Weis

3:15 PHYS 389. Probing complex interfacial (bio)chemical interactions using silicon photonic microring resonator arrays. R.C. Bailey

3:55 PHYS 390. Optical microresonators as platforms for single-molecule spectroscopy. R.H. Goldsmith

Molecular Mechanics

Nucleic Acids

Sponsored by COMP, Cosponsored by PHYS

Computational Studies of Membranes & Membrane-Bound Systems

Transport Across Membranes

Sponsored by COMP, Cosponsored by PHYS

WEDNESDAY EVENING

Section A

Walter E. Washington Convention Center Hall D

PHYS Poster Session

J. E. Shea, *Organizer*

6:00 - 8:00

PHYS 391. Benchmarking of electrostatic interactions in QM/MM molecular dynamics simulations. X. Pan, Y. Shao

PHYS 392. Cation effects on the first electronic transitions of hydrating water studied by far-UV spectroscopy and quantum chemical calculations. T. Goto, A. Ikehata, Y. Morisawa, K. Bec, Y. Ozaki

PHYS 393. Characterization of the 1,2-propanediol + benzene and 1,2-propanediol + benzene- d_6 liquid-liquid phase equilibria. K.C. Riley, C.A. Tibbetts, M. McKibben, C.C. Williamson

PHYS 394. Solid-state theoretical investigation of elasticity in insensitive explosives. R. Prendergast, T.M. Korter

PHYS 395. Chemical reaction in Pluto's atmosphere: Nitrite formation from C_2H_2 and N_2 . Y. Yarnall, P.D. Cooper

PHYS 396. Extreme biophysics: Enzymes under pressure. Q. Huang, J.M. Rodgers, R.J. Hemley, T. Ichiye

PHYS 397. Effect of internal hydrogen bond formation on the predicted thermochemistry of hydroxylated Criegee intermediates. M.K. Sprague, K.K. Irikura, T. Bui

PHYS 398. Impact of material dimensionality on charge transfer dynamics: Case study of dye-sensitized lead halide perovskite solar cells. A. Forde, D. Kilin

PHYS 399. Tip-enhanced Raman spectroscopic study on Pt-Au bimetallic surfaces. H. Su, J. Zhong, B. Ren

PHYS 400. Theory investigation on structure and optical properties of TMTZ single crystal. M. Yue, G. Lu

PHYS 401. Withdrawn.

PHYS 402. GW method using the Cholesky decomposition technique with applications to QM/QM embedding approaches. A. Shee, L. Tran, D. Zgid

PHYS 403. Withdrawn.

PHYS 404. Palladium nanoparticles supported on Ce-metal organic framework for efficient CO oxidation and low-temperature CO_2 capture. A. Awad, A. Lin, M.S. El-Shall

PHYS 405. Computationally investigating the mechanism of the histone acetyltransferase, Gcn5. R.H. Wilson, I. Sumner

PHYS 406. Calculation of vibrational structure of astrochemically relevant ions using reparametrized semi-empirical methods. J.P. Layfield, J. Arend, W. Fuerste

PHYS 407. Quantum control of particles moving at surface. Q. Wang

PHYS 408. First-principles studies on the electronic structural, optical and phonon lattice dynamical properties of pure- and La-doped SrTiO₃. Y. Duan

PHYS 409. Withdrawn.

PHYS 410. Molecular docking of selective binding affinity of sulfonamide derivatives as potential antimalarial agents targeting the glycolytic enzymes: GAPDH, aldolase and TPI. N.Y. Forlemu, P. Watkins, J. Sloop

PHYS 411. Electromagnetic property of a plastic-aluminum bilayer material and its potential application in data decoding for compact disks. J. Zhang

PHYS 412. Understanding the effect of substituents on the rigidity and conjugation length of poly(phenylene ethynylene) using DFT - Tight Binding. C.J. Zeman, K.S. Schanze

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- PHYS 413.** Plasmon-enhanced single-molecule analysis with shell-isolated Ag nanoparticle platform. C. Li, J. Li, Z. Tian
- PHYS 414.** Plasmon-enhanced quantum dot spontaneous emission and sensitized photoelectrochemical hydrogen evolution using shell-isolated nanoparticles. Y. Hao
- PHYS 415.** Investigation of deep eutectic solvents containing chloride-free cholinium salts: Synthesis and solvent properties. N. Barashkov, T. Sakhno, I. Irgibaeva, A. Mantel
- PHYS 416.** Insights into the mechanism of a green/blue phytochrome via absorption and circular dichroism spectroscopies. J.A. Clinger, E. Chen, D.S. Kliger, G.N. Phillips
- PHYS 417.** Membrane binding and fluidity sensing by α -, β -, and γ -synuclein. E. O'Leary, Z. Jiang, J.C. Lee
- PHYS 418.** Photoinduced anion exchange in cesium lead halide perovskite nanocrystals. D.G. Parobek
- PHYS 419.** Withdrawn.
- PHYS 420.** Fabrication of light-emitting electrochemical cells (LECs) having screen-printed electrodes. L. Hyeonsek
- PHYS 421.** High-resolution photoelectron imaging of boron clusters (B_{17}^+ and B_{12}^+) and transition-metal doped boron cluster (IrB_3^+). J.G. Czekner, L. Cheung, L. Wang
- PHYS 422.** Sliding of positively charged nanoparticles along long DNA molecules with flexibility gradient: A Brownian dynamics simulation study. S. Park, J. Kim
- PHYS 423.** Sequence-dependent binding of a dendrimer with a DNA molecule: A molecular dynamics simulation study. J. Chae, J. Kim
- PHYS 424.** Probing the stability of the C-terminal domain of type IV pilins under external force. R.B. Goncalves, J.L. Baker
- PHYS 425.** Enforcing size-consistency in an excited state variational principle. J. Shea, E. Neuscamman
- PHYS 426.** Crystal structures and electronic properties of Xe-Cl compounds at high pressure. N. Zarifi, E. Zurek, J. Tse
- PHYS 427.** Efficient construction of real space stenciling factors. B. Van Der Goetz, E. Neuscamman
- PHYS 428.** Cyanylated cysteine as an infrared reporter of protein-peptide interactions: Experimental measurements, molecular dynamics simulations and semi-quantitative calculations of IR lineshape. R.J. Xu, C.H. Londergan
- PHYS 429.** Designing boron-based thermally activated delayed fluorescence emitters with improved OLED device properties. S. Mukhopadhyay
- PHYS 430.** Intramolecular singlet fission in antiaromatic polycyclic hydrocarbon. Y. Wu, Y. Wang, D. Zhang, H. Fu
- PHYS 431.** New environment sensitive bifunctional ligand-induced aggregation of serum proteins: Possible consequences in biology and electronics. S. Panja, S. Datta, P. Mitra, M. Halder
- PHYS 432.** Simulating protein-mediated hydrolysis of ATP and other nucleoside triphosphates by combining QM/MM molecular dynamics with advances in metadynamics. R. Sun, O. Sode, J.F. Dama, G.A. Voith
- PHYS 433.** AFQMC in the infinite basis set limit: The accuracy of combining AFQMC with F12 methods. H. Hao, B. Rubenstein
- PHYS 434.** In-situ monitoring the electrodeposition of silver nanoplates and its catalytic applications. S. Juanjuan
- PHYS 435.** Chitosan-assisted synthesis of silver hexahedrons on pencil graphite electrodes: Nucleation-growth mechanism and sensing of hydrogen peroxide and hydrazine. P. Sankaranarayanan, S. M V
- PHYS 436.** Electromagnetic response-mediated intervention of microwave heating on different stages of Maillard reaction. N. Zhang, Y. Zhao, D. Fan, B. Yan, J. Huang, J. Zhao, M. Wang, H. Zhang
- PHYS 437.** Withdrawn.
- PHYS 438.** Plasmonic electricity: Fluorophore induced plasmonic current. J. Moskowitz, C.D. Geddes
- PHYS 439.** Investigating the influence of low concentration ionic liquids on Trp-cage structural stability. M. De Souza, A. Heyert, G.E. Lindberg, J.L. Baker
- PHYS 440.** Cyclooxygenase-2 dimerization activity may be influenced by its monomers' glycosylation at Asn⁵⁸⁰. J.M. Cunanan, R. Chan, M. Chen, M. Sevigny, R.W. Hall
- PHYS 441.** OC-HOCO complex: Identification and implications for ISM chemistry. Y. Yarnall, K. Steilmach, O. Gadzhiev, A. Masunov, P.D. Cooper
- PHYS 442.** Influence of protein crowder size on hydration structure and dynamics in macromolecular crowding. P. Wang, I. Yu, M. Feig, Y. Sugita
- PHYS 443.** Blocked linear method for optimizing large parameter sets in variational Monte Carlo. L. Zhao, E. Neuscamman
- PHYS 444.** Computational insights into epoxide hydrolase asymmetric hydrations of epoxides. E. Serrano-Hervás, F. Feixas, M. Garcia-Borrás, S. Osuna
- PHYS 445.** Manipulation and characterization of nanoscale plasmon-induced chemical reaction by electrochemical tip-enhanced Raman spectroscopy. S. Huang, X. Wang, Z. Zeng, B. Ren
- PHYS 446.** Probing solvent effects on an iodine clock reaction using millifluidic devices. S. Morley, B.J. Knurr
- PHYS 447.** Redesign of MACIE: A database of enzyme mechanisms. A.J. Ribeiro, G.L. Holliday, N. Furnham, J.M. Thornton
- PHYS 448.** Withdrawn.
- PHYS 449.** Sparse energy sampling in Fock-space variational Monte Carlo. H. Wei, E. Neuscamman
- PHYS 450.** Cost-effective multi-determinant expansion in quantum Monte Carlo for excited states. S. Pineda Flores, E. Neuscamman
- PHYS 451.** Super-resolution imaging of fluorophores bound to silica-coated gold nanorods. A. McLeod, K.A. Willets, T. Anthony
- PHYS 452.** Stepwise hydration of halogen-containing benzene cations in the gas phase: Is it hydrogen of halogen bonding? K. Mason, A.C. Percy, I.K. Attah, S. Platt, M.S. El-Shall
- PHYS 453.** Laser synthesis of palladium nanoparticles incorporated within NH_2 -MIL-125(Ti) for the selective hydrodeoxygenation of vanillin, a model for bio-oil upgrade reactions. J. Bobb, A. Awad, M.S. El-Shall
- PHYS 454.** Spectroscopic and computational investigation of pyran-4-one in its $S_1(n,\pi^*)$ excited state. M.P. McDonnell, K.M. Jawad, S.M. Fritz, T.S. Zwier, S. Drucker
- PHYS 455.** All-atom simulation and coarse-grained analysis of the type IV pilus filament from *Neisseria meningitidis*. J.L. Baker, R.B. Goncalves
- PHYS 456.** STM study on the polymerization of 3,4-ethylenedioxythiophene on Au(111) surface by using different electrochemical treatment. S. Fu, I. Liu, Y. Lee
- PHYS 457.** Brominated and iodinated < 10 nm carbon nanodots. R. Knoblauch, C.D. Geddes
- PHYS 458.** Investigating the effect of choline chloride and trivalent cations on late embryogenesis abundant protein consensus sequences. S. Schmidt, K. Barrie, M.R. Bunagan
- PHYS 459.** Effect of adding lithium chloride or potassium chloride on the tetra-n-butylammonium chloride/water semi-clathrate system using differential scanning calorimetry. D.C. Henriques, R.J. Wigent
- PHYS 460.** Chiral discrimination by amino acid based deep eutectic solvents. C. Wright, T. Hopkins
- PHYS 461.** Narrowing limitless: A method for selecting ionic liquids to control protein structure. A. Heyert, J.L. Baker, G.E. Lindberg
- PHYS 462.** Evaluation of anisotropic, isotropic, and no thermal expansion in the (quasi-)harmonic approximation to accurately calculate thermodynamic properties of organic crystals. N.S. Abraham, E. Dybeck, N.P. Schieber, M.R. Shirts
- PHYS 463.** Platinum electrode fabrication for in situ spectroelectrochemistry. E. Gobrogge, X. Ren, C. Lundgren
- PHYS 464.** Circular dichroism study of late embryogenesis abundant proteins in reverse micelles. K. Barrie, M.R. Bunagan
- PHYS 465.** Photophysical study of ruthenium (II) Tris-(2,2'-bipyridine) encapsulated within Uio-66 metal organic frameworks containing functionalized linkers. J. Mayers, R.W. Larsen
- PHYS 466.** Comparative analysis of recombinant polyhydroxybutyrate depolymerases from bacterial strains. D.I. Martinez-Tobon, A. Elias, D. Sauvageau
- PHYS 467.** Withdrawn.
- PHYS 468.** Rovibrational spectra of potential interstellar noble gas molecules and small hydrocarbons. C.M. Novak, R.C. Fortenberry
- PHYS 469.** UV-visible spectroscopy of PAHs and PANHs in supersonic jet: Astrochemical implications. S. Bejaoui, F. Salama
- PHYS 470.** Salt bridges gate alpha-cat- enin activation at intercellular junctions. S. Barrick, J. Li, X. Kong, A. Ray, E. Tajkhorshid, D.E. Leckband
- PHYS 471.** Rainbow of colors in butterfly wings: A photophysical investigation. F. Chalyavi, A. Espeset, N.R. Fetto, M. Forister, M.J. Tucker
- PHYS 472.** Ab initio self-energy embedding theory for realistic systems. L. Tran, A. Kananenka, D. Zgid
- PHYS 473.** Molecular properties from range-separated LDA-GF2 hybrid functional. A. Kananenka, D. Zgid
- PHYS 474.** Distal residues of ornithine transcarbamoylase contribute to electrostatic and dynamics properties of the enzyme. J. Winters, L. Ngu, K. Nguyen, L. Makowski, P. Beuning, M. Ondrechen
- PHYS 475.** High-resolution spectroscopy of gas phase aromatic molecules. W. Roeterdink, W.J. Burna, A. Petrigiani
- PHYS 476.** Withdrawn.
- PHYS 477.** Modeling and simulation approaches for studying competition and cooperativity of actin binding proteins. G.M. Hocky, D.R. Kovar, G.A. Voith
- PHYS 478.** Development of a stochastic implementation of the second-order Green's function. B. Winograd
- PHYS 479.** Accurate temperature dependent methods for QM/QM embedding. A.R. Welden, D. Zgid
- PHYS 480.** Effect of adding sodium chloride on tetra-n-butylammonium chloride/water semi-clathrate system. M.A. Siddiq
- PHYS 481.** Green's functions in solid-state electronic structure modeling: Self-consistency, finite temperature, and electronic correlations. A. Rusakov, L. Tran, S. Isakov, D. Zgid
- PHYS 482.** Combining the photoreduction of Au(III) and the electrodeposition of Au(I) in a new method to create microscopic gold patterns. C.N. Lafratta, C. Sirkoch, P. Lawrence, E. Will
- PHYS 483.** Withdrawn.
- PHYS 484.** Insights into the molecular structure of hydrogen chloride-cis-1,2-difluoroethylene from ab initio calculation of an intermolecular potential energy surface. L.H. Yoon, H.O. Leung, M.D. Marshall
- PHYS 485.** Alkyne combustion: Experimental and theoretical studies of formyl radical formation. M. Drummer
- PHYS 486.** Computational study of quaternary ammonium salts as liquid-liquid phase-transfer catalyts. T. Schaefer, J.P. Layfield
- PHYS 487.** Growth mechanism of 'sea urchin' shaped ZnO nanostructures and their photocatalytic activity in the degradation of organic dyes. H.D. Kiriarachchi, K.M. AbouZeid, M.S. El-Shall
- PHYS 488.** Redox potentials and reactivity of redox shuttles from the first principles calculations. M. Burrows, R. Tazhigulov, K.B. Bravaya
- PHYS 489.** Infrared photodissociation cluster studies on CO₂ interaction with titanium oxide catalyt models. L.G. Dodson, M.C. Thompson, J.M. Weber

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

- PHYS 490.** Synthesis of carbonaceous TiO₂ nanostructures by laser vaporization controlled-condensation of MIL-125(Ti) and NH₂-MIL-125(Ti) and their applications as catalyst support for Pd nanoparticles for Suzuki cross coupling reactions. J. Bobb, A. Awad, M.S. El-Shall
- PHYS 491.** Acid site correlation to the selectivity for 2-methoxy-4-methylphenol in the hydrodeoxygenation of vanillin by Pd nanoparticles encapsulated within the zirconium-based metal-organic framework UiO-66-NH₂. A. Lin, A. Awad, M.S. El-Shall
- PHYS 492.** Withdrawn.
- PHYS 493.** Photophysical properties of 1-pyrenemethylamine hydrochloride. G.S. DiBattista, A. Brooks, S. Temple, B.H. Milosavljevic
- PHYS 494.** Fabrication of highly nanostructured electrodes. P. Kharel, A. Talsania, D. Cahill, F. Dawood
- PHYS 495.** Effective removal of heavy metal ions from aqueous solutions by chemically modified graphene oxide nanosheets. F.S. Awad, K.M. AbouZeid, M.S. El-Shall
- PHYS 496.** Ab initio study of triplet states of XeF₂ and XeCl₂. G.J. Hoffman
- PHYS 497.** Investigations of prebiotic phosphorus chemistry on the meteoritic mineral schreibersite. H.L. Abbott-Lyon
- PHYS 498.** Laboratory astrochemistry: Catalytic conversions of methanol to organic molecules over olivine-type silicates. Q. Li, W. Dai, B. Liu, P.J. Sarre, A. Cheung
- PHYS 499.** Simultaneous photophysical and TA study of liquid-liquid phase transition in water-rich ideal solution. A. Anmangandla, P. Martin, B.H. Milosavljevic
- PHYS 500.** Pre-transition droplet formation in liquid-liquid binary systems. M. McKibben, S. Rogers, A.R. Wert, K.C. Riley, C.C. Williamson
- PHYS 501.** Accelerated electrospray-based reaction discovery: Toward rational design of visible-light-mediated aerobic oxidation of N-heterocycles in ambient air. A.K. Badu-Tawiah, S. Jayaraj, Q. Wan, K.M. Davis
- PHYS 502.** Solvent polarity driven varied interaction of long chain aliphatic thiol or amines with fluorescent assembly. J. Jana, T. Pal
- PHYS 503.** Combined experimental and computational investigation on the Sm₂O₃-BaO system. W. Gong
- PHYS 504.** Mapping structure-property relations in molecularly tunable fluorescent quantum defects. M. Kim, G. Ao, X. He, H. Kwon, X. Wu, M. Zheng, S.K. Doorn, Y. Wang
- PHYS 505.** Is carbon monoxide in the pure solid form in the ice mantle? J. He, G. Vidali
- PHYS 506.** Controlling the magnetic anisotropy of single molecule with STM tip: The crucial roles of structural deformation and electronic states. X. Wang, X. Zheng
- PHYS 507.** Chirality associated Marcus inverted region observed in pristine single-walled carbon nanotubes via asymmetric-doping-induced electrical potential. A.T. Liu, Y. Kunai, A. Cottrell, M. Strano
- PHYS 508.** Inhibitory effects of Acanthus montanus leaves extract on microbial influenced corrosion of oil pipe line steel (caused by sulphur reducing bacteria) in anaerobic environment. I. Nkechi
- PHYS 509.** Evolving new proteins by non-homologous recombination. G. Rawcliffe, W. Patrick
- PHYS 510.** Direct spectroscopic measurement of inherent and applied interfacial electric fields near an electrode. J. Patrow, S.A. Sorenson, J. Dawlaty
- PHYS 511.** Decomposition of hydroxylammonium nitrate ionic liquid aerosols on catalytically active metal surfaces. G.L. Vaghjiani, S. Chambreau, D.M. Popolan-Vaida, S.R. Leone
- PHYS 512.** Chemical signatures in magnetized cloud cores. S. Hocuk, P. Caselli
- PHYS 513.** Role of anharmonic effects in analysis of astrochemical observations: IR signatures and thermodynamics. J. Bloino, M. Biczysko, C. Puzzarini
- PHYS 514.** Light-activated synthesis of aryl fluorescent quantum defects in single-walled carbon nanotubes. X. Wu, H. Kwon, M. Kim, Y. Wang
- PHYS 515.** Withdrawn.
- PHYS 516.** Hydrophobic water at a hydrophilic interface. J.D. Cyran, M.A. Donovan, E. Tyrode, M. Bonn, E. Backus
- PHYS 517.** Intervention of TGase in surimi gel under microwave irradiation. H. Cao, D. Fan, J. Huang, X. Jiao, W. Zhou, W. Zhang, J. Zhao, H. Zhang
- PHYS 518.** Withdrawn.
- PHYS 519.** DNA damage through microwave irradiation generated reactive oxygen species. T.M. Sautaus, C.D. Geddes
- PHYS 520.** Computational challenges in astrochemistry. M. Biczysko, J. Bloino, C. Puzzarini
- PHYS 521.** Anharmonic temperature effects on the infrared spectrum. T. Chen
- PHYS 522.** Study of highly excited states of chlorine substituted cumuleneone series with coupled cluster method. Q.L. Nguyen, M.M. Murnane, H.C. Kapteyn, W.K. Peters, R.C. Fortenberry
- PHYS 523.** Second harmonic generation of water at silica/aqueous interface determined by molecular dynamics. S. Chen, S.J. Singer
- PHYS 524.** Withdrawn.
- PHYS 525.** Molecular dynamics simulations and Markov models of natural and evolved stand-alone LovD enzyme variants. J. Iglesias, S. Olsson, F. Noé, S. Osuna
- PHYS 526.** Non-adiabatic molecular dynamics with delta self-consistent field excited states (ASCF-NA-MD). E. Pradhan
- PHYS 527.** DFT calculations of Arg and Lys on Au(111) to probe the effects of amino acid conformation and dispersion on binding. M.C. Small, J. Terrell, D.A. Sarkes, J. Jahnke, D.N. Stratis-Cullum, M. Hurley
- PHYS 528.** Field-controlled nanopore permeation by electrolyte solution. D. Bratko, F. Moucka, D. Vanzo, A. Luzar
- PHYS 529.** Exploration of reduced scaling approaches to EOM-CCSD. C. Peng, E.F. Valeev, J. Zhang
- PHYS 530.** Non-reactive dynamics at water-mineral interfaces. R. Remsing
- PHYS 531.** Organic macromolecules in comet 67P and diffuse interstellar band carriers. R. Lallemand, J. Bertaux
- PHYS 532.** Monovalent and divalent cations at the α -Al₂O₃ (0001)/water interface: How cation identity affects interfacial ordering and vibrational dynamics. S. Piontek, K. Millan, R. Wang, A. Tuladhar, R. Remsing, V. Carnevale, M. Klein, E. Borguet
- PHYS 533.** Analyzing the role of the product metal ion in DNA polymerase β catalysis. L. Perera
- PHYS 534.** Reduced scaling many-body methods in non-LCAO representations. E.F. Valeev
- PHYS 535.** Withdrawn.
- PHYS 536.** Study hydrated electrons with range-separated functionals. C. Zhou, V. Vitek, D. Neuhauser, B.J. Schwartz
- PHYS 537.** Insights into sulfide-enhanced oxygen reduction reaction activity by in-situ electrochemical infrared spectroscopy and theoretical simulations. D. Chen, Y. Wang, T. Allison, Y. Tong
- PHYS 538.** Effect of solvent and substrate on dye molecule orientation for DSSC applications. J. Domenico, M.E. Foster, M. Allendorf, K.W. Sohlberg
- PHYS 539.** Pentavalent lanthanide nitride-oxides: NPrO and NPrO⁻ complexes with N=Pr triple bonds. S. Hu
- PHYS 540.** Photophysical studies of Ru(II)tris(2,2'-bipyridine) encapsulated within a Zinc(II) - benzene-1,3,5-tricarboxylic acid metal-organic framework. C. McKeithan, R.W. Larsen
- PHYS 541.** Influence of galactic arm scale dynamic on the molecular composition of dense clouds. M. Ruaud, V. Wakelam, P. Gratier, I.A. Bonnel
- PHYS 542.** Contributions of an astrochemical European network[1] to the qualitative understanding of physical astrochemistry: Energy transfers and reaction rates. L. Wiesenfeld
- PHYS 543.** Evidence for the presence of H₂-PAHs in post AGB stars. C.K. Materese, J.D. Bregman, S.A. Sandford
- PHYS 544.** Magnesium pre-organizes SAM-II riboswitch triplex. S. Roy, H. Lammert, R.L. Hayes, B. Chen, R. LeBlanc, T. Dayie, J. Onuchic, K.Y. Sanbonmatsu

THURSDAY MORNING

Section A

Walter E. Washington Convention Center Room 156

Molecules in Space: Linking the Interstellar Medium to (Exo)-Planets Chemistry of Atmospheres of Stars & Planets

P. Bera, X. Tielens, *Organizers*

R. L. Hudson, *Presiding*

8:00 **PHYS 545.** Molecular spectroscopy of exoplanet atmospheres. A. Burrows

8:35 **PHYS 546.** Atmospheric chemistry in (currently observable) exoplanets: Review of a suite of techniques. K. Heng

9:05 **PHYS 547.** Spectroscopic data for characterizing (exo)-planetary atmospheres. T.J. Lee

9:35 Intermission.

10:00 **PHYS 548.** Astrochemistry of titan. C. Nixon

10:30 **PHYS 549.** James Webb Space Telescope capabilities for characterizing exoplanet atmospheres. T. Greene

11:00 **PHYS 550.** Expanding our knowledge of the ranges of environmental conditions that may have been able to support peptide synthesis on the primitive Earth and elsewhere. E.T. Parker

11:30 **PHYS 551.** Climatological variations in Titan's atmospheric chemistry mapped using ALMA. M. Cordiner, C. Nixon, S. Charnley, N. Teanby, Z. Kiseil, P. Irwin, M. Palmer, J. Lai, X. Thelen, V. Vuitton

11:50 Discussion.

Section B

Walter E. Washington Convention Center Room 152B

Theoretical Models of Chemical Bonding & Reactivity Spanning the Periodic Table: A Symposium in Honor of Roald Hoffmann

Insights into Physical Chemistry

W. Grochala, E. Zurek, *Organizers*

A. Hermann, *Presiding*

8:00 **PHYS 552.** Ionic ammonia-water mixtures stable at icy planet conditions. V. Naden Robinson, Y. Wang, Y. Ma, A. Hermann

8:30 **PHYS 553.** Theoretical investigation of singlet fission: Uncovering mechanisms and designing molecules. N. Ananth

9:00 **PHYS 554.** Quantum chemistry and quantum dynamics studies of intramolecular singlet fission: How bonding affects number doubling of excitons. T. Zeng

9:20 **PHYS 555.** Jahn-Teller models, symmetric spaces, and quantum phase transitions. R. Florentino Ribeiro, J. Yuen-Zhou

9:40 **PHYS 556.** Study of proton and electron transfer using quantum master equation methods. T. Ture

10:00 Intermission.

10:20 **PHYS 557.** Orbital interactions between C₂H₂, BBr₃, and HBr influencing stereospecificity of acetylene bromoboration. H. Semrád, J. Stošek, P. Kubáček, M. Munzarova

10:40 **PHYS 558.** Density functional perturbational orbital approach in understanding of covalent magnetism through chemical bonds. D. Seo

11:00 **PHYS 559.** Double Rydberg anions and their Dyson orbitals. J.V. Ortiz

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

11:20 PHYS 560. From hydrogen storage materials to metallic and superconducting hydrides. W. Grochala

11:40 PHYS 561. Predicting crystal structures at high pressures. E. Zurek

Section C

Walter E. Washington Convention Center Room 152A

Gaseous Ion Chemistry & Surface Reactions

Ion Spectroscopy

A. K. Badu-Tawiah, H. Chen, *Organizers*

A. L. Ferzoco, *Presiding*

8:00 PHYS 562. Cryogenic spectroscopy for structural and analytical studies of biomolecular ions. V. Scutelnic, C. Masellis, T.R. Rizzo

8:40 PHYS 563. Coordination chemistry in titanium-carbon dioxide anionic clusters studied by infrared photodissociation spectroscopy. L.G. Dodson, M.C. Thompson, J.M. Weber

9:00 PHYS 564. Probing glycosidic bond stability via energy-resolved single and multiple collision-induced dissociation tandem mass spectrometry approaches: Application to protonated and sodium cationized nucleosides and glycosyl phosphates. M.T. Rodgers, R. Wu, Y. Zhu, Z. Yang

9:40 Intermission.

10:00 PHYS 565. Homochiral serine octamer anions: Infrared spectrum and structure of the chloride adduct. G. von Helden

10:40 PHYS 566. Specific peptide-bond dissociation of some peptide model ions. C. Liu

11:00 PHYS 567. Exploring the dissociation dynamics of radical cations with femtosecond pump-probe spectroscopy: Application to model systems for organophosphorus nerve agents and nitro-based energetic molecules. D. Ampadu Boateng, G. Gutsev, P. Jena, K.M. Tibbetts

Section D

Walter E. Washington Convention Center Room 151A

Physical Chemistry Research at Undergraduate Institutions

Interfaces

T. Hopkins, *Organizer, Presiding*

8:00 PHYS 568. Atmospheric fate of fly ash: From heterogeneous photochemistry of nitric acid to particle weathering. J.G. Navea

8:40 PHYS 569. Insights into liquid-liquid equilibrium behavior gained from laser light scattering measurements. C.C. Williamson

9:00 PHYS 570. Dark reactions project: Undergraduate-driven discovery of new materials with cheminformatics, machine learning, and experiments (and robots) at a small liberal arts college. J. Schrier

9:40 Intermission.

10:00 PHYS 571. Investigating the interfacial structure and partitioning of nitrate ions in reverse micelle structures. J.D. Patterson, K.J. Blackshaw

10:20 PHYS 572. Quantum theory of atoms-in-molecules (QTAIM) consideration of the electron density properties of ionic, covalent, and metallic bonds. D.A. Clabo

10:40 PHYS 573. Multiscale modeling of the complete ligand binding pathways to influenza neuraminidase. A.W. Van Wynsberghe

11:20 PHYS 574. Building a physical chemistry research program at a PUL. T.C. Devore

11:40 Concluding Remarks.

Section F

Walter E. Washington Convention Center Rooms 158A/B

Membrane Proteins: Structure, Activity & Drug Development

Structure & Dynamics of Membrane Proteins

M. J. Cocco, F. Marassi, *Organizers*

A. Kenworthy, J. Long, *Presiding*

8:00 PHYS 575. Targeting proteins to membrane rafts: mechanisms and consequences. A. Kenworthy

8:30 PHYS 576. Coherent vibrational imaging for living cells. L. Wei, W. Min

9:00 PHYS 577. Withdrawn.

9:20 Intermission.

9:40 PHYS 578. Structure-function relationships of host defense metalloproteins: When strong nuclease activity correlates with weak membranolyticity and high therapeutic index. M. Cotten, M. Libardo, E. Mihailescu, A.A. Bahar, B. Ma, A. De Angelis, J. Zhao, R. Rai, R. Fu, D. Ren, R. Nussinov, S. Opella, A.M. Angeles Boza

10:10 PHYS 579. Microsecond simulations of antimicrobial peptides and mimetics of ApoA-I. R. Pastor

10:40 Intermission.

11:00 PHYS 580. Peptide-mediated lipid organization, structure, and dynamics in pulmonary surfactant. J. Long, N. Tran, A. Smith, O. Braide

11:30 PHYS 581. New method to study heterodimerization of membrane proteins and its application to fibroblast growth factor receptors. K.A. Hristova

Section G

Walter E. Washington Convention Center Room 151B

PHYS Awards Symposium

PHYS Award in Experimental Physical Chemistry: Symposium in honor of Professor Kit Bowen

J. E. Shea, *Organizer*

W. C. Lineberger, D. R. Yarkony, *Presiding*

8:00 PHYS 582. Geminate recombination of photodissociated anions in size-selected solvents. W.C. Lineberger

8:35 PHYS 583. Characterization of reaction intermediates in homogeneous catalysis with cryogenic ion chemistry and spectroscopy. M.A. Johnson

9:10 PHYS 584. Limits of Born-Oppenheimer dynamics. D.R. Yarkony

9:45 Intermission.

10:05 PHYS 585. Adventures in anion photoelectron spectroscopy. K.H. Bowen

10:50 PHYS 586. Photoelectron spectroscopy of negative ions: From planar boron clusters to borophenes and borospherenes. L. Wang

11:25 PHYS 587. Microwave spectroscopic models for hydrogen storage in MOFs. S.E. Novick, D.A. Obenchain, G.S. Grubbs, H.M. Pickett

Molecular Mechanics

Sponsored by COMP, Cosponsored by PHYS

THURSDAY AFTERNOON

Section F

Walter E. Washington Convention Center Rooms 158A/B

Membrane Proteins: Structure, Activity & Drug Development

Structure & Dynamics of Membrane Proteins

M. J. Cocco, F. Marassi, *Organizers*

K. Gawrisch, S. Prosser, *Presiding*

1:00 PHYS 588. Engineering nanodiscs for membrane protein studies. G. Wagner, M. Nasr, J. Ziarek, D. Baptista, H. Arthanari, Z. Sun, F. Hagn, A. Plückthun

1:30 PHYS 589. Molecular underpinnings of GPCR pharmacology: An NMR and computational study of the adenosine A2 receptor. S. Prosser

2:00 PHYS 590. *In silico* visioning of G protein-GDP complex communications with GPCR bound to different ligands using molecular dynamic simulations in explicit membrane. S. Sader, C. Wu

2:20 Intermission.

2:40 PHYS 591. Endogenous cannabinoid ligand 2-arachidonyl glycerol (2-AG) and its interaction with cannabinoid type II cannabinoid receptor, CB₂. T. Kimura, A. Yeliseev, E. Mihailescu, D.L. Lynch, P. Reggio, K. Gawrisch

3:10 PHYS 592. Probing membrane catalysis and ligand-receptor interactions in the apelinergic system. K. Shin, A. Pandey, D.N. Langelaan, S.K. Huang, C.A. Kenward, M. Sarker, D.M. LeBlanc, M. Alharbi, J.K. Rainey

3:40 Intermission.

4:00 PHYS 593. NMR tools for drug discovery: Targeting membrane proteins. M. Mesleh

4:30 PHYS 594. Membrane dependent allostery of oncoprotein RAS structure and function at biological membranes. Z. Feng, T. Gebregiorgis, K. Lee, M. Mazhab-Jafari, M. Smith, C. Marshall, M. Ikura

Section G

Walter E. Washington Convention Center Room 151B

PHYS Awards Symposium

PHYS/Journal of Physical Chemistry Lectureship Award: Symposium in honor of Professor Benjamin Levine

J. E. Shea, *Organizer*

E. G. Hohenstein, *Presiding*

1:00 PHYS 595. Recent progress in the electron-attached, ionized, and active-space equation-of-motion coupled-cluster methodologies. P. Piecuch, J. Shen, A.O. Ajala

1:35 PHYS 596. Nonadiabatic dynamics using multiconfigurational wavefunctions with embedding corrections from density functional theory. E.G. Hohenstein

2:10 PHYS 597. Quantum chemistry from molecules to materials. A.K. Wilson

2:45 Intermission.

3:05 PHYS 598. Painless modeling of dynamics near conical intersections. G.A. Meek, B.G. Levine

3:40 PHYS 599. *Ab initio* photodynamics in X-ray domain. P. Slavicek

4:15 PHYS 600. Recent progress in density functional theories. D.G. Truhlar

POLY

Division of Polymer Chemistry

T. White, C. Lipscomb and T. Epps, *Program Chairs*

SUNDAY MORNING

Section A

Marriott Marquis Washington, DC Marquis Ballroom Salon 6

8th Symposium on Controlled Radical Polymerization

Financially supported by Army Research Office, Anton Paar, Millipore-Sigma, Boron Molecular, Tosoh Bioscience, Kaneka, PPG

H. Gao, K. Matyjaszewski, B. S. Sumerlin, *Organizers*

N. V. Tsarevsky, *Organizer, Presiding*

M. J. Buback, *Presiding*

8:00 Introductory Remarks.

8:05 POLY 1. New macromolecular architectures and new ATRP initiating systems. K. Matyjaszewski

8:30 POLY 2. Kinetics of radical polymerizations deduced via SP-PLP-EPR. M.J. Buback, H. Kattner

8:55 POLY 3. Ionic auxiliaries for stereo-controlled radical polymerization. B. Noble, K. Fung, S. Ferrie, M.L. Coote

9:20 POLY 4. RAFT 20 years later: Elements of RAFT navigation. G. Moad

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

9:45 POLY 5. Mechanistic studies of transition metal catalyzed radical termination. **R. Poli, S. Rahaman, T. Ribelli, K. Matyjaszewski**

10:10 Intermission.

10:25 POLY 6. Living radical polymerization using organic catalysts: Synthesis and applications. **A. Goto**

10:50 POLY 7. Electrochemistry for ATRP. **A. Gennaro, F. De Bon, F. Lorandi, M. Fantin, A. Ahmed Issa**

11:15 POLY 8. Iron mediated controlled radical polymerisation. **M.P. Shaver**

11:40 POLY 9. Designer polymers from palladium-catalyzed cross-coupling reactions. **D.H. Howe, A.J. Magenau**

Section B

Marriott Marquis Washington, DC
Marquis Ballroom Salon 8

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Biobased Materials: Industrial Perspectives

Cosponsored by AGFD, CELL and PMSE

H. Cheng, R. A. Gross, *Organizers*

P. B. Smith, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 POLY 10. Performance benefits driven by structure-property relationships: Fatty acid-derived polyester polyols. **K.A. Schoene**

8:30 POLY 11. Certified biodegradable mulch film: Ecological benefits and environmental fate. **A. Kuenkel**

8:55 POLY 12. Bio-based starting materials as an essential route to improved performance in macromolecules. **A.J. Guenther, B.G. Harvey, M.C. Davis, J. Reams**

9:20 POLY 13. Environmentally friendly high performance bio-derived polymers for DoD applications. **J. La Scala, J. Sadler, S. Kumar Yadav, A. Bassett, B.G. Harvey, G. Yandek, W. Eck, J.F. Stanzione, G. Palmese**

9:45 Intermission.

9:55 POLY 14. Innovation constraints and opportunities for biomaterials. **K.J. Sanford**

10:20 POLY 15. Sustainable development of new high performance materials and macromolecular therapeutic platforms. **N. Park**

10:45 POLY 16. Improving the performance of water-based PSAs with a bio-based material. **C. Lipscomb, K. Lewandowski**

11:10 POLY 17. 2,5-furandicarboxylic acid (FDCA): A re-emerging biobased building block. **B. Fijten**

Section C

Marriott Marquis Washington, DC
Marquis Ballroom Salon 9

Metallo-Supramolecular & Metal Containing Polymers

Metallo-Supramolecular Polymers & Assemblies

Cosponsored by PMSE†

Financially supported by TCI (Tokyo Chemical Industry), microdrop Technologies GmbH, SmartDyeLivery GmbH

I. Manners, G. R. Newkome, U. S. Schubert, *Organizers, Presiding*

8:00 Introductory Remarks.

8:10 POLY 18. New hybrid materials based on group 13 element-blocks. **Y. Chujo**

8:50 POLY 19. Self-assembled polymer antimicrobials against MRSA and other resistant pathogens. **V.M. Rotello**

9:10 POLY 20. Printed organic solar cells: The Victorian (Australia) organic solar cell consortium. **A.B. Holmes**

9:40 Intermission.

10:10 POLY 21. Synthesis of sub-nanoparticle using metallo-dendrimers. **K. Yamamoto**

10:30 POLY 22. Properties and supramolecular assembly of ligand-modified phosphonium polymers and their metallopolymer derivatives. **R. Smith, M. Bedford, W. Wan**

10:50 POLY 23. Construction of metal-lo-supramolecular rod-coil diblock copolymers and their assembled nanostructures in solution. **Y. Chan**

11:10 POLY 24. Folded polymeric frameworks to promote reaction activity and selectivity of metal and metal clusters. **J. He, S. Thanneeru, A.M. Angeles Boza**

11:30 POLY 25. Self-oscillating polymer gels as metal-containing functional materials. **R. Yoshida, Y. Kim, R. Tamate, T. Masuda, M. Onoda, A. M. Akimoto**

Section D

Marriott Marquis Washington, DC
Mount Vernon Square

Polymer Mechanochemistry

Cosponsored by PMSE

A. J. Boydston, A. P. Goodwin, J. Moore, M. Silberstein, *Organizers*

Y. Xia, *Presiding*

8:30 Introductory Remarks.

8:35 POLY 26. Mechanochemistry of hydrogels: Quantifying small numbers of bond breakages in weak materials. **A.P. Goodwin**

9:05 POLY 27. Multifunctional mechanochemical hydrogels as selective compartments and actuators in microfluidic applications. **B. Voit, D. Appelhans, A. Krause, D. Gräfe, S. Zschoche, D. Simon**

9:35 POLY 28. Mechanochemical kinetics in elastomeric polymer networks: Heterogeneity of local forces results in nonexponential kinetics. **D.E. Makarov, R. Adhikari**

10:05 Intermission.

10:25 POLY 29. Inherently strained macromolecules: From molecular tensile machines to dielectric actuators. **S. Sheiko**

10:55 POLY 30. Time-temperature superposition to investigate yield in glassy polymers by atomistic simulation. **J. Moller, R.J. Berry, T. Breitman, G.S. Kedziora**

11:25 POLY 31. 3D printing of mechanoresponsive polymers. **B. Cao, A. Boydston**

Section E

Marriott Marquis Washington, DC
Marquis Salon 15

Advances in Wettability & Adhesion

Tuning Adhesion at Interfaces

Financially supported by Polymer International

S. T. Iacono, A. Kota, *Organizers*

G. Kwon, *Presiding*

8:00 POLY 32. Getting a better grip underwater. **A.N. Dhinjwala**

8:30 POLY 33. Adhesion and debonding mechanisms of pressure sensitive adhesives under water. **J. Frechette, C. Barrios, P. Karnal**

9:00 POLY 34. Stimulus responsive bioinspired adhesives for finely tunable adhesion, mechanical, and optical properties. **H. Chung, I. Pramudya, R. Slegers, M. Kim**

9:30 POLY 35. Bioinspired supramolecular polymers for tissue sealing. **D. Balkenende, P.B. Messersmith**

9:50 POLY 36. Graphene goniometry. **C. Sun, M. Miskin, P. McEuen, W. Dichtel**

10:10 Intermission.

10:20 POLY 37. Durable gels with ultra-low adhesion to ice. **D. Beemer, W. Wang, A. Kota**

10:50 POLY 38. Self-lubricating organogels: SLUGs showing beyond biological surface wettability. **A. Hozumi, L. Wang, T. Sato, C. Urata, M. England**

11:20 POLY 39. Designing durable icephobic surfaces. **A. Tuteja**

11:50 POLY 40. Dependence of thickness and cure temperature on peak removal energy for ice on Pt-cured PDMS coatings. **S. Nair, K.J. Wynne**

Section F

Marriott Marquis Washington, DC
Judiciary Square

Mark Young Scholar Award in honor of Garret Miyake

D. L. Gin, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 POLY 41. Metal-containing ionic liquid-based, uncharged-charged diblock copolymers that form ordered, phase-separated microstructures and reversibly coordinate small protic molecules. **D.L. Gin, Z. Shi, A.W. May, Y. Kohno, T.S. Bailey**

8:40 POLY 42. Energy storage for controlled/living radical polymerization. **S. Shanmugam, C. Boyer**

9:15 POLY 43. Cyclodextrin polymer networks for water purification. **W. Dichtel**

9:50 Intermission.

10:10 POLY 44. Free-volume for enhanced ion conducting in polymer membranes. **T.M. Swager, L. Moh, Y. Kim**

10:45 POLY 45. Controlling chemoselectivity, stereoselectivity and topology in coordination polymerization of multifunctional acrylic and heterocyclic monomers. **E.Y. Chen**

11:20 POLY 46. Visible light photoredox catalysts for organocatalyzed atom transfer radical polymerization. **G. Miyake**

11:55 Concluding Remarks.

Section G

Marriott Marquis Washington, DC
Marquis Salon 14

Federally Funded Research

D. E. Poree, *Organizer*

K. Beers, T. Saito, *Organizers, Presiding*

8:15 Introductory Remarks.

8:20 POLY 47. Polymer opportunities across NSF. **A.J. Lovinger**

8:50 POLY 48. Polymer research funding opportunities in the Division of Chemistry at the National Science Foundation. **T.E. Patten**

9:20 POLY 49. Advancing technology through measurement science: The National Institute of Standards and Technology. **E.K. Lin**

9:50 Intermission.

10:05 POLY 50. Polymers in aerospace applications. **E.J. Siochi**

10:35 POLY 51. Advanced materials for space exploration: Opportunities and progress. **M.A. Meador**

11:05 POLY 52. Regulatory science within US Food and Drug Administration. **D.V. Patwardhan**

11:35 POLY 53. Perspectives on the USDA and its research portfolio. **H. Cheng, T. Klasson**

Section H

Marriott Marquis Washington, DC
Marquis Ballroom Salon 7

Materials at the Food-Energy-Water Nexus: Polymers for Soils to Sensors

Financially supported by National Science Foundation

F. V. Bright, P. Edmiston, T. E. Long, *Organizers*

M. Jeffries-El, *Organizer, Presiding*

8:00 Introductory Remarks.

8:05 POLY 54. Synthesis and characterization of isocyanate-free polyureas. **J.M. Dennis, L.I. Steinberg, A. Pekkanen, M. Hegde, T.E. Long**

8:35 POLY 55. Second-generation studies of precisely designed polymer membranes for use in water purification and desalination. **A.R. Corcos, M. Matsumoto, L. Valentino, B.J. Marinas, W. Dichtel**

9:05 POLY 56. Studying permselectivity of desalination membranes using electrochemical impedance spectroscopy. **D.L. Shaffer, K.E. Feldman, E. Chan, G.R. Stafford, C.M. Stafford**

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9:35 POLY 57. High performance polyamide thin film composite (PA-TFC) desalination membranes modified by zwitterionic silanes. **S. Erkoc Ilter**, J. Sharabati, F. Saffarimiandoab, S. Guclu, D. Yuksel Imer, I. Koyuncu, S. Unal, Y.Z. Menceologlu

10:05 Intermission.

10:20 POLY 58. Biopolyesters with triggered degradation for agricultural controlled release applications. **M.J. Sobkowicz**, S. Bi, B. Tan

10:50 POLY 59. Sequestering PFOA at environmentally relevant concentrations by a β -cyclodextrin polymer network. **L. Xiao**, Y. Ling, A. Alsaiee, C. Li, D. Helbling, W. Dichtel

11:20 POLY 60. Quantification of oxidation of thermally- and photochemically aged polymeric materials under simulated advanced environmental degradation. **M.A. Maurer-Jones**, E. Hill, B. Hinderliter, R. Duckworth, A. Carlberg, T. O'Keefe, A. Bosio

11:50 Concluding Remarks.

Polyphosphazenes in Biomedicine, Engineering & Pioneering Synthesis

Sponsored by PMSE, Cosponsored by POLY

SUNDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Marquis Ballroom Salon 6

8th Symposium on Controlled Radical Polymerization

Financially supported by Army Research Office, Anton Paar, Millipore-Sigma, Boron Molecular, Tosoh Bioscience, Kaneka, PPG

H. Gao, K. Matyjaszewski, N. V. Tsarevsky, *Organizers*

B. S. Sumerlin, *Organizer, Presiding*

Y. Yagci, *Presiding*

1:00 POLY 61. Photoinduced metal free strategies for atom transfer radical polymerization. **G. Yilmaz**, C. Kutahya, A. Allushi, C. Aydogan, S. Aykac, **Y. Yagci**

1:25 POLY 62. Exploiting light to push the limits of controlled radical polymerization. **R.N. Carmean**, C.A. Figg, G. Scheutz, T. Kubo, M.B. Sims, T.E. Becker, **B.S. Sumerlin**

1:50 POLY 63. Photoswitchable dual radical and cationic controlled/living polymerization for various comonomer sequence distributions. **K. Satoh**

2:15 POLY 64. Light-sensitive alkoxyamines: Applications in material science. **D. Gigmes**

2:40 POLY 65. Light-mediated ATRP of semi-fluorinated (meth)acrylates: Facile access to functional materials. **C.J. Hawker**, **A. Anastasaki**

3:05 Intermission.

3:20 POLY 66. Photoinduced oxygen reduction for living dark polymerization. **C. Boyer**

3:45 POLY 67. Controlled radical polymerization of ethylene: RAFT versus TeRP. **A. Wolpers**, C. Bergebit, Y. Nakamura, S. Yamago, V. Monteil, **F. D'Agosto**

4:10 POLY 68. Electron spin resonance observation of radical polymerization processes with various time resolutions. **A. Kajiwara**

4:35 POLY 69. Direct hydrophilic modification of polymer surface via surface initiated ATRP. **A. Takahara**, Y. Higaki

5:00 POLY 70. Designer polymer brushes by ATRP support metal nanoparticles at microfibers in electrospun mats: Applications in catalytically active membranes. **G. Vancso**, Y. Liu, K. Zhang, J. Ma

Section B

Marriott Marquis Washington, DC
Marquis Ballroom Salon 8

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Developments in Biocatalysts
Cosponsored by AGFD, CELL and PMSE

H. Cheng, R. A. Gross, P. B. Smith, *Organizers*
G. Chen, *Presiding*

1:00 POLY 71. Designing of a laccase super-catalyst. **J. Su**, A. Cavac-Paulo

1:25 POLY 72. Adapting enzymes to non-natural polymeric substrates. **D. Ribitsch**, G. Steinkellner, K. Gruber, B. Wiltschi, G.M. Guebitz

1:50 POLY 73. Bioorthogonal protein engineering. **Y. Ito**

2:15 POLY 74. Structural and mutational analysis of PET-hydrolyzing enzyme, Cut190, based on the 3D docking structure with model compounds of PET. **T. Kawabata**, M. Oda, S. Inaba, N. Numoto, **F. Kawai**

2:40 Intermission.

2:55 POLY 75. Engineered cutinases for PET and cellulose acetate hydrolysis: Design, structure and properties. **A. Shirke**, G.L. Butterfoss, **R.A. Gross**

3:20 POLY 76. Stable biocatalysts and traceable biomaterials through fluorinated protein design. **J.K. Montclare**

3:45 POLY 77. Biocatalysts immobilized onto nanosupports: Applications and advantages in green technologies. **Z. Dinu**

4:10 POLY 78. Investigation of protease-catalyzed L-aspartic acid diethyl ester oligomerization and active site computational modeling. **F. Yang**, F. Totsingan, E. Dolan, S.D. Khare, R.A. Gross

Section C

Marriott Marquis Washington, DC
Marquis Ballroom Salon 9

Metallo-Supramolecular & Metal Containing Polymers

Metallo-Supramolecular Polymers & Assemblies

Cosponsored by PMSE†

Financially supported by TCI (Tokyo Chemical Industry), microdrop Technologies GmbH, SmartDyeDelivery GmbH

I. Manners, G. R. Newkome, U. S. Schubert, *Organizers, Presiding*

1:15 POLY 79. Mathematical control in the coordination self-assembly of Archimedean/non-Archimedean solids. **M. Fujita**

1:55 POLY 80. Stimuli-responsive functional materials via hierarchical self-assembly involving coordination interactions. **H. Yang**

2:15 POLY 81. Self-assembly of multi-layered metallo-supramolecules with increasing complexity. **X. Qian**, H. Wang, B. Song, G. Yin, Z. Zhang, L. Wang, **X. Li**

2:35 Intermission.

2:50 POLY 82. Probing metallo-supramolecular assemblies by ion mobility mass spectrometry. **K.J. Endres**, G.R. Newkome, **C. Wesdemiotis**

3:10 POLY 83. Metal and ion containing polyurethanes. **R.H. Lambeth**, A.M. Savage, M.H. Baranoski, F.L. Beyer, N. Zander

3:30 POLY 84. Stimuli-responsive metallopolymer architectures: From immobilization to redox-responsive opals. **C. Rüttiger**, D. Scheid, M. Gallei

3:50 POLY 85. Controlling nano-material morphology with metal ions. **A. Knight**, C.J. Hawker

4:10 POLY 86. From metallomacrocycles to tunable metallosupramolecular cages and materials. **G.R. Newkome**, T. Xie, S. Chakraborty

Section D

Marriott Marquis Washington, DC
Mount Vernon Square

Polymer Mechanochemistry

Cosponsored by PMSE

A. J. Boydston, A. P. Goodwin, J. Moore, M. Silberstein, *Organizers*

B. Cao, *Presiding*

1:30 POLY 87. Response of copper carboxylate cross-linked polymer to mechanical stress. **Y. Vidavsky**, M. Silberstein

2:00 POLY 88. Functional poly (olefin sulfone) / carbon nanotube composites and their application as radiation detection sensors. **L. Zeininger**, T.M. Swager

2:30 POLY 89. Addressing mechanochemistry with intramolecular cross-links. **C. Diesendruck**

3:00 Intermission.

3:20 POLY 90. Withdrawn.

3:50 POLY 91. Marine glow biomimicry by nucleobase-containing shear responsive polymersome nanoreactors. **O. Rifaie-Graham**, N. Galensowske, C. Dean, S. Balog, N. Bruns

Section E

Marriott Marquis Washington, DC
Marquis Salon 15

Advances in Wettability & Adhesion Fundamental Phenomena at Solid-Liquid Interfaces

Financially supported by Polymer International

S. T. Iacono, *Organizer*

A. Kota, *Organizer, Presiding*

1:15 POLY 92. Water and its motion onto, across, off of, out from between, and through hydrophobic materials. **T.J. McCarthy**

1:45 POLY 93. Wilhelmy Plate (WP) method for dynamic contact angle (DCA) measurements: Contact angles and insight into surface reorganization and surfaces with compositional gradients. **K.J. Wynne**

2:15 POLY 94. Solid-liquid work of adhesion. **R. Tadmor**

2:45 POLY 95. Motion of drops on lubricant infused surfaces. **D. Vollmer**, M. Tress, S. Karpitschka, F. Schellenberger, H. Butt

3:15 Intermission.

3:25 POLY 96. Rational design of nanotextured surfaces capable of spontaneously recovering their superhydrophobicity. **S. Fialoke**, A. Patel

3:55 POLY 97. Thermodynamics of phase change on rough textured surfaces. **N.A. Patankar**

4:25 POLY 98. Self-propelled jumping and catapulting upon drop coalescence. **C. Chen**

4:55 POLY 99. Ant rafts, frog tongues, cat mascara. **D. Hu**

Section F

Marriott Marquis Washington, DC
Judiciary Square

Charles Overberger Award

R. M. Laine, *Organizer, Presiding*

1:00 POLY 100. From polymer building blocks to single-molecule electronics. **L.M. Campos**

1:25 POLY 101. Living polymerization of functional epoxides with MODs. **N.A. Lynd**

1:50 POLY 102. Responsive polymeric nanoparticles. **R.K. O'Reilly**

2:15 POLY 103. Design of polymeric cathode materials for metal-ion batteries. **B.P. Fors**

2:40 POLY 104. Supramolecular hydrogels as therapeutics and therapeutic delivery agents. **J. Hedrick**

3:05 Intermission.

3:15 POLY 105. Accessing conjugated/saturated block copolymers via a single multitasking catalyst. **A.J. McNeil**

3:40 POLY 106. Chalcogenide hybrid inorganic/organic polymers (CHIPs): A new class of transmissive polymeric materials for mid-IR imaging. **J. Pyun**, T. Kleine, L.E. Anderson, R.S. Glass, K. Char, R.A. Norwood

4:05 POLY 107. Partially fluorinated polyethers for spatiotemporal mapping of tissue oxygenation. **F.A. Leibfarth**

4:30 POLY 108. New approaches to well-defined functional materials. **C.J. Hawker**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section G

Marriott Marquis Washington, DC
Marquis Salon 14

Federally Funded Research

DOE

K. Beers, *Organizer*

D. E. Poree, T. Saito, *Organizers, Presiding*

1:30 Introductory Remarks.

1:35 POLY 109. Polymers and composites research needs within the vehicle technologies office. H.F. Wu

2:05 POLY 110. Polymer science related research funding through the Division of Chemical Sciences, Geosciences, and Biosciences at the Department of Energy. C.A. Bradley

2:35 POLY 111. Directing soft matter assembly for optimizing stimuli-response and properties. B. Sumpter

3:05 Intermission.

3:25 POLY 112. Polymer science at the Center for Integrated Nanotechnologies (CINT). A.L. Frischknecht

3:55 POLY 113. Opportunities for polymer research using neutrons at Oak Ridge National Laboratory. V.S. Urban

4:25 POLY 114. 11-BM complex materials scattering (CMS): A new SAXS/WAXS beamline at NSLS II. M. Fukuto

Section H

Marriott Marquis Washington, DC
Marquis Ballroom Salon 7

Materials at the Food-Energy-Water Nexus: Polymers for Soils to Sensors

Financially supported by National Science Foundation

F. V. Bright, P. Edmiston, *Organizers*

M. Jeffries-El, T. E. Long, *Presiding*

1:00 Introductory Remarks.

1:05 POLY 115. Dielectric phenomena in polymers and multilayered dielectric films. L. Zhu

1:40 POLY 116. Conductive and gas separation properties of imidazolium-containing poly(ionic liquid) network membranes prepared from thiol-Ene 'click' photopolymerization. K.M. Miller, H.B. Fannin, A. Bratton

2:15 POLY 117. Facile synthesis of thiolene semicrystalline polymers and their applications in ultra-sensitive temperature sensors. K. Yang, J.C. Grant, J.T. Reeder, W. Voit

2:50 Intermission.

3:05 POLY 118. Achieving novel relaxor ferroelectric behavior in a nylon terpolymer. Z. Zhang, L. Zhu

3:40 POLY 119. Effect of interfacial polarization on electric insulation properties for multilayer polymer films. X. Chen

4:15 POLY 120. Reduction of ionic conduction loss in multilayer polymer films for electric energy storage application. H. Huang, X. Chen, L. Zhu

4:50 Concluding Remarks.

Polyphosphazenes in Biomedicine, Engineering & Pioneering Synthesis

Sponsored by PMSE, Cosponsored by POLY

MONDAY MORNING

Section A

Marriott Marquis Washington, DC
Marquis Ballroom Salon 6

8th Symposium on Controlled Radical Polymerization

Financially supported by Army Research Office, Anton Paar, Millipore-Sigma, Boron Molecular, Tosoh Bioscience, Kaneka, PPG

H. Gao, K. Matyjaszewski, B. S. Sumerlin, N. V. Tsarevsky, *Organizers*

C. Peng, D. A. Shipp, *Presiding*

8:00 POLY 121. Lessons for controlled radical polymerizations from low ceiling temperature polymers. T. Kowalewski

8:25 POLY 122. Scope and limitations of the ATRP of butadiene. A.D. Asandei

8:50 POLY 123. Ambient temperature transition-metal-free dissociative electron transfer reversible addition-fragmentation chain transfer polymerization (DET-RAFT) of methacrylates, acrylates and styrene. T. Guliasvili

9:15 POLY 124. Poly(thio acrylates): Expanding the radically polymerizable monomer toolbox. C. Beker

9:40 POLY 125. Correlation of reduction potential, equilibrium constant, and control mechanism in cobalt mediated radical polymerization. C. Peng, F. Wang, H. Lu, G. Zheng

10:05 Intermission.

10:20 POLY 126. Sulfur free RAFT in emulsion - efficient and scalable block copolymers. D.M. Haddleton, N. Engelis, A. Shegijwal, A. Anastasaki

10:45 POLY 127. Polymerization-induced self-assembly in non-polar media. S.P. Armes

11:10 POLY 128. Synthesis of acrylic gradient copolymers using surfactant-free emulsion RAFT polymerizations. D.A. Shipp, I. Alshehri

11:35 POLY 129. To achieve well-defined and highly-living polystyrene over 500 kg/mol with high polymerization rates via a two-stage RAFT emulsion polymerization. K. Yan, Y. Luo

Section B

Marriott Marquis Washington, DC
Marquis Ballroom Salon 8

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Chemical Catalytic Routes to Biobased Materials

Cosponsored by AGFD, CELL and PMSE

H. Cheng, R. A. Gross, P. B. Smith, *Organizers*

T. M. Reineke, *Presiding*

8:00 POLY 130. Building biomaterials from bio-based materials. K.E. Uhrich

8:25 POLY 131. Robust renewable polymers with complete thermal and chemical recyclability. E.Y. Chen

8:50 POLY 132. Toward mechanically robust bioplastics by controlling macromolecular architectures. C. Tang

9:15 POLY 133. Synthesis of polymers from renewable delta-hexalactones with selectable pendent groups. A. Vithanage, T.J. Schwartz, W. Gramlich

9:35 POLY 134. Synthetic, functional thymidine-derived polydeoxyribonucleotide analogs from a 6-membered cyclic phosphoester. Y.T. Tsao, K.L. Wooley

10:00 Intermission.

10:10 POLY 135. Semi-renewable CO₂-derived polycarbonates and block copolymers for biomedical applications. N. Yi, C.K. Williams

10:35 POLY 136. Functionalizable, biobased aliphatic polyesters via the alternating copolymerization of epoxides and cyclic anhydrides. M.J. Sanford, G.W. Coates

10:55 POLY 137. Preparation and characterization of bio-based polyesters and polycarbonates derived from xylochemicals. S. Curia, J.R. Mauck, A. Bassett, J.F. Stanzione

11:15 POLY 138. Glycerol-based divinylglycol as platform synthon for new bio-sourced polymers. L. Bonnot, E. Grau, H. Cramail

Section C

Marriott Marquis Washington, DC
Marquis Ballroom Salon 9

Metallo-Supramolecular & Metal Containing Polymers

Metallo-Supramolecular Materials in Energy Applications

Cosponsored by PMSE†

Financially supported by TCI (Tokyo Chemical Industry), microDrop Technologies GmbH, SmartDyeDelivery GmbH

I. Manners, G. R. Newkome, U. S. Schubert, *Organizers, Presiding*

8:00 POLY 139. Boosting the voltage of the dye-sensitized solar cell. C.P. Berlinguette

8:20 POLY 140. Towards photoactive carbon nanomembranes: Facing the challenges of bottom-up and top-down approaches. A. Winter, P. Endres, M. Küllmer, C. Neumann, A. Winter, A. Turchanin, U.S. Schubert

8:40 POLY 141. Electron transfer across ultra-thin, insulating oxide films facilitated by dendrimer-encapsulated Pt nanoparticles. R.M. Crooks, N. Ostojic

9:00 POLY 142. Dynamic multi-component machinery: Nanorotors and nanosliders in action. M.J. Schmittel, P. Biswas, A. Goswami, I. Paul, S. Saha

9:30 Intermission.

10:00 POLY 143. Electropolymerized films of redox-active ruthenium complexes for near-infrared electrochromism and resistive memory. Y. Zhong

10:30 POLY 144. Multi-photon absorption in metal alkynyl-containing oligomers and dendrimers. M.G. Humphrey

11:00 POLY 145. Luminescent boron polymers for biomedical imaging. C.L. Fraser, C.A. DeRosa, S. Seaman, C. Kerr, M. Daly, A.S. Mathew, M. Zhuang, F. Wang, J.N. Demas, G.M. Palmer, M.W. Dewhirst, S.M. Peirce, S. Hu, J. Kapur, R.R. Pompano

11:20 POLY 146. Metal containing polymers for anion conductivity. G.N. Tew

Section D

Marriott Marquis Washington, DC
Mount Vernon Square

Polymer Mechanochemistry

Cosponsored by PMSE

A. J. Boydston, A. P. Goodwin, J. Moore, M. Silberstein, *Organizers*

Y. Vidavsky, *Presiding*

8:30 POLY 147. Quantifying force-activity relationships in polymer mechanochemistry. S. Craig

9:00 POLY 148. Chelating polymers to investigate coordination complex mechanochemistry. M. Horst, K. Hall, K.J. Franz

9:30 POLY 149. Single-molecule mechanochemical sensing. H. Mao

10:00 Intermission.

10:20 POLY 150. Single molecule force spectroscopy studies of disulfide and thioester bonds. D. Echelman, J. Fernandez

10:50 POLY 151. Polymer mechanochemistry with supramolecular mechanophores. C. Weder

11:20 POLY 152. Bioinspired design of modular dynamic polymers. Z. Guan

Section E

Marriott Marquis Washington, DC
Marquis Salon 15

Advances in Wettability & Adhesion From Fundamentals to Applications

Financially supported by Polymer International

A. Kota, *Organizer*

S. T. Iacono, *Organizer, Presiding*

8:00 POLY 153. Tunable superomniphobic surfaces for sorting droplets by surface tension. S. Movafaghi, W. Wang, A. Metzger, D.D. Williams, J.D. Williams, A. Kota

8:30 POLY 154. Bioinspired, hierarchically structured materials: From water repellency to water harvesting. S. Yang

9:00 POLY 155. Effect of surface texture in achieving large slip lengths on drag reducing robust super-hydrophobic surfaces (SHS). W. Choi

9:30 POLY 156. Visible light guided manipulation of liquid wettability on photoresponsive surfaces. G. Kwon, D. Panchnathan, M. Gondal, G.H. McKinley, K.K. Varanasi

10:00 Intermission.

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10:10 POLY 157. Slippery surfaces prevent adhesion of biological matter. J. Aizenberg, S. Kolle, S. Sunny

10:40 POLY 158. Antifogging abilities of nanotextures. D. Quéré

11:10 POLY 159. Bio-inspired atmospheric water generation. K. Park

11:40 POLY 160. Wettability patterning for efficient fluid handling in lab-on-chip and heat-transfer applications. C. Megaridis

Section F

Marriott Marquis Washington, DC
Judiciary Square

Biomacromolecules-Macromolecules Young Investigator Award

Financially supported by ACS Publications

A. Albertsson, T. P. Lodge, P. Majumder, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 POLY 161. Synthesis of tapered bottlebrush polymers using sequential ring-opening metathesis polymerization. J.B. Matson, S. Radzinski

8:35 POLY 162. Polymerization of silyl ketenes: A combined computational and experimental approach. D. Lambrecht, E. Pentzer

9:05 POLY 163. Macromolecular self-assembly from carbohydrates. G. Chen

9:35 POLY 164. Using crystallization driven assembly for the preparation of novel nanomaterials. R.K. O'Reilly

10:05 Intermission.

10:20 POLY 165. Sequence-defined polymers: The need for multi-functionality and absolute precision. F.E. Du Prez

10:50 POLY 166. CROP and RAFT: A versatile mechanism combination with respect to thermo-responsive polymers. U.S. Schubert

11:20 POLY 167. Next generation hemostatic materials based on NHS-ester functionalized poly(2-oxazoline) s. J. van Hest, M. Boerman, E. Roozen, M. Sánchez-Fernández, B. Keereweer, R. Felix Lanao, J. Bender, R. Hoogenboom, S. Leeuwenburgh, J. Jansen, H. van Goor

11:50 POLY 168. Smart synthetic materials inspired by nature. R. Hoogenboom

12:20 Concluding Remarks.

Section G

Marriott Marquis Washington, DC
Marquis Salon 14

Federally Funded Research DOD

T. Saito, *Organizer*

K. Beers, D. E. Poree, *Organizers, Presiding*

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

8:30 Introductory Remarks.

8:35 POLY 169. Air Force Office of Scientific Research (AFOSR): Funding opportunities. K. Caster

9:05 POLY 170. Polymer research at the Air Force Research Laboratory Materials and Manufacturing Directorate. T.J. Bunning

9:35 POLY 171. Bioinspired synthetic adhesives: Catechol sidechain effects on Tg and polarity. M.A. Bartucci, N.T. Tran, D. Knorr, J. Lenhart, J.A. Orlicki

10:05 Intermission.

10:25 POLY 172. Army Research Office: Polymer chemistry for the next generation warfighter. D.E. Poree

10:55 POLY 173. Investments in the chemical sciences at the Defense Sciences Office of DARPA. A. Fischer

Section H

Marriott Marquis Washington, DC
Marquis Ballroom Salon 7

Young Industrial Polymer Science Award in honor of Jamie Garcia

Financially supported by IBM

T. W. Baughman, L. M. Campos, *Organizers*

Q. Lin, *Organizer, Presiding*

A. Nelson, *Presiding*

8:00 POLY 174. Organocatalytic strategies to functional materials: mRNA delivery. R.M. Waymouth

8:25 POLY 175. Nurturing the industry-academia partnership: From 3D printing of polyimides to water-soluble ionomers. T.E. Long, M. Hegde, A. Pekkanen, C. Williams, C. Zawaski, V. Meenakshisundaram

8:50 POLY 176. Polymer electrolytes for lithium batteries. N.P. Balsara

9:15 POLY 177. Phase behavior, dynamics and properties of hybrid nanoparticles. R. Krishnamoorti

9:40 POLY 178. Designing polymer-based electrolytes with high lithium ion transference number and conductivity. B.D. McCloskey

10:05 Intermission.

10:15 POLY 179. Facile, new strategies for controlling the patterning of polymers. C.J. Hawker

10:40 POLY 180. High performance and antifouling coatings from spray layer-by-layer deposition. J. Hedrick

11:05 POLY 181. Controllable ROMP tacticity by harnessing the fluxionality of stereogenic-at-Ru complexes. A.H. Hoveyda

11:30 POLY 182. Waste plastics for new materials production: Design and reversibility in polymer networks. J. Garcia

Sustainable Design of Polymers from Xylochemicals

Strategic Design of Complex Polymers from the Combination of Xylochemicals

Sponsored by CELL, Cosponsored by CARB, PMSE and POLY

Polyphosphazenes in Biomedicine, Engineering & Pioneering Synthesis

Sponsored by PMSE, Cosponsored by POLY

MONDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Marquis Ballroom Salon 6

8th Symposium on Controlled Radical Polymerization

Financially supported by Army Research Office, Anton Paar, Millipore-Sigma, Boron Molecular, Tosoh Bioscience, Kaneka, PPG

H. Gao, K. Matyjaszewski, B. S. Sumerlin, N. V. Tsarevsky, *Organizers*

J. Nicolas, M. Zhong, *Presiding*

1:00 POLY 183. New polymers and strategies for drug delivery applications. J. Nicolas

1:25 POLY 184. Tertiary structure-based prediction of how ATRP initiators react with proteins. S. Carmali, K. Matyjaszewski, A.J. Russell

1:50 POLY 185. Biocatalytic precipitation ATRP as assay for malaria diagnostics. N. Bruns, J. Pollard, O. Rifaie-Graham, S. Raccio, S. Balog, S.M. Rusch, H. Beck

2:15 POLY 186. CRP polymers that stabilize therapeutic proteins in vivo and during storage. H.D. Maynard

2:40 POLY 187. Harnessing enzymatic processes to create well-defined polymers by RAFT. A. Danielson, D. Bailey Van-Kuren, J. Bornstein, M. Lucius, C. Williams, K. Makaroff, J. Berberich, R.C. Page, D. Konkolewicz

3:05 Intermission.

3:20 POLY 188. Learning from peptides how to solubilize problematic small molecule drugs: Specifically interacting polymers via CRP. H. Boerner

3:45 POLY 189. Main-chain degradable polymer nanoparticles as gene delivery vectors. Y. Gao, V. Böhmer, D. Zhou, T. Zhao, W. Wang, J.M. Paulusse

4:10 POLY 190. New polymer based linkers for antibody drug conjugates (ADC) for oncology applications. J. Chiefari, J. Scoble, C. Williams, F. Huang, T. Adams, L. Pontes-Braz, X. Xiao, A. Riches, W. Kowalczyk, X. Hao, G. Moad, E. Rizzardo

4:35 POLY 191. Versatile types of PGMA-based nucleic acid delivery systems via ATRP. F. Xu

5:00 POLY 192. Biomimetic anchors for antifouling polymer brush coatings. L. Xu, K. Neoh, E. Kang

Section B

Marriott Marquis Washington, DC
Marquis Ballroom Salon 8

Green Polymer Chemistry: Biobased Materials & Biocatalysis

New Reaction Strategies & Materials

Cosponsored by AGFD, CELL and PMSE

H. Cheng, R. A. Gross, P. B. Smith, *Organizers*
K. E. Uhrich, *Presiding*

1:00 POLY 193. Synthesis, properties, and degradation of practical sustainable elastomers. M.A. Hillmyer

1:25 POLY 194. Synthesis of novel polyamides by direct polymerization of levulinic acid. C. Becer, M. Hartweg

1:45 POLY 195. Isocyanate-free routes to polyurethanes and poly(hydroxyl urethane)s. H. Cramail, E. Grau, O. Lamarzelle

2:10 POLY 196. Diisocyanate-free polyurethane synthesis with bio-sourced polyhydroxyls. C.H. Komatsu, S.L. Kristufek, K.T. Wacker, K.L. Wooley

2:30 POLY 197. Bioadvantaged nylon from 1,3 hexanedioic acid produced via an integrated bio- and electro-catalytic process. E.W. Cochran, J. Tessonier, S. Abdolmohammadi, J. Matthiesen, N. Hernandez

2:55 Intermission.

3:05 POLY 198. New methodology to prepare degradable functional polyesters from sustainable 1,3-dioxolan-4-ones. M.P. Shaver

3:30 POLY 199. Sustainable epoxy resin thermosets offer distinct mechanical properties and cell proliferation responses modulated via carbohydrate structure. O. Zhang, H. Phillips, A. Purchel, T.M. Reineke

3:55 POLY 200. Levulinic acid: A valuable platform chemical for fermentative syntheses. R. Ashby, D. Solaiman

4:20 POLY 201. Exploring the scope of enzymatic ATRP: From controlled radical polymerization of challenging monomers to confined biocatalytic polymerizations in nanoreactors and on surfaces. N. Bruns, J. Pollard, B. Gajewska, S. Raccio, C. Fodor, M. Dinu, K. Renggli, M. Divandari, E. Benetti

Section C

Marriott Marquis Washington, DC
Marquis Ballroom Salon 9

Metallo-Supramolecular & Metal Containing Polymers

Metallo-Supramolecular Materials in Energy Applications

Cosponsored by PMSE†

Financially supported by TCI (Tokyo Chemical Industry), microdrop Technologies GmbH, SmartDyeLivery GmbH

I. Manners, G. R. Newkome, U. S. Schubert, *Organizers, Presiding*

1:00 POLY 202. Cutable electrochromic display sheets using metallo-supramolecular polymer. M. Higuchi

1:30 POLY 203. Simple and modular: Extending photo-driven charge separation in tailored multi-donor-photosensitizer-multi-acceptor polymer assemblies. M. Jaeger, R. Schroot, T. Schlotthauer, S. Glover, L. Hammarstrom, U.S. Schubert

1:50 POLY 204. Synthesis and self-assembly of a redox-active, superatom-containing polymer. A. Voevodin, X. Roy, L. Campos

2:10 POLY 205. Ferrocene-containing BODIPY and aza-BODIPY supramolecular arrays for light-harvesting, fluorescent markers, and molecular electronics. V. Nemykin

2:30 Intermission.

3:00 POLY 206. Metal-ligand interactions: A versatile tool in polymer chemistry. U.S. Schubert, S. Bode, M.D. Hager, A. Winter

3:40 POLY 207. Mechanically unravelling metallosupramolecular polymers. L. Neumann, S. Schrettli, S. Kozhuharov, M. Radiom, P. Maroni, S. Balog, D.A. Urban, M. Borkovec, C. Weder

4:00 POLY 208. Homochiral emissive [Ir₃Pd₃]³⁺ coordination cages. E.A. Zysman-Colman

†Cooperative Cosponsorship

4:20 POLY 209. Harnessing photochemistry and photophysics for responsive metal-lo-supramolecular materials. A. Ostrowski

Section D

Marriott Marquis Washington, DC
Mount Vernon Square

Polymer Mechanochemistry

Cosponsored by PMSE

A. P. Goodwin, J. Moore, M. Silberstein, *Organizers*

A. J. Boydston, *Organizer, Presiding*

1:30 POLY 210. Enhancing our understanding of mechanochromism using the naphthopyran mechanophore. A.J. Halmes

2:00 POLY 211. Towards mechanochromic materials based on non-covalent interactions. C. Calvino, S. Schrettli, C. Weder

2:30 POLY 212. Toward the design of mechanochemically active molecules and new methods of activation. M.J. Robb

3:00 Intermission.

3:20 POLY 213. Mechanochemistry: A make-or-break deal? Y.C. Simon

3:50 POLY 214. Understanding the mechanochemistry of molecular ladders. Z. Chen, L. Chen, J. Mercier, X. Zhu, T.J. Martinez, N.Z. Burns, Y. Xia

4:20 POLY 215. Mechanochemical generation of semiconducting polyacetylene from insulating poly(ladderene). Y. Xia

Section E

Marriott Marquis Washington, DC
Marquis Salon 15

Advances in Wettability & Adhesion

From Fundamentals to Applications

Financially supported by Polymer International

S. T. Iacono, A. Kota, *Organizers*

W. Choi, *Presiding*

1:15 POLY 216. Engineering the wettability of surfaces with thiol-ene photopolymerization. L. Xiong, D.L. Patton

1:45 POLY 217. Influence of fugacity on wetting and adhesion characteristics of fluorosilicate-containing surfaces. A.J. Guenther, T.S. Haddad, J. Reams, M.D. Ford, J.R. Alston, S. Inceoglu, J.R. Lince, J.M. Mabry

2:15 POLY 218. Super-hydrophilicity and antifouling behavior of zwitter ionic polymer brushes. A. Takahara, Y. Higaki

2:45 POLY 219. Role of particle structure in superhydrophobicity of treated-diatomaceous earth coatings. F.D. Blum, B.R. Sedai

3:15 Intermission.

3:25 POLY 220. Polymer coated nanoparticles dispersed in kerosene: The effect of oleophobicity on droplet combustion. M. Bello, D. Smith, M.L. Pantoya

3:55 POLY 221. Utilization of perfluorocyclopentene to synthesize fluorinated organically modified silicas with tunable surface energy. A.R. Jennings, E. Lochmaier, C. Thrasher, A. Wilkins, S.T. Iacono

4:15 POLY 222. Facile, fast, and scalable fabrication of slippery liquid-infused porous surfaces using layer-by-layer assembly enabled by in-situ proton transfer. G. Zhu, N. Zacharia

4:35 POLY 223. Stealth polyethylene brushes. W. Farrell, L.J. Richter, K. Beers

4:55 POLY 224. Withdrawn.

Section F

Marriott Marquis Washington, DC
Marquis Salon 12

Macromolecules: The Next 50 Years

Financially supported by ACS Publications

T. P. Lodge, *Organizer, Presiding*

1:30 POLY 225. 50 Years of macromolecules: Block polymers – pure potential. F.S. Bates

2:00 POLY 226. Conjugated conducting and semiconducting polymers: Beyond optoelectronic applications. Y. Luo

2:30 POLY 227. Just two words: Sustainable polymers. M.A. Hillmyer

3:00 POLY 228. Shape-changing photo-degradable hydrogels as dynamic 3D cell culture environments. A.M. Kasko

3:30 POLY 229. Sequence defined polymers. C.J. Hawker

4:00 POLY 230. Future fabricated with light: Continuous liquid interface production to drive additive manufacturing. J.M. DeSimone

4:30 POLY 231. Macromolecules: From five years before its birth to its 25th anniversary. A.J. Lovinger

Section G

Marriott Marquis Washington, DC
Marquis Salon 14

General Topics: New Synthesis & Characterization of Polymers

B. Barkakaty, D. Garcia, *Organizers*

J. Budhathoki-Uprety, A. L. Fogel, *Presiding*

1:00 POLY 232. Molecular hydrodynamic analysis of pharmaceutical PEG created by varying initiation sites. U.S. Schubert, I. Nischang

1:20 POLY 233. Polymer self-assemblies driven by triple-helix formation. J.M. Ren, A. Knight, B. van Ravenstein, R. Bou Zerdan, D. Lunn, A. Abdilla, J. Lawrence, S. Li, D. Kim, S. Lee, G.G. Qiao, C.J. Hawker

1:40 POLY 234. Nanoparticle opioid delivery system that covalently incorporates novel fentanyl derivatives for extended controlled release. M. Kovaliov, D. Cohen-Karni, S. Averick

2:00 POLY 235. Multi-functional nanocarrier of docetaxel and miR-NA-34a modulator for treating prostate cancer. F. Lin, D. Wen, R. Mahato

2:20 POLY 236. Helical polycarbodiimides for biomedical applications. J. Budhathoki-Uprety, N. Sobol, E. Price, K. Edwards, R.E. Langenbacher, P.V. Jena, J.S. Lewis, D.A. Heller

2:40 POLY 237. HDACi conjugated poly(ϵ -caprolactone) for the delivery of doxorubicin. R. Kularatne, K.E. Washington, C. Bulumulla, M.C. Biewer, M.C. Stefan

3:00 POLY 238. Macrolactone-derived polyesters: Alternative materials in electrospun fibres for biomedical application. F.C. Oliveira, D. Olvera, D. Kelly, S. Kimmins, A. Heise

3:20 POLY 239. Molecular design of stretchable and biodegradable semiconducting block copolymers. F. Sugiyama, D.J. Lipomi

3:40 POLY 240. Optimized synthesis and understanding of tetrafluoroterephthalonitrile linked β -cyclodextrin polymers. M. Klemes, M. Chiapasco, A. Alsbaiie, C. Li, Y. Ling, D.E. Helbling, W. Dichtel

4:00 POLY 241. Chitosan-Cu(II) complex for ammonia removal in micro-polluted drinking water of the Dahuofang Reservoir in winter season of China. Y. Gao, L. Zhou, M. Sun

4:20 POLY 242. One-step synthesis of cross-linked ionic polymer thin films in vapor phase and its application to an oil/water separation membrane. M. Kwak, M. Joo, J. Shin, J. Kim, J. You, Y. Yoo, M. Oh, S. Im

4:40 POLY 243. Withdrawn.

Section H

Marriott Marquis Washington, DC
Marquis Ballroom Salon 7

Plastic Packaging Science: Reducing Food Waste to Improving Recyclability

M. O. Hunt, *Organizer, Presiding*

1:00 POLY 244. Overview of plastics packaging. S.E. Selke

1:25 POLY 245. Environmental policy to reduce food loss and waste: Measurement, leadership and best practices. L. Suarez

1:50 POLY 246. More for less: The connection between food waste and packaging. D. Visioli, K. Hausmann, S. Perreard

2:15 POLY 247. Withdrawn.

2:40 POLY 248. Withdrawn.

3:05 Intermission.

3:15 POLY 249. Improving recyclability of plastic packaging. C. MacKerron

3:40 POLY 250. Maximizing lifecycle benefits of plastic packaging: Saving food, enabling a circular economy, & more. J. Wooster

4:05 POLY 251. Light weight and highly recyclable: Polyethylene film. N. Butler

4:30 POLY 252. DuPont Everact™: Development of renewable and high barrier FDCA-based polyesters for beverage, food, and industrial packaging markets. A.J. Duncan

Eminent Scientist Lecture

Sponsored by SOCED, Cosponsored by CATL and POLY

Materials that Impact our Daily Lives & the Global Economy: Bring Practical Applications into the Chemistry Classroom

Sponsored by CHED, Cosponsored by CHED, PMSE, POLY and RUBB

Undergraduate Research Posters

Polymer Chemistry

Sponsored by CHED, Cosponsored by PMSE, POLY and SOCED

MONDAY EVENING

Section A

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

T. H. Epps, C. Lipscomb, T. J. White, *Organizers*

8:00 - 10:00

378-381, 383-389, 391, 393-399, 402, 406, 413-415, 426, 428-429, 433, 437, 439-440, 442, 445-446, 449-450, 452, 454, 462-463, 468-469, 471, 475, 479, 485, 491, 493, 495-496, 498. See subsequent listings.

TUESDAY MORNING

Section A

Marriott Marquis Washington, DC
Marquis Ballroom Salon 7

8th Symposium on Controlled Radical Polymerization

Financially supported by Army Research Office, Anton Paar, Millipore-Sigma, Boron Molecular, Tosoh Bioscience, Kaneka, PPG

H. Gao, K. Matyjaszewski, B. S. Sumerlin, N. V. Tsarevsky, *Organizers*

C. Tang, P. Theato, *Presiding*

8:00 POLY 253. Sustainable polymers by controlled polymerization of biobased monomers. C. Tang

8:25 POLY 254. Functional polymers by CRP. R.K. O'Reilly

8:50 POLY 255. Well-defined polyvinylamine-based copolymers: Synthesis by organometallic-mediated radical polymerization and use in gene transfection. A. Debuigne, M. Dréan, C. Detrembleur, C. Jérôme, P. Midoux, P. Guégan, J. Rieger

9:15 POLY 256. Polymersome nanoreactors by controlled polymerization methods. J. van Hest, M. van Oers, Z. Wang, D. Williams, L. Abdelmohsen

9:40 POLY 257. Controlled free radical polymerization for the preparation of functional polymer zwitterions. T. Emrick, C.F. Santa, M. Skinner

10:05 Intermission.

10:20 POLY 258. RAFT-polymerization for the design of self-healing block polymers. U.S. Schubert, M. Enke, S. Bode, M.D. Hager, F.H. Schacher

10:45 POLY 259. Smart CO₂-responsive block copolymers. S. Lin, P. Theato

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11:10 POLY 260. Aqueous RAFT at pH zero: Enabling controlled polymerization of unprotected acyl hydrazide methacrylamides. E.A. Hoff, B. Abel, C.L. McCormick, D.L. Patton

11:35 POLY 261. Reversible deactivation radical polymerization (RDRP) of monomers bearing reactive functional groups: Possibilities and limitations. N.V. Tsarevsky, D.C. McLeod, Z. Wang, Y. Borguet, S.R. Woodruff

Section B

Marriott Marquis Washington, DC
Marquis Ballroom Salon 8

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Green Biocatalytic Transformations

Cosponsored by AGFD, CELL, and PMSE

H. Cheng, P. B. Smith, *Organizers*

R. A. Gross, *Organizer, Presiding*

8:00 POLY 262. Biomaterial diversity: The PHAome. G. Chen

8:25 POLY 263. Synthetic biology for the lactate-based polymers and oligomers: Intracellular and secretory production. S. Taguchi

8:50 POLY 264. Engineering of robust microbial cell factories for monomer production. L.R. Jarboe

9:10 POLY 265. Polymeric peptide pigments with sequence-encoded properties. R. Ulijn

9:35 Intermission.

9:45 POLY 266. CAL-B catalyzed regioselective bulk polymerization of L-aspartic acid diethyl ester to α -linked polypeptides. F. Totsingan, R. Centore, R.A. Gross

10:05 POLY 267. Chemoenzymatic polymerization of unnatural amino acids. K. Tsuchiya, K. Numata

10:25 POLY 268. Esterase-catalyzed methotrexate conjugates. J. Noro, C. Silva, A. Cavac-Paulo

10:45 POLY 269. Enzymatic routes to advanced silicon-based materials. S.J. Clarson

Section C

Marriott Marquis Washington, DC
Marquis Ballroom Salon 9

Metallo-Supramolecular & Metal Containing Polymers

Metal-Containing Polymers

Cosponsored by PMSE†

Financially supported by TCI (Tokyo Chemical Industry), microdrop Technologies GmbH, SmartDyeLivery GmbH

I. Manners, G. R. Newkome, U. S. Schubert, *Organizers, Presiding*

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

8:00 POLY 270. Functional metal-based nanomaterials from molecular and polymeric precursors. W. Wong

8:40 POLY 271. Photophysical properties of metallo-conjugated polymer-carbon nanotube hybrid materials. L. Du, W. Xiong, H. Shi, K. Lo, D. Phillips, W. Chan

9:00 POLY 272. Monometallic, dimetallic and cluster endohedral fullerenes: New bonding motifs and unexpected properties. L. Echegoyen, W. Cai, J. Murillo, D. Najera, N. Chen, C. Chen

9:20 POLY 273. [Fe-Fe] hydrogenase mimetic metallopolymers from ATRP with long-lived electrocatalytic activity. W. Brezinski, M. Karayilan, D.L. Lichtenberger, R.S. Glass, J. Pyun

9:50 Intermission.

10:20 POLY 274. Chemiresistors based upon metal functionalized carbon nanotubes and polymers. T.M. Swager, S. Ishihara, R. Zhu, B. Yoon, M. Desroches

10:40 POLY 275. Controlled supramolecular polymerization of platinum acetylide complexes. F. Wang

11:10 POLY 276. Red-light-responsive Ru-containing polymers for deep-tissue phototherapy. S. Wu

11:30 POLY 277. Synthetic methodologies toward cationic metallocene derivatives and polymers. C. Tang

Section D

Marriott Marquis Washington, DC
Mount Vernon Square

Polymers at the Interface with Biology

Financially supported by Biomacromolecules (ACS Publications)

T. J. Deming, H. A. Klok, *Organizers, Presiding*

8:30 POLY 278. Degradable polymers and nanogels for protein stabilization. H.D. Maynard

9:00 POLY 279. Bio-derived polymers and copolymers with unique or advanced properties. E.Y. Chen

9:30 POLY 280. Development of a new class of macromolecular prodrugs: Design, synthesis, scaling, and pre-clinical studies of brush-arm star polymer nanostructures prepared via ruthenium-initiated ring opening metathesis polymerization. J.A. Johnson

10:00 Intermission.

10:15 POLY 281. Well-defined stimulus-responsive polypeptide based assemblies. J. van Hest, L. Schoonen, J. Pille, M. van Eldijk

10:45 POLY 282. Dengue virus-mimicking pH-responsive framboidal block copolymer vesicles. S.P. Armes

11:15 POLY 283. Unlocking intracellular therapeutic targets through novel nanostructured biomaterials. M.O. Sullivan

Section E

Marriott Marquis Washington, DC
Marquis Salon 15

Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Aromatic, Antiaromatic & Non-Aromatic Systems

Cosponsored by INOR and PMSE†

Financially supported by Army Research Office, Stream, TA Instruments, Rutgers PolyRUN

F. Jaekle, *Organizer*

K. J. Noonan, A. Pietrangelo, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 POLY 284. Synthesis of polycyclic aromatic molecules and polymers. T.M. Swager, C. Voll, S. Luppino, C. Dengiz, J. Engelhart

9:05 POLY 285. 5,5-disubstituted cyclopentadiene-based conjugated macromolecules: Design, synthesis, and application. A. Pietrangelo, L. Chen, M. Rahman, X. Zhao

9:30 POLY 286. Polymers inspired by crystalline silicon. R.S. Klausen

9:55 POLY 287. Non-benzenoid aromatics as subunits of pi-conjugated electronic materials. J.D. Tovar

10:20 Intermission.

10:40 POLY 288. Alternative facts about thiophene rust. L. Campos

11:05 POLY 289. Programmed twisting of conjugated materials with aromatic interactions. S.W. Thomas

11:30 POLY 290. Singlet fission in pendent acene polymers. L. Yablon, S. Sanders, E. Kumarasamy, M. Steir, X. Zhu, H. Li, L. Campos

Section F

Marriott Marquis Washington, DC
Judiciary Square

DSM Science & Technology Award

Financially supported by DSM

T. J. White, *Organizer*

L. Pilet, *Organizer, Presiding*

8:00 Introductory Remarks.

8:10 POLY 291. Exploring multication side chain anion exchange membranes with varied backbones. L. Zhu

8:35 POLY 292. Chemical stability and ion transport in polymerized ionic liquid anion exchange membranes. K. Meek, J. Nykaza, R. Sun, C.L. Willis, Y.A. Elabd

9:00 POLY 293. Redox-active covalent organic frameworks for pseudocapacitive electrochemical energy storage. C.R. Mulzer, W. Dichtel

9:25 POLY 294. Polymer blend electrolytes. N.A. Lynd

9:55 POLY 295. Unraveling the mechanisms of low creep UHMWPE fibers. G. De Cremer, J. Severn, R. Berthoud, A. Philippaerts, T. Engels, P. Rozeboom

10:25 Intermission.

10:40 POLY 296. High performance lithium metal anode with a soft and flowable polymer coating. J. Lopez, A. Pei, Y. Cui, Z. Bao

11:05 POLY 297. Ion transport in homogeneous and nanostructured polymer electrolytes. K. Timachova, N.P. Balsara

11:30 POLY 298. Ionic liquid block polymer membranes: High strength and high conductivity. T.P. Lodge, S. Chopade, M. Hillmyer

Section G

Marriott Marquis Washington, DC
Marquis Salon 14

General Topics: New Synthesis & Characterization of Polymers

B. Barkakaty, D. Garcia, *Organizers*

J. P. Edwards, S. Percec, *Presiding*

8:00 POLY 299. Polycyclobutane (PCB) synthesized via photoreaction. Q.R. Chu

8:20 POLY 300. Effect of confined nanostructure on oxidative coupling polymerization of 3-hexylthiophene in the presence of FeCl₃ particles. T. Hirai, Y. Nagae, M. Mukai, K. Kamitani, M. Nishibori, A. Takahara

8:40 POLY 301. Photoredox ring-opening polymerization of O-carboxyanhydride. R. Tong, Q. Feng

9:00 POLY 302. Lower hydrophobicity maximizes bactericidal activity and minimizes toxicity of peptidomimetic polyurethanes. S. Mankoci, C. Peng, E. Chamsaz, H.A. Barton, A. Joy

9:20 POLY 303. Computational study of photo- and redox-switchable ring-opening metathesis polymerization (ROMP). H. Shao, D.N. Lastovickova, A. Teator, G. Lu, P. Liu, C. Bielawski

9:40 POLY 304. Withdrawn.

10:00 POLY 305. Novel fluorinated 2-alkyl-2-oxazolines: Three-fold increasing of reactivity in polymerization reaction. L. Kaberov, B. Verbraeken, A. Riabtseva, J. Brus, P. Stepanek, R. Hoogenboom, S. Filippov

10:20 POLY 306. Dihydropyridazine and pyridazine polymers through click modification of polybutadienes with tetrazines. D.A. Loy, R.E. Bagge

10:40 POLY 307. Withdrawn.

11:00 POLY 308. Synthesis of regio- and stereoregular polymers via living ring-opening metathesis polymerization of biorenewable monomers accessed via Diels-Alder chemistry. M. Naguib, D. Keddie

11:20 POLY 309. Organocatalyzed synthesis of polythioethers. N. Park, J. Hedrick

11:40 POLY 310. Radical (Co)polymerization of cyclic ketene acetals. A. Tardy, M. Maresca, D. Letourneur, D. Gigmes, C. Lefay, J. Nicolas, Y. Guilleauef

Section H

Marriott Marquis Washington, DC
Shaw

Journey to Mars: Materials, Energy & Life Sciences

Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YOC†

C. J. Brumlik, G. L. Rodriguez, *Organizers*

M. A. Meador, *Organizer, Presiding*

8:30 Introductory Remarks.

8:40 POLY 311. Development of carbon nanotube composites for aerospace applications. E.J. Siochi

9:10 POLY 312. Role of computational materials research in the development of light-weight, high-strength carbon nanotube composites for space exploration. K. Wise

- 9:40 POLY 313.** What yields high-performance CNT materials? M. Pasquali
- 10:10** Intermission.
- 10:30 POLY 314.** Multi-responsive and multi-use polymeric materials. S.J. Rowan
- 11:00 POLY 315.** Towards higher-performance materials for 3D printing with SLA: Accessing 3D structures of highly aromatic, engineering polyimides. M. Hegde, V. Meenakshisundaram, C. Arrington, N. Chartrain, S. Sekhar, D. Tatti, C. Williams, T.E. Long
- 11:30 POLY 316.** Novel polyimide battery separator imbedded with room-temperature ionic liquids. R. Viggiano, M. Meador

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

Sponsored by CHED, Cosponsored by ANYL, BMGT, CELL, COLL, POLY and PRES

TUESDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Marquis Ballroom Salon 7

8th Symposium on Controlled Radical Polymerization

Financially supported by Army Research Office, Anton Paar, Millipore-Sigma, Boron Molecular, Tosoh Bioscience, Kaneka, PPG

H. Gao, K. Matyjaszewski, B. S. Sumerlin, N. V. Tsarevsky, *Organizers*

F. E. Du Prez, G. Haifeng, *Presiding*

- 1:00 POLY 317.** One-step nitroxide-mediated polymerization for recyclable, reprocessable crosslinked polymer and polymer composite networks with full property recovery and design of unusually uniform polymer networks. J.M. Torkelson, K. Jin, L. Li
- 1:25 POLY 318.** Advanced macromolecular architectures from RAFT polymerization. S. Perrier
- 1:50 POLY 319.** Use of biphasic microemulsion on regulating polymer-polymer reactions in CRP. H. Gao
- 2:15 POLY 320.** Influence of molecular weight distribution shape on polymer properties. B.P. Fors
- 2:40 POLY 321.** Manipulating polymers' functionality and topology thanks to thiol chemistry. C. Teulère, M. Le Neindre, R. Nicolay
- 3:05** Intermission.
- 3:20 POLY 322.** Sequence control of macromers via iterative sequential and exponential growth. M.J. Monteiro, F. Amir, Z. Jia
- 3:45 POLY 323.** From double endgroup modification to precision macromolecular line-ups. F.E. Du Prez
- 4:10 POLY 324.** Ultra-small polymer nanostructures from random/statistical copolymers by controlled radical polymerizations. G. Sun, L. Su, H. Luehmann, K. Seetho, S. Cho, X. He, R. Li, Y. Liu, K.L. Wooley
- 4:35 POLY 325.** Sequence-controlled polymers by using a latent monomer-based strategy. Y. Ji, L. Zhang, Z. Zhang, X. Zhu

- 5:00 POLY 326.** Multidentate block copolymer strategy to fabricate aqueous colloids of iron oxide nanoparticles for magnetic resonance imaging contrast enhancement. J.K. Oh

Section B

Marriott Marquis Washington, DC
Marquis Ballroom Salon 8

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Polysaccharide-Based Materials

Cosponsored by AGFD, CELL and PMSE

H. Cheng, R. A. Gross, P. B. Smith, *Organizers*
C. Weder, *Presiding*

- 1:00 POLY 327.** Polymer nanocomposites with cellulose nanocrystals. C. Weder
- 1:25 POLY 328.** Cellulose nanocrystals towards high-performance polymeric materials. J. Raquez, R.A. Gross, S. Spinella, F. Khelifa, P. Dubois
- 1:50 POLY 329.** Sustainable barrier materials based on polysaccharides in polyelectrolyte complexation. J.M. Catchmark, S. Basu
- 2:15 POLY 330.** Greener surface-active polymers from naturally occurring polysaccharides: Synthesis, characterization, cytotoxicity and biodegradability. R.S. Sharma, Z. Mohd Aris, M. Pelletier, A. Barbeau, P. Gaines, R. Nagarajan
- 2:35 POLY 331.** Expanding the arsenal of sustainable polysaccharide derivatives via click (thiol-Michael) and click-like (olefin cross-metathesis) reactions. Y. Dong, X. Meng, B.L. Nichols, K.J. Edgar
- 3:00** Intermission.
- 3:15 POLY 332.** High performance biomass-based plastics synthesized from various natural and unnatural polysaccharide. T. Iwata
- 3:40 POLY 333.** Biosynthesis of ultra thin nano fibrous bacterial cellulose (BC) film for new applications. F. Liu, M.H. Ibrahim, A. Maiorana, M. McMaster, L. Li, S. Mekala, K. Peters, C. Kee, K.D. Singer, N. Koratkar, R.A. Gross
- 4:00 POLY 334.** Production of bacterial nanocellulose from waste fiber sludge and its use in papermaking. G. Chen, G. Wu, F. Hong, L. Jonsson
- 4:20 POLY 335.** Synthesis and characterization of CO₂ responsive cellulose nanocrystals via RAFT-mediated graft modification. J. Arredondo, P. Jessop, P. Champagne, M.F. Cunningham

Section C

Marriott Marquis Washington, DC
Marquis Ballroom Salon 9

Metallo-Supramolecular & Metal Containing Polymers

Metal-Containing Polymers

Cosponsored by PMSE†

Financially supported by TOI (Tokyo Chemical Industry), microdrop Technologies GmbH, SmartDyeLivery GmbH

I. Manners, G. R. Newkome, U. S. Schubert, *Organizers*, *Presiding*

- 1:30 POLY 336.** New functional materials by modification of polyolefins with boron. F. Jaekle

- 2:00 POLY 337.** Shape-memory polymers based on orthogonally bound interpenetrated supramolecular networks. J. Sautaux, S. Balog, L. Montero de Espinosa, C. Weder
- 2:20 POLY 338.** Supramolecular block copolymer networks with metal-metal complexation. E. Dormidontova
- 2:40 POLY 339.** Dynamic molecular switching of helical metal complexes by a combination of external stimuli. H. Miyake
- 3:10** Intermission.
- 3:40 POLY 340.** Dynamics of metal-ligand interactions: How to design self-healing metallopolymers. S. Bode, M. Enke, M.D. Hager, U.S. Schubert
- 4:00 POLY 341.** Creation of π -conjugated polymers having unique elements-blocks via organotitanium polymers. H. Nishiyama, F. Zheng, Y. Matsumura, S. Inagi, I. Tomita
- 4:20 POLY 342.** From structure to function: Exploring applications for metal-containing polymer and related systems. R. Ahmed, A. Priimagi, P. Wolanin, X. Li, L. MacFarlane, I. Manners, C.F. Faul

Section D

Marriott Marquis Washington, DC
Mount Vernon Square

Polymers at the Interface with Biology

Financially supported by Biomacromolecules (ACS Publications)

T. J. Deming, H. A. Klok, *Organizers*, *Presiding*

- 1:00 POLY 343.** Adaptable hydrogels with secondary reinforcement for regenerative medicine. S.C. Heilshorn, H. Wang
- 1:30 POLY 344.** Segmental bone defect regeneration using polymers: Doing what many said could not be done. M. Becker
- 2:00 POLY 345.** Tailoring polymer structure for immunity. L.L. Kiessling
- 2:30** Intermission.
- 2:45 POLY 346.** Polyelectrolyte complex mimics of membraneless organelles. M.V. Tirrell, A. Marciel
- 3:15 POLY 347.** Polymer-lipid amphiphiles as carriers for vaccine antigens and immunomodulators. D.J. Irvine
- 3:45 POLY 348.** Self-assembly of heterogeneous polymers and biomolecules. M. Olvera De La Cruz
- 4:15 POLY 349.** Self-assembled protein nanocomplexes for intracellular antibody delivery. S. Lim, C. Lukianov, A. Dhankher, J. Champion

Section E

Marriott Marquis Washington, DC
Marquis Salon 15

Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Heteroatom Systems

Cosponsored by INOR and PMSE†

Financially supported by Army Research Office, Strem, TA Instruments, Rutgers PolyRUN

F. Jaekle, K. J. Noonan, A. Pietrangolo, *Organizers*

R. S. Klausen, G. Sauve, *Presiding*

- 1:30 POLY 350.** Nonconventional luminogens with AIE characteristics. B. Tang

- 2:00 POLY 351.** Tailoring of electronic properties via intramolecular N \rightarrow B-coordination in conjugated π -systems. F.D. Pammer

- 2:25 POLY 352.** Unique solid-state luminescent properties of flexible "element-blocks" with group 13 elements. K. Tanaka, Y. Chujo

- 2:50 POLY 353.** Innovative organoboron building blocks for conjugated materials. F. Jaekle, X. Yin, K. Liu

- 3:15** Intermission.

- 3:35 POLY 354.** Anodic halogenation of thiophene and selenophene rings in conjugated polymers. S. Inagi, N. Shida, H. Nishiyama, I. Tomita

- 4:00 POLY 355.** Benzoxaphospholes and related materials as luminescent materials. J.D. Protasiewicz

- 4:25 POLY 356.** π -Conjugated materials featuring chemically functional phosphorus moieties: Synthesis, characterization and potential sensor applications. D.P. Gates

Section F

Marriott Marquis Washington, DC
Judiciary Square

Mark Scholars Award in honor of Christopher Bowman

C. J. Kloxin, N. Peppas, *Organizers*, *Presiding*

- 1:00 POLY 357.** Understanding spatial and temporal concentration profiles in polymerization reactions initiated in air-saturated aqueous solutions by eosin and tertiary amines. H.D. Sikes
- 1:25 POLY 358.** Polyelectrolytes in multivalent ionic media: New physics and new materials. M.V. Tirrell
- 1:55 POLY 359.** Information-directed assembly of dynamic covalent molecular ladders. T.F. Scott, T. Wei, J.C. Furgal
- 2:20 POLY 360.** Pixelated polymers: Directing the self-assembly of liquid crystalline networks. T.J. White, A. Auguste, B. Donovan, N.P. Godman, T. Guin, B. Kowalski
- 2:50** Intermission.
- 3:00 POLY 361.** Photo-induced pinocytosis in synthetic vesicles. D. Konetski, D. Zhang, C. Bowman
- 3:25 POLY 362.** A new photoresist based on an "unzipping" polyester. C.G. Willson, A. Lane, W. Joo, D. Liu, K. Matsuzawa, W. Wang, B. Cassidy, S.T. Phillips, A. Dick, R.A. Mesch
- 3:55 POLY 363.** Clicking together modular peptide assemblies. C.J. Kloxin

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4:20 POLY 364. Power of light in polymer chemistry: Smart, functional polymer materials formed by and interacting with light. **C. Bowman**

Section G

Marriott Marquis Washington, DC
Marquis Salon 14

General Topics: New Synthesis & Characterization of Polymers

B. Barkakaty, D. Garcia, Organizers

P. Das, A. L. Liberman-Martin, Presiding

1:00 POLY 365. Cytosine and ureido-cytosine acrylic triblock copolymers: Mechanical and morphological study on ABA triblock copolymers. **X. Chen, R.B. Moore, T.E. Long**

1:20 POLY 366. Mixed [2 : 6] hetero-arm star polymers based on Janus POSS with precisely defined arm distribution. **Y. Shao, S. Han, J. Xu, S. Yang, J. He, W. Zhang**

1:40 POLY 367. Preparation and cross-linking of all-acrylamide diblock copolymer nano-objects via polymerization-induced self-assembly in aqueous solution. **S. Byard, M. Williams, B.E. McKenzie, A. Blanzas, S.P. Armes**

2:00 POLY 368. Synthesis and self-assembly of brush block polymers with low T_g side chains. **A.L. Liberman-Martin, C. Chu, R.H. Grubbs**

2:20 POLY 369. Synthesis and self-assembly of graft polymers with variable grafting density. **T. Lin, A. Chang, R.H. Grubbs**

2:40 POLY 370. Synthesis and characterization of phospho-carborane containing ROMP based polymers. **G. Kahraman, T. Eren, E. Hey-Hawkins, M. Gallei**

3:00 POLY 371. Synthesis of sugar-based poly(D-glucose carbonate) bottle-brushes towards tunable nano-morphologies in aqueous solution. **M. Dong, L. Su, H. Wang, R.A. Letteri, J.A. Flores, Y. Chen, Y. Song, K.L. Wooley**

3:20 POLY 372. Heterofunctional thiol-ene polymerizations for the synthesis of sequence-ordered, biomimetic polymers. **D. Love, K. Kim, J.T. Goodrich, B. Fairbanks, W. Xi, B.T. Worrell, S. Pattanayak, M.P. Stoykovich, C. Musgrave, C. Bowman**

3:40 POLY 373. Utilizing hypervalent iodine compounds in the synthesis of branched polymers. **R. Kumar, N.V. Tsarevsky**

4:00 POLY 374. Controlled synthesis of isotactic poly(propylene oxide) using a bimetallic catalyst and chain shuttling agents. **L.S. Morris, I. Childers, G.W. Coates**

4:20 POLY 375. Comparison of graft block copolymers synthesized by grafting-from and grafting-through. **M.J. Maher, H. Schibur, F.S. Bates**

4:40 POLY 376. Combined effect of side chain flexibility and hydrogen-bonding originated supramolecular crosslinking on polyester properties. **Q. Liu, C. Wang, Y. Guo, C. Peng, S. Kaur, A. Joy**

Section H

Marriott Marquis Washington, DC
Shaw

Journey to Mars: Materials, Energy & Life Sciences

Cosponsored by ANYL \ddagger , BMGT \ddagger , COLL \ddagger , ENVR \ddagger , FLUO \ddagger , PMSE \ddagger , PRES, SCHB \ddagger and YCC \ddagger

M. A. Meador, G. L. Rodriguez, Organizers

C. J. Brumlik, Organizer, Presiding

1:00 POLY 377. Technology advances for the journey to Mars: An industry perspective. **C. Brumlik**

GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health

Sponsored by CHED, Cosponsored by ANYL, BMGT, CELL, COLL, POLY and PRES

TUESDAY EVENING

Section A

Walter E. Washington Convention Center
Hall E

8th Symposium on Controlled Radical Polymerization

Financially supported by Army Research Office, Millipore-Sigma, Anton, Paar, Boron Molecular, Tosoh Bioscience, Kaneka, PPG

H. Gao, K. Matyjaszewski, B. S. Sumerlin, N. V. Tsarevsky, Organizers

6:00 - 8:00

POLY 378. Universal tetherable initiator for metal oxide surfaces. **J. Yan, X. Pan, Z. Wang, Z. Lu, L. Liu, J. Zhang, C. Ho, M.R. Bockstaller, K. Matyjaszewski**

POLY 379. Analysis of reaction order, surface mechanisms, and temperature effects in SARA ATRP. **K.F. Augustine, T. Ribelli, M. Fantin, P. Krysz, K. Matyjaszewski**

POLY 380. Mechanically switchable atom transfer radical polymerization using low ppm of catalyst. **Z. Wang, X. Pan, J. Yan, S.D. Silab, H. Xia, K. Matyjaszewski**

POLY 381. Direct ATRP of methacrylic acid with mesohemim based catalysts. **L. Fu, A. Simakova, Y. Wang, M. Fantin, S. Li, K. Matyjaszewski**

POLY 382. Polymer brushes grafted from cellulose with controlled grafting densities. **L. Li, G. Xie, W.F. Daniel, A. Keith, B. Morgan, S. Sheiko, K. Matyjaszewski**

POLY 383. Heterografted molecular brushes as macromolecular surfactants. **G. Xie, P. Krysz, R.D. Tilton, K. Matyjaszewski**

POLY 384. Supersoft networks based on crystalline triblock molecular bottlebrushes. **G. Xie, W.F. Daniel, M. Vatanikhah Varnooostaderani, J. Burdyska, Q. Li, D. Nykpanchuk, O. Gang, K. Matyjaszewski, S. Sheiko**

POLY 385. Nitrogen-enriched mesoporous carbons from PAN-based block copolymers and bottlebrushes. **R. Yuan, M. Kopeck, E. Gottlieb, G. Xie, C. Abreu, Y. Song, T. Kowalewski, K. Matyjaszewski**

POLY 386. Synthesis and design of smart protein-polymer biohybrids via ATRP in water. **A.E. Enciso, S. Carmali, A. Simakova, A.J. Russell, K. Matyjaszewski**

POLY 387. Ab-initio emulsion ATRP via ion-pair and interfacial catalysis. **M. Fantin, F. Lorandi, Y. Wang, P. Chmielarz, A. Gennaro, A. Ahmed Isse, K. Matyjaszewski**

POLY 388. Synthesis and characterization of -NMe₂ substituted pyridine based ligand for ATRP catalysts. **T. Ribelli, M. Fantin, P. Krysz, R. Poli, K. Matyjaszewski**

POLY 389. Phototunable structurally tailored and engineered macromolecular (STEM) gels. **J.L. Cuthbert, K. Matyjaszewski**

POLY 390. Nanoporous carbon nanospheres templated from polyacrylonitrile particle brushes by surface-initiated atom transfer radical polymerization (SI-ATRP). **J. Zhang, R. Yuan, J. Lee, Z. Wang, J. Yan, D. Luo, M.R. Bockstaller, K. Matyjaszewski**

POLY 391. Visible light-induced atom transfer radical polymerization. **S. Dadashi Silab, X. Pan, K. Matyjaszewski**

POLY 392. RAFT polymerization initiated by electrochemical reduction of diazonium salt. **Y. Wang, M. Fantin, S. Park, K. Matyjaszewski**

POLY 393. AutoATRP: Automated synthesis of DNA-polymer hybrids. **S. Lathwal, X. Pan, S. Mack, J. Yan, S.R. Das, K. Matyjaszewski**

POLY 394. Carbon coated ZnO nanoparticles from polymer capped ZnO nanocrystals. **Z. Wang, S. Liu, Y. Zhao, J. Yan, C. Mahoney, R. Ferebee, M.R. Bockstaller, K. Matyjaszewski**

POLY 395. Computational studies of copper-catalyzed and photoinduced metal-free atom transfer radical polymerization. **C. Fang, X. Pan, M. Fantin, A. Gennaro, K. Matyjaszewski, P. Liu**

POLY 396. Ligand effects in the Cu-mediated ATRP of butadiene. **H. Yu, V. Vasu, J. Kim, A.D. Asandei**

POLY 397. Effect of alkyl halide initiator structure in the Cu-catalyzed ATRP of butadiene. **H. Yu, J. Kim, V. Vasu, A.D. Asandei**

POLY 398. Iodine transfer polymerization of vinylidene fluoride with transition metal carbonyls under visible light. **J. Kim, C.P. Simpson, V. Vasu, A.D. Asandei**

POLY 399. Synthesis of PVDF block copolymers by the quantitative radical activation of both PVDF-CH₂-CF₂-I and PVDF-CF₂-CH₂-I chain ends with transition metal carbonyls under visible light. **V. Vasu, C.P. Simpson, J. Kim, A.D. Asandei**

POLY 400. UCST-type thermosensitive linear ABA triblock copolymer hydrogels. **W. Fu, B. Zhao**

POLY 401. Sequence-controlled vinyl polymers with bulky and transformable vinyl monomer. **D. Oh, M. Ouchi, M. Sawamoto**

POLY 402. Molecular design toward advanced control of alternating sequence based on radical alternating copolymerization. **K. Nishimori, M. Ouchi, M. Sawamoto**

POLY 403. In-chain ring and amphiphilic polyacrylamides: From precision synthesis to controlled self-assembly and functions. **Y. Kimura, T. Terashima, M. Sawamoto**

POLY 404. Bio-based functional styrene monomers derived from naturally occurring ferulic acid for poly(vinylcatechol) and poly(vinylguaiaacol) via controlled radical polymerization. **H. Takeshima, K. Satoh, M. Kamigaito**

POLY 405. Metal-free cooperative hydrogenation of RAFT chain end using hydrosilane and thiol. **M. Uchiyama, K. Satoh, H. Ida, M. Kamigaito**

POLY 406. One pot synthesis of structurally controlled hyper-branched polymers by using a stimuli-responsive monomer. **Y. Lu, S. Yamago**

POLY 407. Synthesis and morphology control of Ni(II)-NTA-end-functionalized block copolymer. **C. Lee, D. Park, M. Chae, M. Kadir, J. Choi, J. Song, H. Paik**

POLY 408. Functionalization of reduced graphene oxide using thiol-ene reaction of RAFT polymerized polymer. **M. Kwon, T. Lee, H. Paik**

POLY 409. Facile route to synthesis of bicyclic polystyrene using ATRP and click chemistry by one-pot. **J. Ye, T. Lee, H. Choi, J. Jeong, H. Paik**

POLY 410. Cobalt complexes supported by soft-hard mixed donor chelating ligands as mediators in radical polymerization. **C. Fiedel, Y.K. Redjel, J. Daran, R. Poli**

POLY 411. Polymerization of less active monomers mediated by pentadentate (O,S,N,S,O) cobalt complexes. **L. Thevenin, C. Fiedel, R. Poli, J. Daran**

POLY 412. Metal migration and interface structuring in catalytic nanoreactor. **F. Gayet, A. Journaa, S. Chen, E. Manoury, M. Lansalot, F. D'Agosto, R. Poli**

POLY 413. Alkyl and fluoroalkyl manganese pentacarbonyl complexes as models of OMRP dormant species. **R. Morales Cerrada, J. Daran, F. Gayet, C. Fiedel, V. Ladmiraal, R. Poli, B.M. Ameduri**

POLY 414. Core cross-linked miktoarm star polymers via RAFT polymerization for drug delivery across biological barriers. **S.R. Vanarasi, K. Tuck, J. Chieffari, N.R. Cameron**

POLY 415. Designing poly(vinylidene fluoride)-based architectures by reversible addition-fragmentation transfer (RAFT) process. **M. Guerre, B.M. Ameduri, V. Ladmiraal**

POLY 416. Engineering materials for bio-applications. **Y. Li, C. Boyer, F. Xu**

POLY 417. Anodic fragmentation of alkoxyamines: Generating nitroxides with electricity. **B.B. Noble, L. Zhang, S. Ciampi, M.L. Cootie**

POLY 418. Color-coding visible-light polymerizations to elucidate mechanisms. **C.A. Figg, J.D. Hickman, G. Scheutz, S. Shanmugam, B.S. Tucker, R. Carmean, C. Boyer, B.S. Sumerlin**

POLY 419. Controlled radical polymerization of t-BoC protected styrenic sulfides: Chalcogenide hybrid inorganic/organic polymers (CHIPS) with phototunable refractive indices for integrated optics. **T. Kleine, R. Himmelhuber, R.A. Norwood, J. Pyun**

POLY 420. Realizing biomimetic binding motifs for nano cellulose (NC) via CRP. **S.R. Mane**

POLY 421. Directing oxidative folding of single polymer chain by sequence-controlled polymerization. **E. Schue, J. Lutz, H. Boerner**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

- POLY 422.** Nitroxide-mediated polymerization: A versatile platform for telechelic redoxactive polymers and efficient polymer-based photosystems. **M. Jaeger**, R. Schroot, T. Schlotthauer, U.S. Schubert
- POLY 423.** Thermally-induced exchange of copolymer chains between spherical diblock copolymer nanoparticles. **E. Cornel**, S.P. Armes
- POLY 424.** H₂O₂ enables convenient removal of RAFT end-groups from block copolymer nano-objects prepared via polymerization-induced self-assembly in water. **C.P. Jesson**, V. Cunningham, J. Lovett, M.J. Smalridge, N.J. Warren, S.P. Armes
- POLY 425.** Withdrawn.
- POLY 426.** Well-defined grafted copolymers using single unit insertion and chain extension by RAFT. **G. Moriceau**, G. Gody, M. Hartlieb, J. Winn, H. Kim, A. Mastrangelo, T. Smith, S. Perrier
- POLY 427.** Nitroxide-mediated radical ring opening polymerization of cyclic ketene acetals. **A. Tardy**, D. Gignes, C. Lefay, J. Nicolas, **Y. Guillauneuf**
- POLY 428.** Radical ring-opening polymerisation: New and improved monomer synthesis for polyesters from a self-controlled radical polymerisation. **J. Gaitsch**, J. Folini, J.C. Anderson, W. Meier
- POLY 429.** Recyclable sulfonamide "polysoaps" via RAFT copolymerization for removal of hydrocarbon impurities from water for remediation applications. **P.D. Pickett**, C.R. Kasprzak, B. Abel, M. Dearborn, C.L. McCormick
- POLY 430.** Synthesizing functional materials through palladium catalyzed post-polymerization modification. **D.H. Howe**, R. McDaniel, A.J. Magenau
- POLY 431.** Radical depolymerization of poly(olefin-sulfones). **R.D. Fenyes**, J. Yan, D. Wells, L. Wang, H. Park, Z. Wang, X. Pan, C.J. Bettinger, K. Matyjaszewski
- POLY 432.** Synthesis and characterization of gradient copolymers made by semi-batch reversible-deactivation radical polymerizations. **I. Alshehri**, D.A. Shipp
- POLY 433.** Synthesis of block copolymers containing urea and pyridinium: A synergy of hydrogen bonding and ionic interactions. **M. Chen**, S. Talley, L. Anderson, R.B. Moore, T.E. Long
- POLY 434.** ARB-type step-growth polymerization using CuAAC (copper catalyzed azide-alkyne cycloaddition) with sequence-controlled monomers synthesized by atom transfer radical addition (ATRA) and polymerization (ATRP). **G.J. Pros**, T. Pintauer
- POLY 435.** Withdrawn.
- POLY 436.** Withdrawn.
- ### Section A
- Walter E. Washington Convention Center Hall E
- ### Advances in Wettability & Adhesion
- Financially supported by Polymer International
- S. T. Iacono, A. Kota, *Organizers*
- 6:00 - 8:00**
- POLY 437.** Free-standing, flexible, superomniphobic films. **H. Vahabi**, W. Wang, S. Movafaghi, A. Kota
- POLY 438.** Metamorphic superomniphobic surfaces. **H. Vahabi**
- POLY 439.** Droplet manipulation to detect surface tension. **S. Movafaghi**, W. Wang, A. Metzger, D.D. Williams, J.D. Williams, A. Kota
- POLY 440.** Wetting transitions in polymer nanograsses and restoring superhydrophobicity by skin shedding. **R. Hönes**, V. Kondrashov, H. Huai, J. Rühle
- POLY 441.** Surface and interfacial structure of alkyl-side-chain polymer film and its correlation with the peel force. **F. Mori**, S. Kabashima, T. Kawakami, T. Yamamoto, T. Miyamae, K. Iimura
- POLY 442.** Michael addition as a means to design solvent-free adhesives: Networks based on reactive telechelic oligomers. **T. White**, A. Schultz, M. Chen, P.J. Scott, T.E. Long
- POLY 443.** Elucidating dopamine adhesion via surface chemistry. **S. Xu**, Y. Zhou, M. Le, **W. Chen**
- POLY 444.** Stimuli-responsive electrospun superhydrophobic fabrics and their applications. **H. Lim**
- POLY 445.** Water droplet impact on slippery liquid infused porous surface (SLIPS). **Y. Liu**, N. Zacharia
- POLY 446.** Cellulose fiber wettability: Effects of fiber alignment and acid sizing. **H. Kim**, M. McGath, A. Hall, P. McGuiggan
- POLY 447.** Robust and elastic polymer membrane with tunable properties for gas separation. **B. Li**, P. Cao, T. Hong, K. Xing, D.N. Voylov, S. Cheng, A. Kisliuk, S.M. Mahurin, A.P. Sokolov, T. Saito
- POLY 448.** Withdrawn.
- POLY 449.** Role of calcium chloride in promoting water-responsive behavior in elastomeric foams. **G. Gedler**, **B. Zhao**, S.J. Rowan, I. Manas-Zloczower, D.L. Fekke
- POLY 450.** Block copolymers containing fluorinated polyurethanes as hydrophobic/oleophobic additives to thermoplastics. **L. Wei**, T. Demir, P. Brown, I.A. Luzinov
- POLY 451.** Understanding self-healing function in cement-polymer composites: Ab initio molecular dynamics simulations. **M. Nguyen**, V. Glezakou, R. Rousseau, C. Fernandez
- POLY 452.** Robust and durable lubricant coating surfaces with excellent liquid-repellent property. **C. Zhang**
- ### Section A
- Walter E. Washington Convention Center Hall E
- ### General Topics: New Synthesis & Characterization of Polymers
- B. Barkakaty, D. Garcia, *Organizers*
- 6:00 - 8:00**
- POLY 453.** Comparison of HPLC and UHPLC analysis of polymer additives with PDA and mass detection. **J. Gough**, M. Twohig, **M. Jones**
- POLY 454.** Sequence analysis of cyclic thermoresponsive polyester copolymers using ion mobility tandem mass spectrometry. **N. Alexander**, J.P. Swanson, C. Hoffman, C. Wesdemiotis, A. Joy
- POLY 455.** HPMA-based drug delivery system and its interactions of human serum albumin: SAXS, ITC, and NMR study. **S. Filippov**, **L. Kaberov**, X. Zhang, B. Niebuur, P. Chytil, T. Etrych, F. Wieland, N. Velychikivska, L. Starovoytova, D. Svergun, C.M. Papadakis
- POLY 456.** Coupled UV-Vis/FT-NIR spectroscopy for the real-time investigation of photopolymerization kinetics using mixed photoinitiating systems. **K. Childress**, D. Glugla, J.W. Stansbury
- POLY 457.** Kinetic study of polymerization of furfuryl methacrylate using electron spin resonance. **K. Kim**, T. Lee, A. Kajiwara, H. Paik
- POLY 458.** Spectroscopic analysis of random tetra-polymer: Poly(PMI-AMS-AN-St). **D. Kim**, H. Paik, B. Kim
- POLY 459.** Dynamic analysis of responsive liquids in elastic coaxial nanofibers. **J. Lundin**, D. Ratchford, R. Ananth, R. Casalini, J.H. Wynne
- POLY 460.** Withdrawn.
- POLY 461.** Design of electrochromic polymer structures based on poly(3,4-propylenedioxythiophene) s for high color contrast with long term bistability. **Y. Heo**, E. Kim
- POLY 462.** Cationic conjugated polyelectrolytes with branched side chains: Synthesis, Photophysics and Applications. **Z. Li**, Y. Huang, K.S. Schanze
- POLY 463.** Clickable conjugated polyelectrolyte platform for two-photon cell imaging. **Y. Huang**, K.S. Schanze
- POLY 464.** Chloride-promoted direct arylation polycondensation: An efficient synthesis of high molecular weight π -conjugated polymers. **S. Hayashi**, T. Koizumi
- POLY 465.** Single-ion polymer brush electrolytes for lithium metal batteries. **S. Li**, A. Mohamed, V. Pande, V. Viswanathan, J. Whitaore, K. Matyjaszewski
- POLY 466.** Controllable electrical and photonic characteristics via molecular structural variation of electroactive polymers. **W. Abousamra**, D. Yang, O. Melton, S. Isah, Y. Kim, J. Jung, S. Besic, M. Birschbach, V. Ebron, R. Mercado, P.J. Kinlen, H. Nguyen
- POLY 467.** Application of fluorescein derivatives as initiators in photopolymerization reactions of dimethacrylate resins using blue light LED. **B.H. Sacoman Torquato da Silva**, R.T. Alarcon, C. Gaglieri, G.C. Santos, G. Bannach, L.C. da Silva Filho
- POLY 468.** Synthesis of novel fluorescent polymers for the fluorescent detection of bisphenol A and its derivatives. **D. Jones**, M. Levine
- POLY 469.** Cyano-containing oligo(phenylene vinylene) chromophores in free radical polymerizations of vinyl monomers. **B. Davis**, P.D. Pickett, C.L. McCormick, J. Lott
- POLY 470.** Selective activation by substrate photoexcitation for polymer synthesis. **J.A. Kalow**
- POLY 471.** Secondary structures of PEG-functionalized rod-coil block copolymers based on (R)- and (S)-triazolepolycarbodiimides. **O.V. Kulikov**, D. Siritwardane, B.M. Novak
- POLY 472.** Small molecular study for dynamic exchange of the thiol-Michael reaction. **P. Chakma**, D. Konkolewicz, B. Zhang
- POLY 473.** Chiral recognition of optically active carboxylates using poly(phenylacetylene) with chiral receptors. **R. Sakai**, Y. Mato, S. Umeda, K. Tsuda, T. Satoh, T. Kakuchi
- POLY 474.** Structure-property relationships of ureido-cytosine and cytosine-containing copolymers. **X. Chen**, K. Zhang, R.B. Moore, T.E. Long
- POLY 475.** Withdrawn.
- POLY 476.** Synthesis and analysis of various shape of multicyclic polystyrenes. **T. Lee**, J. Oh, J. Huh, T. Chang, H. Paik
- POLY 477.** Synthesis and characterizations of phenolphthalein anilide based poly(ether sulfone) block copolymers containing quaternary ammonium and imidazolium cations as anion exchange membrane materials. **A.K. Kumar Mohanty**, N. Kim, H. Paik
- POLY 478.** Amphiphilic brush block copolymers to prevent marine biofouling. **H. Senkum**, W. Gramlich
- POLY 479.** Unified approach for surface-initiated atom transfer radical polymerization (SI-ATRP). **K. Miller**, A. Stanton, L. Kiskey, N.W. Reed, R.C. Bailey, P.V. Braun
- POLY 480.** Anionic polymerization of (E,E)-alkyl sorbate assisted by N-heterocyclic carbene (NHC). **Y. Hosoi**, A. Takasu, S. Matsuoka
- POLY 481.** Characterization of PMMA-*b*-PDMS-*b*-PMMA with stereoregular PMMA block prepared by living anionic polymerization. **H. Shimamoto**, T. Kato, M. Sato, T. Hirai, A. Takahara
- POLY 482.** Synthesis of graphene ribbons via Diels-Alder cycloadditions of poly(terphenylene ethynylene)s. **T.S. Hughes**, T. Dietsche
- POLY 483.** Block copolymers derived from polysobutylene oligomers. **Y. Fu**
- POLY 484.** Le Chatelier's principle driven depolymerization of functionalized polyisobutylene at 25° C. **C. Watson**, D. Tan, D.E. Bergbreiter
- POLY 485.** Polymer synthesis and characterization of methacrylate polymers with pendant carbazole groups. **M. Jurca**, I. Bandera, T. McFarlane, O. Klep, D. Worley, J. Vilcakova, P. Saha, S.H. Foulger
- POLY 486.** New approaches towards rational design of graft polymer architectures. **T. Lin**, A. Chang, R.H. Grubbs
- POLY 487.** Controlled ring-opening polymerization of O-carboxyanhydrides by photoredox organometallic catalysts. **Q. Feng**, R. Tong
- POLY 488.** Effect of aromatic boronic acid on characteristics of polybenzoxazine based on phenol and *p*-amino methyl benzoate. **H. Ipek**, J. Hacıoğlu

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POLY 489. Synthesis and copolymerization with styrene of novel bromo and chloro ring-disubstituted propyl 2-cyano-3-phenyl-2-propenoates. **W.S. Schjerveen**, S. Rocus, J. Bates, A.T. Boyd, J. Burke, J.L. Crosby, S.B. Sundquist, C.C. Zoleta, A.K. Zurek, P.L. Bromby, G.B. Kharas

POLY 490. Synthesis of fluorine-rich block copolymers through ring-opening metathesis polymerization and their *in-situ* micellization behavior in solution. **Y. Kim**, Y. Cho, J. Lim, K. Char

POLY 491. New functional poly-lactides for biomedical applications. **P. Kalelkar**, D.M. Collard

POLY 492. New type of biocompatible polymer: Polymeric analogue of DMSO. **S. Li**, H. Chung, A. Simakova, Z. Wang, S. Park, S. Averick, K. Matyjaszewski

POLY 493. Copolymerization and their physical properties of transparent poly(methyl methacrylate-co-isobornyl methacrylate-co-N-cyclohexylmaleimide). **K. Ko**, S. Jang, O. Kim, S. Hwang

POLY 494. Development and analysis of a thin film nanocomposite membrane: Resistance to chlorine. **A. Altahri**, H.A. Stretz

POLY 495. Electrospun transient polymer nanocomposites as rigid supports for microelectronic devices. **C. Shi**, A. Leonard, P. Ohlendorf, C.K. Ober

POLY 496. Gemini monomers: A new approach towards high performance polymeric materials. **R. Shahni**, Z. Wang, Q.R. Chu

POLY 497. Structure-property relationships of moisture permeable triphasic polyisobutylene-based thermoplastic elastomers. **J. Wu**, R.F. Storey

POLY 498. Melt stable, linear and branched polyamides for selective laser sintering applications. **J. Sirrine**, C. Chatham, C. Williams, T.E. Long

Section A

Walter E. Washington Convention Center Hall E

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Cosponsored by AGFD, CELL and PMSE

H. Cheng, R. A. Gross, P. B. Smith, *Organizers*

6:00 - 8:00

POLY 499. Effects of branch number and chain length on mechanical properties of Smart cross-linked films from star-shape poly(ϵ -caprolactone). **D.K. Saha**, M. Ebara, T. Aoyagi

POLY 500. Cross-linked films from star-shape poly(ϵ -caprolactone): Effects of branch number and chain length on elastic properties. **D.K. Saha**, M. Ebara, T. Aoyagi

POLY 501. Macromolecular properties of naturally-aged and artificially-aged paper materials characterized by chromatography and spectroscopy. **A. Davis**, A. Jones

POLY 502. Polyol and polyurethane prepared from rubber seed oil by hydroformylation. **J. Hong**, Y. Xiaojin, X. Wan, Z. Zheng, Z.S. Petrovic

POLY 503. Method for characterization and control of degradation in biopolymer thin films. **P. Anbukarasu**, D. Sauvageau, A. Elias

POLY 504. Electrospinning of biopolymers and biopolymeric composites from ionic liquids. **O. Zavgorodnya**, J.L. Shamshina, R.D. Rogers

POLY 505. Gelatin mediated polymerization of styrene in emulsion-based gels. **G. Xu**

POLY 506. Improvement reactivity of silk fibroins through covalently grafting of tyrosine-rich polypeptide. **P. Wang**, X. Zhu, L. Cui, Q. Wang, X. Fan

POLY 507. Synthesis and characterization of starch-poly (vinyl acetate) graft copolymers using horseradish peroxidase. **J. Xu**, W. Zhao, Q. Wang, X. Fan

POLY 508. Supergiant cyanobacterial exopolysaccharides, sacran, having anomalous gel properties. **M. Okajima**, T. Kaneko

POLY 509. Controlled photodegradation of biomass derived polymers. **R. Singathi**, J. Sivaguru, M.P. Sibi, D.C. Webster

POLY 510. Isocyanate-free polyurethanes based on biocompatible monomers. **A. Pekkanen**, E. Wilts, J.M. Dennis, R.J. Mondschein, T.E. Long

POLY 511. Polydopamine surface modification of membranes by enzymatic polymerization. **R. Cruz Silva**

POLY 512. Self-assembly of porphyrin conjugated sphorolipids for optoelectronic applications. **K.C. Peters**, S. Mekala, M. McMaster, F. Liu, R.A. Gross, K.D. Singer

POLY 513. Biobased oligomeric esters for personal care applications. **J. Hackenberg**, N.D. Stebbins, Y. Cao, K.E. Uhrich

POLY 514. Crosslinked cottonseed oil polymer synthesis and characterization. **R. Wijayapala**, D. Frazier, B. Elmore, C. Freeman, S. Kundu

POLY 515. Effective manipulation of reaction thermodynamics using H-bonding catalysts. **P. Datta**, J. Pothupitiya, M.K. Kiesewetter

POLY 516. Bisphenol A diglycidyl ether-based aromatic non-isocyanate polyurethane. **J. Hong**, O. Bilic, I.J. Javni, J.M. Messman

Section A

Walter E. Washington Convention Center Hall E

Journey to Mars: Materials, Energy & Life Sciences

Cosponsored by MPPG

C. J. Brumlik, M. A. Meador, G. L. Rodriguez, *Organizers*

6:00 - 8:00

POLY 517. Synthesis of siloxane-based cyanate ester elastomers for potential use in high temperature and insulating applications. **A.R. Jennings**, A.M. Morey, A.J. Guenther, S.T. Iacono

POLY 518. Role of isomeric polyamic diacrylate ester precursors on morphology and mechanical properties of 3D printed PMDA-ODA. **C. Arrington**, M. Hegde, V. Meenakshisundaram, C. Williams, T.E. Long

POLY 519. Gel-like carbon dots. **Y. Zhou**, R.M. Leblanc

POLY 520. Flexible polyimide aerogels for use as substrates for conformal, lightweight antennas. **J. Cashman**, M. Meador, B. Nguyen, H. Guo, B. Delong

POLY 521. Improving the Processing Characteristics of Cyanate Ester Monomers for Production of Spacecraft Structures. **A.J. Guenther**, G. Yandek, M.C. Davis, J.T. Lamb, K. Lamson, M.D. Ford, J. Reams, K.B. Ghiassi, D. Soto, J.A. Boatz, J.M. Mabry

POLY 522. Introduction of Long Chain Branching in Poly(ether imide)s: Branched Architectures for Improved Melt Processability. **J. Wolfgang**, J.M. Dennis, T.E. Long, R. Odle

Section A

Walter E. Washington Convention Center Hall E

Materials at the Food-Energy-Water Nexus: Polymers for Soils to Sensors

Financially supported by National Science Foundation

F. V. Bright, P. Edmiston, M. Jeffries-El, T. E. Long, *Organizers*

6:00 - 8:00

POLY 523. Polyester-based photocatalytic nanocomposite microsponges for water treatment. **M.C. Trentle**, F. Liu, V.A. Kozlovskaya, E.P. Kharlampieva

Section A

Walter E. Washington Convention Center Hall E

Metallo-Supramolecular & Metal Containing Polymers

Cosponsored by PMSE†

Financially supported by TCI (Tokyo Chemical Industry), microdrop Technologies GmbH, SmartDyeLivery GmbH

I. Manners, G. R. Newkome, U. S. Schubert, *Organizers*

6:00 - 8:00

POLY 524. Development of sustainable photoactive polymer systems based on metal-terpyridine ligand dynamics. **D. Jeong**, J. Lee, C. Song

POLY 525. Boron nanoparticles with intense blue fluorescence for tracking immune cells. **M. Zhuang**, C.A. DeRosa, K. Richey, M. Belanger, R.R. Pompano, C.L. Fraser

POLY 526. Self-assembly of metallo-supramolecules with concentric geometry: From second generation to fourth generation. **H. Wang**, X. Qian, X. Li

POLY 527. Way to mussel-inspired self-healing metallopolymers. **S. Bode**, M. Enke, M.D. Hager, U.S. Schubert

POLY 528. Self-assembly of emissive tetraphenylethylene-based supramolecular rosettes. **G. Yin**, H. Wang, X. Li

POLY 529. Development of borinic acid polymers as new supported catalysts and multi-stimuli responsive materials. **M.K. Baraniak**, W. Wan, F. Jaekle

POLY 530. Supramolecular alternate co-assembly driven by metallophilic Pt...Pt interactions. **G. Zhao**

POLY 531. Immobilized stimuli-responsive metallopolymers and preceramic block copolymer architectures. **C. Rüttiger**, M. Gallei

POLY 532. Boron-functionalized polymers: BN-substituted polyolefins and poly(Lewis acids). **H. Lin**, W. Wan, A. Baggett, F. Cheng, S. Liu, F. Jaekle

Section A

Walter E. Washington Convention Center Hall E

Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

F. Jaekle, K. J. Noonan, A. Pietrangelo, *Organizers*

6:00 - 8:00

POLY 533. Side-chain oligothiophene-containing polymers for dielectrics. **T. Zhu**, C. Tang

POLY 534. Organoboron chelate based luminescent polymers. **A.F. AlAhmadi**, F. Jaekle

POLY 535. Conjugated polyelectrolytes for dye-sensitized solar cell applications. **R. He**, C.J. Zeman, Z. Pan, K.S. Schanze

POLY 536. Reduction of bacterial attachment on ceramic surfaces: Using amphiphilic molecules to enhance surface retention and prevent attachment. **J. Marine**, C. Myers, K. Uhrich

Section A

Walter E. Washington Convention Center Hall E

Polymer Mechanochemistry

Cosponsored by PMSE

A. J. Boydston, A. P. Goodwin, J. Moore, M. Silberstein, *Organizers*

6:00 - 8:00

POLY 537. SEC/MALS/VISC/DRI study of mechanochemical copolymer degradation. **A.M. Striegel**, M.J. Morris

POLY 538. Mechanochromic block copolymers based on cyclodextrin host-guest inclusion complexation. **E.A. Apebende**, G. Wenz, N. Bruns

Section A

Walter E. Washington Convention Center Hall E

Shape-Shifting Polymeric Systems

S. Sheiko, R. Verdusco, T. Ware, *Organizers*

6:00 - 8:00

POLY 539. Bio-based multi-responsive shape memory polymers using natural oils and cellulose nanocrystals. **M. Lamm**, Z. Wang, C. Tang

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

POLY 540. Tough and multi-stimuli responsive liquid crystal elastomers. H. Kim, V. Naik, S. Ramachandran, T. Ware

POLY 541. 3D printing reversible shape-changing polymeric structures. C. Ambulo, J.J. Burroughs, J. Boothby, M. Shankar, T. Ware

POLY 542. Ultrafast digital printing towards four dimensional shape changing materials. L. Huang, R. Jiang, J. Wu, J. Song, H. Bai, B. Li, Q. Zhao, T. Xie

POLY 543. Controllable porosity of stimuli-responsive polymers via additive manufacturing. J. Burroughs, C. Ambulo, J. Boothby, M. Shankar, T. Ware

POLY 544. Engineering photoresponsive polymer networks for the oral cavity. D.P. Nair, G. Kehe, M. Saraswathy

POLY 545. Exploring the uses of a two-stage thiol-acrylate reaction for liquid crystal elastomers. M. Barnes, R. Verduzco

POLY 546. Dual-cure polymer networks with improved imprintability: Engineering a first-stage supramolecular network. J.T. Goodrich

Section H

Marriott Marquis Washington, DC
Independence D/E

Journey to Mars: Materials, Energy & Life Sciences

Cosponsored by ANYL‡, BMGT‡, COLL‡, ENVR‡, FLUO‡, PMSE‡, PRES, SCHB‡ and YCC‡

C. J. Brumlik, M. A. Meador, *Organizers*

G. L. Rodriguez, *Organizer, Presiding*

4:00 Introductory Remarks.

4:15 POLY 547. The power of genomic solutions and data-driven health intelligence. J. Ventler

4:45 POLY 548. Human exploration of Mars: Challenges, opportunities and progress. J. Kavandi

5:15 Q&A.

Joint PMSE/POLY Poster Session

Sponsored by PMSE, Cosponsored by POLY

WEDNESDAY MORNING

Section A

Marriott Marquis Washington, DC
Marquis Ballroom Salon 7

8th Symposium on Controlled Radical Polymerization

Financially supported by Army Research Office, Anton Paar, Millipore-Sigma, Boron Molecular, Tosoh Bioscience, Kaneka, PPG

H. Gao, K. Matyjaszewski, B. S. Sumerlin, N. V. Tsarevsky, *Organizers*

S. Harrison, B. Klumperman, *Presiding*

8:00 POLY 549. Using addition-fragmentation chain transfer in polymer networks to achieve stress relaxation and improve material performance. C. Bowman, N. Sowan, H. Song, L. Cox

8:25 POLY 550. Sequence-controlled poly(styrene-co-maleic anhydride) via RAFT-mediated polymerization. N. Harmzen, R. Plukwa, B. Klumperman

8:50 POLY 551. One-pot quantitative functionalizations of polymers obtained by quasiliving atom transfer radical polymerization (ATRP). B. Ivan, G. Kasza, B. Pásztoi, Á. Szabó, G. Szarka, G. Káli, A. Bodor

9:15 POLY 552. Thermosensitive shape-changing binary heterografted linear molecular bottlebrushes. D.M. Henn, W. Fu, S. Mei, C. Li, B. Zhao

9:40 POLY 553. Limits of precision monomer placement in reversible deactivation radical polymerization. G. Gody, P. Zetterlund, S. Perrier, S. Harrison

10:05 Intermission.

10:20 POLY 554. Making responsive materials with controlled radical polymerization. R.B. Grubbs

10:45 POLY 555. Self-assembly and functions of amphiphilic random copolymers controlled by primary structure. T. Terashima

11:10 POLY 556. Functional copolymer architectures via reversible addition-fragmentation chain transfer (RAFT) based synthetic protocols. D. Keddie

11:35 POLY 557. Highly confined surface-initiated polymerizations for polymer brush structuring. M. Divandari, E. Dehghani, Y. Du, C. Kang, J. Pollard, J. Mandal, T. Zhang, N. Bruns, N. Spencer, R. Jordan, E. Benetti

Section B

Marriott Marquis Washington, DC
Marquis Ballroom Salon 8

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Bio-based Thermosetting Resins

Cosponsored by AGFD, CELL and PMSE

H. Cheng, R. A. Gross, P. B. Smith, *Organizers*
J. La Scala, *Presiding*

8:00 POLY 558. Biobased thermosetting resins: From (co)polymerization of benzoxazines to nanocomposites. P. Dubois

8:25 POLY 559. Bio-based epoxy resins: Design, structure and properties. A. Maiorana, S. Spinella, R.A. Gross

8:50 POLY 560. Tailoring bio-based epoxies for various applications. L. Yue, A. Patel, D. Yuan, R.A. Gross, I. Manas-Zloczower

9:15 POLY 561. Bacterial cellulose nanofiber mats as reinforcement for epoxy-anhydride systems. L. Yue

9:35 Intermission.

9:50 POLY 562. Toughened biobased epoxy nanocomposites as structural adhesives. A. Patel, O.G. Kravchenko, L. Yue, D. Yuan, R.A. Gross, I. Manas-Zloczower

10:10 POLY 563. Bio-based epoxy-TPU system for self-healing coating applications. D. Yuan, V. Solouki Bonab, R.A. Gross, I. Manas-Zloczower

10:30 POLY 564. Strategic assemblies of functionalized xylochemicals for new bio-based polymers. J.F. Stanzione

10:55 POLY 565. Plants to polyelectrolytes: Theophylline polymers and their microsphere synthesis. J. Yuan, R. Guterman

Section C

Marriott Marquis Washington, DC
Marquis Ballroom Salon 9

Metallo-Supramolecular & Metal Containing Polymers

Metal-Containing Polymers & Block Copolymers

Cosponsored by PMSE‡

Financially supported by TCI (Tokyo Chemical Industry), microdrop Technologies GmbH, SmartDyeLivery GmbH

I. Manners, G. R. Newkome, U. S. Schubert, *Organizers, Presiding*

8:00 POLY 566. Importance of radical cage effects in the photochemical degradation of polymers. D.R. Tyler, J. Barry, D. Berg

8:20 POLY 567. Supramolecular di- and triblock copolymers from protein-structural-motif mimicking telechelic building blocks. E. Elacqua, K. Manning, M. Weck

8:40 POLY 568. Block copolymers for directed synthesis of hybrid and inorganic materials. R.B. Grubbs

9:00 POLY 569. Dimension-controlled ion-pairing assemblies comprising charged metal complexes of π -electronic systems. H. Maeda

9:30 Intermission.

10:00 POLY 570. Metallo-AIEgens as functional materials. B. Tang

10:40 POLY 571. NIR-emissive conjugated polymer containing phosphorescent iridium(III) complex for imaging guided photodynamic therapy. J. Jiang, S. Liu, W. Huang, Q. Zhao

11:00 POLY 572. Self-assembly and photophysical properties of porphyrin nanofibers. J.D. Batteas

Section D

Marriott Marquis Washington, DC
Mount Vernon Square

Shape-Shifting Polymeric Systems

Cosponsored by PMSE

R. Verduzco, *Organizer*

S. Sheiko, T. Ware, *Organizers, Presiding*

8:00 POLY 573. Carbon nitride polymer as autonomous actuator driven by fluctuations in ambient humidity. T. Aida, D. Miyajima

8:30 POLY 574. Folding of gel sheets bearing alginate upon exposure to multivalent cations. S.R. Raghavan, J. Athas, C. Nguyen, S. Kummar

8:50 POLY 575. Novel construction of supramolecular hydrogels. D. Zhu, Y. Xue, X. Chen, J. Guo

9:10 POLY 576. Chromonic liquid crystal hydrogels with patternable, high strain actuation for biomedical applications. J. Boothby, R.S. Kularatne, T. Ware

9:30 POLY 577. Micropatterned thermally and biochemically responsive self-folding systems. D.H. Gracias

10:00 Intermission.

10:20 POLY 578. Dynamically crosslinked shape memory polymer network. T. Xie

10:50 POLY 579. Morphology dependence of shape memory polymers. M. Pantoja, M. Cakmak, K.A. Cavicchi

11:10 POLY 580. Thermomechanical actuation of liquid crystal elastomers derived using chain transfer agents. N.P. Godman, B. Kowalski, A.D. Auguste, T.J. White

11:30 POLY 581. Pixelated polymer: Carbon nanotube nanocomposites. T. Guin, B. Kowalski, A.D. Auguste, T.J. White

Section E

Marriott Marquis Washington, DC
Marquis Salon 15

Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Heterocyclic Systems

Cosponsored by INOR and PMSE‡

Financially supported by Army Research Office, Strem, TA Instruments, RutgersPOLYUN

F. Jaelke, K. J. Noonan, A. Pietrangelo, *Organizers*

F. Pammer, Y. Qin, *Presiding*

8:30 POLY 582. Conjugated polymers containing heavy main group elements. M.J. Heeney

9:00 POLY 583. Selenium and tellurium containing conjugated materials. D.S. Seferos

9:25 POLY 584. Si- and Ge-bridged biaryls as components of new polymeric materials. J. Ohshita

9:50 POLY 585. Design and synthesis of novel heterocyclic building blocks based on benzo[1,2-*b*:4,5-*b'*] and Naphtho[2,1-*b*:6,5-*b'*]chalcogenophenes. M. Jeffries-El, E. Muller, A. Brown

10:15 Intermission.

10:35 POLY 586. Controlled chain-growth Kumada catalyst-transfer polymerization of an alternating donor-acceptor conjugated monomer. W. You

11:00 POLY 587. Vapor phase organic chemistry to deposit conjugated polymer films on arbitrary substrates. T.L. Andrew, L. Zhang, N. Cheng, J. Kim

11:25 POLY 588. Enhancing the stability of polyfuran. K.J. Noonan

Section F

Marriott Marquis Washington, DC
Judiciary Square

Mark Senior Scholar Award in honor of James Hedrick

C. G. Willson, *Organizer, Presiding*

8:00 POLY 589. Synthesis of highly tailorable nanoparticle combinatorial libraries. J. Hedrick, P. Chen, B. Meckes, C.A. Mirkin

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- 8:20 POLY 590.** Multi-stimuli-responsive inks for 3D printing. A. Nelson
- 8:40 POLY 591.** Structurally diverse networks formed from latent cross-links in polythioaminals. R. Wojtecki
- 9:00 POLY 592.** Size-based DNA purification on a continuous flow chip. J.T. Smith
- 9:20 POLY 593.** Stimuli-sensitive biodegradable polycarbonates for transporting anticancer drugs to tumors by exploiting tumor microenvironments. Y. Yang
- 9:40 Intermission.**
- 9:55 POLY 594.** Organocatalytic polymerizations with elemental sulfur: A new route to functional chalcogenide hybrid inorganic/organic polymers (CHIPs). J. Pyun, Y. Zhang, K. Carothers, R.S. Glass, K. Char
- 10:20 POLY 595.** Organocatalytic strategies for polymerization reactions. R.M. Waymouth
- 10:45 POLY 596.** New building blocks for functional polymers. C.J. Hawker
- 11:10 POLY 597.** Advances in the design of polymers for microelectronics. C.G. Willson
- 11:35 POLY 598.** Macromolecular therapeutics and delivery agents. J. Hedrick

Section G

Marriott Marquis Washington, DC
Marquis Salon 14

General Topics: New Synthesis & Characterization of Polymers

- B. Barkakaty, D. Garcia, *Organizers*
R. C. Ferrier, K. C. Gupta, *Presiding*
- 8:00 POLY 599.** Facile synthesis of graphene nanoribbons from PPV (poly *para*-phenylene vinylene) polymers. Y. Li
- 8:20 POLY 600.** End quenching of polyisobutylene substrates via the Ritter reaction. C.M. Parada, R.F. Storey
- 8:40 POLY 601.** Novel *N*-acylated poly(aminoester) materials: Macromonomer synthesis, polymerisation, responsive properties and functionalisation. P.A. de Jongh, D.M. Haddleton, K. Kempe
- 9:00 POLY 602.** General, facile approach to epoxide polymerizations. R.C. Ferrier, J. Imbrogno, C. Rodriguez, N.A. Lynd
- 9:20 POLY 603.** Progress towards plant-derived, mussel-inspired polycarbonates from quercetin and lysine. R. Pulukkody, S.L. Kristufek, R.A. Lettieri, K.T. Wacker, K.L. Wooley
- 9:40 POLY 604.** Naphthol: A bioderived polycarbonate building block. N. Wilson, M. Wyatt, M. Price, M.R. Nimlos
- 10:00 POLY 605.** Synthesis and characterization of pH-sensitive chitosan-hexametaphosphate hydrogels. K.C. Gupta
- 10:20 POLY 606.** Withdrawn.

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

- 10:40 POLY 607.** Design, synthesis, and self-assembly of graft polymers: Consequences of architectural variation. A. Chang, T. Lin, R.H. Grubbs
- 11:00 POLY 608.** Metal-organic framework based new dielectric design through incorporating zinc and cadmium as, a materials genome approach. S. Nasreen, G.M. Treich, M.L. Baczkowski, A.M. Kanakithodi, S.K. Scheirey, Y. Cao, R. Ramprasad, G. Sozting
- 11:20 POLY 609.** Conductivity in poly(TEMPO methacrylate), PTMA made using 3-different living polymerization routes. Y. Zhang, A. Cintora, A. Park, G. Fuchs, C.K. Ober
- 11:40 POLY 610.** Interactions between biosystems and 3D-microstructured surfaces. S. Anders, O. Prucker, K. Anselme, J. Rühle

Section H

Marriott Marquis Washington, DC
Shaw

Journey to Mars: Materials, Energy & Life Sciences

Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YCC†
C. J. Brumlik†, M. A. Meador, G. L. Rodriguez, *Organizers*
M. A. Blenner, *Presiding*

- 8:30 POLY 611.** Chemical sensors: The light weight low power option for chemical analytics. T.M. Swager
- 9:00 POLY 612.** Multifunctional energy storage materials for extreme environments and stresses. J.L. Lutkenhaus
- 9:30 POLY 613.** Solid-state electrochemical energy conversion and storage for exploration of Mars. E.D. Wachsman
- 10:00 Intermission.**
- 10:20 POLY 614.** Post-modified copolymers with controlled inter-chromophore spacing for triplet-triplet annihilation upconversion. E.G. Westbrook, J. Comer, J. Hammann, A. Alazemi, P. Zhang
- 10:40 POLY 615.** Low-power light upconversion in polymeric one-dimensional photonic crystals. R. Vadrucci, S. Vignolini
- 11:00 POLY 616.** 3D-printed nanosensors for space applications. M. Sultana
- 11:30 POLY 617.** Applications of conjugated polyelectrolytes in biosensing and disinfection. K.S. Schanze

Polymers for Aerospace Applications: Celebrating the Lifetime Contributions of Charles Lee

Sponsored by PMSE, Cosponsored by POLY

WEDNESDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Marquis Ballroom Salon 7

8th Symposium on Controlled Radical Polymerization

Financially supported by Army Research Office, Anton Paar, Millipore-Sigma, Boron Molecular, Tosoh Bioscience, Kaneka, PPG

H. Gao, K. Matyjaszewski, B. S. Sumerlin, N. V. Tsarevsky, *Organizers*

J. F. Coelho, M. Cunningham, *Presiding*

- 1:00 POLY 618.** Novel strategies for synthesizing block copolymers from monomers of disparate reactivities by RAFT polymerization. L. Seiler, D. Matioszek, S. Harrison, M. Destarac
- 1:25 POLY 619.** Photo-CRP and flow micro-reactors: A perfect couple. T. Junkers
- 1:50 POLY 620.** ATRP catalyst removal and ligand recycling using CO₂ switchable materials. X. Su, P.G. Jessop, M.F. Cunningham
- 2:15 POLY 621.** Separation of living chains in polystyrenes prepared by atom transfer radical polymerization. H. Paik, T. Chang
- 2:40 POLY 622.** New way to modify isotactic polypropylene towards atom transfer radical polymerization grafting. Y. Chen, H. Zhou, H. Huang
- 3:05 Intermission.**
- 3:20 POLY 623.** Reversible deactivation radical polymerization of vinyl chloride: From fundamental studies to industrial applications. J.F. Coelho, C. Abreu, J. Marques, A. Tomas, A. Serra
- 3:45 POLY 624.** Controlled radical polymerization from surfaces. H.A. Klok
- 4:10 POLY 625.** Application of ATRP to the synthesis of precision engineered chromatographic materials. C.A. Pohl
- 4:35 POLY 626.** Controlled radical polymerization: Adventures in commercialization. K.G. Olson
- 5:00 POLY 627.** ATRP Solutions Inc.: Our path to production of ATRP-based polymers in commercial reactors. P.A. McCarthy, Y. Liao, L. Huang, B. Dorau, B. Wang, S. Brooks

Section B

Marriott Marquis Washington, DC
Marquis Ballroom Salon 8

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Plant Oils & Ferulate-Based Materials

Cosponsored by AGFD, CELL and PMSE
H. Cheng, R. A. Gross, P. B. Smith, *Organizers*
P. Dubois, *Presiding*

1:00 POLY 628. Sustainable approaches to monomers and polymers from renewable resources. M. Meier

1:25 POLY 629. Chemo-enzymatic synthesis, biological properties and polymerizations of biobased bisphenols derived from ferulic and sinapic acids. F. Allais

- 1:50 POLY 630.** Vegetable oil-based thermosets: Molecule design for higher performance. J. Zhang
- 2:15 POLY 631.** Improving mechanical properties of fatty acid-derived thermoplastic elastomers by incorporating a transient network. W. Ding, M.L. Robertson
- 2:40 Intermission.**

- 2:55 POLY 632.** Sustainable and degradable epoxy resins derived from vegetable oils and phenolic acids. M.L. Robertson, G. Yang, B.J. Rohde, R. Almallahi, H. Tesebay, Z. Rizvi, E. Gonzalez-Martinez, T. Hendrix-Doucette
- 3:20 POLY 633.** Epoxidation kinetics of photo-curable green epoxy synthesized from seed oil of *Perilla frutescens*. K. Bakthavachalam, S. Pilla, S. Beyene, B. Ayalew

- 3:40 POLY 634.** Spectroscopic investigations of amine-cured epoxidized linseed oil. C.N. Kuncho, E. Reynaud, D.F. Schmidt
- 4:00 POLY 635.** Phenomenology of plant oil-based monomers in emulsion copolymerization. K. Kingsley, O. Shevchuk, Z. Demchuk, I. Tarnavchyk, A.S. Voronov

Section C

Marriott Marquis Washington, DC
Marquis Ballroom Salon 9

Metallo-Supramolecular & Metal Containing Polymers & Block Copolymers

Cosponsored by PMSE†

Financially supported by TCI (Tokyo Chemical Industry), microDrop Technologies GmbH, SmartDyeDelivery GmbH

I. Manners, G. R. Newkome, U. S. Schubert, *Organizers, Presiding*

- 1:00 POLY 636.** Functional soft materials from polymetalloenes. I. Manners
- 1:40 POLY 637.** Dual-responsive poly(ferrocenylsilane) polyions with switchable transparency. M.A. Hempenius, K. Zhang, X. Feng, G. Vancso
- 2:00 POLY 638.** Ferrocene-metallopolymers via ADIMET and click techniques. A. Peloquin, M.B. Smith, G.J. Balaich, S.T. Iacono
- 2:20 POLY 639.** Grid-like metal complexes as basis for star-shaped polymers and hydrogel networks. R. Hoogenboom
- 2:40 Intermission.**

- 3:10 POLY 640.** Recent results on rod-like polyferrocenylsilane block copolymer micelles. M. Winnik
- 3:40 POLY 641.** Recycle of PEG-bound homogeneous NHC-Ru catalyst via host-guest interaction in aqueous media. H. Chung, C. Kim, B. Ondrusek
- 4:00 POLY 642.** Tailoring acrylate-based metallo-supramolecular network morphologies with monomer feed ratio and excess metal-ligand complexes. A.M. Savage, R.H. Lambeth, F.L. Beyer
- 4:20 POLY 643.** Poly(ferrocenylsilane)-based hydrogels with phosphonium groups: Hysteretic network response and potential applications. G. Vancso, K. Zhang, X. Feng, M.A. Hempenius

4:50 Concluding Remarks.

Section D

Marriott Marquis Washington, DC
Mount Vernon Square

Shape-Shifting Polymeric Systems

Cosponsored by PMSE

- R. Verduzco, *Organizer*
S. Sheiko, T. Ware, *Organizers, Presiding*
- 1:00 POLY 644.** Driving shape changes and motion of responsive polymer composites. R.C. Hayward
- 1:30 POLY 645.** Pre-programmed folding of 2D nematic liquid crystal elastomer sheets into arbitrary 3D structures. Y. Xia, H. Aharoni, X. Zhang, R. Kamien, S. Yang
- 1:50 POLY 646.** Multilayer tubes displaying dramatic shape change in response to external stimuli. B.C. Zarket, H. Wang, S.R. Raghavan

- 2:10 POLY 647.** Exploring the functionality of homeotropically aligned liquid crystal elastomers. **A.D. Auguste**, N.P. Godman, T.J. White
- 2:30 POLY 648.** Liquid-infused poroelastic nanonetworks. **J. Aizenberg**, X. Yao
- 3:00** Intermission.
- 3:20 POLY 649.** Artificial muscles from stimuli-responsive polymer-based devices. **M. Serpe**
- 3:50 POLY 650.** Multicompartment capsules that can undergo transformations in their morphology. **K.C. DeMella**, S.R. Raghavan
- 4:10 POLY 651.** Dynamically responsive hydrogel microcapsules. **J.G. Werner**, B. Deveney, S. Nawar, H. Lee, D.A. Weitz
- 4:30 POLY 652.** Photoinduced plasticity in crosslinked liquid crystalline networks: A route to photopolymerizable, programmable shape shifting materials. **C. Bowman**, M.K. McBride, M. Hendrikk, D. Liu, B.T. Worrell, D. Broer

Section E

Marriott Marquis Washington, DC
Marquis Salon 15

Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Synthetic Methodology

Cosponsored by INOR and PMSE†

Financially supported by Army Research Office, Strem, TA Instruments, Rutgers PolyRUN

F. Jaekle, K. J. Noonan, A. Pietrangolo, *Organizers*

J. Ohshita, S. W. Thomas, *Presiding*

1:30 POLY 653. Withdrawn.

2:00 POLY 654. Switchable, addressable and tuneable: New applications for redox-active aniline-based materials. **A. Bell**, Y. Liao, Y. Hu, B. Mills, **C.F. Faul**

2:25 POLY 655. Phosphoryl-bridged viologens: Multifunctional properties and applications. **T. Baumgartner**, M. Stolar, L. Striepe

2:50 POLY 656. Low temperature thermolectric power factor from completely organic thin films. **J.C. Grunlan**, C. Cho, C. Yu

3:15 Intermission.

3:35 POLY 657. Azadipyromethene-based complexes as electron acceptor for bulk heterojunction organic solar cells. **G. Sauve**

4:00 POLY 658. Cross-conjugated poly(thienylene vinylene)s (PTVs) and poly(selenylene vinylene)s (PSVs). **Y. Qin**

4:25 POLY 659. Design of novel electron-accepting building blocks and application of their conjugated polymers for printed electronics. **Y. Li**, Z. Yan, Y. He, B. Sun

Section F

Marriott Marquis Washington, DC
Judiciary Square

Herman F. Mark Award in honor of Edward Samulski

K. Matyjaszewski, *Organizer*

B. D. Freeman, *Organizer, Presiding*

1:00 POLY 660. Late stage diversification of commodity polymers through C-H functionalization methods. **F.A. Leibfarth**, S. Lewis

1:25 POLY 661. Living cationic polymerization of 4-methoxystyrene via a novel RAFT mechanism. **W. You**

1:50 POLY 662. Pd(II)-catalyzed copolymerizations of ethylene with vinyl trialkoxysilanes. **M. Brookhart**, Z. Chen, O. Daugulis, W. Liu

2:15 POLY 663. High-performance polymers: Function follows form. **T.J. Dingemans**

2:40 POLY 664. Correlated liquid + oriented liquid = reinforced liquid: Conduction, alignment, and stiffness in a soft material. **L.A. Madsen**

3:05 Intermission.

3:15 POLY 665. Architectural programming mechanical properties of polymeric elastomers. **S. Sheiko**

3:40 POLY 666. Polymer mark of Ed Samulski. **M. Rubinstein**

4:05 POLY 667. Organic polymer chemistry in the context of novel processes. **J.M. DeSimone**

4:30 POLY 668. Persistent rods: From high temperature polymers to liquid helium. **E.T. Samulski**

Section G

Marriott Marquis Washington, DC
Marquis Salon 14

General Topics: New Synthesis & Characterization of Polymers

B. Barkakaty, D. Garcia, *Organizers*

J. Sirrine, O. Siscan, *Presiding*

1:00 POLY 669. Withdrawn.

1:20 POLY 670. Electroactive polymer/carbon nanotubes hybrid materials for energy storage synthesized via grafting approaches. **B. Ernoult**, O. Bertrand, A. Vlad, J. Gohy

1:40 POLY 671. UCST-type behavior of poly(behenyl methacrylate)-stabilized nanoparticles in mineral oil dictates their degree of dispersion. **M.J. Derry**, O. Mykhaylyk, S.P. Armes

2:00 POLY 672. Core-shell nanoparticles of tapered interface structure. **L. Wang**, W. Xiong, X. Wang

2:20 POLY 673. New versatile class of antioxidant polymers. **R. Hlushko**, H. Hlushko, S.A. Sukhishvili

2:40 POLY 674. Functional siloxanes with photo-activated, simultaneous chain extension and crosslinking for lithography-based 3D printing. **J. Sirrine**, N.G. Moon, V. Meenakshisundaram, R.J. Mondschein, C. Williams, T.E. Long

3:00 POLY 675. Light scattering without refractive index increment: A new approach to calibrate SEC-light scattering setups. **D. Lohmann**, W. Radke, J. Preis, S. Lavric

3:20 POLY 676. Morphological structure of sulfonated syndiotactic polystyrene ionomers via SAXS and USAXS. **G.B. Fahs**

3:40 POLY 677. Confocal Raman microscopy characterization of waterborne coatings. **D. Garcia**, W. Wu

4:00 POLY 678. Vibrational sum frequency generation spectroscopy (VSFGs) to probe the interfacial organization of methacrylate-based polymer thin films. **N.M. Adhikari**, K.A. Cimatu

4:20 POLY 679. Photooxidation of high performance aerospace polyurethane coatings. **N. Weise**, I. Long, A.E. Mera, J.H. Wynne

4:40 POLY 680. Withdrawn.

Section H

Marriott Marquis Washington, DC
Shaw

Journey to Mars: Materials, Energy & Life Sciences

Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YCC†

C. J. Brumlik, M. A. Meador, G. L. Rodriguez, *Organizers*

R. P. Viggiano, *Presiding*

1:00 POLY 681. Future Mars environment for science and exploration. **J. Green**, J. Hollingsworth, M. Kahre, D. Brain, V. Airapetian, A. Glocer, A. Pulkkinen, C. Dong, R. Bamford

1:30 POLY 682. Use of polyimide and polyamide aerogels as lightweight, multifunctional materials for aerospace applications. **M. Meador**, J. Cashman, B. Nguyen, H. Guo, R.P. Viggiano, S.L. Vivod

2:00 POLY 683. Metal-organic frameworks (MOFs): Design, preparation and gas storage. **O.K. Farha**

2:30 Intermission.

2:50 POLY 684. Biosynthesis of materials and nutraceuticals from astronaut waste: Towards closing the loop. **M.A. Blenner**

3:20 POLY 685. Towards bioproduction of advanced fuels and lightweight materials. **F. Zhang**

3:50 POLY 686. Withdrawn.

4:20 Concluding Remarks.

Polymers for Aerospace Applications: Celebrating the Lifetime Contributions of Charles Lee

Sponsored by PMSE, Cosponsored by POLY

WEDNESDAY EVENING

Section A

Marriott Marquis Washington, DC
Marquis Ballroom Salon 6

POLY/PMSE Plenary

M. Becker, *Organizer, Presiding*

5:30 POLY 687. Frontiers in polymer science and engineering. **F.S. Bates**

THURSDAY MORNING

Section A

Marriott Marquis Washington, DC
Marquis Ballroom Salon 7

8th Symposium on Controlled Radical Polymerization

Financially supported by Army Research Office, Anton Paar, Millipore-Sigma, Boron Molecular, Tosoh Bioscience, Kaneka, PPG

H. Gao, K. Matyjaszewski, B. S. Sumerlin, N. V. Tsarevsky, *Organizers*

P. Lacroix-Desmazes, J. Pyun, *Presiding*

8:00 POLY 688. Hybrid Janus nanoparticles by ATRP. **A. Mueller**

8:25 POLY 689. Influence of Z-group hydrophilicity in visible light-mediated aqueous RAFT polymerization. **K.H. Parsons**, C.L. McCormick

8:50 POLY 690. Multimodal grafted nanoparticles for functionality and responsiveness. **Y. Huang**, Y. Zheng, M. Bell, **B.C. Benicewicz**

9:15 POLY 691. Organocatalyzed atom transfer radical polymerization: Catalyst development and design principles. **J. Theriot**, G. Miyake

9:40 POLY 692. Thermoresponsive polymer coated gold nanoparticles. **R. Hoogenboom**

10:05 POLY 693. Photoresponsive chalcogenide hybrid inorganic/organic polymers (CHIPs) via controlled radical polymerization for integrated photonics. **J. Pyun**, T. Kleine, K. Char, R.A. Norwood

10:30 POLY 694. Synthesis and self-assembly of polymer-brush-decorated fine particles. **K. Ohno**

10:55 POLY 695. Complex polymer architectures as templates for nanoparticles synthesis. **J. Pietrasik**, Y. Zhang, J. Michalak, W. Raj, K. Krysiak, K. Budzalek, P. Filipczak, M. Kozanecki, K. Matyjaszewski

11:20 POLY 696. Polymer-grafted nanoparticles in nanocomposites for tailoring dielectric properties. **E.E. Malmstrom**, H. Hillborg, A.E. Carlmark, C. Sanchez, M. Wahlander

11:45 POLY 697. Synthesis of stimuli-responsive double hydrophilic block copolymers by ATRP and RAFT and their use as nanostructure-directing agents of mesoporous silica materials. **A. Phimpachanh**, E. Molina, M. Mathonnat, M. Bathfield, J. Reboul, J. Richard, N. Marcotte, J. Pinaud, J. Charnieh, L. Leclercq, H. Cottet, S. Harrison, M. Destarac, P. Dieudonne-George, M. In, P. Lacroix-Desmazes, C. Gerardin

12:10 POLY 698. Hierarchical hybrid materials from ligand-driven organization of particulates. **M.R. Bockstaller**

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12:35 POLY 699. Polyhomologation and controlled/living polymerization techniques: A perfect partnership toward unique polyethylene-based architectures. N. Hadjichristidis

Section B

Marriott Marquis Washington, DC
Marquis Ballroom Salon 8

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Therapeutics & Opto-Electronics

Cosponsored by AGFD, CELL and PMSE

H. Cheng, R. A. Gross, P. B. Smith, *Organizers*
K. D. Singer, *Presiding*

8:00 POLY 700. Bio-based materials for optoelectronics. K.D. Singer, K. Peters, M. McMaster, F. Liu, S. Mekala, R.A. Gross

8:25 POLY 701. Conjugation of chemo-enzymatically modified sphorolipids to porphyrin chromophore: Bio-based materials for organic optoelectronic applications. S. Mekala, K. Peters, F. Liu, M. McMaster, R.A. Gross, K.D. Singer

8:45 POLY 702. Biobased biodegradable hyperbranched polymers for time-release applications. P.B. Smith, T. Zhang, B.A. Howell

9:10 POLY 703. Protein-based nanoparticles: A new class of multifunctional biomaterials. L. Radi, M. Fach, E. Steiert, P.R. Wich

9:30 POLY 704. Engineered protein triblock polymer as stimuli responsive hydrogels for small molecule delivery. A. Olsen, J. Haghpanah, M. Dai, N. Singh, R.S. Tu, J.K. Montclare

9:50 Intermission.

10:05 POLY 705. Withdrawn.

10:30 POLY 706. Functionalization and controlled release of B vitamins from citrate polyesters. R.T. Mathers

10:55 POLY 707. Pro-active networks via degradable acetals (PANDAs) prepared via thiol-ene photopolymerization. D. Amato, D. Amato, O. Mavrodi, W. Martin, S. Swilley, K. Parsons, D. Mavrodi, D.L. Patton

11:20 POLY 708. Sugar-derived poly(β -thioesters) synthesized using a thiol-Michael reaction as a biobased biomedical scaffold material. N.G. Moon, F. Mazzini, A. Pekkanen, E. Wilts, T.E. Long

Section C

Marriott Marquis Washington, DC
Marquis Ballroom Salon 9

Advances in Lignin: Chemicals, Polymers & Materials

Cosponsored by CELL

H. Chung, C. Tang, *Organizers, Presiding*

8:00 Introductory Remarks.

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

8:05 POLY 709. Examining the impact of biomass fractionation on the production of lignin-derived material. A.S. Bommarius, T. Kwok, D.N. Fogg, M.J. Realf

8:35 POLY 710. Lignin based surfactants for agricultural applications. K.M. Perkins, C. Gupta, E. Charleson, N. Washburn

8:55 POLY 711. Lignin-based alternative thermoplastics. C.N. Scott, G. Saenz, K. Ellis, G. Kulkarni

9:15 POLY 712. Lignin-inspired polymers as biobased alternatives for plastics applications. T.H. Epps

9:45 POLY 713. Study of lignin-lignin and lignin-cellulose interactions in organic solvents and organosolv-water cosolvent environments: Insights into lignocellulose deconstruction. M.D. Smith, L. Petridis, X. Cheng, J. Smith

10:05 POLY 714. Lignin functionalization via controlled graft polymerization and click chemistry. C. Tang

10:25 POLY 715. Developing diverse polymer applications for the lignin feedstock. J. Zhang

10:55 POLY 716. Molecular engineered biopolymer lignin: Visible light induced modification of natural lignin. H. Chung, H. Liu

11:15 POLY 717. Surface modification and antimicrobial properties of cellulose nanocrystals. N. Vasanthan, Y. Bespalova, D. Kwon

11:35 POLY 718. Nanoparticles as crosslinking agents for hydrophobic modified polyacrylamide aqueous solution. F. Peng, Y. Ke

11:55 Concluding Remarks.

Section D

Marriott Marquis Washington, DC
Mount Vernon Square

Shape-Shifting Polymeric Systems

Cosponsored by PMSE

R. Verdusco, *Organizer*

S. Sheiko, T. Ware, *Organizers, Presiding*

8:00 POLY 719. Thermoset networks for shape-memory contact printing. M.L. Anthamatten, A. Shestopalov, J.C. Lambropoulos

8:30 POLY 720. Processable and shape memory properties of innovative poly(ether ether ketone) derivatized with n-alkyl groups. P. Zarras, A. Baca, J.D. Stenger-Smith, M. Garrison, R. Quintana, L. Baldwin, L. Cambrea

8:50 POLY 721. Thermoset shape memory polyurethane with intrinsic plasticity and tunable performance. N. Zheng, Z. Fang, J. Hou, Q. Zhao, T. Xie

9:10 POLY 722. Shape-memory polymers for orthopaedic soft-tissue repair. D. Sfranski, K. Smith, K. Gall

9:30 POLY 723. Shape memory composites: Formulating and processing by varying elastomers and fillers. A. Shirole, A. Nicharat, J. Sapkota, J. Foster, C. Weder

9:50 Intermission.

10:10 POLY 724. From flat to functional: Shape transformation in liquid crystalline elastomers. T.J. White, T. Guin, B. Kowalski, N.P. Godman, B. Donovan, A. Auguste

10:40 POLY 725. Polymer/wax bending actuators. P. Jian, K.A. Cavicchi

11:00 POLY 726. Liquid crystal elastomers with programmable and dynamic shape change. B.R. Donovan, T.J. White

11:20 POLY 727. Shape-shifting polymer sheets using light. Y. Liu, R. Mailen, A. Hubbard, D. Davis, M. Zikry, J. Genzer, M.D. Dickey

Section E

Marriott Marquis Washington, DC
Marquis Salon 15

Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Optoelectronic Device Applications

Cosponsored by INOR and PMSE

Financially supported by Army Research Office, Strem, TA Instruments, Rutgers PolyRUN

F. Jaekle, K. J. Noonan, A. Pietrangelo, *Organizers*

T. L. Andrew, W. You, *Presiding*

8:30 POLY 728. Polycyclic conjugated hydrocarbons containing antiaromatic cyclobutadienoids enabled by efficient annulation. Y. Xia, L. Chen, Z. Jin, Y. Teo

8:50 POLY 729. Photo-physical properties of carborane containing poly(dihexylfluorene)s (CCPDF): Applications as polarity sensors. K.L. Martin, K.R. Carter

9:10 POLY 730. Withdrawn.

9:30 POLY 731. Effects of heteroatom functionalization on anthradithiophene: Exploring the influence of chemical structure on electronic properties, photo-oxidative stability, crystal packing, and device performance. D.J. Dirkes, W. You

9:50 POLY 732. Unusual enhancement in the processability and electrical properties of electroactive polymers via the formation of unusual building blocks. Y. Kim, W. Abousamra, D. Yang, O. Melton, S. Isah, J. Jung, S. Besic, M. Birschnbach, V. Ebron, R. Mercado, P.J. Kinlen, H. Nguyen

10:10 Intermission.

10:30 POLY 733. Conjugated polymer-dye weakly coupled covalent assembly for optoelectronics. S.S. Sun, D. Wang

10:50 POLY 734. Efficient naphthalene-dimide-based hole semiconducting polymer with vinylene linkers between donor and acceptor units. L. Zhang, B.D. Rose, Y. Liu, M. Nahid, E. Gann, J.T. Ly, T.P. Russell, A. Facchetti, C.R. McNeill, J.E. Bredas, A.L. Briseno

11:10 POLY 735. Metal coupline to bridge small molecule sensors and polymeric sensing platforms. W. Wu, Z. Qing, A. Chen, W.E. Bernier, W.E. Jones

11:30 POLY 736. Fused ring systems containing pyrroles for organic electronics. C. Bulumulla, H.Q. Nguyen, R. Gunawardhana, R. Kularatne, J. Du, K.E. Washington, M.C. Biewer, M.C. Stefan

11:50 POLY 737. Unipolar electron transport polymers: Thiazole based all-electron acceptor approaches for high mobility organic field-effect transistors. Z. Yuan, B. Fu, S. Thomas, J.E. Bredas, E. Reichmanis

Section F

Marriott Marquis Washington, DC
Judiciary Square

Henkel Award for Outstanding Graduate Research in Polymer Chemistry

Cosponsored by PMSE

Financially supported by Henkel Corp.

W. T. Ford, *Organizer, Presiding*

8:30 POLY 738. Noncovalent modulation of protein energy landscapes with targeted molecular binders. D.N. Bunck, B. Atsavaprane, K. Museth, D. Vander Velde, J.R. Heath

9:00 POLY 739. Engineering functional polymer coatings through the modification of morphology and surface chemistry. C.R. Crick

9:30 POLY 740. Electroless copper deposition: Interconnecting modern communication. C.R. Mulzer

10:00 Intermission.

10:15 POLY 741. New concepts in sustainable polymers. G.W. Coates

10:45 POLY 742. Colloidal covalent organic frameworks. W. Dichtel, B. Smith, L. Parent, R.P. Bisbey, A. Chavez, A. Evans, N.C. Gianneschi

11:15 Award Presentation.

11:20 POLY 743. Structurally precise synthesis of two-dimensional covalent organic frameworks and linear polymers for optoelectronics and therapeutics. J. Colson, W. Dichtel, C.R. Mulzer, J.A. Mann, J. Hubbell, R. Wang, D.S. Wilson, C. Nagler, C. Plunkett

Section G

Marriott Marquis Washington, DC
Marquis Salon 14

General Topics: New Synthesis & Characterization of Polymers

B. Barkakaty, D. Garcia, *Organizers*

B. P. Bastakoti, P. J. Scott, *Presiding*

8:00 POLY 744. Counter-ion effect on radical polymerization kinetics of ionic-liquid monomers. M. Chen, J. Dugger, X. Li, L.A. Madsen, B.S. Lokitz, T.E. Long

8:20 POLY 745. Synthesis of an amphiphilic Janus dendrimer and evaluation of its self-assembly process in water. M. Elizondo-Garcia, V. Marquez-Miranda, I.D. Araya-Duran, M. Videa, F.D. Gonzalez-Nilo, J.A. Valencia-Gallegos

8:40 POLY 746. Traditional and bidirectional strategies for the anionic polymerization of novel phosphonium-containing block copolymers. P.J. Scott, A. Schultz, S. Bobade, T.E. Long

9:00 POLY 747. Withdrawn.

9:20 POLY 748. Synthesis and optical properties of organically modified chalcogenide (ORMOCHALC) polymers. D.A. Boyd, V.Q. Nguyen, C.C. McClain, C.C. Baker, J.D. Myers, W. Kim, J.S. Sanghera

9:40 POLY 749. Synthesis and self-assembly of amphiphilic diblock copolymer as an effect of chemical oscillation. B.P. Bastakoti, S. Guragain, J. Perez-Mercader

10:00 POLY 750. Topology control of bottlebrush polymers. **D. Walsh, O. Okesanjo, S. Lau, R. Schneider, D. Guirronnet**

10:20 POLY 751. Withdrawn.

10:40 POLY 752. Direct C-H amidation polymerization forming C-N bond for fluorescent polysulfonamides using iridium catalyst. **Y. Jang, T. Choi**

11:00 POLY 753. Water vapor barrier properties of polybenzoxazine-silica nanocomposites provided from perhydropolysilazane. **J. Lee, R. Saito**

11:20 POLY 754. Poly(2-oxazoline)s: Investigating structure-property relationships for the design of mucose penetrating systems. **V. R de la Rosa, E. Mansfield, R. Kowalczyk, I. Grillo, R. Hoogenboom, K. Sillence, P. Hole, A. Williams, V.V. Khutoryansky**

THURSDAY AFTERNOON

Section B

Marriott Marquis Washington, DC
Marquis Ballroom Salon 8

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Applications of Biobased Materials

Cosponsored by AGFD, CELL and PMSE

R. A. Gross, P. B. Smith, *Organizers*

H. Cheng, *Organizer, Presiding*

1:00 POLY 755. Edible films derived from milk. **M.H. Tunick, L. Bonnaille, L.D. Aburto, J. Mulherin, R.P. Kwoczak, P.M. Tomasula**

1:25 POLY 756. On the use of lactic acid esters as fuel additives: Preliminary instrumented engine test results of gasoline and ethanol blends with ethyl lactate. **R.C. Bopp, G.W. Beall**

1:50 POLY 757. Flame retardants from renewable sources: Food waste, plant oils and starch. **B.A. Howell, Y. Daniel, E. Ostrander**

2:15 POLY 758. Ultra-tough bio-aramide fibers derived from functional amino acids. **T. Kaneko, Y. Yoshinaka, S. Tateyama**

2:35 POLY 759. Renewable polymers from itaconic acid. **J.T. Trotta, M. Jin, K. Stawiasz, Q. Michaudel, W. Chen, B.P. Fors**

2:55 Intermission.

3:10 POLY 760. Novel cottonseed protein-based wood adhesives. **H. Cheng, M.K. Dowd, Z. He**

3:35 POLY 761. Completing the cycle: Photodegradation as a tool to make sustainable and recyclable polymers/oligomers derived from biore-sources. **J. Sivaguru, R. Singathi, R. Raghunathan, M.P. Sibi, D.C. Webster**

3:55 POLY 762. Using a bio-derived solvent to cast polysulfone polymeric membranes. **X. Dong, I.C. Escobar**

4:15 POLY 763. Compatibilizing methylcellulose and polyethylene for sustainable materials. **K. Arrington, J.B. Matson**

Section D

Marriott Marquis Washington, DC
Mount Vernon Square

Shape-Shifting Polymeric Systems

Cosponsored by PMSE

R. Verduzco, *Organizer*

S. Sheiko, T. Ware, *Organizers, Presiding*

1:00 POLY 764. Programmed stimulus response in liquid crystal elastomers and hydrogels. **T. Ware**

1:20 POLY 765. Solid emulsion: Gas-switchable polymer latex system. **T. Fang, J. Yuan**

1:40 POLY 766. Super-soft bottlebrush elastomer actuators for shape changing applications. **M. Vatankeh Varnooosfaderani, W.F. Daniel, A.P. Zhushma, Q. Li, B. Morgan, K. Matyjaszewski, A.V. Dobrynin, S. Sheiko**

2:00 POLY 767. Liquid crystalline elastomer films: Actuation under load. **B. Kowalski, T. Guin, N.P. Godman, A.D. Auguste, T.J. White**

2:20 POLY 768. 1D vs 2D shape selectivity in the crystallization-driven self-assembly of polylactide block copolymers. **M. Inam, G. Cambridge, A. Pitto-Barry, Z. Laker, N. Wilson, R.T. Mathers, A.P. Dove, R.K. O'Reilly**

2:40 POLY 769. Withdrawn.

3:00 POLY 770. Fast self-healing of polyelectrolyte multilayer nanocoating and restoration of super oxygen barrier. **Y. Song, K. Meyers, J. Geringer, R. Krishnan, S. Qin, S.I. Nazarenko, J.C. Grunlan**

Section G

Marriott Marquis Washington, DC
Marquis Salon 14

General Topics: New Synthesis & Characterization of Polymers

B. Barkakaty, D. Garcia, *Organizers*

R. J. Mondschein, K. A. Valentine, *Presiding*

1:00 POLY 771. Deterministic control of polymer molecular weight distributions and its effects on the properties of block copolymers. **D. Gentekos, V. Kottisch, L. Dupuis, B.P. Fors**

1:20 POLY 772. Alternating and random-sequence polyesters with distinct physical properties. **C. Peng, A. Joy**

1:40 POLY 773. New polymeric architectures: Versatility of neutral and charged nanoreactors. **F. Gayet, L. Vendrame, J. Bizeau, W. Bour, A. Mau, E. Nouvel, S. Chen, C. Fliedel, E. Manoury, R. Poli**

2:00 POLY 774. Investigating regiochemistry's influence on cyclic formation in polyesters and their impact on properties and performance. **R.J. Mondschein, C. Arrington, S. Cheng, T.E. Long**

2:20 POLY 775. Liquid-phase iterative synthesis with OSN: A flexible and scalable platform for precision synthetic macromolecules. **R. Dong, R. Chen, A. Livingston**

2:40 POLY 776. Structure-property relationships of semi-aromatic liquid crystalline polyesters utilizing 4,4'-bibenzoate. **K.A. Valentine, A.M. Nelson, M. Hegde, S.R. Turner, T.E. Long**

3:00 POLY 777. Withdrawn.

3:20 POLY 778. Insights into linear supramolecular polymer formation via TPE and BODIPY containing host-guest interaction. **C. Gouda**

3:40 POLY 779. Improved covalent organic frameworks through net transimination. **E. Vitaku, W. Dichtel**

PMSE

Division of Polymeric Materials Science and Engineering

C. Snyder, B. Olsen, X. Jia, M. Becker and A. Norman, Program Chairs

OTHER SYMPOSIA OF INTEREST:

Biomacromolecules-Macromolecules Young Investigator Award (see POLY, Mon)

Polymers at the Interface with Biology (see POLY, Tue)

SOCIAL EVENTS:

Poster Session & Social Hour, 6:00 PM: Tue

Reception, 5:30 PM: Wed

BUSINESS MEETINGS:

Business Meeting, 5:00 PM: Mon

SUNDAY MORNING

Section A

Marriott Marquis Washington, DC
Liberty Ballroom Salon L

Eastman Chemical Student Award in Applied Polymer Science

Financially supported by Eastman Chemical Company

J. C. Jenkins, *Organizer*

J. W. Gilmer, *Organizer, Presiding*

8:30 Introductory Remarks.

8:35 PMSE 1. Non-isocyanate polyurethane thermoplastic elastomer with competitive properties via amide-based chain extender. **G. Beniah, D.J. Fortman, W. Heath, W. Dichtel, J.M. Torkelson**

9:05 PMSE 2. Conjugated polymers with multistage sidechains for aqueous processable organic electronics. **B. Schmatz**

9:35 PMSE 3. Recyclable cross-linked polymer networks via one-step controlled radical polymerization. **K. Jin, L. Li, J.M. Torkelson**

10:05 Intermission.

10:20 PMSE 4. Photodegradable, photoadaptable hydrogels crosslinked by allyl sulfides for cell culture applications. **T. Brown, I. Marozas, K.S. Anseth**

10:50 PMSE 5. Paper-based electrochromic devices incorporating inkjet-printed PEDOT:PSS electrodes. **A. Lang, A. Osterholm, M. De Keersmaecker, D. Shen, R.J. Moon, J.R. Reynolds**

11:20 PMSE 6. Structure-property relationships of amorphous bibenzoate polyesters: A potential PET and BPA-PC replacement. **R.J. Mondschein, J.M. Dennis, H. Liu, R. Krishnan, S.I. Nazarenko, S.R. Turner, T.E. Long**

Section B

Marriott Marquis Washington, DC
Liberty Ballroom Salon J

Dynamic Chemistry in Polymer Materials

D. Konkolewicz, *Organizer*

N. Ayres, *Organizer, Presiding*

L. Connal, *Presiding*

8:00 PMSE 7. Self-healing, malleable and creep limiting materials using both supramolecular and reversible covalent linkages. **B. Zhang, Z. Digby, J. Flum, E. Foster, J. Sparks, D. Konkolewicz**

8:20 PMSE 8. Acylhydrazones and ureas: Reversible bonds as starting point for the design of self-healing materials. **S. Bode, N. Kuhl, M. Abend, M.D. Hager, U.S. Schubert**

8:50 PMSE 9. Self-healing and mechanochemical response in polymers: Hydrogen bonds and metal-carbene complexes. **W.H. Binder, P. Michael, D. Döhler, S. Chen**

9:20 Intermission.

9:40 PMSE 10. Dynamic covalent bonding: Complex quaternary structures and clicking/declicking applications. **E.V. Anslin**

10:10 PMSE 11. Dynamic covalent materials. **L. Connal**

10:40 PMSE 12. Superelastic self-healing PDMS-polyurea network membrane. **P. Cao, B. Li, T. Hong, Y. Wang, S. Cheng, K. Xing, A.P. Sokolov, T. Saito**

11:10 PMSE 13. Ultra-fast self-healing polyurethane networks. **V. Solouki Bonab, V. Karimkhani, D. Yuan, L. Yue, A. Patel, I. Manas-Zloczower**

Section C

Marriott Marquis Washington, DC
Liberty Ballroom Salon K

Synthesis, Self-Assembly & Applications of Peptides & Polypeptides

Ring-Opening Polymerization of NCA & Polypeptides

Financially supported by Journal of Biomaterials Science, RSC

J. Cheng, H. Lu, *Organizers, Presiding*

8:00 PMSE 14. Design and self-assembly of polypeptide and elastin-like amphiphilic copolymers. **S. Lecommandoux, E. Garanger, B. Garbay, G. Lefter**

8:30 PMSE 15. Development of polypeptide hydrogels for central nervous system therapy. **T.J. Deming, M.V. Sofroniew**

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9:00 PMSE 16. Scaffold directed cooperative polymerization of amino acid N-carboxyanhydrides. R. Baumgartner, J. Cheng

9:30 PMSE 17. Thermal responsive polypeptide brushes prepared by vapor deposition surface-initiated ring-opening polymerization of α -amino acid NCAs. Z. Li

10:00 Intermission.

10:20 PMSE 18. Versatile star-shaped polypeptide conjugates with controlled self-assembly as therapeutics. M.J. Vicent

10:50 PMSE 19. Polymerization of glycosylated NCAs for preparation of biomedical materials and synthetic glycoproteins. J. Kramer, M. Zhou, C. Delaveris, C.R. Bertozzi

11:20 PMSE 20. Synthesis and biomedical application of circular protein-poly(amino acid) conjugates. Y. Hou, J. Yuan, H. Lu

Section D

Marriott Marquis Washington, DC
Marquis Ballroom Salon 10

1D Nanomaterials: Synthesis, Assembly, Properties & Applications

Polymeric

S. B. Darling, J. Hahn, *Organizers, Presiding*

8:30 PMSE 21. Withdrawn.

8:55 PMSE 22. Formation of organic charge transfer nanowires in solution. E.R. Van Keuren, T. Li, S. Hung, R. Smith, C. Bagade, P. Vora, I. Stone, P. Dev

9:20 PMSE 23. Effect of phosphonated single-walled carbon nanotubes on the transport properties of sulfonated poly(styrene-isobutylene-styrene) membranes. E. Ruiz-Colon, M. Perez Perez, D. Suleiman

9:45 PMSE 24. Effects of confinement on glass transition temperature in polymer thin films, nanotubes, and nanospheres as measured by differential scanning calorimetry, ellipsometry and fluorescence. J.M. Torkelson, A. Tan, L. Chen

10:10 Intermission.

10:25 PMSE 25. Rapid and versatile construction of functional amphiphilic cylindrical nanostructures from poly(L-lactide)-*block*-poly(D-glucose carbonate)s. Y. Song, Y. Chen, L. Su, R. Li, R.A. Letteri, K.L. Wooley

10:50 PMSE 26. Directed assembly of twisted polymeric nanofibers via chemical vapor deposition in liquid crystals. K. Cheng, C. Hussal, E. Spuling, S. Braese, J. Lahann

11:15 PMSE 27. Integral asymmetric isoporous flat sheet and hollow fiber membranes from block copolymers. V. Abetz, M. Radjabian, K. Sankhala, N. Noor

11:50 PMSE 28. Preferred block copolymer domain orientation perpendicular to the fiber axis through solvent annealing. Z. Zhou, G. Liu

Section E

Marriott Marquis Washington, DC
Liberty Ballroom Salon I

Simulations of Polymeric Materials: Molecular- to Macro-Scale

Biologically Relevant Polymer Systems

A. Jayaraman, S. Loverde, M. Olvera De La Cruz, *Organizers*

A. Jayaraman, *Presiding*

9:00 PMSE 29. Multiscale view of DNA compaction in chromatin. J.J. De Pablo

9:30 PMSE 30. Hydration of polyethylene oxide brushes on gold surfaces. U.R. Dahal, E. Dormidontova

9:45 PMSE 31. Coarse-grained models of thermo-sensitive polymers. K. Bejagam, S. Singh, C. Berry, Y. An, S. Deshmukh

10:00 PMSE 32. Spontaneous insertion and helix formation by polyethylene oxide in carbon nanotubes. U.R. Dahal, E. Dormidontova

10:15 PMSE 33. New mechanism for selective macromolecular filtration in polymer networks. D.J. Mai, Y. Yang, T.J. Dursch, B.D. Olsen

10:30 Intermission.

10:40 PMSE 34. Prediction of salt-responsive morphological phase diagrams for DNA-based polyelectrolytes. Y.G. Yingling

11:10 PMSE 35. Coarse-grained molecular dynamics studies of the structure and stability of peptide-drug amphiphile filaments. M. Kang, A. Manandhar, H. Cui, S. Loverde

11:25 PMSE 36. Knot energy, complexity, and mobility of knotted polymers. F. Vargas-Lara, A. Hassan, M. Mansfield, J.F. Douglas

11:40 PMSE 37. Studies towards the improvement in the design of novel polyphosphate inhibitors as anti-thrombotic agents using molecular dynamics simulations. A. Mafi, J.N. Kizhakkedathu, J. Pfafndtner, K. Chou

Section F

Marriott Marquis Washington, DC
Marquis Salon 13

Gels & Other Soft Amorphous Solids Synthesis & Characterization

E. Del Gado, *Organizer*

J. Douglas, F. Horkay, *Organizers, Presiding*

8:30 PMSE 38. Self-assembly of liquid-crystalline block-copolymers for responsive nematic gels. Z. Kurji, R. Hule, P. Pirogovsky, J.A. Kornfield

9:00 PMSE 39. Controlling polymer network topology with chemistry. J.A. Johnson

9:30 PMSE 40. Interpenetrating polymer network hydrogels based on poly(2-hydroxyethyl methacrylate): Morphology effects on formation, swelling, optical, and mechanical properties. M. Duskova Smrckova, Z. Sadakbayeva, M. Steinhart, A. Šturcová, J. Pflieger, K. Dusek

10:00 Intermission.

10:15 PMSE 41. Polymeric nanoparticles explored for drug-delivery applications. E.E. Malmstrom, H. Asem, C. Porsch, J. Engstrom, A.E. Carlmark, A.M. Nyström

10:45 PMSE 42. Stereochemically tuneable hydrogels through efficient nucleophilic thiol-yne click chemistry. L.J. Macdougall, A.P. Dove

11:05 PMSE 43. Solution behavior of bottlebrush polyelectrolytes. J. Lou, Y. Teo, F. Horkay, Y. Xia

11:25 PMSE 44. Idealized networks through bottlebrush polymerization. J.M. Sarapas, E. Chan, K. Beers

11:45 PMSE 45. Structure and spatial distribution of hydrophobic drugs in nanogel star polymers. G. Wei, V.M. Prabhu, V.A. Plunova, R.D. Miller

Section G

Marriott Marquis Washington, DC
Marquis Salon 12

Polyphosphazenes in Biomedicine, Engineering & Pioneering Synthesis

Cosponsored by POLY

Financially supported by White Square Chemical, Inc., Celonova Biosciences, Inc.

H. R. Allcock, A. K. Andrianov, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 PMSE 46. Control of polyphosphazene properties by side group variations. H.R. Allcock

9:05 PMSE 47. Self-assembling polyphosphazene systems and their biomedical applications. A.K. Andrianov

9:35 PMSE 48. Polyphosphazene-based biomaterials for regenerative engineering. K.S. Ogueri, Z. Li, J.L. Escobar Ivirico, M. Deng, L.S. Nair, H.R. Allcock, C. Laurencin

10:05 Intermission.

10:25 PMSE 49. Poly(alkyl/aryl)phosphazenes. P. Wisian-Neilson

10:55 PMSE 50. Polyphosphazene nanoparticles as contrast agent delivery systems. D. Cormode

Section H

Marriott Marquis Washington, DC
Liberty Ballroom Salon N

Materials for Patterning in Two & Three Dimensions

Financially supported by Applied Materials; JSR Micro, Inc.

A. Nelson, A. Vora, *Organizers, Presiding*

8:00 Introductory Remarks.

8:05 PMSE 51. Dynamic covalent chemistry in 3D printing. R. Smaldone

8:25 PMSE 52. Expanded materials space for digital light processing additive manufacturing (DLP-AM). A.J. Boydston

8:50 PMSE 53. Future fabricated with light: Rethinking materials for 3D manufacturing. J. Rolland

9:15 PMSE 54. How new materials and additive manufacturing are changing medicine. M. Becker

9:40 Intermission.

9:50 PMSE 55. Designing functional polymers for 3D printing: From material extrusion of ion-containing polymers to stereolithography of multifunctional acrylates. T.E. Long, P.J. Scott, A. Pekkanen, M. Hegde, J. Sirrine, N. Chartrain, V. Meenakshisundaram, C. Williams

10:15 PMSE 56. Peptide-crosslinking of biomaterials for 3D bio-printing. S.C. Heilshorn, K. Dubbin

10:40 PMSE 57. Three-dimensional printing of complex structures by freeform reversible embedding of suspended hydrogels (FRESH). A.W. Feinberg

11:05 PMSE 58. Dynamic and user-programmable biomaterials for 4D cell culture. J.A. Shadish, L. Liu, C.A. DeForest

11:30 PMSE 59. Synthetic hydrogels for 3D bioprinting. A. Nelson

Merck Research Award Symposium

Sponsored by WCC, Cosponsored by BIOL, COMP, MEDI, MPPG, ORGN, PMSE and PROF

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Biobased Materials: Industrial Perspectives

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Metallo-Supramolecular & Metal Containing Polymers

Metallo-Supramolecular Polymers & Assemblies

Sponsored by POLY, Cosponsored by PMSE†

Polymer Mechanochemistry

Sponsored by POLY, Cosponsored by PMSE

SUNDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Liberty Ballroom Salon L

Journal of Polymer Science Award: Symposium in honor of Luis Campos

Financially supported by Wiley

J. Mahoney, *Organizer*

C. J. Hawker, *Organizer, Presiding*

1:00 PMSE 60. Magneto-optical designs in conjugated polymers. T.M. Swager, P. Wang

1:30 PMSE 61. From microelectronics to nanomedicine: Application of organic catalysis and sustainable chemistry. J. Hedrick

2:00 PMSE 62. Adventures in the synthesis of poly[n]catenanes. S.J. Rowan

2:30 PMSE 63. Improved synthesis and applications of imine-linked covalent organic frameworks. W. Dichtel

3:00 PMSE 64. Macromolecular metamorphosis: Stimulus-triggered topological transformations of polymer architecture. H. Sun, C.P. Kabb, Y. Dai, M.R. Hill, A. Bapat, B.S. Sumerlin

3:30 PMSE 65. Synthesis of polymeric materials by ROMP initiators. R.H. Grubbs

4:00 PMSE 66. Controlling cationic polymerizations with light. B.P. Fors

4:30 PMSE 67. Materials for 3rd-generation solar cells. L.M. Campos

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Section B

Marriott Marquis Washington, DC
Liberty Ballroom Salon J

Dynamic Chemistry in Polymer Materials

N. Ayres, *Organizer*

D. Konkolewicz, *Organizer, Presiding*

P. Chakma, *Presiding*

1:00 PMSE 68. Dynamic and self-healing polymers containing hypervalent iodine(III) and bismuth(V) atoms as structural elements. N.V. Tsarevsky, A. Vaish, H. Han, S. Seger

1:30 PMSE 69. Recent progress in self-healing polymer design via supramolecular and dynamic covalent bonds. Z. Guan

2:00 PMSE 70. Investigating the dynamic imine and aminal bond exchange towards covalent adaptable networks. D. Zhang, A. Chao

2:30 PMSE 71. Dynamic bonds in self-healable carbohydrate-modified polyurethanes. Y. Yang, M.W. Urban

3:00 Intermission.

3:20 PMSE 72. Polymeric hydrogen-bond-based donor systems showing self-healing behavior in thin films. U.S. Schubert, R. Tepper

3:50 PMSE 73. Dynamic and self-healing hindered polyurea. H. Ying, K. Cai, J. Cheng

4:20 PMSE 74. Stimuli responsive self-healing and malleable material based on reversible thiol-Michael chemistry. P. Chakma, D. Konkolewicz, Z. Digby, L. Henriquer

4:40 PMSE 75. Influence of the base layers on the real time dynamic water contact angle. K. Ashraf, C. Wang, S. Nair, D.A. Higgins, M.M. Collinson, K.J. Wynne

Section C

Marriott Marquis Washington, DC
Liberty Ballroom Salon K

Synthesis, Self-Assembly & Applications of Peptides & Polypeptides

Ring-Opening Polymerization of NCA & Polypeptides

Financially supported by *Journal of Biomaterials Science, RSC*

J. Cheng, H. Lu, *Organizers*

H. Schlaad, L. Yin, *Presiding*

1:30 PMSE 76. Killing gram-negative superbugs with star polymers, not antibiotics. G.G. Qiao

2:00 PMSE 77. Functional polypeptides toward design of multifunctional anticancer nanomedicines. C. Deng, J. Wu, J. Zhang, F. Meng, R. Cheng, Z. Zhong

2:30 PMSE 78. Engineering the topology of helical polypeptides toward anti-inflammation gene therapy. F. Li, F. Xu, L. Yin

3:00 PMSE 79. Smart ampholytic ABC block copolypeptide. H. Schlaad, J. Sun, P. Cernoch, J. Ruokolainen

3:30 Intermission.

3:50 PMSE 80. Injectable polypeptide hydrogels for biomedical applications. X. Chen, C. He

4:20 PMSE 81. Amphiphilic stereoblock polypeptides: Synthesis and solution assembly. R.A. Letteri, J. Fan, X. He, T.P. Nguyen, K.L. Wooley

4:50 PMSE 82. New controlled techniques in *N*-carboxyanhydride (NCA) polymerization: From light-induced ring-opening polymerization to reactive polypeptide scaffolds. M. Hill

Section D

Marriott Marquis Washington, DC
Marquis Ballroom Salon 10

1D Nanomaterials: Synthesis, Assembly, Properties & Applications

S. B. Darling, J. Hahn, *Organizers, Presiding*

1:30 PMSE 83. Determining how the molecular structure of peptide amphiphiles influences the energy landscape of their assembly into one-dimensional supramolecular fibers. M.P. Hendricks, S. Lobo, N. Sather, S.I. Stupp

1:55 PMSE 84. Fibrinogen adsorption and packing configurations mediated by the periodicity and alignment control of 1D block copolymer nanodomains. T. Xie, A. Vora, P.J. Mulcahey, S. Nanesco, J. Huang, C. Liu, D.P. Sanders, J. Hahn

2:20 PMSE 85. Nitric oxide-releasing hyper-branched polyaminoglycosides as novel antibacterial agents. M.H. Schoenfish

2:55 Intermission.

3:10 PMSE 86. Engineering of chiral phases based on cellulose nanocrystals: Effect of sources and nanocrystal dimensions. V. Korolovych, V. Cherpak, R. Xiong, D. Nepal, A. Ng, T. Bunning, V.V. Tsukruk

3:35 PMSE 87. Mechanically-robust, multifunctional and ultrathin nanofibrous membranes for tuberculosis elimination. V. Intasanta, N. Subjaleandee

4:00 PMSE 88. Polycarbodiimide coating modulates the carbon nanotube delivery into cancer cells. J. Budhathoki-Uprety, R.E. Langenbacher, P.V. Jena, J.D. Harvey, E. Isaac, R.M. Williams, T.V. Galassi, D.A. Heller

4:25 PMSE 89. Electrophilic substitution on phenylsilsesquioxanes. R.M. Laine, M. Bahrami, D. Hashemi, J. Kieffer, T.G. Goodson, J. Kampf

Section E

Marriott Marquis Washington, DC
Liberty Ballroom Salon I

Simulations of Polymeric Materials: Molecular- to Macro-Scale

Structure & Morphology in Polymer Systems

A. Jayaraman, M. Olvera De La Cruz, *Organizers*

S. Loverde, *Organizer, Presiding*

1:30 PMSE 90. Simulations of homogeneous and structured polymeric nanoparticle formation through rapid solvent exchange. A. Panagiotopoulos, N. Li, A. Nikoubashman

2:00 PMSE 91. Gibbs ensemble-based molecular simulation methods for predicting structure and thermodynamics of polymer films during solvent vapor annealing. T.E. Gartner, A. Jayaraman

2:15 PMSE 92. Large scale coarse grain molecular dynamics simulations of PEO-PS diblock copolymer assemblies. K. Chakraborty, S. Loverde

2:30 PMSE 93. Study on phase behavior of coil-semiflexible diblock copolymers/nanoparticles composites by using self-consistent field theory. G. Yang

2:45 PMSE 94. Elastocapillarity in polymers and soft matter. A.V. Dobrynin, Z. Cao

3:00 Intermission.

3:10 PMSE 95. Block copolymer assemblies beneath the surface: Modeling intra-domain textures and chirality transfer to mesoscale assembly. G.M. Grason

3:40 PMSE 96. Probing the phase behavior of coarse-grained polymer models with nested sampling. K. Salerno, N. Bernstein

3:55 PMSE 97. Fabricating a multitude of metastable, non-classical morphologies in block copolymers by processing. M. Mueller, D. Sun

4:10 PMSE 98. Systematic and simulation-free coarse graining of polymer melts. Q. Wang

Section F

Marriott Marquis Washington, DC
Marquis Salon 13

Gels & Other Soft Amorphous Solids

Structure-Property Relationship

J. Douglas, F. Horkay, *Organizers*

E. Del Gado, *Organizer, Presiding*

E. E. Malmstrom, *Presiding*

1:30 PMSE 99. SANS from branched polymers-recent results. B. Hammouda

2:00 PMSE 100. Gels: From soft matter to biomatter. M. Shibayama, T. Sakai

2:30 PMSE 101. Polymer conformations at surfaces: Swelling, excluded volume and understanding adsorption. K. Beers, S.V. Orski, R.J. Sheridan, E. Chan

3:00 Intermission.

3:15 PMSE 102. Swelling of cross-linked polymers: Interpretations and misinterpretations. K. Dusek, M. Duskova-Smrckova

3:45 PMSE 103. Osmotic properties of biomimetic fibrillar hydrogel as a vitreous substitute. S. Santhanam, N. Ravi

4:05 PMSE 104. Understanding rate dependent mechanical properties of supramolecular hydrogels through real time SAXS measurements during stretching. B.D. Vogt

4:25 PMSE 105. Hydrogel structure and dynamics of oligocarbonate-functionalized PEG telechelic polymers. V. Prabhu, G. Wei, S. Ali, J. Hedrick, S. Venkataraman, Y. Yang

4:45 PMSE 106. Rate dependent mechanical response of crosslinked polymer networks. J. Lenhart, R. Mrozek, D. Knorr, T. Long, K. Masser, T. Sirk, E. Bain

Section G

Marriott Marquis Washington, DC
Marquis Salon 12

Polyphosphazenes in Biomedicine, Engineering & Pioneering Synthesis

Cosponsored by POLY

Financially supported by *White Square Chemical, Inc., Celonova Biosciences, Inc.*

H. R. Allcock, A. K. Andrianov, *Organizers*

A. Presa Soto, I. Teasdale, *Presiding*

1:30 PMSE 107. Polyphosphazenes with controlled macromolecular structures and triggered degradation pathways. I. Teasdale

2:00 PMSE 108. Self-assembly of crystalline and chiral hybrid polyphosphazene-*b*-polystyrene block copolymers. A. Presa Soto, G. Carriedo, R. de la Campa, D. Presa-Soto

2:30 PMSE 109. Molecular simulation of polyphosphazenes. J.R. Fried

3:00 Intermission.

3:20 PMSE 110. Synthesis and physicochemical properties of noble polyphosphazene-Pt(II) conjugate drugs for cancer therapy. Y.S. Sohn

3:40 PMSE 111. Development of fluorinated ionomer coatings using aqueous nanoassembly of polyphosphazene polyelectrolytes. S.A. Sukhishvili, V. Selin, A. Marin, A.K. Andrianov

4:00 PMSE 112. Polyphosphazene based gas separations membranes: pushing the boundaries. H.B. Nulwala, D. Luebke, Z. Li, H.R. Allcock

Section H

Marriott Marquis Washington, DC
Liberty Ballroom Salon N

Materials for Patterning in Two & Three Dimensions

Bio-Patterning & Advanced Lithography

Financially supported by *Applied Materials; JSR Micro, Inc.*

A. Nelson, *Organizer*

A. Vora, *Organizer, Presiding*

D. P. Sanders, *Presiding*

1:00 PMSE 113. Polymers for direct and interact patterning of proteins by electron beam lithography. H.D. Maynard

1:25 PMSE 114. 2D surface assembly configurations and packing preferences of proteins on block copolymer nanodomains. T. Xie, A. Vora, P.J. Mulcahey, C. Liu, D.P. Sanders, J. Hahn

1:50 PMSE 115. Block copolymers with one charged block as templates for protein patterning. B.D. Olsen, H. Sureka, C. Stewart-Sloan, R. Wang, M.K. Sing

2:15 PMSE 116. EUV metal oxide hybrid photoresists: Ultrasmall structures for high resolution patterning. H. Xu, K. Kasahara, V. Kosma, E.P. Giannelis, C.K. Ober

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2:35 PMSE 117. Manipulating ordering and alignment in nanostructured thin films using simultaneous solvent annealing and shear. T.H. Epps

3:00 Intermission.

3:15 PMSE 118. Polymer design for improved orientation control in thin films of self-assembled polycarbonate-based block copolymers. D.P. Sanders, A. Vora, K. Schmidt, T. Magbitang, N. Arellano, E. Lofano

3:40 PMSE 119. Three-dimensional assembly of block copolymers on pre-patterned templates. T. Segal-Peretz, J. Ren, S. Xiong, G. Khaira, A. Bowen, J.J. De Pablo, P.F. Nealey

4:00 PMSE 120. Thin-film self-assembly and morphology mapping of cyclopropenium diblock copolyelectrolytes. S.T. Russell, S. Kumar, L. Campos

4:20 PMSE 121. Wavy patterning of molecular brush-based photoreists. N. Kang, S. Cho, S. Verkhoturov, M. Eller, E.A. Schweikert, G. Sun, J.W. Thackeray, P. Trefonas, K.L. Wooley

4:40 PMSE 122. Bridging the length scale divide in two photon polymerization, macroscale 3D printed foams with sub-micron resolution. J.S. Oakdale, R. Smith, W.L. Smith, J. Forien, J. Ye, T. Willey, L. Aji, S. Ali, J. Biener

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Developments in Biocatalysts

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

Metallo-Supramolecular & Metal Containing Polymers

Metallo-Supramolecular Polymers & Assemblies

Sponsored by POLY, Cosponsored by PMSE†

Polymer Mechanochemistry

Sponsored by POLY, Cosponsored by PMSE

MONDAY MORNING

Section A

Marriott Marquis Washington, DC
Liberty Ballroom Salon L

Roy W. Tess Award: Symposium in honor of Stuart Croll

D. C. Webster, *Organizer, Presiding*

8:20 Introductory Remarks.

8:30 PMSE 123. Controlled silica templation technologies for antireflective coatings. R.A. VanBentem

9:00 PMSE 124. Learning from the past, protective coatings that provided a 50-year service life for penstock linings. A. Skaja

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

9:30 PMSE 125. Revisiting a conservator's journey: Embracing the Rashomon effect in materials research. D.V. Rogala

10:00 Intermission.

10:30 PMSE 126. Blending polymer nanoparticles with conventional latexes. T. Provder, F.N. Jones, R. Joshi, W. Shen

Section B

Marriott Marquis Washington, DC
Liberty Ballroom Salon J

Dynamic Chemistry in Polymer Materials

N. Ayres, D. Konkolewicz, *Organizers*

E. B. Berda, A. M. Kloxin, *Presiding*

8:00 PMSE 127. Application of reversible addition-fragmentation chain transfer (RAFT) in covalent adaptable networks (CANs). N. Sowan, C. Bowman

8:20 PMSE 128. Well-defined polymeric architectures via foldable block copolymers. E. Elacqua, K. Manning, D. Lye, M. Weck

8:50 PMSE 129. Functional dynamic covalent polymers with self-healing and mechanochromic properties. H. Otsuka, A. Takahashi, K. Imato, R. Goseki

9:20 Intermission.

9:40 PMSE 130. Novel encapsulation and triggered-release systems designed by industry-academic collaboration. J.S. Katz

10:10 PMSE 131. Folding single polymer chains via dynamic intrachain interactions. E.B. Berda

10:40 PMSE 132. Structurally dynamic assemblies of stimuli-responsive polymers. H. Sun, C.P. Kabb, S. Pal, C.C. Deng, J.J. Cash, B.S. Sumner

11:10 PMSE 133. Design of responsive materials utilizing assembling and orthogonal chemistries for controlling cellular microenvironments. A.M. Kloxin

Section C

Marriott Marquis Washington, DC
Liberty Ballroom Salon K

Synthesis, Self-Assembly & Applications of Peptides & Polypeptides

Financially supported by Journal of Biomaterials Science, RSC

J. Cheng, H. Lu, *Organizers*

K. A. Kilian, Y. Lin, *Presiding*

8:00 PMSE 134. Studying the interaction of lipopeptides with lipid membranes: Influence of lipopeptide design and its implications for membrane fusion. A. Kors

8:30 PMSE 135. Self-assembled peptide monolayers for the discovery of bioactive ligands that direct cell state. K.A. Kilian, D. Zhang, J. Lee

9:00 PMSE 136. Self-assembly & applications of food-based amyloid fibrils. R. Mezzenga

9:30 PMSE 137. Roles of Tyr played in a silk fibroin based peptide (GAGAGAGY) amphiphiles. Z. Shao, F. Zhao, H. Guo

10:00 Intermission.

10:20 PMSE 138. Searching the peptide sequence space for reactivity, assembly and recognition. R. Uljin

10:50 PMSE 139. Revisiting the helix-coil transition and the helical chain growth of polypeptides. H. Fu, R. Baumgartner, J. Cheng, Y. Lin

11:20 PMSE 140. Development of supramolecular antibacterials: Understanding supramolecular structure-activity relationships (SSAR). M.M. Conda-Sheridan, N. Almeida, M. Samad

11:40 PMSE 141. Robust nanomaterials formed from cyclic peptide polymers. K. Fears, M.K. Kolel-Veetil, X. Li, N. Bernstein, D. Barlow, C. So, K.J. Wahl, J. Kulp, R.A. Latour, T. Clark

Section D

Marriott Marquis Washington, DC
Marquis Ballroom Salon 10

Recombinant Type Materials

Cosponsored by BIOT

Financially supported by National Science Foundation MRSEC, Army Research Office, Office of Naval Research

S. Banta, J. K. Montclare, *Organizers, Presiding*

8:30 PMSE 142. Design of protein systems for material functions. D.L. Kaplan

9:10 PMSE 143. Recombinant spider silk development and technologies. J.A. Jones, T. Harris, D. Gaztambide, R.V. Lewis

9:35 PMSE 144. Silk-elastinlike polymers for controlled delivery and as liquid embolics. H. Ghandehari, J. Cappello, M. Jensen, K. Isaacson, D. Steinhoff

10:00 Intermission.

10:15 PMSE 145. Globular protein based complex coacervates. C. Cummings, R. Kapelner, A. Obermeyer

10:40 PMSE 146. Enabling high-throughput biomaterials production and testing with a bacterial secretion platform. A. Azam Glasgow, D.T. Ercek

11:05 PMSE 147. Repurposing the translation apparatus for synthetic biology. M.C. Jewett

11:30 PMSE 148. Genomically recorded organisms: Living foundries for production functionalized biomaterials. F. Isaacs

Section E

Marriott Marquis Washington, DC
Liberty Ballroom Salon I

Simulations of Polymeric Materials: Molecular- to Macro-Scale

Mechanical Properties in Polymer Systems

A. Jayaraman, S. Loverde, *Organizers*

M. Olvera De La Cruz, *Organizer, Presiding*

9:00 PMSE 149. Coarse-graining of conservative and non-conservative interactions in simulations of soft matter. N. van der Vegt

9:30 PMSE 150. Quantifying the uncertainty of predicted thermoset resin properties as a function of system complexity: A molecular dynamics study. E.E. McDonald, C. Estridge

9:45 PMSE 151. Structure and mechanics of semi-crystalline polymers: Coarse-grained simulation and theory. T.B. Martin, R.L. Jones, C.R. Snyder

10:00 PMSE 152. Molecular dynamics simulations of tensile deformations of semicrystalline polyethylene. I. Yeh, J. Lenhart, G.C. Rutledge, J. Andzelm

10:15 PMSE 153. Effects of coarse-graining on simulations of mechanical properties of polymers. T. Ge, M.O. Robbins

10:30 Intermission.

10:40 PMSE 154. Molecular simulation of thermoplastic polyurethanes under large mechanical deformation. S. Zhu, G.C. Rutledge

10:55 PMSE 155. Mechanisms of diffusion in associating polymer networks. J. Ramirez, T.J. Dursch, B.D. Olsen

11:10 PMSE 156. Micromechanical modeling of the compressive response of poly(HIPE) foams. O.G. Kravchenko, G. Gedler, D. Feke, I. Manas-Zloczower

11:25 PMSE 157. Molecular dynamic simulations of classical and relaxor ferroelectricity in poly(vinylidene fluoride) and related polymers. J. Calame

Section F

Marriott Marquis Washington, DC
Marquis Salon 13

Gels & Other Soft Amorphous Solids Polyelectrolytes

E. Del Gado, J. Douglas, F. Horkay, *Organizers*
B. Hammouda, M. Shibayama, *Presiding*

8:30 PMSE 158. Polyelectrolyte gels based on complex coacervation. J.J. De Pablo

9:00 PMSE 159. Elastically driven, intermittent microscopic dynamics in gels and soft amorphous solids. E. Del Gado

9:30 PMSE 160. Influence of molecular rigidity on entropy-enthalpy compensation in DNA hybridization. J.F. Douglas

10:00 Intermission.

10:15 PMSE 161. Using polymer science to improve concrete: Superabsorbent polymer hydrogels in high alkaline environments. K.A. Erk, M.J. Krafcik, S.L. Kelly

10:45 PMSE 162. Computationally driven design of soft materials. A.V. Dobrynin, H. Liang, M. Vatanikhan Varnooosaderani, S. Sheiko

11:05 PMSE 163. Polyelectrolyte association and solvation. A. Chremos, J. Douglas

11:25 PMSE 164. Enhanced elasticity in poly(acrylic acid) hydrogels: Understanding mechanisms and exploring applications. A.Y. Walker, M. Vratsanos, N. Bedford, K. Hemmendinger, S.K. Kozawa, G.E. Wnek

11:45 PMSE 165. Influence of salts on the mechanical properties of polyelectrolyte complexes. H. Jiang, C. Zhang, C. Wang, B.D. Vogt, N. Zacharia

Section G

Marriott Marquis Washington, DC
Marquis Salon 12

Polyphosphazenes in Biomedicine, Engineering & Pioneering Synthesis

Cosponsored by POLY

Financially supported by White Square Chemical, Inc., CeloNova Biosciences, Inc.

H. R. Allcock, A. K. Andrianov, *Organizers*
D. Cormode, P. Wisian-Neilson, *Presiding*

†Cooperative Cosponsorship

8:30 PMSE 166. Functional co-substituted poly[(amino acid ester)phosphazene] biomaterials for vascular tissue engineering. A.L. Baillargeon, K.I. Penev, **K. Mequanint**

8:55 PMSE 167. Self-assembled polyphosphazene vesicles as effective carriers for water-soluble chemotherapeutics. L. Qiu

9:20 PMSE 168. Synthesis and characterizations of novel peptide-based polyphosphazene (poly [(ethyl phenylalanato) (glycine ethyl glycinato)phosphazene]) for blending with other biocompatible and biodegradable polymers for regenerative engineering applications. K.S. Ogueri, Z. Li, J.L. Escobar Ivirico, I.S. Nair, H.R. Allcock, C. Laurencin

9:40 PMSE 169. Smart polyphosphazene copolymers as intracellular protein delivery vehicles. A. Martinez, A. Marin, A.K. Andrianov

10:00 Intermission.

10:20 PMSE 170. New types of polyphosphazene elastomers. H.R. Allcock, Z. Li, C. Chen, C. Tong, E. Wilts, T. Modzelewski

10:40 PMSE 171. Polyphosphazenes featuring pyrene side group: Synthesis, photophysics, and intra-/inter-chain interactions. Z. Li, T. Young, E. Wilts, S.I. Rosenbloom, H.R. Allcock

11:00 PMSE 172. Mechanical stabilization of polyphosphazene membranes for gas separation processes. J. McNally, C. Orme, J. Klæh, V. Kusuma, S. Venna

11:20 Concluding Remarks.

Sustainable Design of Polymers from Xylochemicals

Strategic Design of Complex Polymers from the Combination of Xylochemicals

Sponsored by CELL, Cosponsored by CARB, PMSE and POLY

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Chemical Catalytic Routes to Biobased Materials

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

Metallo-Supramolecular & Metal Containing Polymers

Metallo-Supramolecular Materials in Energy Applications

Sponsored by POLY, Cosponsored by PMSE†

Polymer Mechanochemistry

Sponsored by POLY, Cosponsored by PMSE

MONDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Liberty Ballroom Salon L

Roy W. Tess Award: Symposium in honor of Stuart Croll

D. C. Webster, *Organizer, Presiding*

1:00 PMSE 173. Innovative performance polyethylene polymers: Development and applications. P. Rajesh Raja

1:30 PMSE 174. Emulsion copolymerization of plant oil-based monomers with styrene: Kinetics and mechanism. K. Kingsley, Z. Demchuk, O. Shevchuk, I. Tarnavchuk, V. Kirianchuk, A. Kohut, S. Voronov, **A.S. Voronov**

2:00 PMSE 175. Biobased feedstock for novel coating systems. M.K. Johansson, S. Nameer, M. Lawoko, M. Jawerth, S. Torron

2:30 Intermission.

3:00 PMSE 176. Coming full circle: From linseed oil to alkyds to petrochemical resins and back again. D.C. Webster

3:30 PMSE 177. Sol-gel coating with organic inhibitors for the protection of Mg alloy AZ31B. V. Upadhyay, Z.K. Bergseth, D. Battocchi

4:00 PMSE 178. Defects in understanding how polymers might form better barriers against corrosion. S.G. Croll

Section B

Marriott Marquis Washington, DC
Liberty Ballroom Salon J

Dynamic Chemistry in Polymer Materials

N. Ayres, *Organizer*

D. Konkolewicz, *Organizer, Presiding*

E. Palermo, *Presiding*

1:00 PMSE 179. Controlling function through structure in dynamic single chain polymeric nanoparticles. A. Palmans

1:30 PMSE 180. Dynamic bonding in bioconjugates. K. Matyjaszewski

2:00 PMSE 181. Antimicrobial self-immolative polymers. E. Palermo

2:30 PMSE 182. Using dynamic covalent chemistry to drive morphological transitions: Controlled release of encapsulated nanoparticles from block copolymer vesicles. S.P. Armes

3:00 Intermission.

3:20 PMSE 183. Reversible polymeric prodrugs to combat multidrug-resistant (MDR) gram-negative bacteria. D.M. Haddleton, P. Wilson, K. Kempe, C. Zhu

3:50 PMSE 184. Guest-host interactions for the assembly of injectable hydrogels. J.A. Burdick

4:20 PMSE 185. Molecular adaptation of SCPNs via tandem dynamic Diels-Alder chemistry and BTA self-assembly. J. Gomez Magenti, N. Van Zee, C. Hunter, A. Palmans, E.W. Meijer

4:40 PMSE 186. Responsive hydrogels for tailored release of protein therapeutics. P. LeValley, P. Kharkar, L. Olney, E. Maverakis, K.L. Kluck, A.M. Kloxin

Section C

Marriott Marquis Washington, DC
Liberty Ballroom Salon K

Synthesis, Self-Assembly & Applications of Peptides & Polypeptides

Financially supported by *Journal of Biomaterials Science, RSC*

J. Cheng, H. Lu, *Organizers*

H. Cui, B. Xu, *Presiding*

1:30 PMSE 187. Rethinking the roles of antimicrobial peptides in immune activation and autoimmunity. g.C. wong

2:00 PMSE 188. Peptide amphiphile micelles for atherosclerosis therapeutics. M.V. Tirrell

2:30 PMSE 189. Selective, peptide-enhanced surface deposition of polymers and polymer nanoparticles. H.A. Klok

3:00 PMSE 190. Enzyme-instructed peptidic nanostructures for selectively inhibiting cancer cells. H. Wang, Z. Feng, J. Li, J. Zhou, X. Du, **B. Xu**

3:30 Intermission.

3:50 PMSE 191. Supramolecular imaging with peptides. H. Cui

4:20 PMSE 192. Enzyme-cleavable fluorescence labeled peptide amphiphiles for enhanced peptide intracellular delivery. H. Acar, M.V. Tirrell

4:40 PMSE 193. Cell dependent cell-penetrating peptides. J. Shi, J.P. Schneider

Section D

Marriott Marquis Washington, DC
Marquis Ballroom Salon 10

Recombinant Type Materials

Cosponsored by BIOT

Financially supported by *National Science Foundation MRSEC, Army Research Office, Office of Naval Research*

S. Banta, J. K. Montclare, *Organizers, Presiding*

1:30 PMSE 194. Protein engineered intelligent biomaterials. J.K. Montclare

2:10 PMSE 195. High molecular weight, multiply conjugated protein brushes through oxidative cysteine coupling and tyrosine modification. B. Seifried, J. Cao, B.D. Olsen

2:35 PMSE 196. Self-assembled recombinant globular protein vesicles. Y. Jang, J. Champion

3:00 Intermission.

3:15 PMSE 197. Nucleoporin-like proteins as catch-trap systems for protein separation. B.D. Olsen, M. Kim, B. Souza

3:40 PMSE 198. Elastomeric protein-based hydrogels with tailored mechanical properties. H. Li

4:05 PMSE 199. Protein-based biomaterials for surgical adhesive applications. J.C. Liu

Section E

Marriott Marquis Washington, DC
Liberty Ballroom Salon I

Simulations of Polymeric Materials: Molecular- to Macro-Scale

Polymer Dynamics, Rheology & Ion-Containing Polymers

A. Jayaraman, M. Olvera De La Cruz, *Organizers*

S. Loverde, *Organizer, Presiding*

1:30 PMSE 200. Molecular dynamics simulations of morphology and dynamics in ion-containing polymers. A.L. Frischknecht

2:00 PMSE 201. Molecular dynamics simulations of nanoparticle dispersed PEO polymer electrolytes for lithium ion batteries. I. Khan, M.A. Pasquinielli, E. Yildirim

2:15 PMSE 202. Salt response of polyelectrolyte complexes via molecular modelling. H.S. Antila, M. Härkönen, P.R. Van Tassel, M. Sammalkorpi

2:30 PMSE 203. Molecular dynamics simulation of polymerized Stockmayer fluids: Effects of chain length and connectivity on saturated dipoles near ions. I. Nakamura

2:45 PMSE 204. Simulating the evolution of molecular diffusivity during photopolymerization. S. Sarkar, S. Lin-Gibson, M.Y. Chiang

3:00 Intermission.

3:10 PMSE 205. Do atomistic simulations quantitatively capture molecular mechanisms underlying linear viscoelasticity in cross-linked epoxy networks? K.S. Khare, F.R. Phelan

3:25 PMSE 206. Molecular dynamics simulation of nonlinear elongational flows in entangled polymer melts. T.C. O'Connor, M. Galvani, M.O. Robbins

3:40 PMSE 207. Molecular dynamics simulations of nanorheology. M. Rubinstein, T. Ge, G.S. Grest, J. Kalathi, J. Halverson

3:55 PMSE 208. Energy renormalization approach to coarse-graining of polymer dynamics. W. Xia, F.R. Phelan, J. Douglas, S. Ketten

4:10 PMSE 209. Effect of flow-induced molecular alignment on welding of polymer interfaces. M. Galvani, T.C. O'Connor, M.O. Robbins

Section F

Marriott Marquis Washington, DC
Marquis Salon 13

Gels & Other Soft Amorphous Solids

Biological & Bioinspired Gels: New Concepts & Methods

E. Del Gado, J. Douglas, F. Horkay, *Organizers*

M. Duskova Smrckova, P. Verdugo, *Presiding*

1:30 PMSE 210. Imaging nanoparticles, cells and tissues in 3-D using focused electron probes. R.D. Leapman, M. Aronova

2:00 PMSE 211. Treating cartilage extracellular matrix as a composite medium. P. Bassar

2:30 PMSE 212. Robust extraction of microscale-matrix mechanics from heterogeneous tissue with surface defects. P. Chandran, E. Dimitriadis, E. Mertz, F. Horkay

3:00 Intermission.

3:15 PMSE 213. 3D and 4D printing of polymer gels. M.P. in het Panhuis

3:45 PMSE 214. Self-adaptive hydrogels. T. Shoaib, A. Carmichael, R.E. Corman, Y. Shen, H. Nguyen, R. Ewoldt, R.M. Espinosa-Marzal

4:05 PMSE 215. Control of mesh size and modulus by kinetically dependent cross-linking in hydrogels. Z. Zander, G. Hua, C.G. Wiener, B.D. Vogt, M. Becker

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- 4:25 PMSE 216.** Synthesis and characterization of glycopolymer hydrogels for determination of water structuring. A.L. Fogel, B. Upadhyay, J. Mills, S.E. Morgan
- 4:45 PMSE 217.** Simultaneous confocal microscopy and rheology probes the structural and mechanical evolution of collagen I through the sol-gel transition. K. Tran Ba, J. Zhu, K. Paeng, L.J. Kaufman

Section G

Marriott Marquis Washington, DC
Judiciary Square

Materials for Patterning in Two & Three Dimensions

Financially supported by Applied Materials; JSR Micro, Inc.

A. Nelson, A. Vora, *Organizers, Presiding*

- 1:00 PMSE 218.** 3D printed acid-cleavable polyethylene glycol methacrylate gels using vat photopolymerization. D.C. Aduba, E. Margareta, A.E. Marnot, K.A. Valentine, N. Chartrain, W. Surbey, K.D. Feller, A. Whittington, T.E. Long, C. Williams
- 1:20 PMSE 219.** High polymer elasticity from functional oligomers: Simultaneous growth and crosslinking in photopolymers. P.J. Scott, J. Sirrine, N. Chartrain, V. Meenakshisundaram, T. White, C. Williams, T.E. Long

- 1:40 PMSE 220.** Fracture toughness anisotropy resulting from 3D printing processes. M. Lampe, A. Lesser, P. Van Der Schaaf, A. Fuchs

- 2:00 PMSE 221.** Withdrawn.

- 2:20 PMSE 222.** Scalable fabrication of microstructured coatings with thiol-ene photopolymers and UV LED curing. Y. Du, J. Xu, J. Sakizadeh, A. McCormick, L. Francis

- 2:40** Intermission.

- 3:00 PMSE 223.** Patterned multilayer polymer thin films using continuous assembly of polymers via ring-opening metathesis polymerisation. T. Pattison, R.D. Miller, Q. Fu, G.G. Qiao

- 3:20 PMSE 224.** UV-induced micropatterning of complex functional surfaces by the use of light-sensitive alkoxyamines. J. Bosson, S. Teitell, M. Baron, J. Morris, J. Clément, O. Soppera, D. Gignès, Y. Guillauneuf

- 3:40 PMSE 225.** Electrochemically controlled biopolymer attachment to surfaces. A.L. Furst, M.B. Francis

- 4:00 PMSE 226.** Patterned liquid-filled hydrogel channels formed via tetrazine ligation for *in vitro* vasculature models. K.T. Dicker, A.C. Moore, D. Burris, R.E. Akins, J. Fox, X. Xia

- 4:20 PMSE 227.** Dynamics of patterned collagen deposition observed by atomic force microscopy. J.L. Tran, C.C. Cheng, R.W. Loo, M. Goh

- 4:40 PMSE 228.** Microstructured polypeptide-containing hydrogels via aqueous liquid-liquid phase separation. H. Lau, L. Li, I. Sidhu, K.L. Kiick

Green Polymer Chemistry: Biobased Materials & Biocatalysis

New Reaction Strategies & Materials

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

Metallo-Supramolecular & Metal Containing Polymers

Metallo-Supramolecular Materials in Energy Applications

Sponsored by POLY, Cosponsored by PMSE†

Polymer Mechanochemistry

Sponsored by POLY, Cosponsored by PMSE

Materials that Impact our Daily Lives & the Global Economy: Bring Practical Applications into the Chemistry Classroom

Sponsored by CHED, Cosponsored by CHED, PMSE, POLY and RUBB

Undergraduate Research Posters

Polymer Chemistry

Sponsored by CHED, Cosponsored by PMSE, POLY and SOCED

MONDAY EVENING

Section A

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

M. Becker, *Organizer*

8:00 - 10:00

29, 33, 48, 78, 93, 121, 141, 192-193, 201, 204-206, 208, 220.
See previous listings.

254, 256, 262-263, 265, 310, 312, 319, 340, 342-343, 345, 347, 350, 355, 357, 360, 362, 365, 368, 375-376, 379, 394, 396-397, 399-400, 403-405, 408, 411, 413, 419, 422, 427, 432, 435-436, 445, 447, 491, 495, 517, 519-520, 522-523. See subsequent listings.

TUESDAY MORNING

Section A

Marriott Marquis Washington, DC
Liberty Ballroom Salon L

Biomaterials Science & Translational Medicine

New Biomaterials Development & Biomanufacturing

Financially supported by Chinese Association of Biomaterials

Y. Hong, B. Li, J. Yang, K. Yeung, G. Zhang, *Organizers*

C. Bettinger, J. Yang, *Presiding*

- 8:00 PMSE 229.** Advanced materials for regenerative engineering. G.A. Ameer

- 8:40 PMSE 230.** Self-assembling prodrugs. H. Cui

- 9:05 PMSE 231.** Synthesis and characterization of biodegradable conductive elastomeric polyurethane. C. Xu, Y. Huang, G. Yepez, Z. Wei, F. Liu, A. Bugarin, L. Tang, Y. Hong

- 9:20 PMSE 232.** Flexible biodegradable citrate-based polymeric step-index optical fiber. D. Shan, C. Zhang, Z. Liu, J. Yang

- 9:35** Intermission.

- 9:45 PMSE 233.** Ultracompliant electrodes: Polymers and processing of hydrogel-based electrodes for peripheral nerve interfaces. C. Bettinger

- 10:10 PMSE 234.** Poly(lactide-co-glycolide) scaffolds protect mice against diet induced obesity and glucose intolerance. M. Hendley, P. Annamalai, M. Gower

- 10:25 PMSE 235.** Regulating arterial venous differentiation of pluripotent stem cells through immobilized ephrinB2/EphB4 signals. T. Dorsey, D. Kim, G. Dai

- 10:50 PMSE 236.** Phosphate graphite as a cell instructive, degradable scaffold with tunable mechanical properties for bone regeneration. S.A. Sydlík, A. Arnold, B. Holt

- 11:05 PMSE 237.** Magnesium ion enriched bone allograft for large bone defect management. W. Wang, H. Wong, P.K. Chu, F. Leung, K. Cheung, K. Yeung

- 11:30 PMSE 238.** Heparin-mimicking biomaterials with anticoagulant properties. N. Ayres, Q. Chai, Y. Huang, E. Mullins

- 11:45 PMSE 239.** PCL/PLGA semi-interpenetrating network (semi-IPN) shape memory polymers (SMPs) with tunable degradation rates and mechanical properties. M. Pfau, L. Nail, M. Grunlan

Section B

Marriott Marquis Washington, DC
Liberty Ballroom Salon J

Dynamic Chemistry in Polymer Materials

N. Ayres, *Organizer*

D. Konkolewicz, *Organizer, Presiding*

K. M. Miller, *Presiding*

- 8:00 PMSE 240.** Withdrawn.

- 8:20 PMSE 241.** Using dynamic covalent chemistry to access stimuli responsive polymer films. S.J. Rowan

- 8:50 PMSE 242.** Molecular-mediated film formation with dynamic covalent single-chain polymer nanoparticles. D.A. Fulton, C.S. Mahon, C.J. McGurk

- 9:20** Intermission.

- 9:30 PMSE 243.** Network architecture: A tool for enhancing the properties of dynamically crosslinked materials. E. Foster, E. Lensmeyer, B. Zhang, P. Chakma, J. Via, J. Flum, J. Sparks, D. Konkolewicz

- 10:00 PMSE 244.** Thiol-thioester exchange in network and linear polymers. C. Bowman, B.T. Worrell, M.K. McBride

- 10:30 PMSE 245.** Exploring the potential of thermoresponsive thiol-Michael bonds in poly(ionic liquid) polyester networks. K.M. Miller

- 11:00 PMSE 246.** Reprocessability and stress relaxation of cross-linked polyhydroxyurethanes and polycarbonates. W. Dichtel, D. Fortman, R. Snyder, J. Brutman, G. De Hoe, M.A. Hillmyer

Section C

Marriott Marquis Washington, DC
Liberty Ballroom Salon K

Synthesis, Self-Assembly & Applications of Peptides & Polypeptides

Protein & Protein-Mimics

Financially supported by Journal of Biomaterials Science, RSC

J. Cheng, H. Lu, *Organizers*

S. C. Heilshorn, W. Zhang, *Presiding*

- 8:00 PMSE 247.** Silk-based biomaterials and biomedical applications. D.L. Kaplan

- 8:30 PMSE 248.** Insights into protein shape effects through a large comparative study of bioconjugate self-assembly. B.D. Olsen, A. Huang, H. Sureka, J. Paloni, H. Yao

- 9:00 PMSE 249.** Genetically encoded protein chemistry: From chemical toolbox to bioactive materials. W. Zhang

- 9:30 PMSE 250.** New strategy on protein self-assembly driven by non-covalent interactions. G. Chen

- 10:00** Intermission.

- 10:20 PMSE 251.** Polypeptide scaffolds as engineered neural stem cell niches. C. Madi, S.C. Heilshorn

- 10:50 PMSE 252.** Synthesis and applications of bio-inspired oligoTEA peptidomimetics. C.A. Alabi

- 11:20 PMSE 253.** Harnessing the power of post-translational modifications for materials science and engineering. D. Mzhdehi, K.M. Luginbuhl, F.C. Huang, A. Chilkoti

- 11:40 PMSE 254.** Tunable protein release from a peptide hydrogel. S.E. Miller, Y. Yamada, S. Tau, J.P. Schneider

Section D

Marriott Marquis Washington, DC
Marquis Ballroom Salon 10

Recombinant Type Materials

Cosponsored by BIOT

Financially supported by National Science Foundation MRSEC, Army Research Office, Office of Naval Research

S. Banta, J. K. Montclare, *Organizers, Presiding*

- 8:30 PMSE 255.** Designing symmetric protein cages and nanoscale materials. T. Yeates, Y. Liu, J. Laniado, K. Cannon, J. Miller, Y. Lai

- 9:10 PMSE 256.** Unraveling the protein-protein energetics of protein cage self-assembly and applications to nanomaterials. B. Orner, F. Rongli, Y. Zhang, M. Ardejani, T. Cornell

- 9:35 PMSE 257.** Multiscale smart protein materials by design - connecting simulation, design, synthesis across multiple scales. M.J. Buehler

- 10:00** Intermission.

- 10:15 PMSE 258.** Protease-responsive microspheres engineered from self-assembled disordered proteins. B.S. Schuster, D.A. Hammer

- 10:40 PMSE 259.** Engineering the calcium-regulated β -roll peptide for biomaterials applications. S. Banta

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

†Cooperative Cosponsorship

11:05 PMSE 260. Photocrosslinkable tri-block protein polymer hydrogels. Y. Wang, J.K. Montclare

Section E

Marriott Marquis Washington, DC
Liberty Ballroom Salon I

Polyelectrolyte Coacervates, Precipitates & Multilayers

J. L. Lutkenhaus, S. L. Perry, N. Zacharia, *Organizers*

J. Lutkenhaus, *Presiding*

8:30 Introductory Remarks.

8:35 PMSE 261. Functional nanocoatings and nanocapsules: from chain intermixing to controlled morphology. S.A. Sukhishvili

9:20 PMSE 262. Coacervate core micelles: Size and shape. D. Audus, H. Boigenzahn, V. Prabhhu

9:40 PMSE 263. Nucleic acid - peptide complexes and micelles: Phase control and characterization. J. Vieregg, M.J. Lueckheide, A. Marciel, M.V. Tirrell

10:00 Intermission.

10:15 PMSE 264. Predicting phase behavior and transport in solutions of oppositely charged polyelectrolytes. R.G. Larson, A. Salehi

11:00 PMSE 265. Effect of water on the thermal transition observed in polyelectrolyte complexes. Y. Zhang, J.L. Lutkenhaus, M. Sammalkorpi, P. Batys

11:20 PMSE 266. Sequence and entropy-based control of complex coacervation. L. Chang, S.L. Perry, C.E. Sing

11:40 PMSE 267. Composition- and property-tunable ternary coacervate: Branched polyethylenimine and a binary mixture of a strong and weak polyelectrolyte. M. Zhao, N. Zacharia

Section F

Marriott Marquis Washington, DC
Marquis Salon 13

Gels & Other Soft Amorphous Solids

Supramolecular Assemblies & Organogels

E. Del Gado, J. Douglas, F. Horkay, *Organizers*

P. Bassier, M. P. in het Panhuis, *Presiding*

8:30 PMSE 268. Gels with derivatives of alkanolic acids as gelators and their thixotropic, self-healing, and self-standing properties. M. Zhang, J. Li, Y. Zhang, A.V. Mallia, R.G. Weiss

9:00 PMSE 269. Physical and chemical gels for finely controlled cleaning of cultural heritage. P. Baglioni

9:30 PMSE 270. Tunable biomimetic tough gel. N.R. Choudhury, R. Balu, N. Dutta

10:00 Intermission.

10:15 PMSE 271. Biopolymer gels: From cell signaling ion oscillators to high payload carriers. P. Verduogo

10:45 PMSE 272. Engineering nucleoporin-mimetic polymer hydrogels for selective filtration of antibodies. Y. Yang, D.J. Mai, B.D. Olsen

11:05 PMSE 273. Supramolecular self-assembly and its application in biomedicine. Y. Gao

11:25 PMSE 274. Comparing shear rheology and cavitation rheology for the characterization of polymer-based organogels and hydrogels. K.C. Bentz, S.E. Walley, N. Sultan, D.A. Savin

11:45 PMSE 275. Role of supramolecular association and entropy on the phase behavior and gelation of 12-hydroxystearic acid/*n*-alkane organogels. T. Lai, K.A. Cavicchi

Section G

Marriott Marquis Washington, DC
Marquis Salon 12

Memorial Symposium in honor of Les Sperling

Financially supported by Intel; Arkema Inc.

J. L. Jessop, R. A. Pearson, *Organizers, Presiding*

8:55 Introductory Remarks.

9:00 PMSE 276. Les Sperling, Mr. IPN Man: Humble scholar with a big heart. M. El-Aasser

9:30 PMSE 277. Nanophase-separated gradient copolymers and polyhydroxyurethanes with unusually broad interphases leading to excellent damping properties over extraordinarily broad temperature ranges. J.M. Torkelson, G. Beniah, M. Mok

10:00 PMSE 278. Shape memory contributions to self-healing of thermoplastic polymers. C. Hornat, Y. Yang, M.W. Urban

10:30 Intermission.

10:45 PMSE 279. Vitrimers: Recyclable thermosets of the future? F.E. Du Prez

11:15 PMSE 280. New polymeric nanolayered systems by forced assembly: Hierarchical structures. E. Baer

11:45 PMSE 281. Fracture behavior of epoxy matrix nanocomposites and nanoblends. R.A. Pearson

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Green Biocatalytic Transformations

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Metallo-Supramolecular & Metal Containing Polymers

Metal-Containing Polymers

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Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Aromatic, Antiaromatic & Non-Aromatic Systems

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Journey to Mars: Materials, Energy & Life Sciences

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TUESDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Liberty Ballroom Salon L

Biomaterials Science & Translational Medicine

Soft- & Hard-Tissue Regeneration

Financially supported by Chinese Association of Biomaterials

Y. Hong, B. Li, J. Yang, G. Zhang, *Organizers*

K. Yeung, *Organizer, Presiding*

M. Becker, *Presiding*

1:00 PMSE 282. Polymer design for mechanical support of the ventricular wall following myocardial infarction. W.R. Wagner

1:40 PMSE 283. Prevascularization of natural nanofibrous extracellular matrix for engineering multiple completely biological 3D prevascularized tissues. Z. Qian, L. Zhang, M. Tahtinen, S. Qi, F. Zhao

2:05 PMSE 284. Synthesis of aminophylline loaded poly(lactic-co-glycolic acid) nanoparticles for use in extended release of a bioelectric modulator for corneal wound healing. L.M. Baird, X. Calderón-Colón, B. Reid, C. Mooers, L. Ma, V. Ryzhuk, M. Zhao, M. Trexler

2:20 PMSE 285. Chitosan-based conductive scaffolds for enhancement of stem cell functions by electrical stimulation. K. Neoh, J. Zhang, E. Kang

2:35 Intermission.

2:55 PMSE 286. Modular and biorthogonal approaches to the synthesis of functional biomaterials. X. Jia

3:20 PMSE 287. Sustained release of active biologics from bioresorbable poly(ester ureas). M. Becker

3:45 PMSE 288. Restoring the lubrication properties of degenerated cartilage with tissue-reactive graft-copolymers. G. Morgese, M. Zenobi-Wong, E. Benetti

4:00 PMSE 289. Biodegradable aligned core-shell nanofibers for articular cartilage tissue engineering. J.C. Silva, R. Udangawa, F. Garrudo, P. Mikael, F. Ferreira, R.J. Linhardt

4:15 PMSE 290. Modulation of leukocyte infiltration into biomaterial scaffolds engineered to release anti-inflammatory small molecules. K. Murphy, M. Gower

4:30 PMSE 291. Biomimetic polymer thin films with acetylcholine-like functionality for long-term survival of primary hippocampal neurons. E. Lee, J. Baek, M. Choi, S. Im, S. Jon

4:45 PMSE 292. Polybenzimidazole electrospun nanofibers for neural cell culture. F. Ferreira Garrudo, J. Fernandes da Silva, C.A. Rodrigues, J.M. Morgado, R.J. Linhardt, F. Ferreira

Section B

Marriott Marquis Washington, DC
Liberty Ballroom Salon J

Dynamic Chemistry in Polymer Materials

D. Konkolewicz, *Organizer*

N. Ayres, *Organizer, Presiding*

J. A. Kalow, *Presiding*

1:00 PMSE 293. Multiple hydrogen bonding versus multiple ionic bonding: Designing acrylic polymers with dynamic bonds. T.E. Long, X. Chen, K. Zhang, K. Drummey

1:30 PMSE 294. Simulations and experiments to understand the rheological response of dual associative block copolymer gels. B.D. Olsen, M.K. Sing, J. Ramirez, W. Burghardt

2:00 PMSE 295. Dynamic networks in ion-containing polymers. K.A. Cavicchi

2:30 PMSE 296. Dynamic chemistry leading to full property recovery associated with crosslink density in reprocessed polymer networks made by NMP and step-growth reactions. J.M. Torkelson, K. Jin, L. Li, X. Chen

3:00 Intermission.

3:20 PMSE 297. Photocontrol of viscoelastic hydrogels. J.A. Kalow

3:50 PMSE 298. Thermally induced structure evolution of supramolecular gels and polymers. H. Kumari

4:20 PMSE 299. What level of dynamic linkages relative to permanent linkages between crosslinks allows for reprocessability of polymer networks with robust recovery of properties: A Flory-Stockmayer analysis. L. Li, J.M. Torkelson

4:40 PMSE 300. Molecular switches enable reversible polymer crosslinking in response to multiple stimuli. E.S. Epstein, O. Carey-De La Torre, J.S. Moore, R. Ewoldt, P.V. Braun

Section C

Marriott Marquis Washington, DC
Liberty Ballroom Salon K

Synthesis, Self-Assembly & Applications of Peptides & Polypeptides

Peptoids & Peptidomimetics

Financially supported by Journal of Biomaterials Science, RSC

J. Cheng, H. Lu, *Organizers*

M. Barz, D. Zhang, *Presiding*

1:30 PMSE 301. Construction of well-defined nanostructures from flexible peptoid polymers. R.N. Zuckermann

2:00 PMSE 302. Peptidomimetic polymers: Development of new chemistry and functional materials. D. Zhang

2:30 PMSE 303. Polypept(o)ides: Combining polypeptoids with polypeptides for diagnosis and therapy. M. Barz

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3:00 PMSE 304. Peptide peptoid hybrid structures via solid phase synthesis and Ugi multicomponent reactions. **C. Becer**, M. Hartweg

3:30 Intermission.

3:50 PMSE 305. Toleration of alcohols and water in the syntheses of poly(α -amino acids). **J. Ling**

4:20 PMSE 306. Minifoldamers: Design, synthesis and study of specific interactions in peptoid helices. **T. Rajale**, C. Tung, A. Vernon, J.G. Schmidt, R. Michalczyk, C.E. Strauss, J.S. Martinez

4:40 PMSE 307. Novel initiating/organocatalytic systems for the living ring-opening polymerization of α -amino acid N-carboxyanhydrides. **N. Hadjichristidis**, W. Zhao, Y. Gnanou

Section D

Marriott Marquis Washington, DC
Marquis Ballroom Salon 10

Recombinant Type Materials

Cosponsored by BIOT

Financially supported by National Science Foundation MRSEC, Army Research Office, Office of Naval Research

S. Banta, J. K. Montclare, *Organizers, Presiding*

1:30 PMSE 308. Modulation of order and disorder in the sequence of a genetically encoded polypeptide yields injectable porous network. **A. Chilkoti**

2:10 PMSE 309. Recombinant biomaterials for treatment of spinal cord injuries. **K. Dubbin**, L. Marquardt, G. Plant, S.C. Heilshorn

2:35 PMSE 310. Exploiting chemical biology to generate protein-iron oxide hybrid biomaterials for theranostics. **L.K. Hill**, T. Jihad, Y. Zaim Wadghiri, J.K. Montclare

3:00 Intermission.

3:15 PMSE 311. Tuning mechanical properties of marine biopolymers. **P. Dennis**, M. Gupta, R.R. Naik

3:40 PMSE 312. Synthetic wet adhesive nanomaterials inspired by the barnacle, *Amphibalanus amphitrite*. **L.A. Estrella**, E. Yates, C. So

4:05 PMSE 313. Biopolymer and PEG hydrogels for improving healing of cardiovascular tissues. **K.L. Kiick**

4:30 PMSE 314. Hydrogel formation with self-assembly fibrous coiled-coil protein. **C. Liu**, L.K. Hill, T. Jihad, J. Montclare

Section E

Marriott Marquis Washington, DC
Liberty Ballroom Salon I

Polyelectrolyte Coacervates, Precipitates & Multilayers

J. L. Lutkenhaus, S. L. Perry, *Organizers*
N. Zacharia, *Organizer, Presiding*

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

1:30 Introductory Remarks.

1:35 PMSE 315. Functional fibers electrospun from polyelectrolyte complex coacervates. **X. Meng**, S.L. Perry, J.D. Schifman

2:20 PMSE 316. Highly selective multilayer polymer thin films for CO₂/N₂ separation. **Y. Song**, E. Lugo, P. Tzeng, S. Powell, B. Wilhite, J.C. Grunlan

2:40 PMSE 317. Charge density as a determinant of dynamics in polyelectrolyte complexes and coacervates. **J. Laaser**, M. McGovern, Y. Jiang, T.P. Lodge

3:00 Intermission.

3:15 PMSE 318. Three types of diffusion in polyelectrolyte complexes and multilayers. **J.B. Schlenoff**, H. Fares

3:35 PMSE 319. Star-graft quarter-polymers in multiresponsive hydrogel-bonded multilayer networks. **A.J. Erwin**, V.F. Korolovych, Z. Latridi, C. Tsiilianis, J. Anknner, V.V. Tsukruk

3:55 PMSE 320. Coarse-grained model for polyelectrolyte complexation. **M. Andreev**, S. Srivastava, L. Li, M.V. Tirrell, J.F. Douglas, J.J. De Pablo

4:15 PMSE 321. Layer-by-layer preparation of polymeric nanocapsules via crystallized miniemulsions. **A. Afari**, B. Sun, C. Cheng

Section F

Marriott Marquis Washington, DC
Marquis Salon 13

Gels & Other Soft Amorphous Solids

Nanogels & Composites

E. Del Gado, J. Douglas, F. Horkay, *Organizers*
P. Baglioni, R. G. Weiss, *Presiding*

1:30 PMSE 322. Correlation of soft nanogel internal morphology to the dynamics of both components in a polymer nanocomposite. **H. Martin**, A. Imel, S. Rostom, J.W. Mays, T. White, T. Saito, M.D. Dadmun

1:50 PMSE 323. Carbon nanodots crosslinked photoluminescent alginate hydrogels. **R. Wijayapala**, S. Hashemnejad, D. Defranc, S. Kundu

2:10 PMSE 324. Morphology and mechanical properties of poly(HIPE) nanocomposites containing cellulose nanocrystals. **V. Karimkhani**, K. Rohm, D. Feke, S.J. Rowan, I. Manas-Zloczower

2:30 PMSE 325. 2D nanostructures via crystallisation-driven self-assembly: Shape effects on nanocomposite hydrogels. **M. Inam**, A.P. Dove, R.K. O'Reilly

2:50 Intermission.

3:00 PMSE 326. Stress relaxation hydrogels with tunable mechanics and their applications for 3D cell culture. **J. Lou**, R. Stowers, O. Chaudhuri, Y. Xia

3:20 PMSE 327. Emulsion templating as a tool for fabrication of open cell aerogel foams. **N. Teo**, S.C. Jana

3:40 PMSE 328. Polypeptoid thermal gels: Synthesis, structure and architecture effect. **D. Zhang**

4:00 PMSE 329. Functionalization in the gel-state: A simple route to blocky copolymers of poly(ether ether ketone). **L. Anderson**, X. Yuan, R.B. Moore

4:20 PMSE 330. Physical properties of poly(ether ether ketone) aerogels. **S. Talley**, R.B. Moore

4:40 PMSE 331. pH-responsive dextran hydrogels by crosslinking with amino acid diamines. **N. O'Connor**, G. Nunez, M. Wong, D. Akpatsu, K. Clement, Q. Picard, A. Jitianu, M. Jitianu

5:00 PMSE 332. 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

Section G

Marriott Marquis Washington, DC
Marquis Salon 12

Memorial Symposium in honor of Les Sperling

Financially supported by Intel; Arkema Inc.

J. L. Jessop, R. A. Pearson, *Organizers, Presiding*

1:25 Introductory Remarks.

1:30 PMSE 333. Morphological structure of polyolefin on electrical breakdown behavior. **S. Han**

2:00 PMSE 334. Balancing composition and processing in bio-based flame retarded polymers. **D.A. Schiraldi**, T. Deans

2:30 PMSE 335. Competition between chain scission and slippage in failure of polymer fibers and glasses. **M.O. Robbins**, T.C. O'Connor, M. Galvani

3:00 Intermission.

3:15 PMSE 336. Analysis of fundamental properties for membrane separation. **L.M. Robeson**

3:45 PMSE 337. Blending high performance polymers for improved performance. **M. Jaffe**

4:15 PMSE 338. Enhancing kinetics and tuning physical properties via grafted networks of epoxide/acrylate hybrid photopolymerizations. **S.M. Schissel**, J.L. Jessop

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Polysaccharide-Based Materials

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Metallo-Supramolecular & Metal Containing Polymers

Metal-Containing Polymers

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Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Heteroatom Systems

Sponsored by POLY, Cosponsored by INOR and PMSE†

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YCC†

TUESDAY EVENING

Section A

Walter E. Washington Convention Center
Hall E

Joint PMSE/POLY Poster Session

Cosponsored by POLY

M. Becker, *Organizer*

6:00 - 8:00

General Papers/New Concepts in Polymeric Materials.

PMSE 339. Synthesis and characterization of hybrid gold/polymer nanoparticles for biomedical applications. **K. Abstienis**, A. Goepferich

PMSE 340. Efficacy of nitric oxide-releasing alginate for improving mucus rheology. **M.R. Ahonen**, D.B. Hill, M.H. Schoenfish

PMSE 341. Alignment control of anisotropic dye molecules by masked photo-polymerization. **M. Aizawa**, K. Hisano, C.J. Barrett, A. Shishido

PMSE 342. Fluorinated non-planar precursors for enhanced structural arrangement in two-dimensional (2D) azine-linked covalent organic frameworks. **S.B. Alahakoon**, G.T. McCandless, A. Karunathilake, C. Thompson, R. Smaldone

PMSE 343. Synthesis and characterization of enzyme catalyzed biodegradable click-ene polymers for biomedical applications. **E.M. Alattas**, R. Gross, S. Santra

PMSE 344. Shape-stable ultra-soft hydrogel microstructures. **S. Anders**, O. Prucker, J. Rühle

PMSE 345. Cellular internalization and cytoocompatibility of PEGylated clickable nucleic acid copolymers. **A. Anderson**, C. Bowman, S.J. Bryant

PMSE 346. Fluorescence imaging of tumor cells with matrix metalloproteinase-2 (MMP-2) cleavable supramolecular nanobeacons. **C.F. Anderson**

PMSE 347. Withdrawn.

PMSE 348. Synthesis of protein-polymer conjugates with UCST polymers. **J. Berberich**, D. Konkolewicz, R.C. Page, J.D. Stapleton, K. Thompson, C. Cash

PMSE 349. *In situ* study of morphology evolution in polymer blends during light self-trapping. **S. Biria**, I.D. Hosein

PMSE 350. Pressure-induced polymerization of thiophene into an extended carbon network. **A. Biswas**, M.D. Ward, H. Huang, T.A. Strobel, J.V. Badding

PMSE 351. Synthesis of new metal-containing polymers from the antiviral lamivudine and dipeptide diglycine. **C.E. Carraher**, F. Mosca, P. Slawek, M. Roner, J.E. Haky

PMSE 352. Synthesis of organotin and group IVB-containing polyamine esters, polyethers, and polyesters: Organotin polyamino esters from 4-aminobenzoic acid. **C.E. Carraher**, J. Frank, E. St Fort, L. Chen, F. Li, N. Ezzell, D. Patel, J. Einkauf, F. Russell, M. Roner

PMSE 353. Thermomechanical path dependence of glass transition temperature and failure in glassy shape-memory networks. **D. Chen**, M.L. Anthamatten

- PMSE 354.** Understanding the effect of microscopic pore structure on transport in lyotropic liquid crystal membranes. **B. Coscia**, M.R. Shirts
- PMSE 355.** High-performance, ambient phase change thermal diodes for energy applications. **A. Cottrill**, S. Wang, Y. Kunai, A.T. Liu, M. Strano
- PMSE 356.** Polymethacrylate pseudo crown ether used as solid state polyelectrolyte in Li-ion batteries. **O.R. Coulembier**, J.C. Martins, A. Krumpmann, V. Lemaire, J. Cornil, A. Decroly, P. Dubois, R. Lazzaroni
- PMSE 357.** Reducing apparent diffusivity of proteins for controlled drug release using aptamer-functionalized nanoparticles. **J. Coyne**, Y. Wang
- PMSE 358.** Prospective look at the potential of boron containing moieties as flame retardants for cotton. **B. Cromwell**, M. Levine
- PMSE 359.** Polyurethane thermosets that disassemble via cascade bond cleavage upon exposure to select stimuli. **G.C. Daniels**, E. Camerino, J.H. Wynne, E.B. Iezzi
- PMSE 360.** Genetically engineered light gathering peptides. **A.M. Eagleton**, J.P. Seeley, J.T. Welch
- PMSE 361.** Encapsulation of polyaromatic hydrocarbons in diblock copolymer micelles: Theoretical and experimental study. **A. El-Samak**, A. Elgendy, M.K. Abdelrasool, M. Youssry
- PMSE 362.** Blocky bromination of syndiotactic polystyrene via post-polymerization functionalization in the gel state. **K. Felice**, R.B. Moore
- PMSE 363.** Utilizing catechol chemistry to reinforce peptide-based supramolecular hydrogels. **G. Fichman**, J.P. Schneider
- PMSE 364.** Light driven degradation of nanogels and triggered release of guests. **F. Frausto**, S.W. Thomas
- PMSE 365.** Controlled antibody release from degradable thermoresponsive hydrogels cross-linked by Diels-Alder chemistry. **M. Gregoriza**, V. Messmann, F.P. Brandl, A. Goepferich
- PMSE 366.** Lipidated dendrimers displaying broad spectrum antibacterial activity. **M.E. Gide**, A. Nimmagadda
- PMSE 367.** Carbon dioxide selective mixed matrix membrane using periodic mesoporous organosilica nanofillers. **M. Hammami**, J. Croissant, O. ElTall, N.M. Khashab
- PMSE 368.** Development of a new class of hybrid, hierarchical polymers that exhibit stimuli responsive properties. **M.D. Harsha**, R.S. Bryan, J.S. Martinez, M.A. Firestone
- PMSE 369.** Binder erosion and tint retention in pigmented polymeric coatings. **J. Gu**, M. Koback, P. Eastman, J. Ngunjiri, M.B. Clark, J.R. Reffner, C. Valente
- PMSE 370.** Synthesis, polymerization kinetics and thermal properties of *para*-methylol functional benzoxazine. **K. Zhang**, L. Han, H. Ishida
- PMSE 371.** Ultrathin layer-by-layer salt-responsive hydrogel for fiber-optic salinity sensing. **R. Hlushko**, F. Yang, F. Tian, H. Du, S.A. Sukhishvili
- PMSE 372.** Poly(vinyl alcohol-co-vinyl gallate) as a novel polymeric antioxidant in solution and hydrogen-bonded layer-by-layer films. **H. Hlushko**, V. Albright, R. Hlushko, H. Nelson, S.A. Sukhishvili
- PMSE 373.** New approach to site-specific topological protein-poly(amino acid) conjugates enabled by in situ-generated functionalities. **Y. Hou**
- PMSE 374.** Multiblock copolymers with highly sulfonated poly(arylene sulfone) blocks for PEMFC applications. **T. Kim**, S. Choi, S. Ahn, **Y. Hong**
- PMSE 375.** Exploration of one-dimensional sp^3 carbon nanomaterials via pressure-induced polymerization of cubane. **H. Huang**, M.D. Ward, L. Zhu, B.L. Chaloux, A. Epshteyn, T.A. Strobel, J.V. Badding
- PMSE 376.** Strong and rapidly self-healing hydrogels: Potential hemostatic materials. **W. Huang**, Y. Wang, Y. Chen, Y. Zhao, Q. Zhang, Z. Tian, L. Chen, L. Zhang
- PMSE 377.** Exploration of laminin active-peptide conjugated chitosan hydrogel crosslinked by dicarboxylic acids. **K. Hozumi**, H. Yamada, T. Okawa, F. Katagiri, Y. Kikkawa, M. Nomizu
- PMSE 378.** Synthesis and catalytic reaction activity of gold nanoparticles (III)/diblock ionomers. **H. Inoue**, Y. Takeoka, M. Yoshizawa-Fujita, M. Rikukawa
- PMSE 379.** Effects of small molecules on coacervation of poly(diallyldimethylammoniumchloride) and poly(sodium 4-styrenesulfonate). **S. Huang**, M. Zhao, C. Wang, N. Zacharia
- PMSE 380.** Alignment of liquid-crystalline polymers by shear stress induced by masked photo-polymerization. **M. Ishizu**, K. Hisano, C.J. Barrett, A. Shishido
- PMSE 381.** Preparation and coating performances of urethane-based gel coats consisted of polycaprolactone-graft-lignin polyol. **S. Jang**, K. Ko, S. Hwang
- PMSE 382.** Recycled scrap tire based adsorbent for the removal of organic dyes and heavy metals from water. **M.T. Islam**, D.T. Bragg, C. Hernandez, B. Alvarado-Tenorio, J. Noveron
- PMSE 383.** Phenyl trimethylsilyl fluoride mediated controlled ring opening polymerization of α -amino acid N carboxyanhydrides. **Y. Jingsong**
- PMSE 384.** Supracolloidal polymers of patchy micelles of diblock copolymers with *in-situ* synthesized nanoparticles. **S. Jang**, K. Kim, B. Sohn
- PMSE 385.** Coating and fabrication of thermo-stable polymeric particles using electro spraying process. **H. Jung**, Y. Kim
- PMSE 386.** Thermoreversible poly(vinyl alcohol) gel as a matrix for controlling fluidity of an inorganic phase change material. **P. Karimineghani**, E. Emmons, P. Shamberger, S.A. Sukhishvili
- PMSE 387.** Withdrawn.
- PMSE 388.** Light-triggered and ROS-mediated degradation of therapeutic nanoparticles for enhanced *in vivo* anticancer therapeutic efficacy. **J. Kim**, J. Yu, Y. Nam
- PMSE 389.** Electrophoretic non-ionic poly(*N*-isopropylacrylamide) aiming for temperature-sensitive cell-cultivation coating. **K. Kimizu**, A. Takasu
- PMSE 390.** Sensing nerve agent simulants via photonic crystals of the *Morpho didius* butterfly. **B.P. Fisher**, A.J. Esparza, **J. Kittle**
- PMSE 391.** Surface modification of ionic liquid-based membranes via vapor cross-linking for CO₂/N₂ separation. **L. Kong**, K. Huang, S. Dai
- PMSE 392.** Reactivity of diarylbibenzofuranone in cross-linked polymers prepared by sol-gel method. **T. Kosuge**, K. Imato, R. Goseki, H. Otsuka
- PMSE 393.** Internal structure and properties of stimuli-responsive multilayer hydrogels probed by neutron reflectometry. **V.A. Kozlovskaya**, W.T. Higgins, A. Alford, J. Ankner, E.P. Kharlampieva
- PMSE 394.** Biodegradable thin films of UCST-type micelles: Film stability, degradation and biocompatibility. **A. Kumaraduvu Palanisamy**, B. Zhang, M. Xu, M. Stack, H. Wang, S.A. Sukhishvili
- PMSE 395.** Elucidating the phase behavior of microphase-separated poly(1,3-methylenecyclopentane)-*b*-poly(1-hexene) triblock copolymers. **K.K. Lachmayr**, W. Hwang, L.R. Sita
- PMSE 396.** Hybrid lithography: Combining masked and maskless lithography. **C.N. Lafratta**, M. Lim, G.M. Clifton, A. Gonzalez
- PMSE 397.** Synthesis and evaluation of poly(octamethylene citrate β -glycerophosphate) (POC- β GP) for bone regeneration. **Q. Li**, J. Guo, J. Chen, Y. Zhu, J. Yang
- PMSE 398.** Preparation of cyclo-based polymeric structures by triazole (multi) functionalization. **R. Lienard**, T. Josse, J. De Winter, O.R. Coulembier
- PMSE 399.** Electron beam patterning of polyglycidol nanogels for immobilized enzyme cascade reaction. **J. Lockhart**, A.B. Himelo, E. Harth
- PMSE 400.** Robust hydrogels with tunable properties using nucleophilic thiol-yne click chemistry. **L.J. Maccougall**, A.P. Dove
- PMSE 401.** Multi-compartment hydrogel synergizes combination chemotherapeutics with temporal control. **P. Majumder**, U. Baxa, J.P. Schneider
- PMSE 402.** Curcumin loaded PLGA nanofibers for the treatment of cancer, microbial infections, and the promotion of wound healing. **A. Mancuso**, K. Chatterjee, K. Punia, A.E. Marsillo, M. Castellanos, J. Fata, K. Raja
- PMSE 403.** Stochastic delay-derivative device elements using polymeric binary mixtures: Toward fabrication of bio-inspired signal processing devices with hierarchical instabilities. **R. Maruyama**, T. Hoshino, N. Asakawa
- PMSE 404.** Withdrawn.
- PMSE 405.** Combating drug-resistance: Nanofiber dressing for treatment of wound infection. **C.L. McGann**, J. Lundin, L.A. Estrella, J.H. Wynne
- PMSE 406.** Stretchable conductive adhesives based on silver/silicone rubber nanocomposites. **J. Miju**, H. Kim, W. Huh
- PMSE 407.** Electrophoretic non-ionic nano-spheres (latexes) for structural coloring. **D. Mokude**, A. Takasu, M. Higuchi
- PMSE 408.** Effects of printing parameters and adhesion on mechanical properties of 3D printed samples. **C. Nikon**, N. Borodinov, I.A. Luzinov
- PMSE 409.** Preparation of carbon microspheres containing silicon nanoparticle for negative electrode for lithium ion secondary battery. **M. Ota**, T. Ishibashi, K. Onozuka, **N. Nokoya**, A. Kuribara, Y. Deguchi, S. Yoon, T. Honma, T. Komatsu
- PMSE 410.** Morphological evolution of perfluorosulfonic acid ionomers from solution to membrane by solution-processing. **C. Orsino**, R.B. Moore
- PMSE 411.** Visible light photoinitiation of poly(ethylene) glycol hydrogels. **E. Ovadia**, K. Wiley, A.M. Kloxin
- PMSE 412.** Effects of high-order structure of poly(L-lactic acid) blend monoliths on their hydrolytic degradation. **H.T. Oyama**, Y. Nakamura, R. Ogawa
- PMSE 413.** Swelling of polymer binders by electrolytes in Li ion batteries: A model system of poly(vinylidene fluoride) thin films with carbonate electrolytes. **J. Qian**, C.G. Wiener, B.D. Vogt
- PMSE 414.** Nitrocathecolic polymer - magnetite nanoparticles: A thermo, magneto dual-responsive system with enhanced stability. **S. Qiu**, S. Jin, N. Yang
- PMSE 415.** Fabrication and characterization pH-sensitive smart material gradients: A sol-gel approach. **K. Roy**
- PMSE 416.** Synthesis and characterization of functionalized SWCNTs: Application in water purification. **A. Sahu**, T. Eired, R. Sheikh, A. Hirasawa, J.C. Poler
- PMSE 417.** Use of differential scanning calorimetry to monitor the crosslinking of a platinum-catalyzed addition cure silicone. **M.M. Salamon**, J. Timmerman
- PMSE 418.** Supramolecular ionic networks of PI-conjugated polyelectrolyte co-polymers. **J.L. Sartucci**, S.D. Shinde, D.K. Jones, N. Gavvalapalli
- PMSE 419.** Functionalization of porous polymer materials with redox-responsive moieties. **S. Schoettner**, C. Rüttiger, C. Trautmann, M. Toimil Molares, M. Gallei
- PMSE 420.** Understanding hemagglutination and hemagglutination inhibition of influenza viruses with sialic acid functionalized brush polymers. **B. Seifried**, C. Bandoro, G. Wang, J. Runstadler, J. Swan, B.D. Olsen
- PMSE 421.** Effect of competitive solvent on chain dynamics within hydrogen-bonded polyelectrolyte multilayers. **V. Selin**, J. Ankner, S.A. Sukhishvili
- PMSE 422.** Ionically crosslinked π -conjugated polymer networks. **S.D. Shinde**, J.L. Sartucci, D.K. Jones, N. Gavvalapalli

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- PMSE 423.** Studies of asphaltene enforced LDPE composites. **M.N. Siddiqui**, H.H. Redhwi, M. Younas
- PMSE 424.** Studying filler effects of asphaltene in high density polyethylene (HDPE). **M.N. Siddiqui**, H.H. Redhwi, M. Younas, A.G. Al-Ghizzi, M.H. Suliman
- PMSE 425.** Withdrawn.
- PMSE 426.** Efficient methodology for capturing the non-linear mechanics of three-dimensional slender structures. **J.J. Simhadri**, P. Chandran
- PMSE 427.** Balancing polyelectrolyte diffusion and clay deposition for high gas barrier. **Y. Song**, D. Hagen, J.C. Grunlan
- PMSE 428.** Role of compatibilizer in 3D printed objects. **M. Spreeman**, H.A. Stretz
- PMSE 429.** Macromonomers with tunable multi-crosslinking capability for *in situ* hydrogel formation. **J. Su**, B. Hu
- PMSE 430.** Surface hydrophilic modification of poly(ether ether ketone) and immobilization of collagen. **H. Sun**
- PMSE 431.** Withdrawn.
- PMSE 432.** Synthesis of tunable anisotropic silver nanorods for polymeric light emitting devices. **J. Tracey**, D. O'Carroll
- PMSE 433.** Polyelectrolyte complexes of a cationic polyfluorene with biomolecules. **S. Tsubasa**, Y. Takeoka, M. Yoshizawa-Fujita, M. Rikukawa
- PMSE 434.** Fabrication of novel nanocomposite fibers using electrospinning technique. **R.N. Udangawa**, R.J. Linhardt, T.J. Simmons, C.F. Willard, C.A. Chapman, C.D. Mancinelli
- PMSE 435.** Thermotropic telechelic polyester ionomers for high performance applications. **K.A. Valentine**, A.M. Nelson, R.J. Mondschein, T.E. Long
- PMSE 436.** Blending of mechanochromic and elastic filaments for melt material extrusion of repeatedly activatable objects. **A. Boydston**, J. Schwartz, J. Hamel, **J. Vandenbrande**
- PMSE 437.** Preparation and characterization of photodynamic antimicrobial P(MMA-co-MAA)/MMT electrospun nanofibers for wound dressing. **Q. Wang**, H. Lu, Q. Zhang, J. Dong, D. Li, F. Huang, Q. Wei
- PMSE 438.** Research on degradation performance of polylactide stereocomplex with different chain stereo-regularity. **t. wang**, S. Tang, L. Dong, Y. Chen
- PMSE 439.** Influence of extrusion cycle processing on the rheological and mechanical properties of glass fiber reinforced PA66 composites. **T. Wang**, L. Zhang, S. Tang
- PMSE 440.** Unleashing the power of DSC in studying coating reaction kinetics. **Y. Wang**, S. Kulkarni, J.C. Jernigan
- PMSE 441.** Hydrogen-bonded complexes of a triblock Pluronic® copolymer with a weak polyacid: From nanocages to self-healing materials. **Y. Wang**, S. Aktas, D.M. Kalyon, S.A. Sukhishvili
- PMSE 442.** Interfacial assembly of hydrogen-bonded complexes for stimuli-responsive emulsion stabilization and breaking. **Y. Wang**, S.A. Sukhishvili
- PMSE 443.** Tunable transport of biomolecules through nanoporous membranes containing tailorable pore walls. **J.L. Weidman**, R.A. Mulvenna, B.W. Boudouris, W.A. Phillip
- PMSE 444.** Withdrawn.
- PMSE 445.** Development of new radiation-grafted alkali-stable anion-exchange membranes for use in alkaline fuel cells and electrolyzers. **J. Ponce-Gonzalez**, D. Wheligan, L. Wang, J.R. Varcoe
- PMSE 446.** Porous polymeric supports for thin film membrane coating applications. **S. Wickramanayake**, D. Hopkinson
- PMSE 447.** Alginate hydrogels crosslinked by cystine methyl ester. **M. Wong**, G. Nunez, N. O'Connor
- PMSE 448.** Drug conjugated peptide directed assembly of gold nanoparticle superstructures as visual drug delivery system. **L. Xie**, Y. Wang, X. Chen, H. Cui
- PMSE 449.** Design of self-assembling peptide gels for 3D cell culture and cell delivery. **Y. Yamada**, N. Patel, J. Kalen, J.P. Schneider
- PMSE 450.** Crystallization under flow or deformation in linear and helical polymers. **T. Yamamoto**
- PMSE 451.** Antibacterial nitric oxide-releasing hyperbranched polyamidoamines. **L. Yang**, M.H. Schoenfisch
- PMSE 452.** Flexible polyimide composite films with increased thru-plane thermal conductivity. **Y. Yoo**, H. Song, J. Kim, J. Kim, C. Park
- PMSE 453.** Modification of poly(alkyl/aryl-phosphazenes) to attach potentially bioactive groups. **M.A. Young**, M. Raesi, E.J. Hauptmann, P.J. Nance, P. Wisian-Neilson
- PMSE 454.** Withdrawn.
- PMSE 455.** Ionomers for tunable softening of thermoplastic polyurethane. **Z. Zander**, F. Wang, M. Becker, R.A. Weiss
- PMSE 456.** Dynamic thiol-Michael chemistry for thermoresponsive rehealable and malleable networks. **B. Zhang**, Z. Digby, J. Flum, P. Chakma, J. Saul, J. Sparks, D. Konkolewicz
- PMSE 457.** Tunable reflectance of inverse opal-chiral liquid crystal device by electric-/thermal-control. **Y. Zhang**, Z. Yang, D. Wang, H. Cao, M. Quan
- PMSE 458.** pH-sensitive self-assembled/disassembled gold nanoparticles for reversible shielding/deshielding ligands. **J. Ma**, W. Wang, Y. Zhi
- PMSE 460.** Effect on oligosaccharide grafting on the polyelectrolyte and protonation dynamics of polyethyleneimine. **S. Basu**, P. Chandran
- PMSE 461.** Withdrawn.
- PMSE 462.** Withdrawn.
- PMSE 463.** Fabrication of novel ultrasound sensitive polymer-glass composites. **J. Contreras**, A. Stimpson, I. Ahmed, D. Irvine, A. Whittington
- PMSE 464.** Investigation into the stability of biomedical grade polyurethane and silicone exposed to ionizing radiation at low doses. **A. Whittington**, **S. Cooke**
- PMSE 465.** Shrink-wrapped encapsulation of proteins and triggered traceless release through reactive self-assembly approach. **K. Dutta**, D. Hu, B. Zhao, A. Ribbe, J. Zhuang, S. Thayumanavan
- PMSE 466.** Synthesis of functionalized self-immolative polymers with biological activity. **C. Ergene**, E. Palermo
- PMSE 467.** Nitric oxide-releasing carboxymethylcellulose hydrogels for antibacterial oral implants. **E.S. Feura**, M.H. Schoenfisch
- PMSE 468.** Polymer-based therapy for the mitigation of plant pathogens. **N.F. Fine Nathel**, V.A. Pionova, J. Hedrick, M. Knoblauch
- PMSE 469.** Spatiotemporal tethering of proteins to hydrogels through reversible thiol-ene bioconjugation. **J.C. Grim**, B. Aguado, K.S. Anseth
- PMSE 470.** Engineering epitope density in a hybrid nanoparticle-based nicotine vaccine for improved immunological efficacy. **Y. Hu**, D. Smith, E. Frazier, M. Ehrich, M. Zhang
- PMSE 471.** Biodegradable microparticles for the delivery of exercise mimetics to adipose tissue. **C. Isely**, M. Hendley, K. Murphy, P. Annamalai, M. Gower
- PMSE 472.** Soft amorphous polyesters for additive-free, room temperature 3D printing. **T. Jain**, D. Saylor, Q. Liu, V. Patel, R. Kaushal, A. Joy, I. Isayeva
- PMSE 473.** Transition from inactive linear-chain hydrophilic polymers to active nanostructured membrane-active antimicrobials. **Y. Jiang**, W. Zheng, H. Ma, H. Liang
- PMSE 474.** Biodegradable nanoparticles delivered genes for topical therapy of cancers. **T. Kang**, M. Gou
- PMSE 475.** Self-assembly of bio-inspired macromolecules: Protein-polymer conjugates and lipid-polymer hybrid towards biomimetic architecture. **A.K. Khan**, M. Nallani, B. Liedberg
- PMSE 476.** Electrostatic complexation of cationic antimicrobials within anionic microgels. **J. Liang**, M. Libera
- PMSE 477.** Sustained release of nanosilver from antimicrobial polyvinyl alcohol composites. **K. Madgula**
- PMSE 478.** *De novo* synthesis of phosphorylated tri-block copolymers with pathogen virulence suppressing properties that prevent infection-related mortality. **J. Mao**, A. Zaborin, V. Poroyko, D.J. Goldfeld, N.A. Lynd, W. Chen, M.V. Tirrell, O. Zaborina, J.C. Alverdy
- PMSE 479.** Regulated doxorubicin release from targeted pH-sensitive PEG-PHEMA-PBA based crosslinked micelles. **M.A. Mohamed**, A. Singh, A. Elsokkary, M. Akl, P.N. Prasad, C. Cheng
- PMSE 480.** Charged polycaprolactone copolymers as bioadhesive would glue. **A. Pekkanen**, K. Horatz, K. Drummey, R.J. Mondschein, T.E. Long
- PMSE 481.** Hemocompatibility of superhydrophobic titania surfaces. **S. Movafaghi**, V. Leszczak, W. Wang, J. Sorkin, K. Popat, A. Kota
- PMSE 482.** Carbon dots for bone-specific bioimaging and drug delivery: A zebrafish model study. **Z. Peng**, E. Miyajiri, Y. Zhou, I. Skromme, R.M. Leblanc
- PMSE 483.** Poly(2-oxazoline)s: From fundamental research to biomedical applications. **V. R de la Rosa**, R. Hoogenboom
- PMSE 484.** Encapsulation and release of a peptide drug from PLGA nanospheres using a scalable flash nanoprecipitation method. **R. Roberts**, S. Lamouille, R. Gourdie, J. Foster
- PMSE 485.** Study of cellular localization and toxicity of denderized gold nanoparticles for theranostic applications. **A. Saha Ray**, Y.J. Pak, A. Meares, M. Ptaszek, P. Svaan, M. Daniel
- PMSE 486.** Using poly(ethylene glycol) hydrogels to investigate the individual and synergistic effects of matrix stiffness and integrin binding on fibroblast response in multiple cell culture geometries. **M. Smithmyer**, A.M. Kloxin
- PMSE 487.** Single cell analysis of immune cells using a microparticulate tool for the development of better vaccines. **R.C. Steinhart**, B. Moser, A.P. Esser-Kahn
- PMSE 488.** Aldehyde methacrylated chondroitin sulphate hydrogel for cartilage repair. **G. Tan**, Y. Liu, L. Zhou, C. Ning
- PMSE 489.** Antimicrobial but cyto-compatible polyurethane coatings with mixed soft block. **C. Wang**, O. Zolotarskaya, D. Johnson, S. Jiang, X. Wen, D.E. Ohman, K.J. Wynne
- PMSE 490.** Accelerating evaluation of resin biostability. **X. Wang**, J. Sun

Polyelectrolyte Coacervates, Precipitates & Multilayers.

- PMSE 491.** Linear and star poly(ionic liquid) assemblies: Surface monolayers and multilayers. **A.J. Erwin**, W. Xu, H. He, K. Matyjaszewski, V.V. Tsukruk
- PMSE 492.** Halloysite nanotube multilayer nanocomposite dramatically reduces the flammability of polyurethane foam. **R.J. Smith**, J.C. Grunlan

Polyphosphazenes in Biomedicine, Engineering & Pioneering Synthesis.

- PMSE 493.** Biodegradable polyphosphazene systems for non-covalent PEGylation of proteins. **A. Martinez**, A.K. Andrianov, A. Marin
- PMSE 494.** Layer-by-layer films of fluorinated polyphosphazenes: Controlled wettability, water uptake and internal structure. **V. Selin**, J. Ankner, A. Marin, A.K. Andrianov, S.A. Sukhishvili

Synthesis, Self-Assembly & Applications of Peptides & Polypeptides.

- PMSE 495.** Synthesis of glycopolymers and their application as models to mimic peptide amyloid- β saccharide interactions. **P. Das**

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

Materials for Patterning in Two & Three Dimensions.

PMSE 496. Spirothiopyran based photoresists for large area 2D and 3D sub-diffraction nanopatterning. H. Vijayamohan, C. Ullal

PMSE 497. Withdrawn.

Green Polymer Chemistry: Biobased Materials & Biocatalysis

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Metallo-Supramolecular & Metal Containing Polymers

Sponsored by POLY, Cosponsored by PMSE†

Polymer Mechanochemistry

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Journey to Mars: Materials, Energy & Life Sciences

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WEDNESDAY MORNING

Section A

Marriott Marquis Washington, DC
Liberty Ballroom Salon L

Biomaterials Science & Translational Medicine

Polymeric Devices & Therapeutic Systems

Financially supported by Chinese Association of Biomaterials

Y. Hong, B. Li, J. Yang, K. Yeung, G. Zhang, *Organizers*

Y. Hong, S. H. Medina, *Presiding*

8:00 PMSE 498. Silk biomaterials for soft tissue regeneration. D.L. Kaplan

8:40 PMSE 499. Injectable photoluminescent hydrogel for local drug delivery. X. Xu

9:05 PMSE 500. Biomimetic biodegradable photoluminescent polymers for bone tissue engineering. C. Ma, X. Tian, X. Bai, J. Yang

9:20 PMSE 501. Inorganic-organic hydrogel scaffolds for osteochondral repair. M.T. Frassica, B.A. Rustenbeck, M. Grunlan

9:35 Intermission.

9:55 PMSE 502. Evolution of stimuli-responsive peptide nanocarriers from hydrogel materials. S.H. Medina

10:20 PMSE 503. 3D-engineering of therapeutic hydrogel nanocomposites. M. Gou

10:35 PMSE 504. Sustainable use of antibiotics against MDR bacteria via charged metalopolymers. C. Tang

11:00 PMSE 505. Advanced antimicrobial peptides reduce biomaterial-associated infections. B. Li, Q. Wang, J. Noore

11:15 PMSE 506. Biopolymer-based nanoparticles for applications in drug delivery and immunotherapy. D. Bamberger, M. Fach, L. Radi, P.R. Wich

11:30 PMSE 507. ROS triggered release of anti-inflammatory drug chemically conjugated on dextran by boronic ester linker. S. Lee, A. Stubelius, A. Almutairi

11:45 PMSE 508. Vasculature stimulated by multivalent ligand-modified scaffold. W. Wang, Y. Zhang, B. Wang, Y. Zhi

Section B

Marriott Marquis Washington, DC
Liberty Ballroom Salon J

Dynamic Chemistry in Polymer Materials

D. Konkolewicz, *Organizer*

N. Ayres, *Organizer, Presiding*

R. Nicolay, *Presiding*

8:00 PMSE 509. Dynamic covalent exchange in polyanhydrides. K.R. Tillman, M.I. Lawton, P.T. Mather, D.A. Shipp

8:20 PMSE 510. Reprocessing of anhydride-cured epoxy vitrimers. W. Liu, J. Moeller, E. Reynaud, D.F. Schmidt

8:50 PMSE 511. Molecular engineering for the design of nanostructured materials. S. Perrier

9:20 Intermission.

9:40 PMSE 512. Vitrimers from commodity thermoplastics through dioxaborolane metathesis. R. Nicolay, M. Röttger, T. Domenech, R. van der Weegen, A. Breuillac, L. Leibler

10:10 PMSE 513. Synthesizing dynamic soft materials through polymer precursors from metal-catalyzed cross-coupling. D.H. Howe, R. McDaniel, A.J. Magenau

10:40 PMSE 514. Development of dynamic and well-defined synthetic bioinks for 3D printing. H. Ooi, D. Mihatlan, C.M. Domingues, L. Moroni, M.B. Baker

11:10 PMSE 515. Thermally controlled sequence of triazolinedione-based (trans)click reactions: Powerful platform for dynamic materials. F.E. Du Prez

Section C

Marriott Marquis Washington, DC
Liberty Ballroom Salon K

Synthesis, Self-Assembly & Applications of Peptides & Polypeptides

Financially supported by Journal of Biomaterials Science, RSC

J. Cheng, H. Lu, *Organizers*

W. Chan, G. Hemery, *Presiding*

8:00 PMSE 516. Thermosensitive diblock elastin-like polypeptides (ELPs) grafted onto magnetic iron oxide nanoparticles as dual-responsive nanomedicines. G. Hemery, C. Genevois, F. Couillaud, S. Lacomme, E. Gontier, S. MacEwan, A. Chilkoti, S. Lecommandoux, E. Garanger, O. Sandre

8:20 PMSE 517. Thermoresponsive dendritic elastin-like peptides. M. Zhou

8:40 PMSE 518. Bulk polymerization of polyurethane-like protein copolymers. W. Chan, B.D. Olsen

9:00 PMSE 519. Understanding the impact of non-natural amino acid incorporation on the assembly of multifunctional collagen mimetic peptides. A. Hilderbrand, F. Stanzione, J. Condon, M. Larue, A. Jayaraman, A.M. Kloxin

9:20 PMSE 520. UCST responsive micelles of a polypeptide-based block copolymer: Synthesis, LbL assembly, and temperature response. A. Kumarimaduvu Palanisamy, V. Albright, S.A. Sukhishvili

9:40 Intermission.

10:00 PMSE 521. Tumor penetrating supramolecular hydrogels for local treatment of brain tumors. F. Wang, R. Lin, R.W. Chakraborty, H. Cui

10:20 PMSE 522. Self-assembled aromatic peptide hydrogels with controlled H₂S release. Y. Qian, K. Kaur, J. Foster, J.B. Matson

10:40 PMSE 523. Bioinspired spatial localization of peptide self-assembly. M.P. Conte, K. Lau, R. Ulijn

11:00 PMSE 524. Withdrawn.

11:20 PMSE 525. Self-assembly of aptamer-functionalized fibrinogen for sustained growth factor delivery and enhanced skin wound healing. N. Zhao, M. Xu, N. Xiong, Y. Wang

Section D

Marriott Marquis Washington, DC
Marquis Ballroom Salon 10

General Papers/New Concepts in Polymeric Materials

M. Becker, *Organizer*

M. Akkrach, K. Lantz, *Presiding*

8:30 PMSE 526. CO₂-stimulated morphology transition of miktoarm star terpolymer assemblies. M. Huo, J. Yuan

8:50 PMSE 527. Persistent micelle templating of diverse metal oxides. K. Lantz, A. Sakar, M. Stefik

9:10 PMSE 528. General synthetic route towards highly dispersed metal clusters enabled by poly(ionic liquids). J. Yuan, J. Sun

9:30 PMSE 529. Experimental caveats in determining local water diffusion coefficients in polymer composites: Use of an intrinsic fluorogenic probe. S. Seethamraju, J.W. Woodcock, B. Jones, S. Stranick, J. Urbach, J. Gilman

9:50 Intermission.

10:10 PMSE 530. Reduced graphene oxide conductive films on hydrophilic and hydrophobic surfaces. M. Savchak, M. Anayee, N. Borodinov, R. Burtovyy, R. Ma, K. Hu, V.V. Tsukruk, I.A. Luzinov

10:30 PMSE 531. Employing gradient copolymer to achieve gel polymer electrolyte with high ionic conductivity. Z. Zheng, X. Gao

10:50 PMSE 532. Synthesis of new polymeric architecture of styrene-maleic anhydride via RAFT polymerisation for self-assembly. M. Akkrach

Section E

Marriott Marquis Washington, DC
Liberty Ballroom Salon I

Polyelectrolyte Coacervates, Precipitates & Multilayers

J. L. Lutkenhaus, S. L. Perry, N. Zacharia, *Organizers*

S. Perry, *Presiding*

9:00 Introductory Remarks.

9:05 PMSE 533. Thermal response of hydrated polyelectrolyte complexes and multilayers: Lessons learned via molecular modelling. M. Sammalkorpi

9:50 PMSE 534. Polyelectrolyte multilayer nanocoating dramatically reduces bacterial adhesion to polyester fabric. R.J. Smith, J.C. Grunlan

10:10 PMSE 535. Humidity history in polyelectrolyte complexes. X. Lyu, B. Clark, A.M. Petersen

10:30 Intermission.

10:45 PMSE 536. Tuning complex coacervation using sequence-defined polyelectrolytes: A molecular understanding. T.K. Lytle, L. Chang, J. Madinya, S.L. Perry, C.E. Sing

11:05 PMSE 537. Effect of pH, temperature and ionic strength on the self-aggregation of poly(2-isopropyl-2-oxazolone). E. Cagli, I. Erel-Goktepe

11:25 PMSE 538. One-step assembly of hydrogen-bonded nanoparticles and nanocapsules mediated by phase separation of poly(N-isopropylacrylamide). Y. Wang, S.A. Sukhishvili

Section F

Marriott Marquis Washington, DC
Marquis Salon 13

Gels & Other Soft Amorphous Solids Functional Gels

E. Del Gado, J. Douglas, F. Horkay, *Organizers*

P. Chandran, N. R. Choudhury, *Presiding*

8:30 PMSE 539. Functional surface produced by layer-by-layer self-assembly combined with surface polymerization technique. S. Cho, N. Zacharia

8:50 PMSE 540. Preparation of dynamic and self-healing gels via ligand-exchange reactions involving hypervalent iodine(III) compounds. A. Vaish, N.V. Tsarevsky

9:10 PMSE 541. Fabrication and characterization of reactive gels assembled from azlactone-functionalized polymers: Toward advanced 2D and 3D cell culture platforms. M.E. Buck, M. Wancura, Q. Anex-Ries, A. Garcia, J. Banh

9:30 PMSE 542. Designable immune therapeutic vaccine system based on DNA supramolecular hydrogels. Y. Shao

9:50 Intermission.

10:00 PMSE 543. Thixotropic hydrogels for drug delivery. J. Wang, G. Williamson, R. Cooper, H. Yang

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10:20 PMSE 544. Reversible-covalent hydrogels linked by photosensitive coumarin dimers. C.P. Kabb, C.S. O'Bryan, W.G. Sawyer, T.E. Angelini, B.S. Sumerlin

10:40 PMSE 545. Crystallization in chemically crosslinked shape-memory networks. J. Yang, Y. Meng, M.L. Anthamatten

11:00 PMSE 546. Polymers and photopolymers engineering to achieve unconventional properties in solar cells and smart windows. F. Bella, G. Griffini, A. Lamberti, S. Turri, C. Gerbaldi

11:20 PMSE 547. Synthesis and shear rheology of thermoreversible and pH-sensitive polymer gels. T.L. Thornell, K.A. Erk

11:40 PMSE 548. Polyvinyl alcohol/dendrimer gels for reversible shape stabilization of thermal energy storage materials. P. Karimineghlani, A. Kumarimaduvu Palanisamy, M.J. Green, S.A. Sukhishvili

12:00 PMSE 549. Electrodeposited vs. poured melting gel coatings on 304 stainless steel for environmental protection. Q. Picard, G. Akalonu, J. Mosa, M. Aparicio, L.C. Klein, A. Jitianu

Section G

Marriott Marquis Washington, DC
Marquis Salon 12

Polymers for Aerospace Applications: Celebrating the Lifetime Contributions of Charles Lee

Cosponsored by POLY

T. J. Bunning, *Organizer*

R. A. Vaia, *Organizer, Presiding*

8:00 Introductory Remarks.

8:15 PMSE 550. Graphene for aerospace applications. J.M. Tour

8:45 PMSE 551. Organic devices: Starting a revolution in optoelectronics. S. Forrest

9:15 PMSE 552. So, do you think these polymers could be good electrochromic materials? J.R. Reynolds

9:45 Intermission.

10:00 PMSE 553. Polymer electronics: From flexible to stretchable. Z. Bao

10:30 PMSE 554. Strategies toward high efficiency organic and perovskite solar cells. Y. Yang

11:00 PMSE 555. Tribute to Dr. Charles Y-C. Lee's contributions to polymers for aerospace applications: Polymeric materials research highlights from Polymer Branch (MLBP/RXBP), Bio-Nano Materials Branch (RXBN), and Soft-Matter Materials Branch (RXAS), Air Force Research Laboratory. L. Tan

11:30 PMSE 556. New frontier of organic/hybrid functional materials and devices: From molecular engineering to technology innovations. A.K. Jen

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Biobased Thermosetting Resins

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

Metallo-Supramolecular & Metal Containing Polymers

Metal-Containing Polymers & Block Copolymers

Sponsored by POLY, Cosponsored by PMSE†

Shape-Shifting Polymeric Systems

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Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Heterocyclic Systems

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Journey to Mars: Materials, Energy & Life Sciences

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WEDNESDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Liberty Ballroom Salon L

Biomaterials Science & Translational Medicine

Functional Biomaterials for Sensing, Diagnosis, Imaging & Cancer Nanotechnology

Financially supported by Chinese Association of Biomaterials

Y. Hong, B. Li, J. Yang, K. Yeung, G. Zhang, *Organizers*

B. Li, M. Nikkiah, *Presiding*

1:00 PMSE 557. Selective *in vivo* cell labeling mediated cancer targeting and drug delivery. J. Cheng

1:40 PMSE 558. Dendrimer-based higher-complexity structures and their therapeutic applications. H. Yang

2:05 PMSE 559. Facile formation of nanoconstructs using polymerized phenylboronic acid with hydrophobic drugs for targeted cancer therapy. J. Kim, W. Kim

2:20 PMSE 560. Materials for drug capture: An approach for removing off-target chemotherapy from the bloodstream. M.D. Schulz, C. Blumenfeld, D. Yee, J.R. Greer, S. Hetts, R.H. Grubbs

2:35 PMSE 561. Development of a polymeric agent for the *in vivo* delivery of CRISPR system to activate tumour suppressor genes. J.A. Kretzmann, C.W. Evans, C. Moses, A. Sorolla Bardaji, A.L. Kretzmann, E. Wang, D. Ho, C. Waryah, M. Norret, P. Blancfort, K. Iyer

2:50 PMSE 562. Elastin-gelatin-carbon nanotube and polypyrrole network with shape memory, injectability, pressure sensitivity, fast resilience and oil-water separation functions. M. Xing, Y. Liu

3:15 PMSE 563. Properties of polymeric particles dominate cellular uptake and subsequent influences on the fate of mesenchymal stem cells. Z. Mao, C. Gao

3:40 PMSE 564. Super-fine magnetic resonance imaging probe for the cerebrovasculature using self-assembled polymers. A. Mahara, Y. Hsu, J. Enmi, H. Iida, T. Yamaoka

3:55 PMSE 565. Nanoengineering of electrically conductive cardiac micro-tissues. A. Navaei, M. Nikkiah

4:20 PMSE 566. Thermoresponsive hydrogels as self-cleaning membranes for implanted glucose biosensors. M. Grunlan, A.K. Means, F. Ruochong, A.K. Locke, G.L. Cote

4:45 PMSE 567. Synthesis of dispersant coated fillers designed to improve the ultrasound response of biocomposites. A. Stimpson, J. Contreras, K. Walton, F. Hild, A. Ilchev, M. Gimeno-Fabra, E. Lester, A. Goldstein, R. Shekhar, I. Ahmed, A. Whittington, D. Irvine

Section B

Marriott Marquis Washington, DC
Liberty Ballroom Salon J

Dynamic Chemistry in Polymer Materials

N. Ayres, D. Konkolewicz, *Organizers*

J. G. Kennemur, A. J. Magenau, *Presiding*

1:00 PMSE 568. Dynamic polymers from low strain cycloalkenes. J.G. Kennemur, W.J. Neary, G. Palui, S. Brits

1:30 PMSE 569. Interplay between π bonding and conformational flexibility in conjugated polymers containing ester-side chains. T. Kowalewski

2:00 PMSE 570. Multi-stimuli responsive and multifunctional hydrogels. L. De Smet, K. Belal, J. Iyskawa, R. Hoogenboom, P. Woisel

2:30 Intermission.

2:50 PMSE 571. Probing *in-situ* polymeric particle growth in mixed matrix membranes using ultra-small angle neutron scattering. R.R. Ford, J. Kim, M.S. Diallo, J.A. Kornfield

3:20 PMSE 572. Liquid chalcogenide hybrid inorganic/organic polymers (CHIPs) via iterative dynamic copolymerizations. Y. Zhang

3:50 PMSE 573. Ionizing radiation effects on thermoset polymers crosslinked by dynamic covalent bonds. K. Yang, W. Voit

4:10 PMSE 574. Experimental and computational study of monomer planarity effects on the formation of fluoranthene-based covalent organic frameworks. G. Occhialini, C. Thompson, R. Smaldone

Section C

Marriott Marquis Washington, DC
Liberty Ballroom Salon K

General Papers/New Concepts in Polymeric Materials

M. Becker, *Organizer*

L. Connal, N. Park, *Presiding*

1:30 PMSE 575. Grafting of a β -cyclodextrin polymer on cellulose microcrystals for pollutants uptake in packed columns. D.M. Alzate Sanchez, W. Dichtel, D.E. Helbling, C. Li

1:50 PMSE 576. Triggered and tunable hydrogen sulfide release from photo-generated thiobenzaldehydes. L. Connal

2:10 PMSE 577. Sequence-controlled polymeric glycomimetics for the investigation of epitope spacing on multivalent ligand/receptor interactions. C. Gerke, M.F. Ebbesen, D. Jansen, S. Boden, T. Freichel, L. Goodwin, F. Pieper, A. Camaleño de la Calle, S. Schmidt, L. Hartmann

2:30 PMSE 578. Thermally treated compatibilized immiscible polymer blends for high temperature, high pressure H_2 separation. C. Karunaweera, N.P. Panapitiya, Y. Huang, I.H. Musselman, K.J. Balkus, J.P. Ferraris

2:50 Intermission.

3:10 PMSE 579. Thiol-Michael click chemistry as a strategy for rapidly-forming polymeric hydrogels for advanced brachytherapy packing applications. N.G. Moon, A. Pekkanen, F. Mazzini, B. Libby, T.N. Showalter, T.E. Long

3:30 PMSE 580. Development of new cationic polycarbonates as macromolecular therapeutic platforms. N. Park, J. Hedrick

3:50 PMSE 581. Janus [3:5] polystyrene-polydimethylsiloxane star polymers with a cubic core. Y. Shao, P. Jin, W. Zhang

4:10 PMSE 582. Novel surface grafting chemistries toward functional composite membranes. J. Meng

4:30 PMSE 583. Reactive polymer brush-grafted particles as platforms for protein immobilization. H. Son, S. Li, Y. Kim, K. Char

4:50 PMSE 584. Composition and sequence mandated topological effect on nano-scaled supralattice in precise giant molecules. W. Zhang, S.Z. Cheng

Section D

Marriott Marquis Washington, DC
Marquis Ballroom Salon 10

General Papers/New Concepts in Polymeric Materials

M. Becker, *Organizer*

S. A. Hesse, D. A. Loy, *Presiding*

1:30 PMSE 585. Molecular simulation study of amphiphilic copolymers and nanoparticles: Effect of copolymer architecture on assembled structure and thermodynamics. D.J. Beltran-Villegas, A. Jayaraman

1:50 PMSE 586. Self-interrupted synthesis of sterically hindered aliphatic polyamide dendrimers. D. Jishkariani, C.M. MacDermid, Y. Timsina, S. Grama, S.S. Gillani, M. Divar, S.S. Yadavalli, R. Moussodia, P. Leowanawat, A.M. Berrios Camacho, R. Walter, M. Goulian, M.L. Klein, V. Percec

2:10 PMSE 587. Co-assembly of block copolymers and organic additives for the creation of graded, hierarchically porous carbon materials. S.A. Hesse, J. Werner, K. Barteau, P.A. Beaucage, U.B. Wiesner

2:30 PMSE 588. Two-dimensional molecular ordering in liquid crystal polymer films directed by masked photo-polymerization. K. Hisano, M. Aizawa, M. Ishizu, N. Akamatsu, C.J. Barrett, A. Shishido

2:50 Intermission.

3:10 PMSE 589. Controlling self-patterning of acrylate films by photopolymerization. J. Lacombe, C. Soulie

3:30 PMSE 590. Physical properties of coalesced single-component poly(ϵ -caprolactone) nanofibers. L. Li, W. Wang, C. Huang, K. Hong, X. Peng

Technical program information known at press time.
The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

†Cooperative Cosponsorship

3:50 PMSE 591. 1,4-Dihydropyridazines as inhibitors of free radical polymerization and gelation of styrene-divinyl benzene. **D.A. Loy**, R.E. Bagge, W. Sun

4:10 PMSE 592. Tuning electromechanical performance of acrylic thermal plastic dielectric elastomer via alkyl side-chain engineering. **J. Mao**, Y. Luo

Section E

Marriott Marquis Washington, DC
Liberty Ballroom Salon I

Polyelectrolyte Coacervates, Precipitates & Multilayers

J. L. Lutkenhaus, S. L. Perry, N. Zacharia, *Organizers*

J. D. Schiffman, *Presiding*

1:30 Introductory Remarks.

1:35 PMSE 593. Microgel and coacervate formation in polyelectrolyte/multivalent ion mixtures. **Y. Lapitsky**

2:20 PMSE 594. Organic solvent effects on polyelectrolyte complex and the potential applications. **H. Zhang**, N. Zacharia

2:40 PMSE 595. Swelling behavior of polyelectrolyte multilayers in the presence of various monovalent ions. **J. O'Neal**, E. Dai, K. Clark, K. Wilcox, J.L. Lutkenhaus

3:00 Intermission.

3:15 PMSE 596. Polyphenolic multilayer nanocoatings for drug delivery and cell transplantation. **E.P. Kharlampieva**

3:35 PMSE 597. Hyperthin PEMs with facilitated transport of CO₂. **C. Lin**

3:55 PMSE 598. Star-shaped single lithium-ion conducting copolymer by grafting a POSS nanoparticle. **P. Cao**, Z. Wojnarowska, T. Hong, B. Carroll, B. Li, V. Bocharova, A.P. Sokolov, T. Saito

Section F

Marriott Marquis Washington, DC
Marquis Salon 13

General Papers/New Concepts in Polymeric Materials

M. Becker, *Organizer*

T. McFarlane, S. R. Nowak, *Presiding*

1:30 PMSE 599. Withdrawn.

1:50 PMSE 600. End-group functionalized poly(α -olefinates) (xPAOs) as building blocks for new classes of microphase-separated block copolymers. **S.R. Nowak**, T.S. Thomas, L.R. Sita

2:10 PMSE 601. Effect of thermal annealing on the thermomechanical properties of inverse vulcanized polymers. **S. Park**, D. Lee, S. Kim, H. Cho, J. Lim, K. Char

2:30 PMSE 602. Photothermal effect of conducting polymers for energy and soft actuator applications. **T. Park**, K. Lee, H. Lim, B. Kim, E. Kim, M. Um

2:50 Intermission.

3:10 PMSE 603. Synthesis and properties of COS releasing polymeric systems. **C. Powell**, J. Foster, B. Okyere, M. Theus, J.B. Matson

3:30 PMSE 604. Hierarchical self-assembly of free-standing, conducting polymer-CPMV arrays with Janus type architecture. **T.B. Sicily**

3:50 PMSE 605. Withdrawn.

4:10 PMSE 606. Rational design of methacrylate polymers with pendant carbazole moieties for use as memristors. **T. McFarlane**, I. Bandera, B. Zdyrko, M. Jurca, O. Klep, D. Worley, C. Tonkin, J. Vilcakova, P. Saha, S.H. Foulger

Section G

Marriott Marquis Washington, DC
Marquis Salon 12

Polymers for Aerospace Applications: Celebrating the Lifetime Contributions of Charles Lee

Cosponsored by POLY

T. J. Bunning, R. A. Vaia, *Organizers*

T. Bunning, *Presiding*

1:00 PMSE 607. Novel materials with topological complexity for fabric based energy scavengers. **D. Carroll**

1:30 PMSE 608. Hybrid materials to fuel-purification: Air Force applications enabled by basic research. **J.M. Mabry**, A.J. Guenther, S.T. Iacono, R. Campos, S.M. Ramirez, T. Haddad

2:00 PMSE 609. Toward chipscale integration of electronics, photonics, and plasmonics. **L.R. Dalton**

2:30 PMSE 610. Design of organic molecules and materials for nonlinear optical applications. **S.R. Marder**

3:00 Intermission.

3:15 PMSE 611. How do we create organic and inorganic materials for flexible, transparent electronic circuitry? **T.J. Marks**

3:45 PMSE 612. Photoresponsive polymers, nanocomposites and hierarchical hybrid nanostructures. **P.N. Prasad**

4:15 PMSE 613. Organic and polymeric materials for photonic applications. **N. Peyghambarian**

4:45 Concluding Remarks.

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Plant Oils & Ferulate-Based Materials

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

Metallo-Supramolecular & Metal Containing Polymers

Metal-Containing Polymers & Block Copolymers

Sponsored by POLY, Cosponsored by PMSE†

Shape-Shifting Polymeric Systems

Sponsored by POLY, Cosponsored by PMSE

Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

Synthetic Methodology

Sponsored by POLY, Cosponsored by INOR and PMSE†

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL†, BMGT†, COLL†, ENVR†, FLUO†, PMSE†, PRES, SCHB† and YCC†

THURSDAY MORNING

Section A

Marriott Marquis Washington, DC
Liberty Ballroom Salon L

General Papers/New Concepts in Polymeric Materials

M. Becker, *Organizer*

Y. Li, J. Tracey, *Presiding*

8:30 PMSE 614. Facile synthesis and novel properties of the chemo-reversible and highly tunable metallo gels based on polydicyclopentadiene. **Z. Wang**, Z. Yao, Y. Yu, C. Zeng, **K. Cao**

8:50 PMSE 615. Melt-mixed graphene-based polyolefin nanocomposites with superior electrical and mechanical performance: An attractive potential for future industrial applications. **T. Gkourmpis**

9:10 PMSE 616. Vapor phase polymerized PEDOT thin film on EDOT grafted substrate. **B. Li**, M. Civic, H. Qiu, P. Mastracco, Z. Qing, A. Anthony, R. Behler, N. Negri, D. Angel, E. Livingston, L. Tong, S.M. Boyer, W.E. Bernier, W.E. Jones

9:30 PMSE 617. Indacenodithiophene-based semiconducting polymers for stretchable organic electronics. **Y. Li**, W.K. Tatum, J.W. Onorato, S.D. Barajas, Y.Y. Yang, C.K. Cuscombe

9:50 Intermission.

10:10 PMSE 618. Correlation between phase-behavior and thermo-mechanical properties of a melt-miscible blend. **T. Gkourmpis**, M.G. Andersson, C. Muller

10:30 PMSE 619. Hole transporting materials for efficient and stable inorganic-organic hybrid perovskite solar cells. **J. Seo**

10:50 PMSE 620. Utilizing novel configurations of silver nanoparticles and poly(9,9-di-n-octylfluorenyl-2,7-diyl) polymer films to achieve array spacing. **J. Tracey**, D. O'Carroll

11:10 PMSE 621. Withdrawn.

Section B

Marriott Marquis Washington, DC
Liberty Ballroom Salon J

General Papers/New Concepts in Polymeric Materials

M. Becker, *Organizer*

Y. Huang, H. Kumar, *Presiding*

8:30 PMSE 622. Topological polymer chemistry enters surface science: The interfacial, physico-chemical properties of linear, cyclic and loops brushes. **S. Ramakrishna**, G. Morgese, L. Trachsel, M. Divandari, **E. Benetti**

8:50 PMSE 623. Culturing customized hydrogels from engineered biofilm matrix proteins. **A. Duraj-Thatte**

9:10 PMSE 624. New branched polymer architectures for nano and macro emulsion stabilization and targeting/delivery of therapeutic molecules. **J.J. Hobson**, S. Edwards, A. Owen, **S. Rannard**

9:30 PMSE 625. Improving the properties of graphene oxide based polymer nanocomposites. **H. Kumar**, V. Vasu, C.D. Liyanage, D.H. Adamson

9:50 Intermission.

10:10 PMSE 626. Synthesis of polymer-grafted graphene oxide and polymer-grafted thermally reduced graphene oxide by RAFT living free radical solution polymerizations and their effects on the volume shrinkage and mechanical properties of cured vinyl ester resins. **Y. Huang**, C. Nien, C. Yang, P. Huang, Y. Liao

10:30 PMSE 627. Towards higher flame retardancy: Very high nanofiller-content nanocomposite single-dip coating for polyurethane foam. **J. Liu**, F. Shan, H. Ishida

10:50 PMSE 628. Impact of MXD6 on multiple mechanical recycling of PET and the recycled product properties. **M. Jalilian**, M. Coleman, J. Lawrence

11:10 PMSE 629. Tuning thermo-mechanical properties of poly (lactic acid) through anisotropic orientation of magnetic cellulose nanocrystals. **V. Katiyar**

Section C

Marriott Marquis Washington, DC
Liberty Ballroom Salon K

General Papers/New Concepts in Polymeric Materials

M. Becker, *Organizer*

S. Schoettner, T. Segal-Peretz, *Presiding*

8:30 PMSE 630. Chitosan-graft-lactic acid oligomer based melt extruded poly(lactic acid) bionanocomposite films: Influence on thermal, mechanical and oxygen barrier properties. **V. Katiyar**

8:50 PMSE 631. Development of an efficient microcapsule-based autonomic healing system. **X. Lu**, W. Li, S.R. White, N.R. Sottos, J.S. Moore

9:10 PMSE 632. New functional block-copolymer based membranes with a variety of functionalization opportunities. **S. Schoettner**, M. Gallei

9:30 PMSE 633. Effect of nano-particles and flow on crystallization kinetics in polymer nanocomposites. **D. Roy**

9:50 Intermission.

10:10 PMSE 634. Encapsulation and controlled release of reactive lipophilic species thanks to polymerization of double emulsion template. **M. Stasse**, V. Heroguez, V. Schmitt

10:30 PMSE 635. Reinforcing effect of polydopamine functionalized graphene nanoplatelets on the mechanical properties of epoxy resins at cryogenic temperature. **Y. Wu**

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- 10:50 PMSE 636.** Structure formation of pure and binary blends of block copolymers in solution, in membrane, and in bulk. **M. Radjabian, C. Abetz, B. Fischer, A. Meyer, V. Abetz**
- 11:10 PMSE 637.** Tunable inorganic separation membranes templated by block copolymers. **T. Segal-Peretz, C. Zhou, M. Oruc, P.F. Nealey**

Section D

Marriott Marquis Washington, DC
Marquis Ballroom Salon 10

General Papers/New Concepts in Polymeric Materials

M. Becker, *Organizer*

L. J. Macdougall, P. Wilson, *Presiding*

- 8:30 PMSE 638.** Thiooxime containing H₂S releasing peptide hydrogels: An insight into stability and self-assembly. **K. Kaur, Y. Qian, J. Foster, J.B. Matson**
- 8:50 PMSE 639.** Electrospinning polymer nanomedicines extends shelf-life and size stability. **S. Levit, R. Stwodah, C. Tang**
- 9:10 PMSE 640.** Efficient *in situ* nucleophilic thiol-yne click chemistry for the synthesis of strong hydrogel materials with tunable properties. **L.J. Macdougall, A.P. Dove**
- 9:30 PMSE 641.** Protecting plants with plastic: Application of antimicrobial polymers in agriculture. **V.A. Pionova, J. Hedrick, R. Prill, G.M. Wallraff, M. Knoblauch**
- 9:50** Intermission.
- 10:10 PMSE 642.** Phosgene-free synthesis and characterization of linear poly(tyrosol carbonate)s for biomedical applications. **B. Versaw, S.L. Kristufek, K.L. Wooley**
- 10:30 PMSE 643.** Mildly cross-linked dendrimer hydrogel prepared via aza-Michael addition reaction for antiglucoma drug delivery. **J. Wang, M. Lancina III, G. Williamson, H. Yang**
- 10:50 PMSE 644.** Withdrawn.
- 11:10 PMSE 645.** Multi-block polyesters demonstrating high elasticity and shape memory effects. **Y. Zhu, C.K. Williams**

Section E

Marriott Marquis Washington, DC
Liberty Ballroom Salon I

General Papers/New Concepts in Polymeric Materials

M. Becker, *Organizer*

L. Han, V. Kottisch, *Presiding*

- 8:30 PMSE 646.** Systematic study of substituent effect on benzoxazines. **S. Ohashi, D. Iguchi, T. Heyl, P. Gil, L. Han, H. Ishida**

- 8:50 PMSE 647.** Self-cleaning piezoelectric PVDF membrane for filtration of suspended particles. **D. Chen, P. Wirges**

- 9:10 PMSE 648.** Intrinsic self-initiating thermal ring-opening polymerization of 1, 3- benzoxazines without the influence of impurities using single-crystal resins. **L. Han, M.L. Salum, K. Zhang, P. Froimowicz, H. Ishida**

- 9:30 PMSE 649.** Melt crystallization kinetics of poly(ethylene terephthalate) (PET)/phosphate glass composites. **K. Kim, S. Kashani Rahimi, J. Otaigbe**

9:50 Intermission.

- 10:10 PMSE 650.** Syntheses of new polymers using ruthenium catalysis. **J. Ko, J. Medina, N.K. Garg, T. Terashima, M. Sawamoto, H.D. Maynard**

- 10:30 PMSE 651.** Versatile *in situ* copolymer synthesis using photocontrolled cationic and radical polymerizations: Selecting polymerization mechanisms with light. **V. Kottisch, Q. Michaudel, B.P. Fors**

- 10:50 PMSE 652.** Fabrication of halochromic materials by plasma dye coating. **L. De Smet, G. Vancoillie, K. Lava, I. Steyaert, K. De clerck, R. Hoogenboom**

- 11:10 PMSE 653.** Marrying the polar opposites: Silicone membranes containing covalently linked ionic liquids for CO₂/CH₄ separation. **G. Lu**

Section F

Marriott Marquis Washington, DC
Marquis Salon 13

General Papers/New Concepts in Polymeric Materials

M. Becker, *Organizer*

E. Camerino, D. Nguyen, *Presiding*

- 8:30 PMSE 654.** Synthesis of silyl-centered diols for self-immolative polyurethane thermosets. **E. Camerino, G. Daniels, J.H. Wynne, E. Iezzi**

- 8:50 PMSE 655.** Fluorescent semi-rigid alternating copolymers. **J. Huang, S.R. Turner**

- 9:10 PMSE 656.** Surfactant incorporated Co nano particles polymer composites. **T. Hussain, A. Nawaz, A. Mujahid**

- 9:30 PMSE 657.** Database development for modeling degradation and service life prediction of polymeric materials. **D. Jacobs, L.N. Perry, H. Hsueh, C. Lemieux, L. Sung, S.J. Watson**

9:50 Intermission.

- 10:10 PMSE 658.** Characterization of acentric order in poled organic NLO materials using coarse-grained Monte Carlo simulations and sum-frequency generation spectroscopy. **L.E. Johnson, D.L. Elder, A.F. Tillack, P. Koelsch, L.R. Dalton, B. Robinson**

- 10:30 PMSE 659.** Phosphonated poly(ethylene terephthalate) ionomers as compatibilizers in polymer blends for packaging applications. **L. Ju, J.M. Dennis, K.A. Valentine, T.E. Long, R.B. Moore**

- 10:50 PMSE 660.** Unusual physical aging in thin films of polynorbornenes. **E. Lewis, B.D. Vogt**

- 11:10 PMSE 661.** Binary gas-mixtures and pure gas separation performance of MMMs composed of immiscible polymer blends compatibilized by colloidal MOFs. **D. Nguyen, N.P. Panapitiya, I.H. Musselman, K.J. Balkus, J.P. Ferraris**

Section G

Marriott Marquis Washington, DC
Marquis Salon 12

General Papers/New Concepts in Polymeric Materials

M. Becker, *Organizer*

A. Fairbrother, H. Hlushko, *Presiding*

- 8:30 PMSE 662.** Molecular weight dependence of the intrinsic size effect on T_g in AAO template-supported polymer nanorods: A DSC study. **T. Wei, S. Askar, A. Tan, J.M. Torkelson**

- 8:50 PMSE 663.** Withdrawn.

- 9:10 PMSE 664.** Linear antioxidant polymers for anticorrosion coatings: Adhesion and electrochemical performance. **H. Hlushko, Y. Cubides, R. Hlushko, H. Castaneda-Lopez, S.A. Sukhishvili**

- 9:30 PMSE 665.** Solvent-induced glass transition measurements by dynamic scanning gravimetric technique. **D. Pierleoni, M. Minelli, G. Scherillo, G. Mensitieri, V. Loiano, F. Bonavolonta, F. Doghieri**

9:50 Intermission.

- 10:10 PMSE 666.** Withdrawn.

- 10:30 PMSE 667.** Comparative investigation between pressure conditioning and thermal annealing in aging studies of glassy thermosets. **B.R. Ondra, A. Lesser**

- 10:50 PMSE 668.** Withdrawn.

- 11:10 PMSE 669.** Crystalline structure and fracture behavior of polyethylene after outdoor and accelerated indoor exposure. **A. Fairbrother, H. Hsueh, J. Kim, L.N. Perry, D.L. Stanley, L. Sung**

- 11:30 PMSE 670.** Conversion of charge-transfer characteristics in semi-conducting copolymer by adding trifluoromethyl group to the acceptor unit. **j. hu**

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Therapeutics & Opto-Electronics

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

Shape-Shifting Polymeric Systems

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Non-Conventional Building Blocks in Conjugated Materials: Innovative Designs & New Applications

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Henkel Award for Outstanding Graduate Research in Polymer Chemistry

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THURSDAY AFTERNOON

Green Polymer Chemistry: Biobased Materials & Biocatalysis

Applications of Biobased Materials

Sponsored by POLY, Cosponsored by AGFD, CELL and PMSE

Shape-Shifting Polymeric Systems

Sponsored by POLY, Cosponsored by PMSE

PROF

Division of Professional Relations

R. Libby, *Program Chair*

BUSINESS MEETINGS:

Business Meeting, 3:00 PM: Tue

SUNDAY MORNING

Merck Research Award Symposium

Sponsored by WCC, Cosponsored by BIOL, COMP, MEDI, MPPG, ORGN, PMSE and PROF

Space Chemistry: How it Helps Space Exploration

Sponsored by YCC, Cosponsored by PROF

Making an Impact on Public Perceptions of Chemistry through Outreach

Sponsored by SOCED, Cosponsored by CPRC, PROF and YCC

SUNDAY AFTERNOON

Science Communications: The Art of Developing a Clear Message

Sponsored by PRES, Cosponsored by BIOL, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, GTA, DAC, I&EC, INOR, ORGN, PROF, SCHB and YCC

Chemical Angel Network: Chemists Investing in Chemical Companies

Sponsored by BMGT, Cosponsored by PROF and SCHB†

The Nons: Non-Tenure Track Faculty in a Changing Academic Landscape

Sponsored by WCC, Cosponsored by CHED, CPT, PROF and SOCED

Preparing for Employment in a Global Workforce

Sponsored by IAC, Cosponsored by AGFD and PROF

The Road Less Traveled: Career Opportunities in the Government Sector

Sponsored by YCC, Cosponsored by PRES and PROF

SUNDAY EVENING

Chemical Entrepreneurs' Impact on the Global Economy

Sponsored by SCHB, Cosponsored by PROF

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

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MONDAY MORNING**Section A**

Marriott Marquis Washington, DC
Tulip

Ten Years & Counting: PROF's Professional Subdivisions

Cosponsored by CMA, CWD, ETHX, WCC and YCC

C. J. Bannochie, *Organizer, Presiding*

8:00 Introductory Remarks.

8:10 PROF 1. Decade of younger chemists within thirty minutes (or less) guaranteed! (or your conference registration back). M. Grandbois, N.A. LaFranzo, B.C. Chan

8:40 PROF 2. PROF and CWD: Looking back at the last ten years. L.W. Hoffman, C. Supalo

9:10 PROF 3. Women Chemists Subdivision of PROF: Developing and promoting women in the chemical enterprise. J.H. Cohen

9:40 Intermission.

9:55 PROF 4. Professional Relations: Gay & Transgender Chemists and Allies Subdivision (GTCA). M. Crawford

10:25 PROF 5. PROF Ethics Subdivision: Ten years and counting. G. Ferrence, C.P. McClure

10:55 PROF 6. PROF Minority Affairs: Advancing the success of minorities in the chemical enterprise. Z. Wilson-Kennedy, L. Watkins, L. Winfield, G. Thomas

Building a Safety Culture across the Chemistry Enterprise**Institutional & Enterprise Level Efforts to Developing a Safety Culture**

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Social Media for Science Advocacy in Public Policy

Sponsored by SCHB, Cosponsored by CCPA, CPRC and PROF

Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Post-Docs

Sponsored by CINF, Cosponsored by CHED, PROF and YCC

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization**Current State & Future Path**

Sponsored by ENFL, Cosponsored by BMGT†, CEI†, ENVR, MPPG, PRES, PROF†, SCHB and WCC

Food Safety & Labeling : Food & Flavor Regulations, Progress & Challenges in the Pursuit to Serve the Consumer**Food & Flavor Regulations, Accurate Labeling**

Sponsored by AGFD, Cosponsored by PROF

MONDAY AFTERNOON**Section A**

Marriott Marquis Washington, DC
Tulip

How Volunteering with the ACS Can Boost Your Professional Development Skills

Cosponsored by SCHB and YCC

C. Dunne, M. Grandbois, C. Rawlins, *Organizers*
C. L. Mills, *Organizer, Presiding*

1:00 Introductory Remarks.

1:05 PROF 7. True value of volunteering as a younger chemist. J. Breffke

1:35 PROF 8. Chemists visit Congress: Developing a new skill set. D.I. Lewis

2:05 PROF 9. Selfish or selfless? Does volunteering with ACS benefit you or others? N.A. LaFranzo

2:35 Intermission.

2:50 PROF 10. Benefits of involvement in your local ACS chapter. S.V. Orski

3:20 PROF 11. Developing your leadership skills as an ACS volunteer. P.W. Jagodzinski

3:50 PROF 12. ACS Volunteerism: Giving you what your employer can't. D. Cobb

4:20 Concluding Remarks.

Building a Safety Culture across the Chemistry Enterprise**Grassroots Approaches to Developing a Safety Culture**

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Chemistry & Culture: How Native American Chemists Impact Their Community

Sponsored by CMA, Cosponsored by CHED and PROF

Early Career Investigators in Biological Chemistry

Sponsored by BIOL, Cosponsored by PROF

Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Post-Docs

Sponsored by CINF, Cosponsored by CHED, PROF and YCC

Food Safety & Labeling : Food & Flavor Regulations, Progress & Challenges in the Pursuit to Serve the Consumer**Food & Flavor Regulations, Accurate Labeling**

Sponsored by AGFD, Cosponsored by PROF

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization**Challenges & Opportunities**

Sponsored by ENFL, Cosponsored by BMGT†, CEI†, ENVR, MPPG, PRES, PROF†, SCHB and WCC

TUESDAY MORNING**Section A**

Marriott Marquis Washington, DC
Cherry Blossom

Investing in the Future: Mentoring Underrepresented Students in Chemistry

J. L. Bryant, M. Crawford, *Organizers*

B. C. Chan, M. Crawford, R. Penn, Z. Wilson-Kennedy, *Presiding*

8:30 Introductory Remarks.

8:35 PROF 13. Opening overview: Investing in the future - Mentoring underrepresented chemistry students. M. Crawford, J.L. Bryant, Z.S. Wilson

8:45 PROF 14. Interactive Panel 1: Mentoring chemistry students of color. Z.S. Wilson, W.E. May, L. Winfield, B.C. Chan, M. Crawford

9:15 Q&A.

9:30 Introductory Remarks to Panel 2.

9:40 PROF 15. Interactive Panel 2: Mentoring chemistry students with disabilities. R. Penn, L.W. Hoffman, C.A. Supalo, K.R. Gallagher, M. Crawford

10:10 Q&A.

10:25 Introductory Remarks to Panel 3.

10:35 PROF 16. Interactive Panel 3: Mentoring LGBTQ+ chemistry students. B.C. Chan, B.L. Belmont, R. Lhota, A.N. Miguez, M. Crawford

11:05 Q&A.

11:20 Concluding Remarks.

Innovations in Healthcare in the Global Economy

Sponsored by SCHB, Cosponsored by MEDI and PROF

Journal of Agricultural & Food Chemistry Best Paper Award & Young Scientist Award Symposium

Sponsored by AGFD, Cosponsored by AGRO, CINF and PROF

Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists

Sponsored by HIST, Cosponsored by PRES, PROF and WCC†

How to get your First Industrial Job

Sponsored by YCC, Cosponsored by BMGT, PROF and WCC

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization**From Research to Scale-Up**

Sponsored by ENFL, Cosponsored by BMGT†, CEI†, ENVR, MPPG, PRES, PROF†, SCHB and WCC

Food Safety & Labeling : Food & Flavor Regulations, Progress & Challenges in the Pursuit to Serve the Consumer**Food Safety, Food Processing, Validation of Labeling**

Sponsored by AGFD, Cosponsored by PROF

TUESDAY AFTERNOON**Section A**

Marriott Marquis Washington, DC
Cherry Blossom

Chemists of Courage

D. J. Nelson, *Organizer, Presiding*

1:45 PROF 17. Introduction. D.J. Nelson

1:50 PROF 18. Special circumstance of CAS in this symposium. D.J. Nelson

2:00 PROF 19. CAS (Chemical Abstracts Service): 110 Years of service to chemistry and the chemical information community. S.P. Kuhn, J. Dzielawa

2:30 PROF 20. Facing scientific aristocracy in publishing multidisciplinary research. E. Martin-Blanco

3:00 PROF 21. Courageous Kizhner: Pain, politics and perseverance. D.E. Lewis

3:30 PROF 22. Withdrawn.

4:00 Panel Discussion.

The European Research Council's Funding Opportunities to Make Scientists' Dreams Come True

Sponsored by YCC, Cosponsored by PROF

Early Career Investigators in Biological Chemistry

Sponsored by BIOL, Cosponsored by PROF

Innovations in Healthcare in the Global Economy

Sponsored by SCHB, Cosponsored by MEDI and PROF

Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists

Sponsored by HIST, Cosponsored by PRES, PROF and WCC†

Beyond the Bench: Careers in Intellectual Property

Sponsored by CHAL, Cosponsored by PROF, SCHB and YCC

Graduate Student & Postdoctoral Fellow Symposium

Sponsored by BIOL, Cosponsored by PROF

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization**Innovating in Biomass Conversion: Factors for Success**

Sponsored by ENFL, Cosponsored by BMGT†, CEI†, ENVR, MPPG, PRES, PROF†, SCHB and WCC

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Food Safety & Labeling : Food & Flavor Regulations, Progress & Challenges in the Pursuit to Serve the Consumer

Food Safety, Food Processing, Validation of Labeling

Sponsored by AGFD, Cosponsored by PROF

WEDNESDAY MORNING

Building a Safety Culture across the Chemical Enterprise

Sponsored by CHAS, Cosponsored by CCS‡ and PROF

ACS Infectious Diseases Young Investigators Award Symposium

Sponsored by BIOL, Cosponsored by PROF

Fostering a Quality Culture in Research & Development

Sponsored by BMGT, Cosponsored by CHED, PROF and SCHB

WEDNESDAY AFTERNOON

Graduate Student & Postdoctoral Fellow Symposium

Sponsored by BIOL, Cosponsored by PROF

THURSDAY MORNING

Graduate Student & Postdoctoral Fellow Symposium

Sponsored by BIOL, Cosponsored by PROF

THURSDAY AFTERNOON

Graduate Student & Postdoctoral Fellow Symposium

Sponsored by BIOL, Cosponsored by PROF

RUBB

RUBBER DIVISION

W. M. Stahl, Program Chair

MONDAY AFTERNOON

Materials that Impact our Daily Lives & the Global Economy: Bring Practical Applications into the Chemistry Classroom

Sponsored by CHED, Cosponsored by CHED, PMISE, POLY and RUBB

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

SCHB

Division of Small Chemical Businesses

J. Sabol, Program Chair

OTHER SYMPOSIA OF INTEREST:

2017 C&EN Talented 12 (see MPPG, Mon)

Analytical, Environmental & Regulatory Challenges with Legalized Cannabis (see AGRO, Wed)

Chemical Angel Network: Chemists Investing in Chemical Companies (see BMGT, Sun)

Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Post-Docs (see CINP, Mon)

Nano Commercialization: Views from the Front (see MPPG, Mon)

Preparing for Employment in a Global Workforce (see IAC, Sun)

SOCIAL EVENTS:

Coffee, 7:45 AM: Mon, Tue

Reception, 5:30 PM: Tue

BUSINESS MEETINGS:

Executive Committee Meeting, 5:00 PM: Sat

SUNDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Magnolia

Chemical Intellectual Property Protection & Enforcement in the Global Economy

Cosponsored by CPRM

T. Siepmann, Organizer, Presiding

1:00 Introductory Remarks.

1:05 SCHB 1. Boning up on patent basics: A boon for startups. **S. Hasford**

1:35 SCHB 2. Patent filing strategies for small chemical businesses. **C.A. Burton**

2:05 SCHB 3. Advantages of the global patent prosecution highway. **T. Thomas**

2:35 Intermission.

2:50 SCHB 4. Managing a global patent portfolio on a budget. **J. Contrera**

3:20 SCHB 5. Strategies for challenging US patent rights. **K. Laurence**

3:50 SCHB 6. Withdrawn.

4:20 Discussion.

Science Communications: The Art of Developing a Clear Message

Sponsored by PRES, Cosponsored by BIOL, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, CTA, DAC, I&EC, INOR, ORGN, PROF, SCHB and YCC

Chemical Angel Network: Chemists Investing in Chemical Companies

Sponsored by BMGT, Cosponsored by PROF and SCHB‡

Entrepreneurs in the Agriculture & Food Industries

Sponsored by AGFD, Cosponsored by SCHB‡

SUNDAY EVENING

Section A

Walter E. Washington Convention Center
Halls A/B

Chemical Entrepreneurs' Impact on the Global Economy

Cosponsored by PROF

G. W. Ruger, Organizer

6:00 - 8:00

SCHB 7. SCHB helps you connect with entrepreneurs in the chemistry community. **A. Rahman, P.C. Lauro, D.J. Deutsch, A. Kantak, J.E. Sabol, J.L. Maclachlan, E.L. Oltermann, M. Chorghade, C.A. Burton, T. Siepmann, N.A. Vaidya, G.W. Ruger**

SCHB 8. Chemical Angel Network chemical professionals investing in chemistry based deals. **S.S. White, M. Vreeke, J.C. Giordan**

SCHB 9. Academic and industry collaborations bring valuable benefits to the community. **J.R. Berk, G.W. Ruger**

MONDAY MORNING

Section A

Marriott Marquis Washington, DC
Magnolia

Social Media for Science Advocacy in Public Policy

Cosponsored by CCPA, CPRC and PROF

Financially supported by Saul Ewing LLP

J. E. Sabol, Organizer

D. L. Orth, Presiding

8:30 Introductory Remarks.

8:35 SCHB 10. Lessons learned from the 2016 election campaign. **J.C. Johnson**

9:05 SCHB 11. ACS social media tool-kit. **C. McCarthy**

9:35 SCHB 12. Redesigned Act4Chemistry website with enhanced functionality. **K. Garcia**

10:05 Intermission.

10:20 SCHB 13. Science in 140 characters: a scientist's guide to communicating for impact on Twitter. **N. Milanovich**

10:50 SCHB 14. Express your passion for science advocacy using Linked-In and Facebook. **J.L. Maclachlan**

11:20 SCHB 15. Tweet-up and Facebook share for public policy. **C. McCarthy, J.L. Maclachlan, N. Milanovich, K. Garcia**

Building a Safety Culture across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED‡, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Current State & Future Path

Sponsored by ENFL, Cosponsored by BMGT‡, CEI‡, ENVR, MPPG, PRES, PROF‡, SCHB and WCC

MONDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Magnolia

Working in the Public Sector: Running for Elected Office

Cosponsored by CCPA, CPRC and PRES

D. L. Orth, Organizer

J. E. Sabol, Presiding

1:00 Introductory Remarks.

1:05 SCHB 16. Withdrawn.

1:35 SCHB 17. Running for and winning a local political office. **R.W. Phifer**

2:05 SCHB 18. Chemistry of governing. **J.D. Martin**

2:35 SCHB 19. Withdrawn.

3:05 Intermission.

3:20 SCHB 20. It's not what you know, it's what you can do: Tools to succeed in public office. **D.L. Orth**

3:50 SCHB 21. Elective Office: Always more losers than winners, but that's only the beginning. **P.J. Bonk**

4:20 SCHB 22. Out of the lab, into public office. **S. Naughton**

Building a Safety Culture across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

How Volunteering with the ACS Can Boost Your Professional Development Skills

Sponsored by PROF, Cosponsored by SCHB and YCC

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED‡, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

Intellectual Property Considerations When Entering into a Joint Venture

Sponsored by CHAL, Cosponsored by CATL, CELL, ENFL and SCHB

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Challenges & Opportunities

Sponsored by ENFL, Cosponsored by BMGT‡, CEI‡, ENVR, MPPG, PRES, PROF‡, SCHB and WCC

‡Cooperative Cosponsorship

MONDAY EVENING

Section A

Walter E. Washington Convention Center
Halls D/E

Sci-Mix

G. W. Ruger, *Organizer*

8:00 - 10:00

7-9. See previous listings.

TUESDAY MORNING

Section A

Marriott Marquis Washington, DC
Magnolia

Innovations in Healthcare in the Global Economy

Cosponsored by MEDI and PROF

Financially supported by ACS President-Elect; Saul Ewing LLP

M. Chorghade, *Organizer, Presiding*

8:30 Introductory Remarks.

8:40 SCHB 23. Chemistry career interfaces with surprising startups. *M.E. Schott*

9:10 SCHB 24. Industrializing neglected and rare disease drug discovery and development. *M.A. Lingerfelt, K.M. Zorn, M.A. Hupcey, S. Ekins*

9:40 SCHB 25. Journey of entrepreneurship through STEM outreach. *C.B. Monroe*

10:10 Intermission.

10:25 SCHB 26. Entrepreneur-scientist in the emerging field of lithium ion batteries. *K.M. Abraham*

10:55 SCHB 27. Translation of innovation from academia to the marketplace. *K. Kumar*

11:25 SCHB 28. Gig and silver economy: The changing dynamic in employment. *M. Lewis*

Understanding the Chemistry of Our Planet

Chemistry's Role in our Earth System

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

Patent Specification Requirements: What's in Common & What's Different in the U.S., Europe & Southeastern Asia?

Sponsored by CHAL, Cosponsored by SCHB

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

From Research to Scale-Up

Sponsored by ENFL, Cosponsored by BMGT, CEI, ENVR, MPPG, PRES, PROF, SCHB and WCC

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

TUESDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Magnolia

Innovations in Healthcare in the Global Economy

Cosponsored by MEDI and PROF

Financially supported by ACS President-Elect; Saul Ewing LLP

M. Chorghade, *Organizer, Presiding*

1:00 SCHB 29. Translation of academic research. *R.H. Grubbs*

1:40 SCHB 30. Creating the quantified skin category: An entrepreneurs journey. *R. Mehendale*

2:10 SCHB 31. Expanding the perspective of drug development: Understanding real world medicine and real world patients. *M.N. Liebman*

2:40 Intermission.

2:55 SCHB 32. Challenging conventional wisdom in pursuit of entrepreneurial dreams. *R.H. Barbhuiya, M. Chorghade*

3:25 SCHB 33. Massively collaborative drug development: A new antimalarial emerges from academia. *S.A. Knapp*

3:55 SCHB 34. Opportunities of evidenced TCM in the 21st century: A reverse pharmacological approach for re-discovery of ancient remedy. *D.Y. Lee, M. Chorghade*

4:25 SCHB 35. Building international businesses based on integration of basic and applied research: Value creation by collaboration. *A.M. Rahatgaonkar, M. Chorghade*

Understanding the Chemistry of Our Planet

Human Impacts to our Planet

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

Beyond the Bench: Careers in Intellectual Property

Sponsored by CHAL, Cosponsored by PROF, SCHB and YCC

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Innovating in Biomass Conversion: Factors for Success

Sponsored by ENFL, Cosponsored by BMGT, CEI, ENVR, MPPG, PRES, PROF, SCHB and WCC

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

TUESDAY EVENING

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

WEDNESDAY MORNING

Fostering a Quality Culture in Research & Development

Sponsored by BMGT, Cosponsored by CHED, PROF and SCHB

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

WEDNESDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Magnolia

Cannabis in the Global Economy

E. L. Oltermann, *Organizer*

E. M. Pryor, *Presiding*

1:00 Introductory Remarks.

1:05 SCHB 36. Navigating the cannabis space: Empowerment through deconstruction. *J. Bramante*

1:30 SCHB 37. Women in cannabis: Opportunities and challenges in a rapidly emerging industry. *M.J. Wilcox*

1:55 SCHB 38. Experiences in cannabis: Analytical testing. *H. Despres*

2:20 Intermission.

2:35 SCHB 39. Extraction methodologies of canadian medical cannabis. *M.M. Lewis*

3:00 SCHB 40. Intellectual property issues (and solutions) for cannabis companies. *R. Micheletti*

3:25 SCHB 41. Gender gap in a nascent cannabis subdivision from the chair's perspective. *E.L. Oltermann, E.M. Pryor*

3:50 Panel Discussion.

4:20 Concluding Remarks.

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL, BMGT, COLL, ENVR, FLUO, PMSE, PRES, SCHB and YCC

CCS

Committee on Chemical Safety

E. Howson, Program Chair

SUNDAY AFTERNOON

Division of Chemical Health & Safety Awards

Sponsored by CHAS, Cosponsored by CCS

Soft Skills in Training & Interactions

Sponsored by CHAS, Cosponsored by CCS

MONDAY MORNING

Building a Safety Culture Across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

MONDAY AFTERNOON

Building a Safety Culture Across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

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Cannabis Processing: Innovations & Legal Protections

Sponsored by CHAS, Cosponsored by CCS

TUESDAY MORNING

Chemophobia: Communicating Chemistry

Sponsored by CHAS, Cosponsored by CCS

TUESDAY AFTERNOON

Building a Safety Culture Across the Chemical Enterprise

Sponsored by CHAS, Cosponsored by CCS

WEDNESDAY MORNING

Building a Safety Culture Across the Chemical Enterprise

Sponsored by CHAS, Cosponsored by CCS and PROF

Emerging Trends in Research Operations

Sponsored by CHAS, Cosponsored by CCS

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WEDNESDAY AFTERNOON

Emerging Trends in Research Operations

Sponsored by CHAS, Cosponsored by CCS

CCPA

Committee on Chemistry & Public Affairs

R. Forslund, Program Chair

MONDAY MORNING

Social Media for Science Advocacy in Public Policy

Sponsored by SCHB, Cosponsored by CCPA, CPRC and PROF

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED‡, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

MONDAY AFTERNOON

Working in the Public Sector: Running for Elected Office

Sponsored by SCHB, Cosponsored by CCPA, CPRC and PRES

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

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CWD

Committee on Chemists with Disabilities

L. Hoffman, Program Chair

MONDAY MORNING

Ten Years & Counting: PROF's Professional Subdivisions

Sponsored by PROF, Cosponsored by CMA, CWD, ETHX, WCC and YCC

Technical program information known at press time. The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

DAC

Committee on Divisional Activities

R. Bennett, Program Chair

SUNDAY AFTERNOON

Science Communications: The Art of Developing a Clear Message

Sponsored by PRES, Cosponsored by BIOL, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, CTA, DAC, I&EC, INOR, ORGN, PROF, SCHB and YCC

MONDAY MORNING

Building a Safety Culture Across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED‡, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

MONDAY AFTERNOON

Building a Safety Culture Across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

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TUESDAY MORNING

Understanding the Chemistry of Our Planet

Chemistry's Role in our Earth System

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

TUESDAY AFTERNOON

Understanding the Chemistry of Our Planet

Human Impacts to our Planet

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

CEPA

Committee on Economic & Professional Affairs

R. Ewing, Program Chair

SUNDAY AFTERNOON

Science Communications: The Art of Developing a Clear Message

Sponsored by PRES, Cosponsored by BIOL, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, CTA, DAC, I&EC, INOR, ORGN, PROF, SCHB and YCC

MONDAY MORNING

Building a Safety Culture Across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

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MONDAY AFTERNOON

Building a Safety Culture Across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

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Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

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TUESDAY MORNING

Understanding the Chemistry of Our Planet

Chemistry's Role in our Earth System

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TUESDAY AFTERNOON

Understanding the Chemistry of Our Planet

Human Impacts to our Planet

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

CEI

Committee on Environmental Improvement

C. Middlecamp, Program Chair

SUNDAY MORNING

Electrochemical Technologies for Water Purification

Sponsored by ENVR, Cosponsored by CATL and CEI

SUNDAY AFTERNOON

Science Communications: The Art of Developing a Clear Message

Sponsored by PRES, Cosponsored by BIOL, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, CTA, DAC, I&EC, INOR, ORGN, PROF, SCHB and YCC

Electrochemical Technologies for Water Purification

Sponsored by ENVR, Cosponsored by CATL and CEI

MONDAY MORNING

Building a Safety Culture Across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED‡, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Current State & Future Path

Sponsored by ENFL, Cosponsored by BMGT‡, CEI‡, ENVR, MPPG, PRES, PROF‡, SCHB and WCC

‡Cooperative Cosponsorship

MONDAY AFTERNOON**Building a Safety Culture Across the Chemistry Enterprise****Grassroots Approaches to Developing a Safety Culture**

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED†, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization**Challenges & Opportunities**

Sponsored by ENFL, Cosponsored by BMGT†, CEI†, ENVR, MPPG, PRES, PROF†, SCHB and WCC

Undergraduate Research Posters**Green Chemistry & Sustainability**

Sponsored by CHED, Cosponsored by CEI and SOCED

TUESDAY MORNING**Understanding the Chemistry of Our Planet****Chemistry's Role in our Earth System**

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

Science & Perception of Climate Change

Sponsored by ENVR, Cosponsored by CEI

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization**From Research to Scale-Up**

Sponsored by ENFL, Cosponsored by BMGT†, CEI†, ENVR, MPPG, PRES, PROF†, SCHB and WCC

Advances & Challenges at the Food-Energy-Water Nexus

Sponsored by ENVR, Cosponsored by CEI

TUESDAY AFTERNOON**Understanding the Chemistry of Our Planet****Human Impacts to our Planet**

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization**Innovating in Biomass Conversion: Factors for Success**

Sponsored by ENFL, Cosponsored by BMGT†, CEI†, ENVR, MPPG, PRES, PROF†, SCHB and WCC

Monitoring Water Quality & Infrastructure to Prevent Future Flints

Sponsored by ENVR, Cosponsored by CEI and MPPG

Advances & Challenges at the Food-Energy-Water Nexus

Sponsored by ENVR, Cosponsored by CEI

WEDNESDAY MORNING**Green Chemistry: Theory & Practice**

Sponsored by CHED, Cosponsored by CEI and ENVR†

Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation

Sponsored by ENVR, Cosponsored by CEI and CHAL

Green Chemistry & the Environment

Sponsored by ENVR, Cosponsored by CATL and CEI

Environmental Justice: The Role & Impact of Diversity on Environmental Stewardship

Sponsored by ENVR, Cosponsored by CEI and CMA

WEDNESDAY AFTERNOON**Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation**

Sponsored by ENVR, Cosponsored by CEI and CHAL

Green Chemistry & the Environment

Sponsored by ENVR, Cosponsored by CATL and CEI

WEDNESDAY EVENING**Advances & Challenges at the Food-Energy-Water Nexus**

Sponsored by ENVR, Cosponsored by CEI

Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation

Sponsored by ENVR, Cosponsored by AGRO, CEI and CHAL

Electrochemical Technologies for Water Purification

Sponsored by ENVR, Cosponsored by CATL and CEI

Green Chemistry & the Environment

Sponsored by ENVR, Cosponsored by CATL and CEI

Monitoring Water Quality & Infrastructure to Prevent Future Flints

Sponsored by ENVR, Cosponsored by CEI and MPPG

Science & Perception of Climate Change

Sponsored by ENVR, Cosponsored by CEI

THURSDAY MORNING**Citizens First!**

Sponsored by CHED, Cosponsored by CEI

Changes in Chemical Risk Assessment under Amended TSCA: Approaches & Implementation

Sponsored by ENVR, Cosponsored by CEI and CHAL

ETHX**Committee on Ethics**

K. Vitense, Program Chair

MONDAY MORNING**Building a Safety Culture Across the Chemistry Enterprise****Institutional & Enterprise Level Efforts to Developing a Safety Culture**

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Ten Years & Counting: PROF's Professional Subdivisions

Sponsored by PROF, Cosponsored by CMA, CWD, ETHX, WCC and YCC

MONDAY AFTERNOON**Building a Safety Culture Across the Chemistry Enterprise****Grassroots Approaches to Developing a Safety Culture**

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

IAC**International Activities Committee**

E. Tratras Contis, Program Chair

SUNDAY AFTERNOON**Section A**

Marriott Marquis Washington, DC
George Washington

Preparing for Employment in a Global Workforce

Cosponsored by AGFD and PROF

C. LaPrade, E. Tratras Contis, Organizers

S. C. Nanita, Presiding

2:00 Introductory Remarks.

2:10 IAC 1. The evolution of chemical employment. T.N. Hoerter

2:25 IAC 2. What do you need for a chemistry career in Europe? R. Salzer

2:40 IAC 3. Perspective on a career in industry with global collaborations. S.C. Nanita

2:55 Intermission.

3:10 IAC 4. Soft skills, hard targets: The importance of resilience in the modern work place. C. Stihler

3:25 IAC 5. Diversity of thought in science: How to leverage the best talent in a global chemistry enterprise. M.J. Blanco

3:40 IAC 6. Emerging technologies and careers in agricultural research. L.L. McConnell

3:55 Panel Discussion.

4:25 Concluding Remarks.

MONDAY MORNING**Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy**

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED†, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

MONDAY AFTERNOON**Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy**

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED†, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

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CMA

Committee on
Minority Affairs

J. Sarquis, Program Chair

OTHER SYMPOSIA OF INTEREST:

Earle B. Barnes Award for Leadership in Chemical Research Management: Symposium in honor of Laurie Locascio (see ANYL, Tue)

Environmental Justice: The Role & Impact of Diversity on Environmental Stewardship (see ENVR, Wed)

SOCIAL EVENTS:

Social Hour, 5:00 PM: Sun
Luncheon, 11:30 AM: Mon

BUSINESS MEETINGS:

Open Meeting, 1:00 PM: Sun

MONDAY MORNING

Ten Years & Counting: PROF's
Professional SubdivisionsSponsored by PROF, Cosponsored by
CMA, CWD, ETHX, WCC and YCC

MONDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Eastern Market

Chemistry & Culture: How
Native American Chemists
Impact Their Community

Cosponsored by CHED and PROF

J. Lee, Organizer

O. Conroy-Ben, N. Lee, Organizers, Presiding

2:00 Introductory Remarks.

2:10 **CMA 1.** Navajo environmental health studies on contaminated lands. J.C. Ingram

2:50 **CMA 2.** Tracing the origins of Navajo waters in Arizona, New Mexico, and Utah. C.L. Tulley-Cordova

3:30 Intermission.

3:45 **CMA 3.** Refining a chemistry laboratory course to be culturally and chemically engaging. N. Lee

4:25 **CMA 4.** Pathways to faculty careers: Contributions of native scholars to the scientific and indigenous communities. K.M. DeerInWater, S. EchoHawk, M.J. Ondrechen

5:05 Concluding Remarks.

5:15 Panel Discussion.

Technical program information
known at press time.

The official technical program for
the 254th ACS National Meeting
is available at www.acs.org/WDC2017

WEDNESDAY MORNING

Environmental Justice: The
Role & Impact of Diversity on
Environmental StewardshipSponsored by ENVR, Cosponsored
by CEI and CMA

CPRM

Committee on Patents
& Related Matters

S. Shah, Program Chair

SUNDAY AFTERNOON

Chemical Intellectual Property
Protection & Enforcement
in the Global Economy

Sponsored by SCHB, Cosponsored by CPRM

CPT

Committee on
Professional Training

T. Wenzel, Program Chair

SUNDAY AFTERNOON

The Nons: Non-Tenure Track Faculty
in a Changing Academic LandscapeSponsored by WCC, Cosponsored by
CHED, CPT, PROF and SOCED

CPRC

Committee on
Public Relations &
Communications

J. Maclachlan, Program Chair

SUNDAY MORNING

Making an Impact on Public
Perceptions of Chemistry
through OutreachSponsored by SOCED, Cosponsored
by CPRC, PROF and YCC

SUNDAY AFTERNOON

Science Communications: The Art
of Developing a Clear MessageSponsored by PRES, Cosponsored by
BIOL, CARB, CEI, CELL, CEPA, CINF,
COLL, CPRC, CTA, DAC, I&EC, INOR,
ORGN, PROF, SCHB and YCC

MONDAY MORNING

Building a Safety Culture Across
the Chemistry EnterpriseInstitutional & Enterprise Level Efforts
to Developing a Safety CultureSponsored by PRES, Cosponsored by BIOL,
BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS,
CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC,
INOR, ORGN, PROF, SCHB and YCCSocial Media for Science
Advocacy in Public PolicySponsored by SCHB, Cosponsored
by CCPA, CPRC and PROFChemistry in an Evolving Political
Climate: Research Priorities &
Career Pathways in Public PolicySponsored by YCC, Cosponsored by
BIOL, CARB, CCPA, CEI, CELL, CEPA,
CHED#, CINF, COLL, COMSCI, CPRC,
DAC, GEOC, IAC, PRES and SCHB

2017 C&EN Talented 12

Sponsored by MPPG, Cosponsored by CPRC

MONDAY AFTERNOON

Building a Safety Culture Across
the Chemistry EnterpriseGrassroots Approaches to
Developing a Safety CultureSponsored by PRES, Cosponsored by BIOL,
BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS,
CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC,
INOR, ORGN, PROF, SCHB and YCCWorking in the Public Sector:
Running for Elected OfficeSponsored by SCHB, Cosponsored
by CCPA, CPRC and PRESChemistry in an Evolving Political
Climate: Research Priorities &
Career Pathways in Public PolicySponsored by YCC, Cosponsored by
BIOL, CARB, CCPA, CEI, CELL, CEPA,
CHED#, CINF, COLL, COMSCI, CPRC,
DAC, GEOC, IAC, PRES and SCHB

TUESDAY MORNING

Understanding the Chemistry
of Our Planet

Chemistry's Role in our Earth System

Sponsored by PRES, Cosponsored by
BIOL, BMGT, CARB, CEI, CELL, CEPA,
CINF, COLL, CPRC, DAC, GEOC, I&EC,
INOR, ORGN, SCHB and YCC

TUESDAY AFTERNOON

Understanding the Chemistry
of Our Planet

Human Impacts to our Planet

Sponsored by PRES, Cosponsored by
BIOL, BMGT, CARB, CEI, CELL, CEPA,
CINF, COLL, CPRC, DAC, GEOC, I&EC,
INOR, ORGN, SCHB and YCC

COMSCI

Committee on Science

M. Cesa, Program Chair

OTHER SYMPOSIA OF INTEREST:

Building a Safety Culture across the Chemistry Enterprise (see PRES, Mon)

Sustaining Water Resources: Environmental & Economic Impact (see MPPG, Mon)

Materials at the Food-Energy-Water Nexus: Polymers for Soils to Sensors (see POLY, Sun, Tue)

ChemRxiv: Publishing in the Age of Preprint Servers. A Joint CSR-ACS Symposium (see MPPG, Tue)

Informatics & Chemical Biology: Identifying Targets & Biological Pathways (see CINF, Tue)

Advances & Challenges at the Food-Energy-Water Nexus (see ENVR, Tue, Wed)

BUSINESS MEETINGS:

Business Meeting, 8:00 AM: Sat

MONDAY MORNING

Chemistry in an Evolving Political
Climate: Research Priorities &
Career Pathways in Public PolicySponsored by YCC, Cosponsored by
BIOL, CARB, CCPA, CEI, CELL, CEPA,
CHED#, CINF, COLL, COMSCI, CPRC,
DAC, GEOC, IAC, PRES and SCHBSustaining Water Resources:
Environmental & Economic ImpactSponsored by MPPG, Cosponsored by
COMSCI#, ENVR, GEOC, I&EC and PRES

MONDAY AFTERNOON

Section A

Walter E. Washington Convention Center
Room 155

Transformative Research &
Excellence in Education AwardCosponsored by BIOL, COLL, COMP,
ENFL, INOR, PHYS and PRES

S. Ronco, Organizer, Presiding

R. Hernandez, Presiding

1:30 Introductory Remarks.

1:35 **COMSCI 1.** Colors and shapes: Science and education at the interface of inorganic chemistry and nanotechnology. C.J. Murphy

2:05 **COMSCI 2.** Dynamical consistency in sustainable nanoparticles and advances in diversity equity. R. Hernandez

2:35 **COMSCI 3.** Nanoparticle-mediated delivery of biologics: From siRNA to CRISPR. V.M. Rotello

3:05 Intermission.

3:10 **COMSCI 4.** Probing what you can't see: From perovskite solar cells to broader science education. D.S. Ginger

3:40 **COMSCI 5.** Illuminating cell-cell interactions with engineered bioluminescent probes. J.A. Prescher

4:10 **COMSCI 6.** Undergraduate researchers as nanoscience ambassadors. S.E. Skrabalak

4:40 Panel Discussion.

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Sponsored by YCC, Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED†, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

CTA

Committee on Technician Affairs

C. Libby, Program Chair

SUNDAY AFTERNOON

Science Communications: The Art of Developing a Clear Message

Sponsored by PRES, Cosponsored by BIOL, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, CTA, DAC, I&EC, INOR, ORGN, PROF, SCHB and YCC

MONDAY MORNING

Building a Safety Culture Across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

MONDAY AFTERNOON

Building a Safety Culture Across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

SOCED

Society Committee on Education

A. El-Ashrawy, Program Chair

SOCIAL EVENTS:

ACS on Campus Networking Happy Hour: Make Connections and Advance Your Career, 5:30 PM: Sun

The Job Hunt: Do's and Don'ts of Applying and Interviewing, 9:00 AM: Mon

Undergraduate Speed Networking with Chemistry Professionals, 4:00 PM: Mon

SUNDAY MORNING

Section A

Grand Hyatt Washington
Constitution B

Making an Impact on Public Perceptions of Chemistry through Outreach

Cosponsored by CPRC, PROF and YCC

A. K. El-Ashrawy, Organizer, Presiding

9:00 Introductory Remarks.

9:10 **SOCED 1.** Putting chemistry in the right context. C.A. Yarosh

9:30 **SOCED 2.** Government outreach opportunities. C.B. Frech

9:50 **SOCED 3.** Learning through teaching, and growing through serving: Chemical outreach and successful student chapters. M.A. Boucher, A. Thomas

10:10 Panel Discussion.

10:25 Concluding Remarks.

High School Program

Sponsored by CHED, Cosponsored by SOCED

SUNDAY AFTERNOON

High School Program

Sponsored by CHED, Cosponsored by SOCED

The Nons: Non-Tenure Track Faculty in a Changing Academic Landscape

Sponsored by WCC, Cosponsored by CHED, CPT, PROF and SOCED

Undergraduate Research Papers

Sponsored by CHED, Cosponsored by SOCED

MONDAY AFTERNOON

Section A

Grand Hyatt Washington
Independence A

Eminent Scientist Lecture

Cosponsored by CATL and POLY

A. K. El-Ashrawy, Organizer, Presiding

12:00 Introductory Remarks.

12:15 **SOCED 4.** The many great advantages of gold photo-thermal therapy of cancer. M.A. El-Sayed

1:05 Q&A.

1:20 Concluding Remarks.

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

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

WCC

Women Chemists Committee

R. Cole, Program Chair

OTHER SYMPOSIA OF INTEREST:

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization (see ENFL, Mon, Tue)

How to get your First Industrial Job (see YCC, Tue)

Increasing Retention of Under-Represented Students in Chemistry (see CHED, Tue)

Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists (see HIST, Tue)

Building a Safety Culture across the Chemical Enterprise (see CHAS, Tue, Wed)

SOCIAL EVENTS:

Women in Chemical Enterprise, 7:30 AM: Mon

Just Cocktails and Open Meeting, 4:00 PM: Mon

Eli Lilly Travel Award Poster Session, 11:00 AM: Tue

WCC Luncheon, 12:00 PM: Tue

BUSINESS MEETINGS:

Business Meeting, 8:00 AM: Sat

SUNDAY MORNING

Section A

Marriott Marquis Washington, DC
Catholic University

Merck Research Award Symposium

Cosponsored by BIOL, COMP, MEDI, MPPG, ORGN, PMSE and PROF

A. M. Balija, Organizer, Presiding

R. Ruck, Presiding

8:25 Introductory Remarks.

8:30 **WCC 1.** Creating binary Cu-Bi compounds at high pressure. S.M. Clarke, M. Amsler, J. Walsh, T. Yu, Y. Wang, S.D. Jacobsen, C. Wolverton, D.E. Freedman

8:50 **WCC 2.** Acetalated dextran nanoparticles for rapid and glucose responsive insulin delivery. L.R. Volpatti, M. Matranga, D.G. Anderson

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9:10 WCC 3. Atomically precise, tunable organomimetic cluster nanomolecules (OCNs). **E.A. Qian**, J. Logan, M. Kirolos, A.I. Wixtrom, J. Axtell, A. Saebi, D. Jung, P. Rehak, Y. Han, E. Hakim Mouilly, D. Mosallaei, S. Chow, M. Messina, J. Wang, A.T. Royappa, A.L. Rheingold, H.D. Maynard, P. Kral, A.M. Spokoyny

9:30 WCC 4. Control factors involved in abietadiene synthesis: A biosynthetic reaction containing a post-transition state bifurcation. **S.R. Hare**, A. Escorcia, D. Tantillo, W. Thiel

9:50 WCC 5. Improving force field parameterization with Bayesian inference for chemical perception. **C.C. Bannan**, C. Zanelle, C.I. Bayly, J. Fass, M.K. Gilson, M.R. Shirts, J.D. Chodera, D.L. Mobley

10:10 Intermission.

10:20 WCC 6. Soluble guanylate cyclase stimulators for cardiovascular disease. **S. Raghavan**

10:40 WCC 7. Development and synthetic application of arenophile-mediated dihydroxylation reactions. **E.H. Southgate**, J. Pospech, J. Fu, D. Holycross, D. Sarlah

11:00 WCC 8. Advances in regioselective additions to pi systems. **H.A. Kerchner**, J. Montgomery

11:20 WCC 9. Recent developments in stereoselective iridium-catalyzed allylic alkylation methodologies. **S.E. Shockley**, C. Hethcox, B.M. Stoltz

SUNDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Catholic University

The Nons: Non-Tenure Track Faculty in a Changing Academic Landscape

Cosponsored by CHED, CPT, PROF and SOCED

A. F. Charlebois, L. S. Sremaniak, *Organizers, Presiding*

1:30 Introductory Remarks.

1:40 WCC 10. Trends in non-tenure track faculty employment policy and practice. **L.S. Sremaniak**

2:05 WCC 11. Building an inclusive environment for non-tenure track faculty: Avoiding chutes and building ladders. **P.K. Dorhout**

2:30 WCC 12. ACS Committee on Professional Training and NTT faculty. **S. Harris**

2:55 WCC 13. Collective efforts to protect non-tenure track faculty rights. **A.L. Nicely**

3:20 Intermission.

3:35 WCC 14. Road less/more traveled: My transition into a NTTF position. **A.F. Charlebois**

Technical program information known at press time.

The official technical program for the 254th ACS National Meeting is available at www.acs.org/WDC2017

4:00 WCC 15. Transmutation of chemistry faculty positions in American higher education. **D.A. Canelas**

4:25 WCC 16. Being a senior chemistry lecturer at a large urban public university. **M. Delgado**

4:50 Concluding Remarks.

MONDAY MORNING

Ten Years & Counting: PROF's Professional Subdivisions

Sponsored by PROF, Cosponsored by CMA, CWD, ETHX, WCC and YCC

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Current State & Future Path

Sponsored by ENFL, Cosponsored by BMGT†, CEI†, ENVR, MPPG, PRES, PROF†, SCHB and WCC

MONDAY AFTERNOON

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Challenges & Opportunities

Sponsored by ENFL, Cosponsored by BMGT†, CEI†, ENVR, MPPG, PRES, PROF†, SCHB and WCC

TUESDAY MORNING

Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists

Sponsored by HIST, Cosponsored by PRES, PROF and WCC†

How to get your First Industrial Job

Sponsored by YCC, Cosponsored by BMGT, PROF and WCC

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

From Research to Scale-Up

Sponsored by ENFL, Cosponsored by BMGT†, CEI†, ENVR, MPPG, PRES, PROF†, SCHB and WCC

TUESDAY AFTERNOON

Ladies in Waiting for Nobel Prizes: Overlooked Accomplishments of Women Chemists

Sponsored by HIST, Cosponsored by PRES, PROF and WCC†

Biomass to Fuels & Chemicals: Research, Innovation & Commercialization

Innovating in Biomass Conversion: Factors for Success

Sponsored by ENFL, Cosponsored by BMGT†, CEI†, ENVR, MPPG, PRES, PROF†, SCHB and WCC

YCC

Younger Chemists Committee

D. Williams, *Program Chair*

SOCIAL EVENTS:

Social Hour, 7:00 PM: Mon

SUNDAY MORNING

Section A

Marriott Marquis Washington, DC
Liberty Ballroom Salon M

Space Chemistry: How it Helps Space Exploration

Cosponsored by PROF

F. Darvas, A. E. Pavlath, *Organizers, Presiding*

8:30 Introductory Remarks.

8:35 YCC 1. Space chemistry at NASA's Kennedy Space Center. **L.B. Roberson**

9:05 YCC 2. Remote controlled miniaturized chemistry and biology lab platform for space research. **S. Amselem**

9:35 YCC 3. Withdrawn.

10:05 Introduction to Mars Research.

10:10 YCC 4. Astronautical capillary electrophoresis analysis of serum immunoglobulin N-glycans. **A. Guttman**, M. Szarka, S. Szilasi

10:40 YCC 5. Design of flow reactors for supporting traveling to Mars. **R.V. Jones**, F. Darvas

11:10 YCC 6. Sunlight-driven transformation of CO₂ to useful products on Mars: Electrochemical vs. photoelectrochemical scenario. **C. Janaky**

Making an Impact on Public Perceptions of Chemistry through Outreach

Sponsored by SOCED, Cosponsored by CPRC, PROF and YCC

SUNDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Union Station

The Road Less Traveled: Career Opportunities in the Government Sector

Cosponsored by PRES and PROF

K. J. Heroux, *Organizer, Presiding*

A. Aldridge, *Presiding*

2:00 Introductory Remarks.

2:05 YCC 7. National laboratories: One of America's greatest assets. **E.B. Fox**

2:25 YCC 8. Nuclear analytical chemistry at Oak Ridge National Laboratory. **B.W. Ticknor**

2:45 YCC 9. Chemistry chameleons: How to willfully and ethically sustain a chemistry career in the government sector. **J.L. Bryant**

3:05 Intermission.

3:10 YCC 10. My career path at the department of navy: From post-doctoral student to research chemist. **P. Zarras**

3:30 YCC 11. Protecting the public health: A chemist's role at the FDA. **A. Aldridge**

3:50 YCC 12. How ACS volunteer work made my career. **L.B. Roberson**

4:10 Intermission.

4:15 Panel Discussion.

5:00 Closing Remarks.

Science Communications: The Art of Developing a Clear Message

Sponsored by PRES, Cosponsored by BIOL, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, CTA, DAC, I&EC, INOR, ORGN, PROF, SCHB and YCC

MONDAY MORNING

Section A

Marriott Marquis Washington, DC
Chinatown

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED†, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

R. E. Borg, C. Dunne, M. Kipreos, W. A. Lawal, J. J. O'Neill, P. Wangtrakuldee, M. Ward, *Organizers*

B. Walker, *Presiding*

8:30 Introductory Remarks.

8:35 YCC 13. Converting federal tax dollars into high-value-added polymer science at NIST. **K. Beers**

9:05 YCC 14. Non-proliferation for chemical weapons. **N.B. Jackson**

9:35 YCC 15. Open innovation and the evolving federal R&D enterprise. **K.M. Kuhn**, H. Amos, S. Patel, R. Gordon, C. Nelson, J. Benforado

10:05 Intermission.

10:15 YCC 16. Chemical safety as a national policy priority. **K. Kulinowski**

10:45 YCC 17. A biochemist's career odyssey: Experiences, challenges and opportunities in academia, the private sector, the US government and international institutions. **R. Dixon**

11:30 Panel Discussion.

Building a Safety Culture Across the Chemistry Enterprise

Institutional & Enterprise Level Efforts to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

Ten Years & Counting: PROF's Professional Subdivisions

Sponsored by PROF, Cosponsored by CMA, CWD, ETHX, WCC and YCC

TOXI Young Investigators

Sponsored by TOXI, Cosponsored by YCC

Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Post-Docs

Sponsored by CINF, Cosponsored by CHED, PROF and YCC

MONDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Chinatown

Chemistry in an Evolving Political Climate: Research Priorities & Career Pathways in Public Policy

Cosponsored by BIOL, CARB, CCPA, CEI, CELL, CEPA, CHED‡, CINF, COLL, COMSCI, CPRC, DAC, GEOC, IAC, PRES and SCHB

R. E. Borg, C. Dunne, M. Kipreos, W. A. Lawal, J. J. O'Neil, P. Wangtrakuldee, *Organizers*

M. Ward, *Organizer, Presiding*

1:30 Introduction.

1:35 YCC 18. Chemistry in the Capital: ACS's role in science policy. C.A. Yarosh

2:00 YCC 19. The chemistry of science diplomacy: The global chemists' code of ethics and other ACS diplomatic efforts. L. Brown

2:25 YCC 20. Science diplomacy and public policy: The Malta Conferences. Z.M. Lerman, M.Z. Hoffman

2:50 Intermission.

3:00 YCC 21. There and back again: Public policy experiences on the hill and after. L.E. Pence

3:25 YCC 22. How early career chemists can utilize their analytical skills to effectively contribute to public policy as an unbiased resource. F.R. Lucci

3:50 YCC 23. How scientists can influence public policy. S.B. Butts

4:15 Panel Discussion.

Building a Safety Culture Across the Chemistry Enterprise

Grassroots Approaches to Developing a Safety Culture

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CCS, CEI, CELL, CEPA, CHAS, CINF, COLL, CPRC, CTA, DAC, ETHX, I&EC, INOR, ORGN, PROF, SCHB and YCC

How Volunteering with the ACS Can Boost Your Professional Development Skills

Sponsored by PROF, Cosponsored by SCHB and YCC

Collaborating for Success: Professional Skills Development for Undergraduates, Graduates & Post-Docs

Sponsored by CINF, Cosponsored by CHED, PROF and YCC

TUESDAY MORNING

Section A

Marriott Marquis Washington, DC
Chinatown

How to get your First Industrial Job

Cosponsored by BMGT, PROF and WCC

M. Grandbois, *Organizer, Presiding*

10:00 Introductory Remarks.

10:05 YCC 24. Panel discussion and networking. M. Grandbois

12:35 Concluding Remarks.

Understanding the Chemistry of Our Planet

Chemistry's Role in our Earth System

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

Journey to Mars: Materials, Energy & Life Sciences

Sponsored by POLY, Cosponsored by ANYL‡, BMGT‡, COLL‡, ENVR‡, FLUO‡, PMSE‡, PRES, SCHB‡ and YCC‡

TUESDAY AFTERNOON

Section A

Marriott Marquis Washington, DC
Chinatown

The European Research Council's Funding Opportunities to Make Scientists' Dreams Come True

Cosponsored by PROF

M. Favaro, *Organizer*

1:30 Introductory Remarks.

1:35 YCC 25. European Research Council: 10 years of funding opportunities to make scientists' dreams come true. M. Favaro

1:50 YCC 26. How a project proposal becomes a successful ERC grant. M. Favaro

2:05 YCC 27. The evaluation of ERC projects: The evaluator's point of view. G.D. Scholes

2:20 Discussion.

Understanding the Chemistry of Our Planet

Human Impacts to our Planet

Sponsored by PRES, Cosponsored by BIOL, BMGT, CARB, CEI, CELL, CEPA, CINF, COLL, CPRC, DAC, GEOC, I&EC, INOR, ORGN, SCHB and YCC

Beyond the Bench: Careers in Intellectual Property

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Journey to Mars: Materials, Energy & Life Sciences

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TUESDAY EVENING

Journey to Mars: Materials, Energy & Life Sciences

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WEDNESDAY MORNING

Journey to Mars: Materials, Energy & Life Sciences

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WEDNESDAY AFTERNOON

Journey to Mars: Materials, Energy & Life Sciences

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EXPOSITION HIGHLIGHTS

SEE WHAT'S NEW INSIDE THE EXPOSITION. Visit the ACS National Exposition at the Walter E. Washington Convention Center (WEWCC), Halls A & B, from Sunday, Aug. 20 through Tuesday, Aug. 24. The show hours will be Sunday, 6 to 8:30 PM, and Monday and Tuesday, 9 AM to 5 PM.

Companies will showcase services, instruments, books, computer hardware, scientific software, and an array of chromatographic, lab, and safety equipment. Technical personnel will be available to give demonstrations, answer questions, and discuss your specific needs and interests. Join us at the ACS Booth in the middle of the exposition floor where ACS staff units will present the many benefits, services, products, and merchandise offered by ACS.

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Free exhibitor workshops. Free workshops will be hosted by exhibitors on the exposition floor and in private rooms inside the WEWCC. These workshops will introduce new products and services, build skills with specific tools and techniques, and highlight innovative applications that may improve your productivity. Exhibitor workshop registrations are available at www.acs.org/wdc2017.

Special events. Join us for several ACS Divisions poster session on the expo floor. Don't forget to visit us on Sunday

from 6 to 8:30 PM for the Attendee Welcome Reception. Have an afternoon break while meeting the ACS president-elect candidates inside the exposition on Monday from 1 to 3 PM. Take another afternoon break on Tuesday from 3 to 5 PM and visit the exhibitors before the exposition closes.

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Admission requirements & expo-only registration. 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 WEWCC.



ACS Exposition

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Wilma-LabGlass, 1172 N.W. Boulevard, Vineland, NJ, United States 08360, 856-691-3200, fax: 856-691-6206, e-mail: cs@wilma-labglass.com, Internet: www.wilma-labglass.com **1721**

Workrite Uniform Company, 1701 North Lombard St., Oxnard, CA, United States 93030, 800-521-1888, fax: 805-483-0678, e-mail: info@workrite.com, Internet: www.workritecorp.com Workrite Uniform Company's new Workrite FR/CP Lab Coat is made from flame-resistant (FR) Nomex IIIA with a proprietary, chemical splash protection (CP) technology - Westex ShieldCXP. This innovation is designed to shed small amounts of liquid chemicals when they are dropped or splashed on the fabric. **902**

WuXi AppTec (Shanghai) Co. Ltd., 288 Fute Zhong Road, Waigaoqiao Free Trade Zone, Shanghai, China 200131, e-mail: hr@wuxiapptec.com, Internet: www.LabNetwork.com LabNetwork, a WuXi AppTec company, is a global eCommerce platform connecting suppliers and buyers of research products. Backed by WuXi AppTec's expertise in R&D, sourcing, quality control, warehousing and logistics, LabNetwork brings high-quality compounds from WuXi's network of qualified providers to the global chemistry/R&D community. **600**

Wyatt Technology Corp., 6300 Hollister Avenue, Santa Barbara, CA, United States 93117,

805-681-9009, fax: 805-681-0123, e-mail:info@wyatt.com, Internet: <http://www.wyatt.com> Wyatt Technology is the recognized leader in instrumentation for determining the absolute molar mass, size, charge and interactions of macromolecules and nanoparticles in solution. These tools include: in-line multi-angle static light scattering, high-throughput dynamic light scattering, differential refractometry, electrophoretic mobility, differential viscosity, field flow fractionation and automated composition gradient. **1705**

X-Ability Co., Ltd., Ishiwata Building, 3rd Floor, 4-1-5 Hongo, Bunkyo-Ku, Tokyo, Japan 113-0033, +81-3-5800-7731, e-mail:rkoga@x-ability.jp, Internet: x-ability.com **622**

Xenocs SA, 19 rue Francois Blumet, Sassenage, France 38360, +33 (0)4 76 26 98 59, Internet: www.xenocs.com **1435**

Yamazen Science, Inc., 1455 Rollins Road, Burlingame, CA, United States 94010, 650-347-7750,

fax: 650-347-6496, e-mail:info@yamazenusa.com, Internet: www.yamazenscience.com Yamazen manufactures Japan's Leading Automated Flash Purification Systems & High Resolution Columns with 45years of Chromatography experience. US Patented software (SMART FLASH) gearing toward GREEN CHEMISTRY: Fast (4CV) & Predictable, Streamlined & Advanced Chromatography & Low Solvent Usage. W-Prep: Parallel system can run two columns simultaneously. ELSD, RI, MS & TLC Reader as add-ons. **401**

2017 NEW PRODUCT LISTINGS

Ace Glass, Inc.

Booth # 1901
Scale-Up Reactor
Dual Stand
Filtration Apparatus

Advion

Booth # 1401
expression CMS
TriVersa NanoMate
Plate Express
Atmospheric Solids Analysis Probe (ASAP)
Inert Atmospheric Solids Analysis Probe (iASAP)

Anton Paar USA

Booth # 1217
Microwave Digestion System: Multiwave GO
Raman Spectrometers – RamSpec
Particle Analysis: Litesizer 500
Refractometer: Abbat 350
Rheometer MCR 72

Ark Pharm, Inc.

Booth # 1026
2-Amino-6-bromonicotinic acid, 1196157-51-3
4-Iodo-1H-pyrrole-2-carbaldehyde, 33515-62-7
6-Bromo-5-fluoro-1H-indazole, 1286734-85-7
6-Bromo-2-chloroquinazoline, 882672-05-1
2-Amino-4-bromobenzaldehyde, 59278-65-8

Athena Enzyme Systems

Booth # 527
Contichrom Cube HPLC
Contichrom Cube LC

Bio-Logic USA, LLC

Booth # 1821
JTS-10
Chemglass

Chemglass Life Sciences

Booth # 1800
Digital Temperature Recorders/Data Loggers
Air Condensers with Finned Aluminum Jackets
Dual and Triple Benchtop Reactors

ChemLogic

Booth # 315
KEMBLOX

Chemrus Inc.

Booth # 520
disposable filter funnel
multi-flask reaction kit

Chengdu Aslee Biopharmaceuticals, Inc.

Booth # 726
Organic Building Block
Organoboron
Organotin
Organic Intermediates
Organic Chiral Ligands

Chrom Sword

Booth # 804
ChromSword Developer
ChromSword DataSystem
ChromSword AutoRobust
ChromSword ReportViewer
ChromSword Offline

CombiPhos Catalysts, Inc.

Booth # 1320
Deuterium reagents
Boronic acids
Boronic acid pinacol esters
Cross-coupling catalysts
Pyridine-2-boronic acids

FRITSCH Milling and Sizing

Booth # 1608
Pulverisette 14 Premium Line
Analysette 28 Image Sizer
Pulverisette 6 Premium Line
Analysette 22 Laser Particle Size Analyzer
Pulverisette 7 Premium Line

Gaussian

Booth # 1225
Gaussian
Gaussview
AMPAC

Glas-Col

Booth # 2120
Ductless Fume Hoods

Harvard Apparatus

Booth # 1627
Pump 33 DDS Dual Drive System

Horizon Technology Inc.

Booth # 321
SPE-DEX 5000 Disk Extraction System
SmartPrep Automated Cartridge Extractor II
SPE-Z Prep Manifold for Disk Extraction
XcelVap Automated Evaporation/Concentration System

DryVap Automated In-Line Drying and Concentration

Industrial Test Systems

Booth # 2026
eXact iDip Smart Photometer System
Arsenic Quick Kits

InfoChem GmbH

Booth # 1221

ICSynth
ICFRP
ICAnnotator
ICFSE Markush
SPRESI data

Kishida Chemical Co., Ltd.

Booth # 820
Tris(2,2,2-trifluoroethyl) Phosphate
Luknova Inc.

Luknova Inc.

Booth # 325
EasyFil Filters
SuperSep Flash Columns
SelectFlash Silica
SuperBond Materials
SelectBond Materials

Lumex Instruments Canada

Booth # 1927
Capillary Electrophoresis
Mercury Analyzers
Microchip-based qPCR
FT-IR/FT-NIR
AAS

Magritek Inc.

Booth # 801
Benchtop NMR
Spinsolve
NMR Spectrometer
Benchtop NMR Spectrometer

Molecular Vista

Booth # 322

Vista Scope

Nanalysis Corp.

Booth # 301
NMReady 60e
NMReady 60Pro
NMReady Flow
NMReady Connect

New Era Enterprises

Booth # 1704
Micro Pipet for 1.7mm Capliaries
Sample Reaction System-5mm
Compression Gel Device
Dummy Sample Tube-non-glass

Ocean Optics, Inc.

Booth # 1525
Ocean FX

OLIS, Inc.

Booth # 1611
iC280 spectrometer
iC430 spectrometer
OlisWorks for 8453

Omicron Biochemicals, Inc.

Booth # 218
D-glucose-13C
Sucrose-13C
N-glycan
O-glycan
nucleosides

OriginLab Corp.

Booth # 1417
Origin Software
OriginPro Software

Oxford Lasers

Booth # 2204
VisiSize Portable
VisiSize N60
FireFly 300W
FireBird 1000W

Park Systems, Inc.

Booth # 500
Park NX10
Park NX10 SICM
Park NX-Bio
Park NX20
Park XE7

Parr Instrument Co.

Booth # 2001
Parr 4878 Automated Liquid Sampler

Regis Technologies

Booth # 1904
Wheik-O 1
RegisPack
RegisCell
IAM HPLC Columns
RegisSEP Purification Services

Research In Germany

Booth # 2210
Funding for international research collaboration

Science China Press

Booth # 522
Science China Chemistry
Science Bulletin
Science China Materials
Journal of Energy Chemistry

Scitegrity

Booth # 219
Controlled Substances Squared
CS2

Semichem

Booth # 1223

AMPAC
Codessa
Gaussview

Showa Denko America Inc.

Booth # 1708
HK-404L (rapid analysis GPC column)

Sorbent Technologies

Booth # 917
SorbaRes
SorbaDex

TA Instruments

Booth # 1805
Discovery SDT
Affinity ITC
Discovery TGA

ThalesNano Nanotechnology Inc.

Booth # 926
H-Cube Mini Plus
H-Cube Pro
Phoenix Flow Reactor
Flash Reactor Plus
IceCube

Waters Corp.

Booth # 1801
XEVO TQ-XS
ACQUITY Arc
ACQUITY QDa

Wavefunction, Inc.

Booth # 1009
Spartan'16 Parallel Suite
Spartan Student Edition version 7
Odyssey Instructor Edition version 5
Odyssey Student Edition version 5
iSpartan and Odyssey Apps

Welch by Gardner Denver

Booth # 1501
CRVpro - Robust Rotary Vane Pumps
WelchNet - Modular Lab Vacuum Network
ChemStar Dry - Oil Free Deep Vacuum
PTFE Diaphragm Pumps and Systems
DUOSEAL - Belt Drive Pumps

Wyatt Technology Corp.

Booth # 1705
miniDAWN TREOS II
ViscoStar II Viscometer

Yamazen Science, Inc.

Booth # 401
AKROS
TLC Reader
ELSD
WPrep-2XY
Smart Flash-MS

COMPANIES LISTED BY BROAD CATEGORIES

A more detailed product listing can be found by visiting the National Exposition at www.acs.org/wdc17. In addition to Meeting Mail stations in the convention center, product categories, along with companies supplying the products, can be searched using this free service.

Academic & Educational Services

101	320
Ace Glass, Inc.	1901
ACS Committee on Chemical Health & Safety	1038
ACS Education	ACS Booth
ACS Publications	ACS Booth
ACS Senior Chemists	1042
Anasazi Instruments Inc.	403
Bio-Rad Laboratories, Informatics Division	2126
CAS	ACS Booth
Chemily, LLC	525
Chemistry At Your Fingertips	414
ChemLogic	315
Elsevier	1209
Flinn Scientific Inc.	2119
Gale, a Cengage Company	412
Gamry Instruments	1118
Gaussian	1225
Heidolph North America	1000
Hitgen Ltd.	727
InfoChem GmbH	1221
IOP Publishing	313
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Research In Germany	2210
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US EPA Green Chemistry Program	1036
US EPA Toxics Release Inventory Program	1040
Vernier Software & Technology	1424
W.W. Norton	1601
Wavefunction, Inc.	1009
Wiley	1100

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AdValue Technology	1027
Cambridge Crystallographic Data Ctr.	524
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Hitgen Ltd.	727
LABCONCO, Corp.	2208

Analytical Research

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Agilent Technologies	911
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Chrom Sword	804

FRITSCH Milling and Sizing	1608
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Mestrelab Research SL	821
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Showa Denko America Inc.	1708
Teledyne Isco - Chromatography	1325
Thermo Fisher Scientific	1532,1533
U.S. Naval Research Lab	1820
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Wavefunction, Inc.	1009
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Business Management & Services

ACS Senior Chemists	1042
ChemSpace US Inc	901
Elsevier	1209

Career Development & Training

ACS Senior Chemists	1042
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Pace Analytical	1503
Research In Germany	2210
Temple University School of Pharmacy	319
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IKA Works, Inc.	1301,1405,1408
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Malvern Instruments, Inc.	1900
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Oxford Lasers	2204
Pace Analytical	1503
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Parr Instrument Co.	2001
Particle Sizing Systems	2301
PIKE Technologies	900
Pine Research Instrumentation	933
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Other

AAAS/Science & Technology Policy Fellowship	624
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ACS Web Strategy & Operations	1037F
AIP Publishing - The Journal of Chemical Physics	1001
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Advanced Polymer Materials Inc.	419
Anasazi Instruments Inc.	403

Astatech, Inc.	621
Athena Enzyme Systems	527
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Scientific Computer & Data Management

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Scitegrity	219
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Wavefunction, Inc.	1009

Technical Literature/Websites/Databases

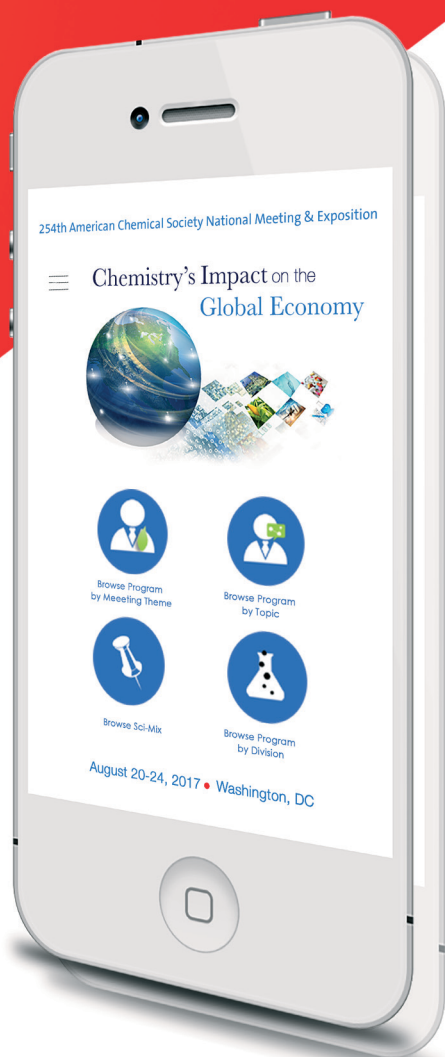
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Elsevier	1209
InfoChem GmbH	1221
Molecular Knowledge Systems	521
Scitegrity	219
US EPA Green Chemistry Program	1036
Wiley	1100

Testing & Measurement Instrumentation

Agilent Technologies	911
Anasazi Instruments Inc.	403
Anton Paar USA	1217
B&W Tek	826
Bio-Logic USA, LLC	1821
Bruker	2100,2101
FRITSCH Milling and Sizing	1608
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KRÜSS Scientific Instruments, Inc.	1019
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OLIS, Inc.	1611
Oxford Instruments	702
Oxford Lasers	2204
Pace Analytical	1503
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Pfeiffer Vacuum Inc.	700
Postnova Analytics	1905
PROTO Manufacturing	1921
Quantum Analytics	1832
Shimadzu Scientific Instruments Inc.	1600
Showa Denko America Inc.	1708
StellarNet Inc.	1727
TA Instruments	1805
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Monday 8AM – 5PM

Tuesday 8AM – 5PM

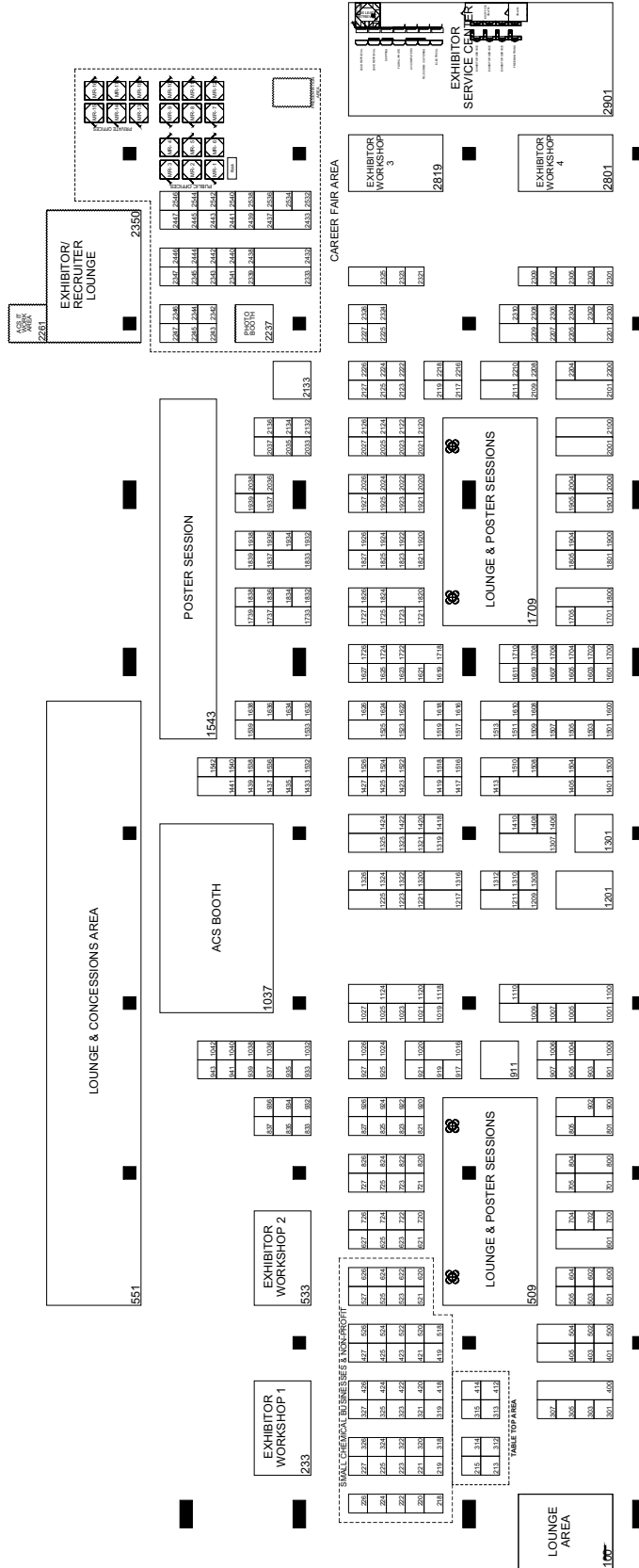


Google play

Email - mobileapp@services.acs.org

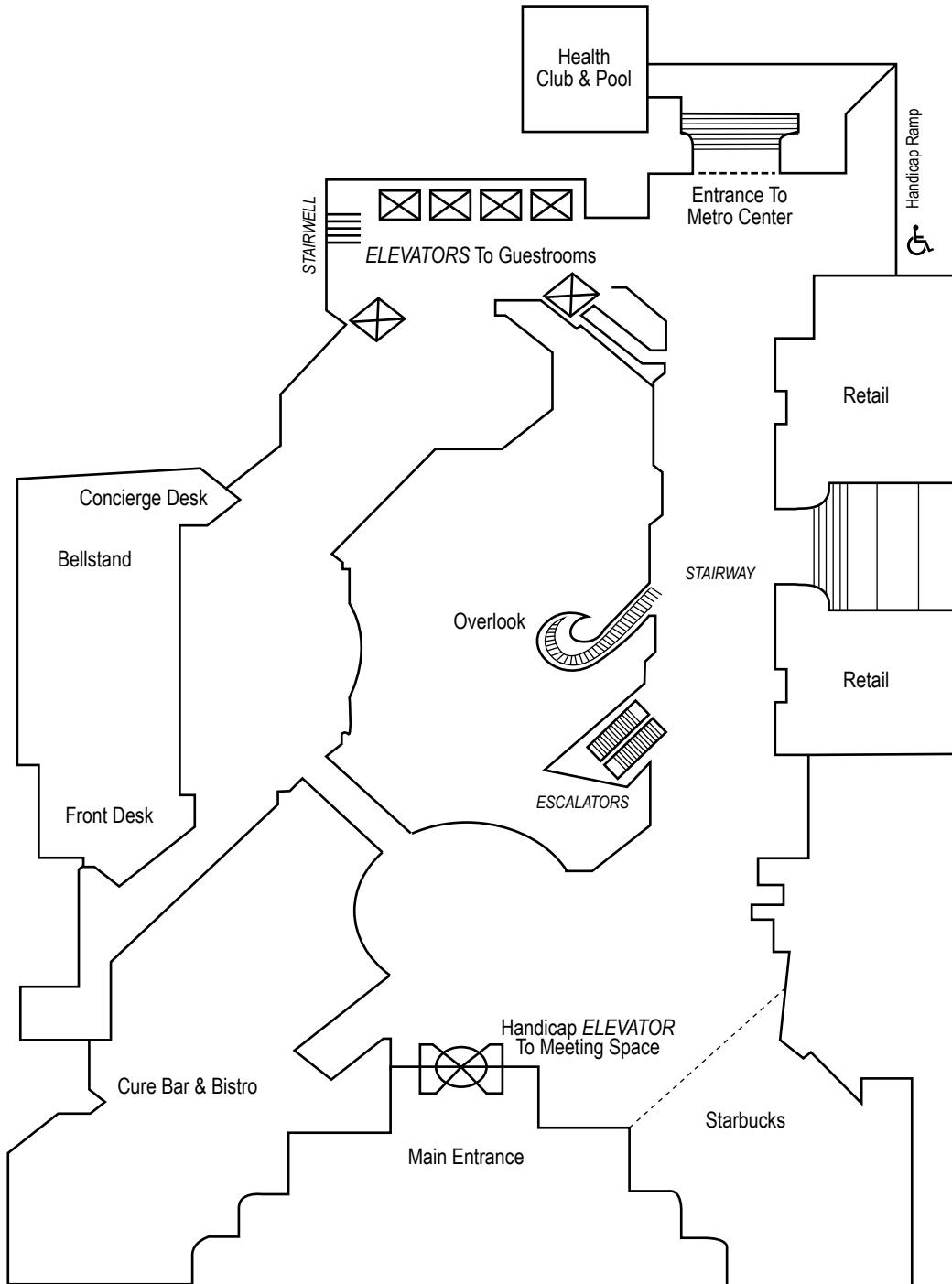
EXPOSITION

AMERICAN CHEMICAL SOCIETY EXPOSITION & CAREER FAIR AUGUST 20 - 22, 2017 SUNDAY, 6PM - 8:30 PM MONDAY & TUESDAY, 9AM - 5PM WALTER E. WASHINGTON CONVENTION CTR, HALLS A & B



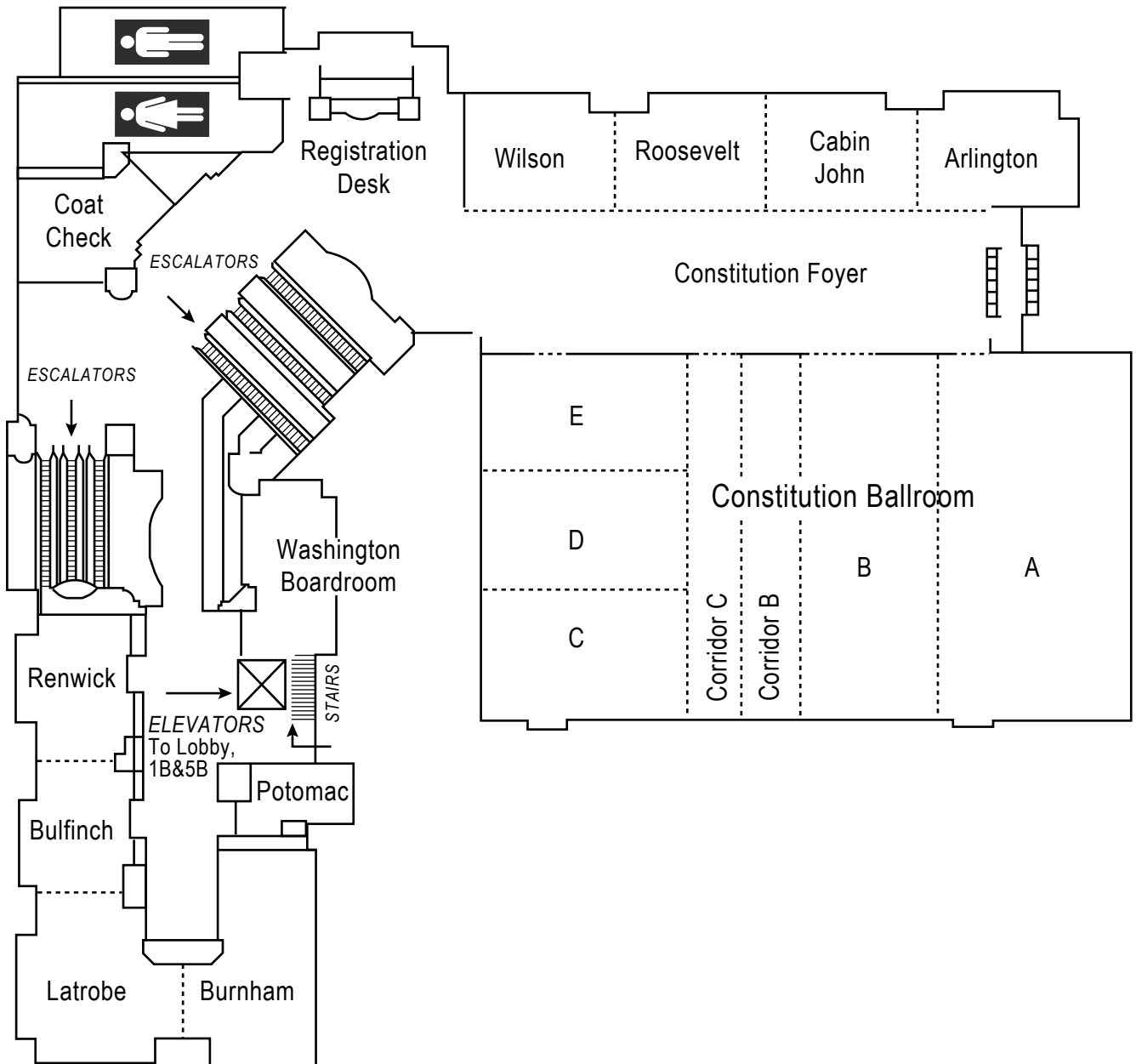
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Lobby Level



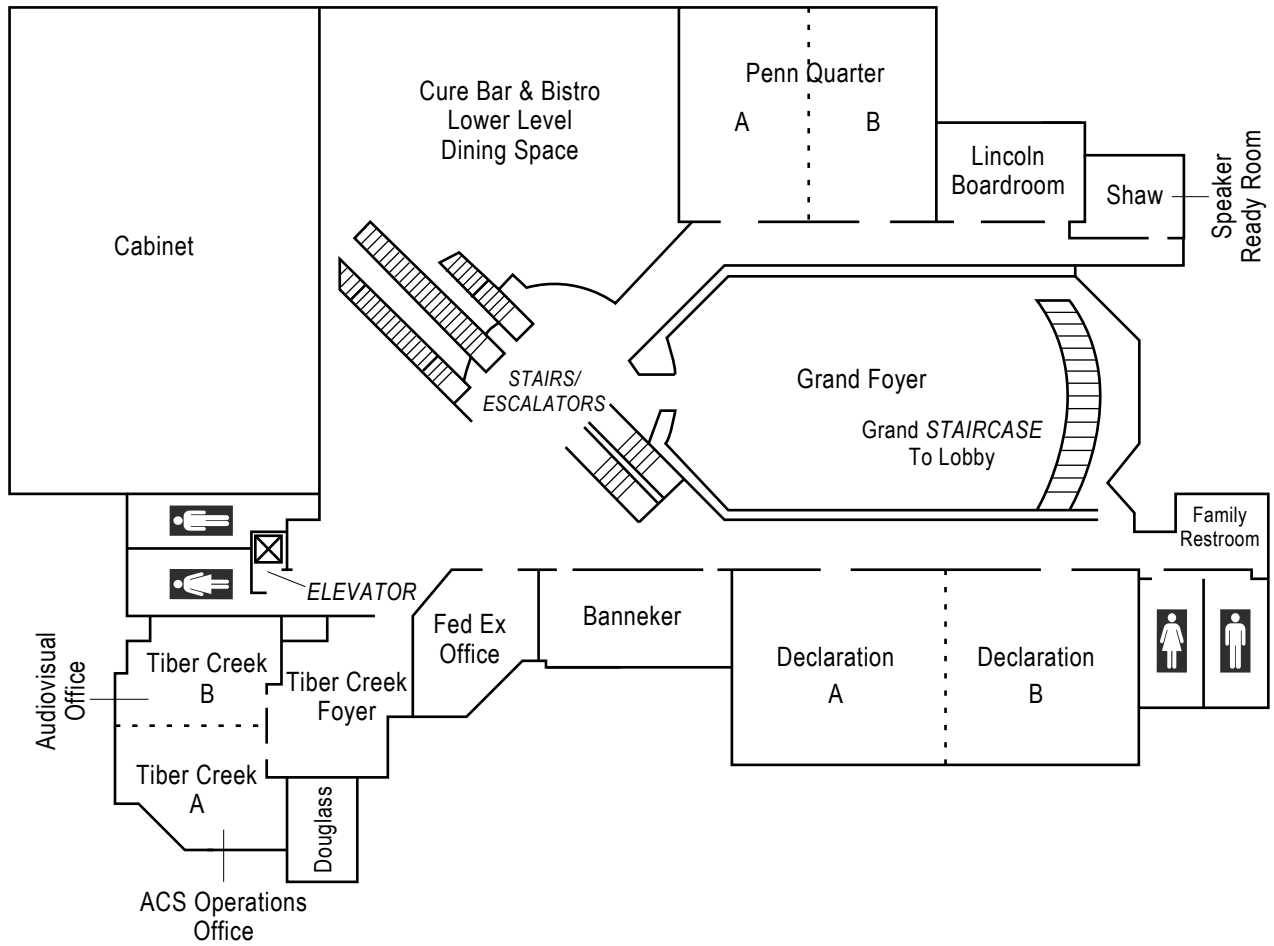
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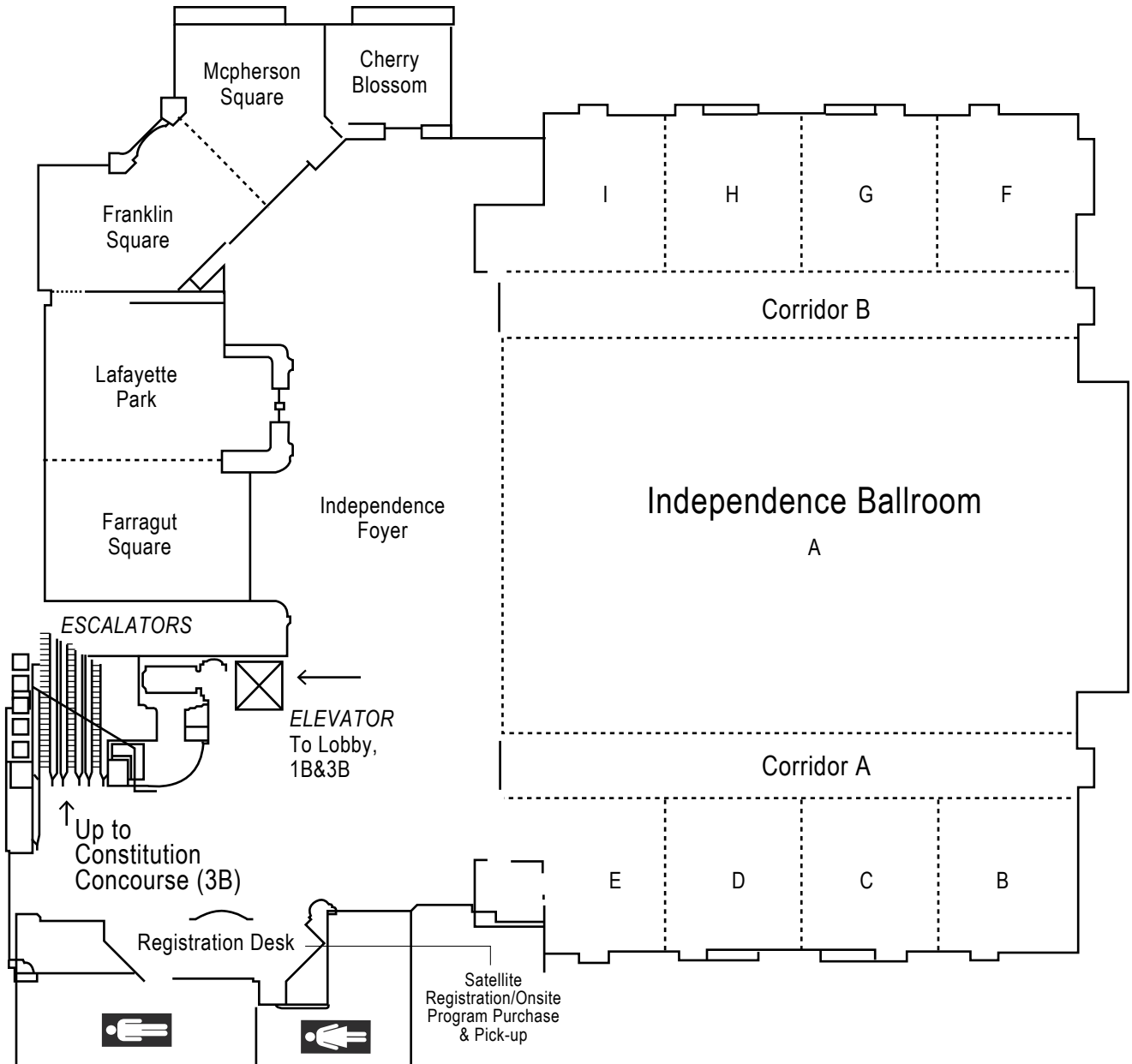
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Declaration Level (1B)



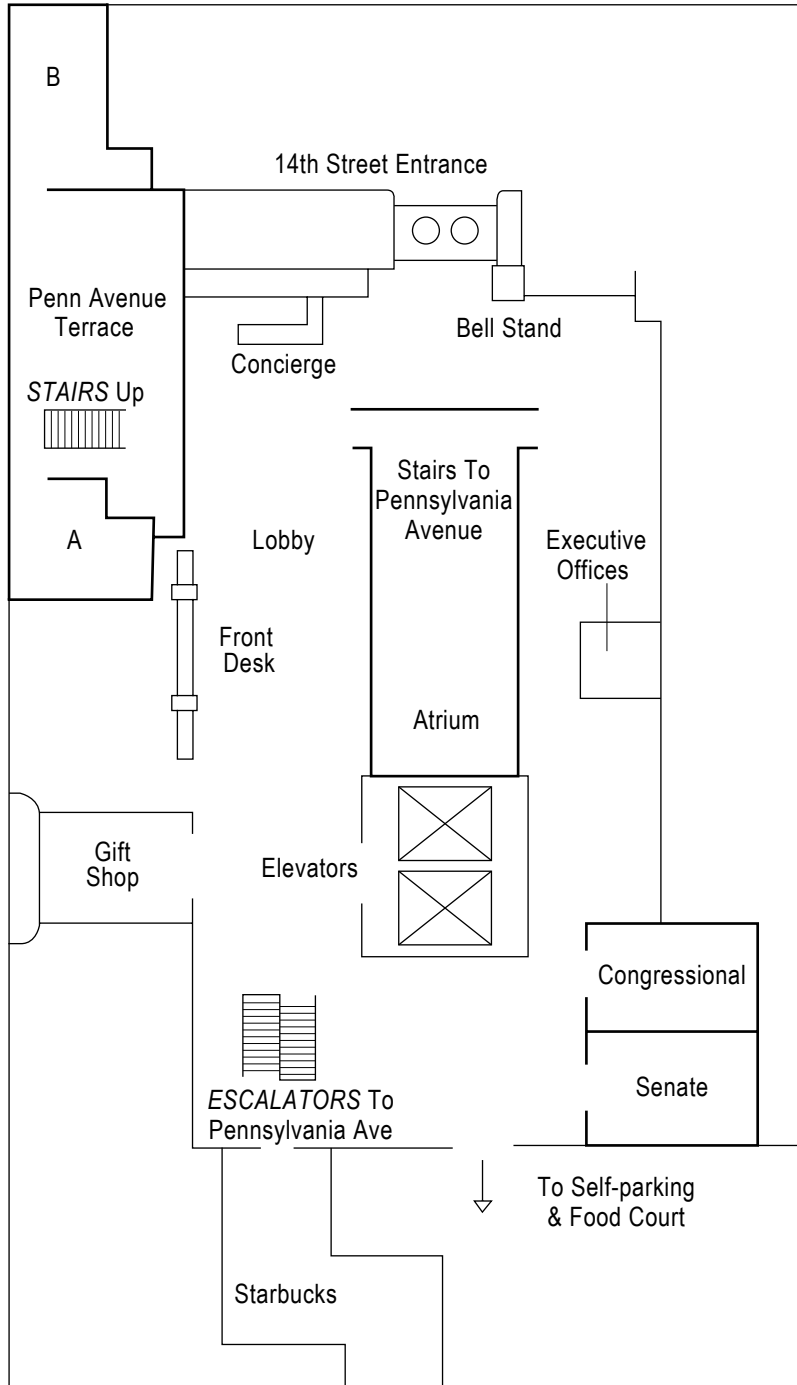
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Independence Level (5B)



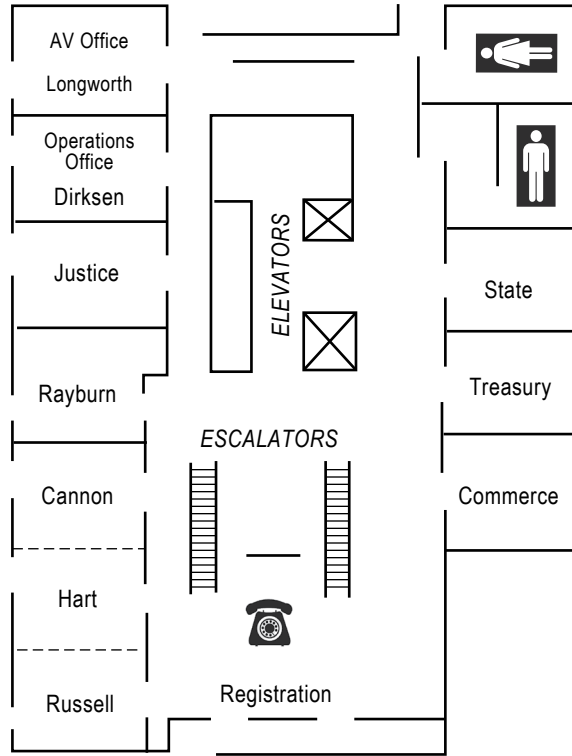
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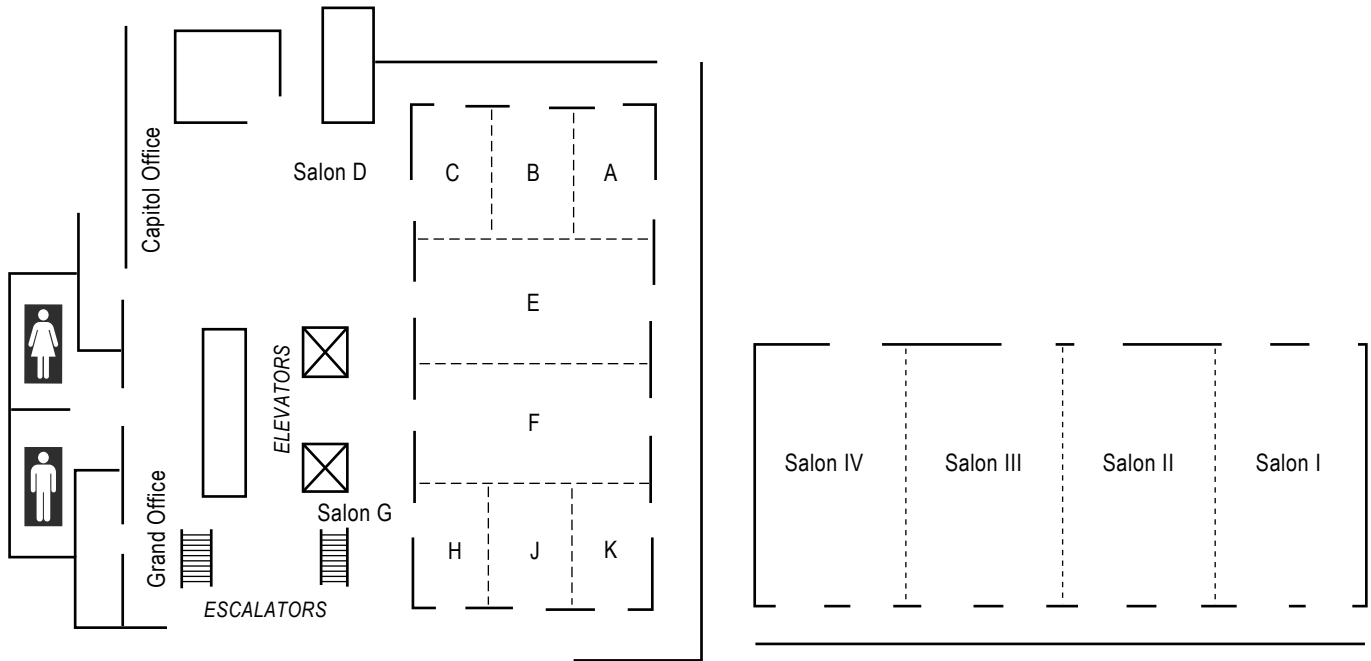


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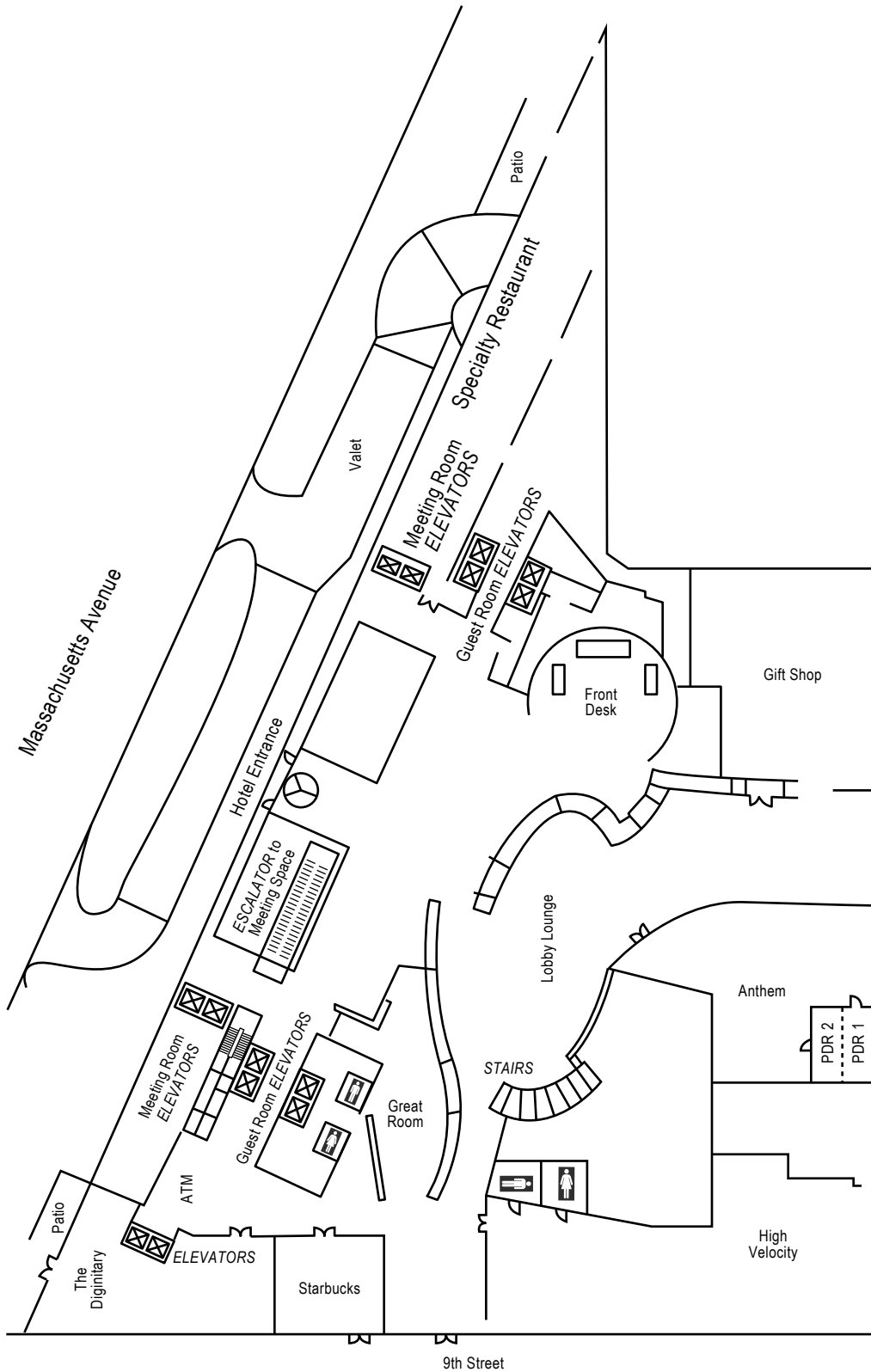


Ballroom Level



MARRIOTT MARQUIS

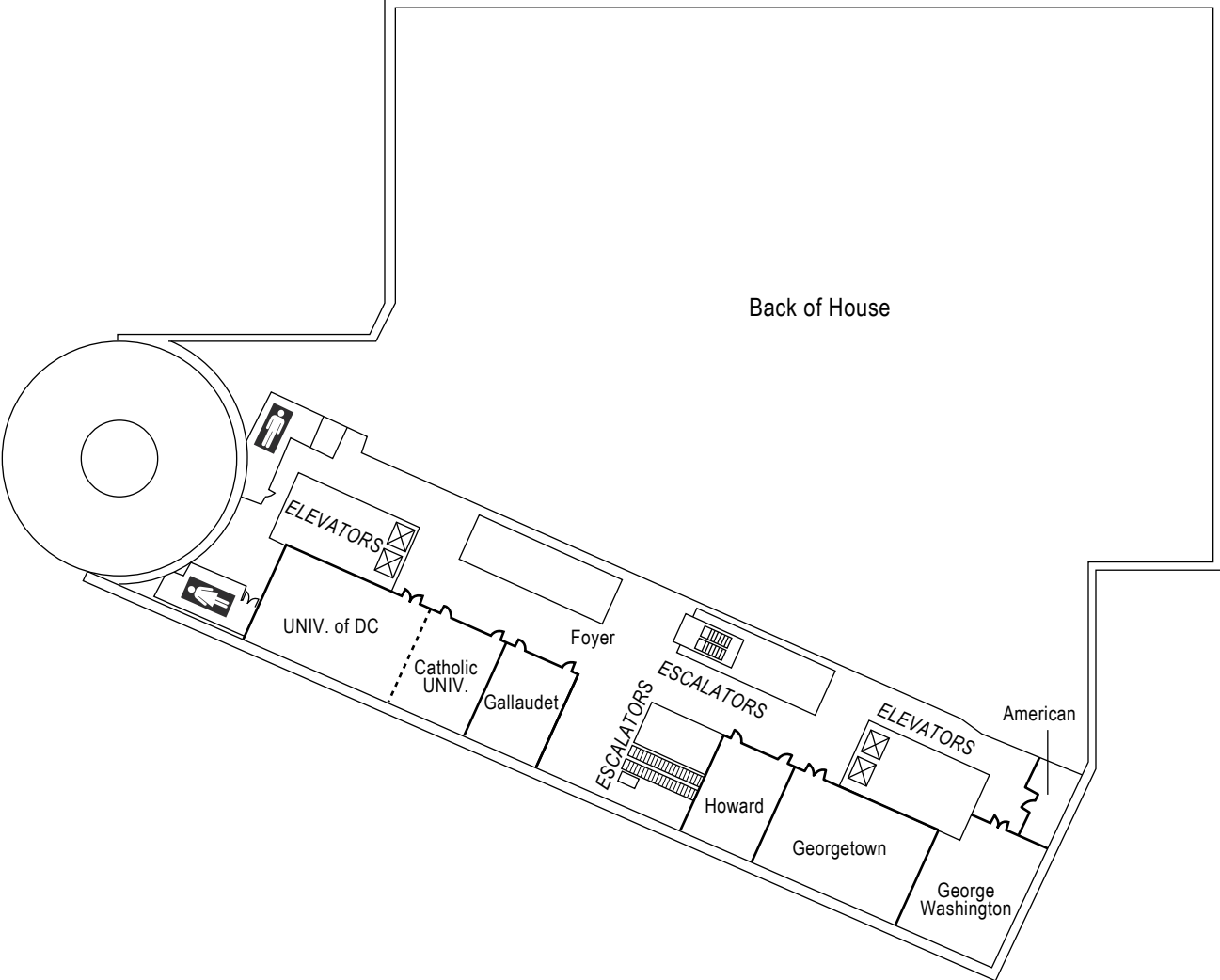
Lobby Level



L Street Entrance/Group Bus Pick Up/Drop Off

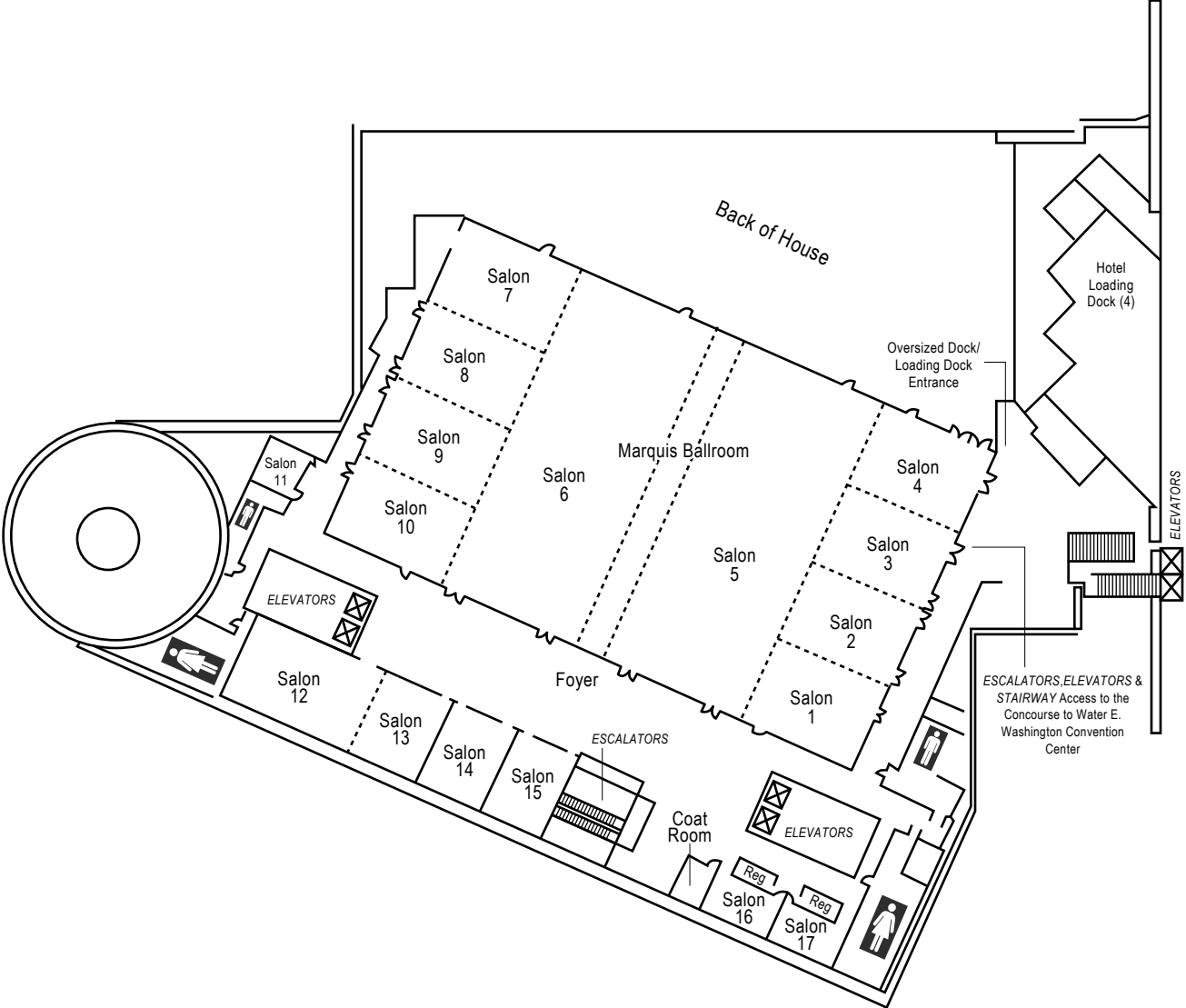
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Meeting Room Level 1



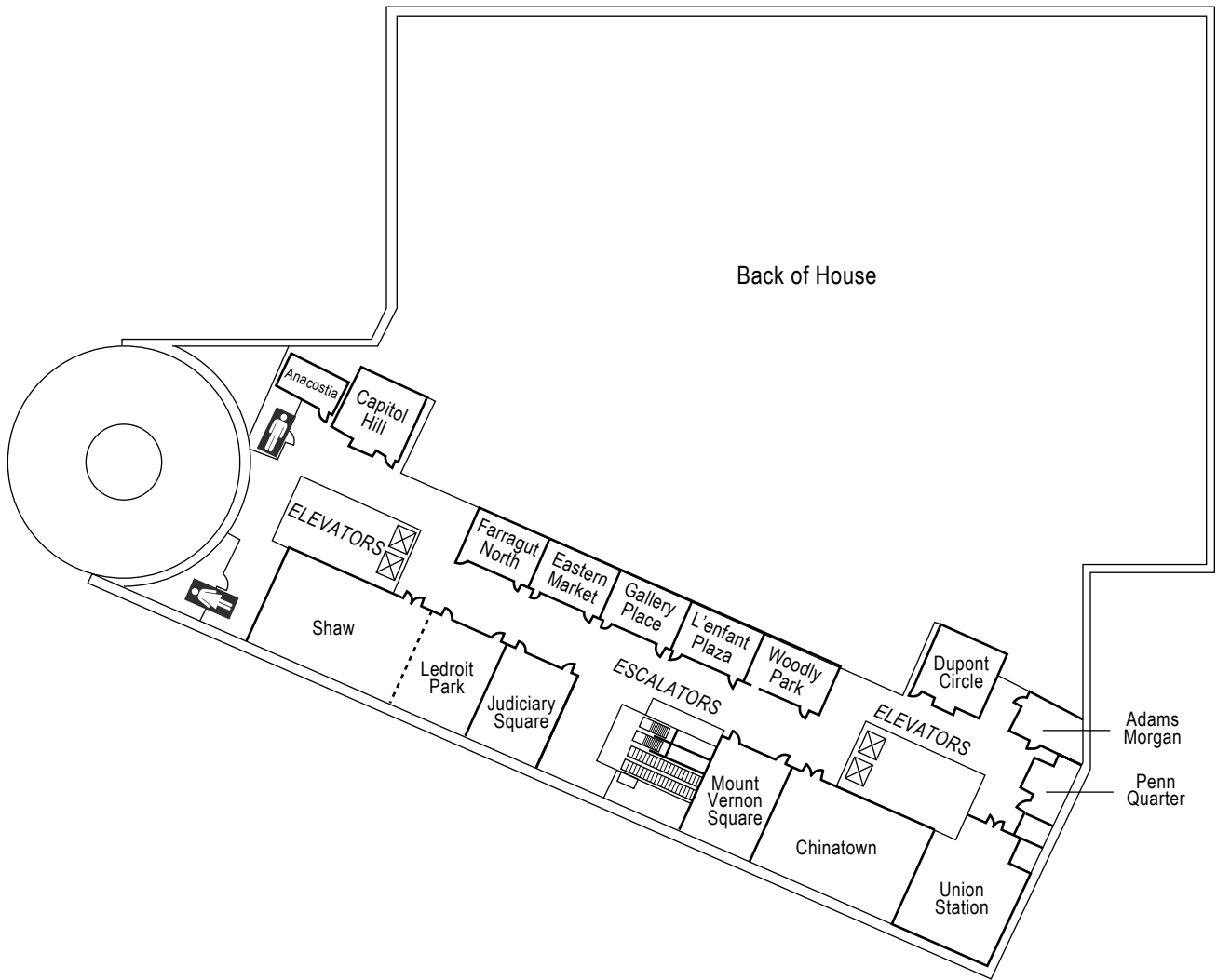
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Meeting Room Level 2 Access to Concourse to Convention Center



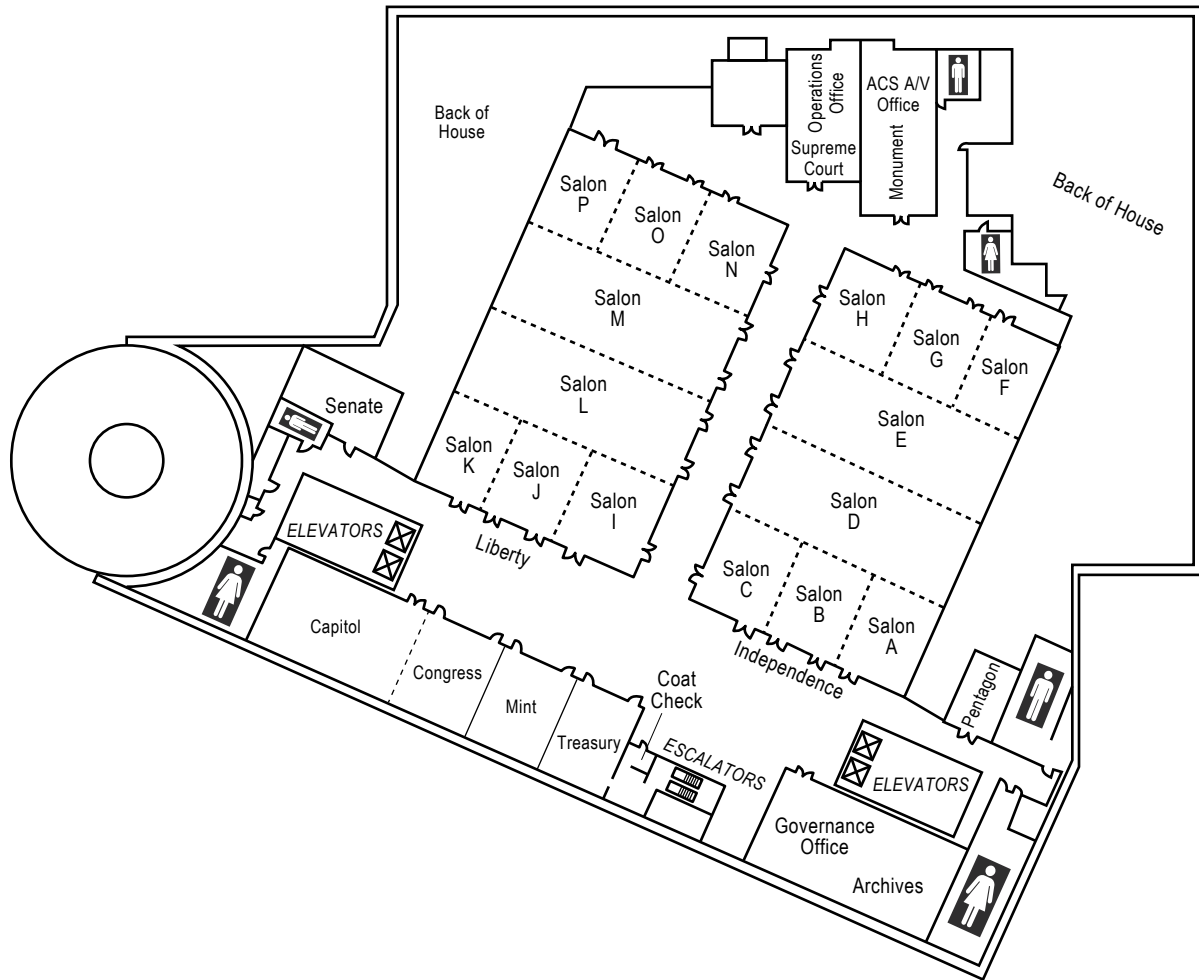
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Meeting Room Level 3



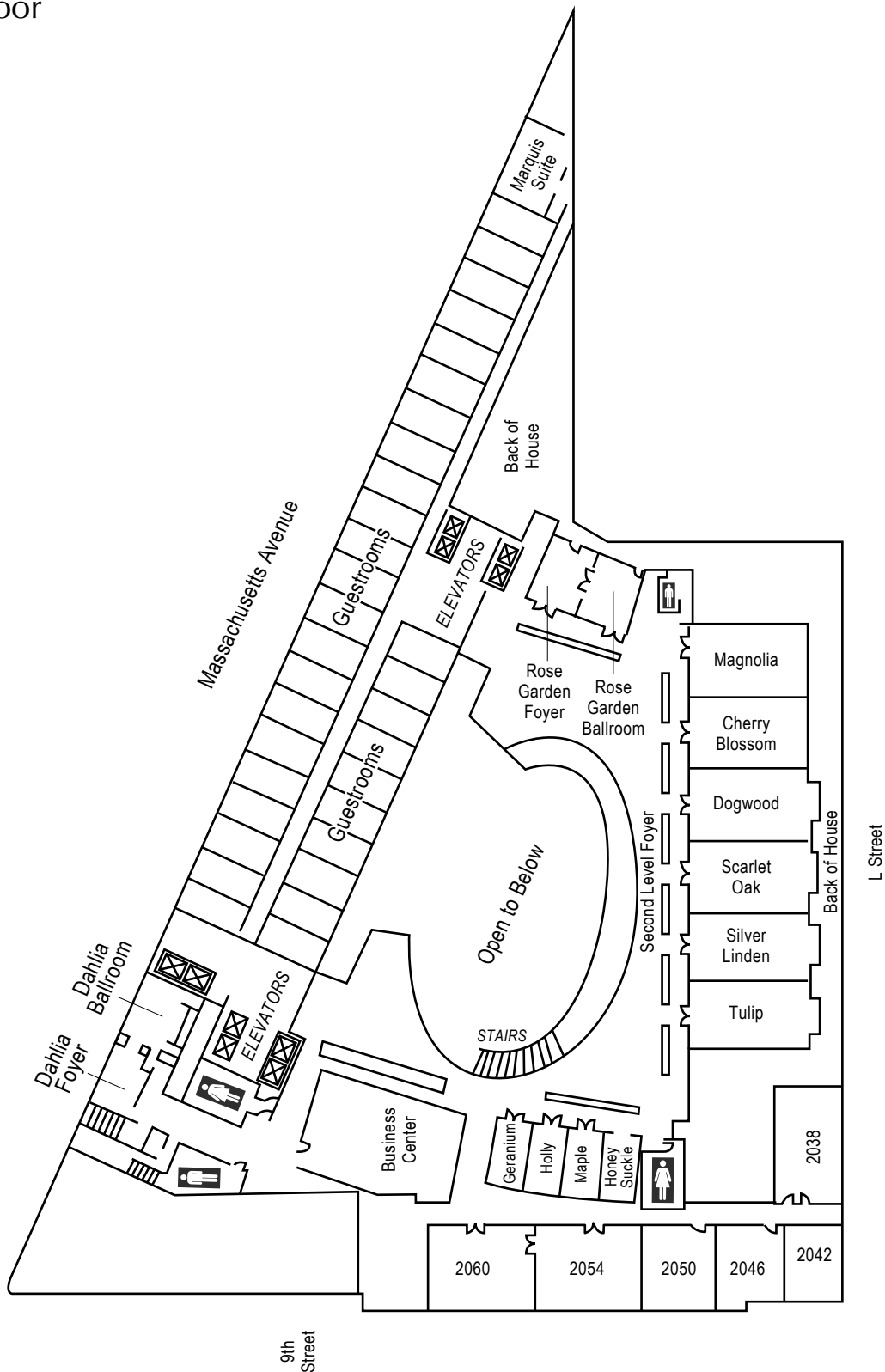
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Meeting Room Level 4



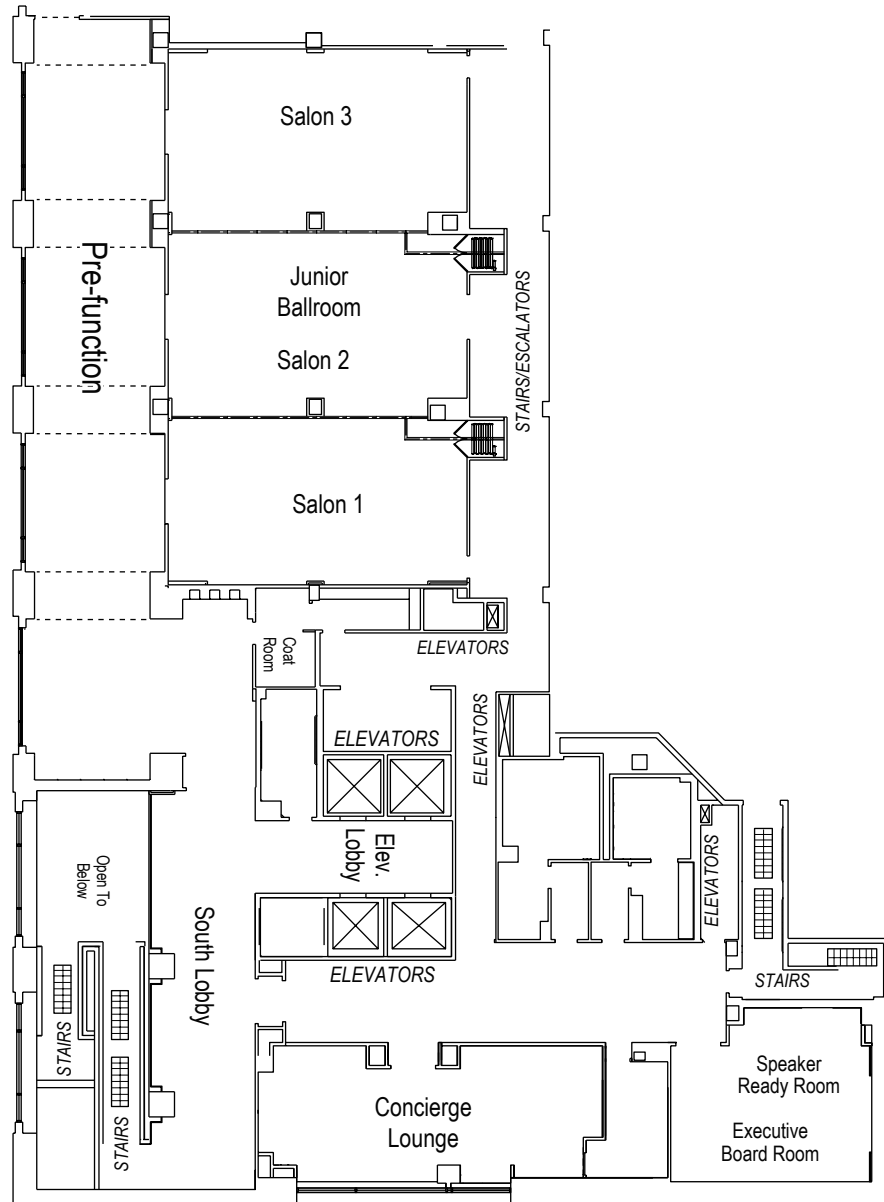
MARRIOTT MARQUIS

Second Floor



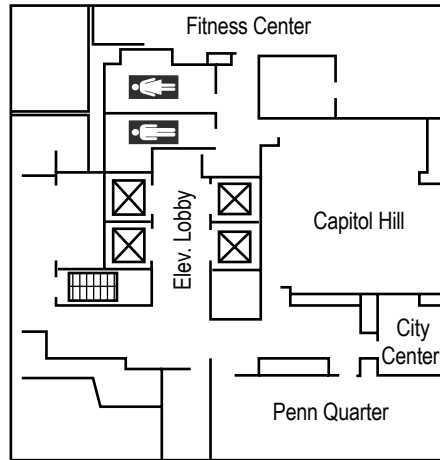
MARRIOTT METRO CENTER

Second Floor

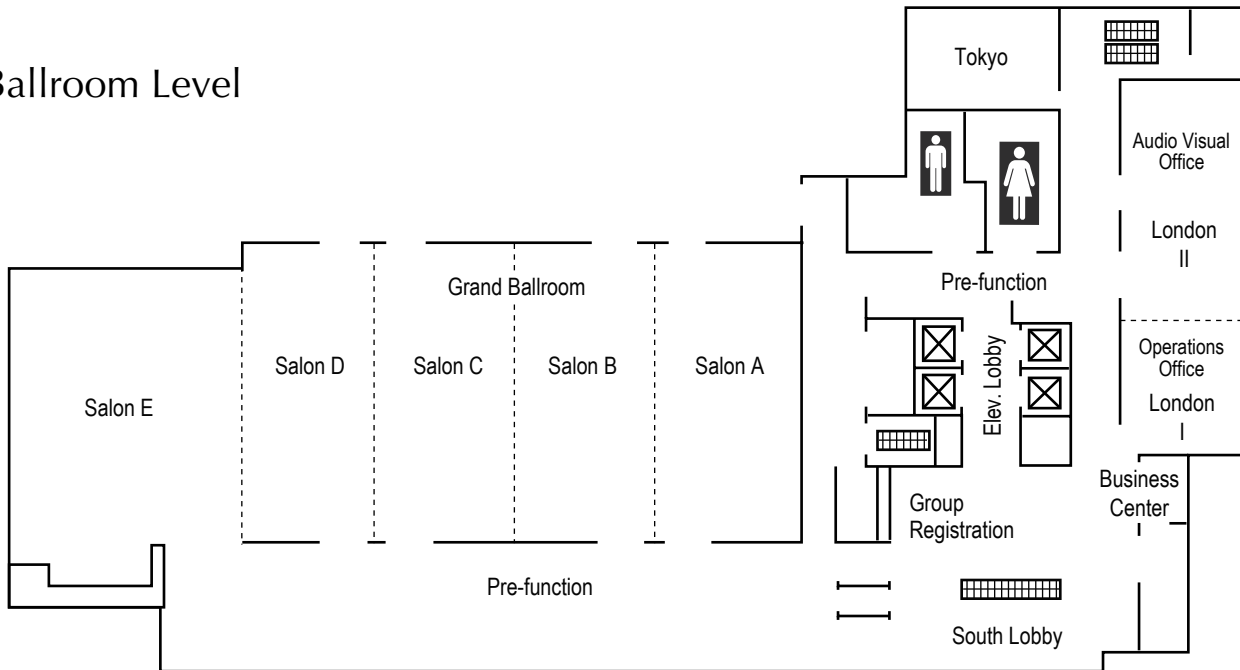


MARRIOTT METRO CENTER

Third Floor

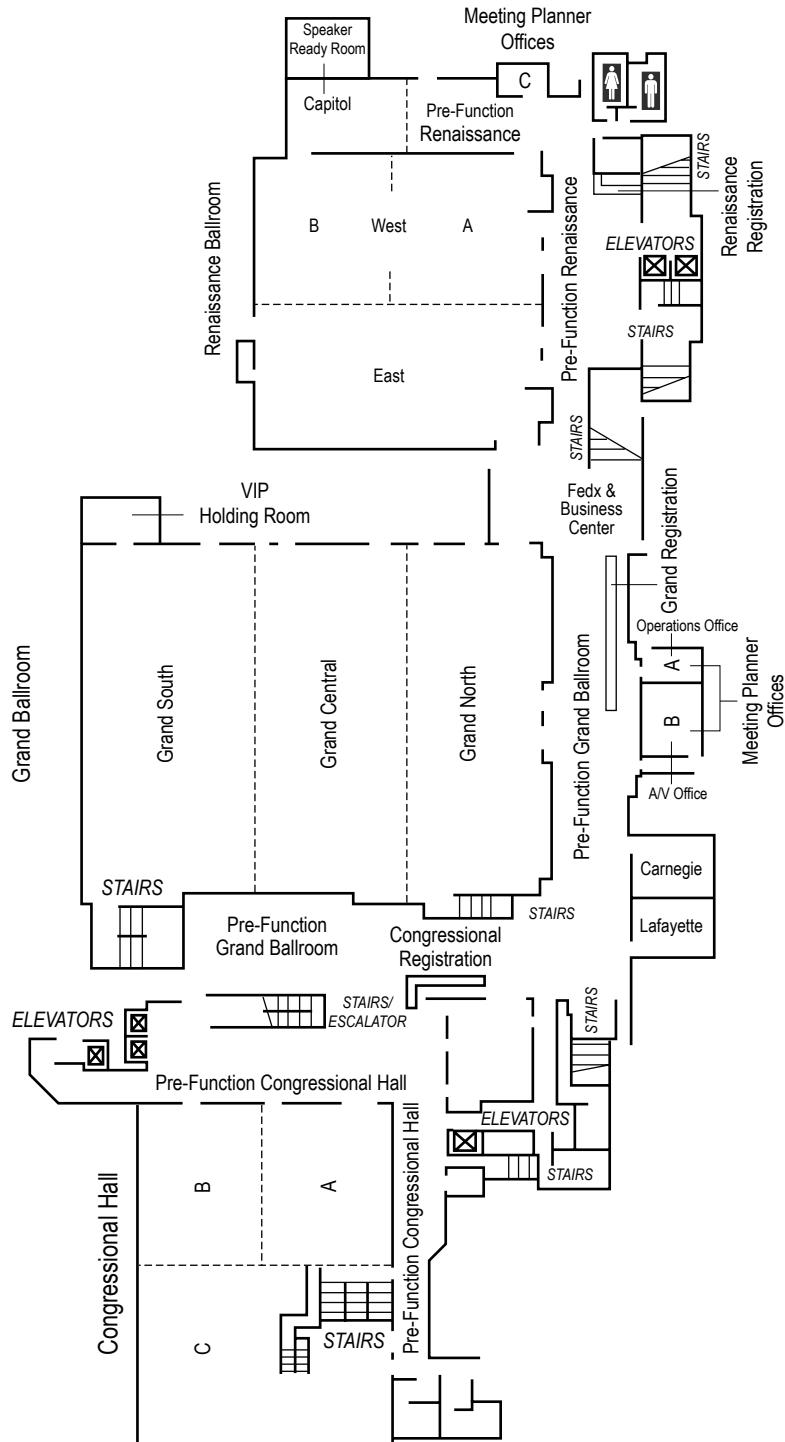


Ballroom Level



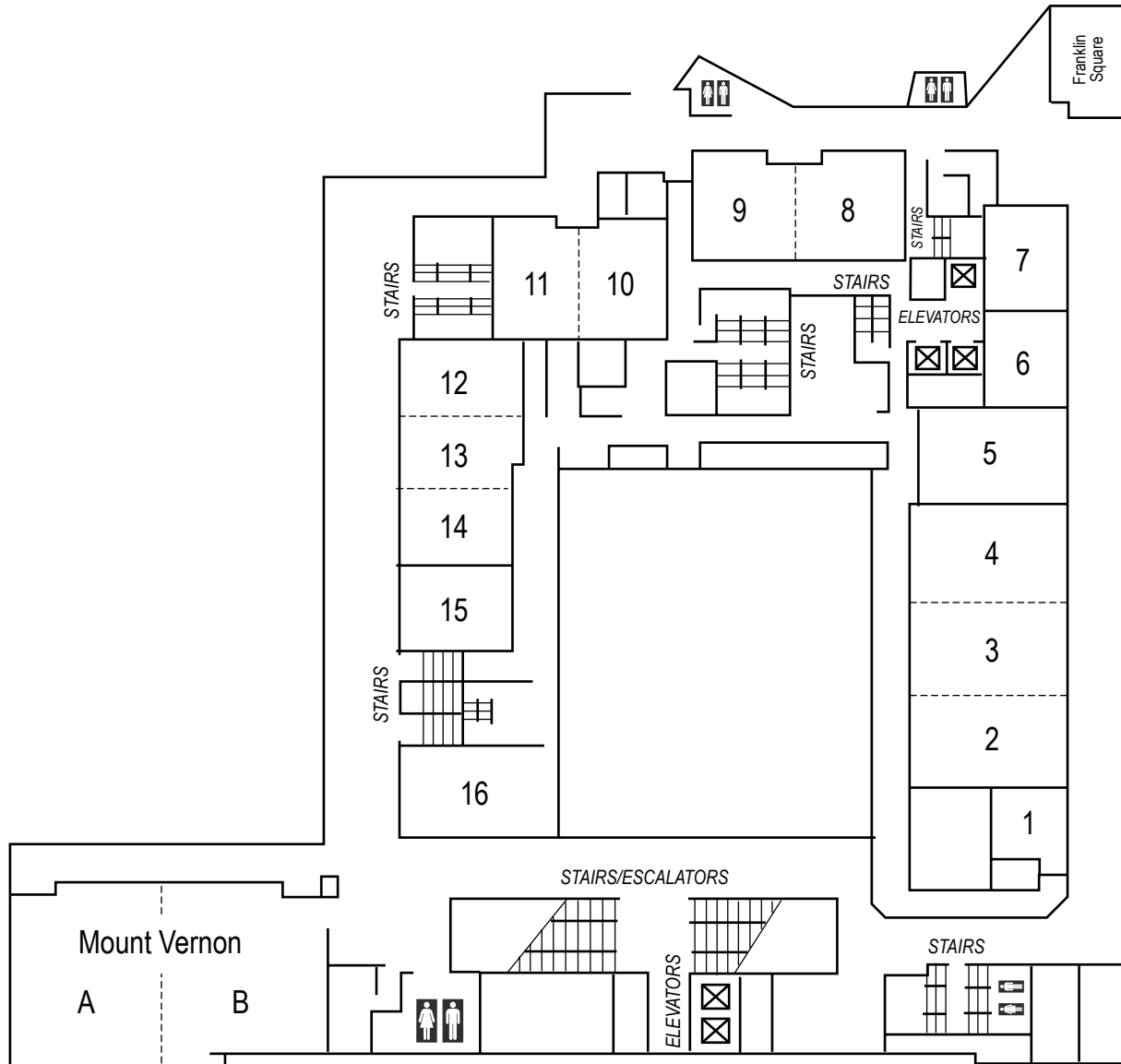
RENAISSANCE

Ballroom Room Level



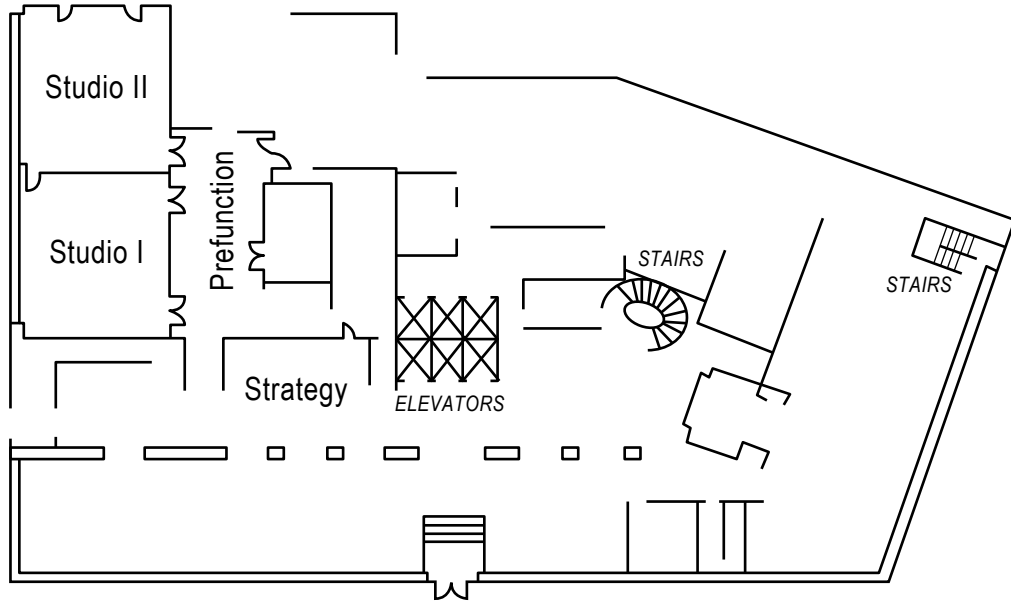
RENAISSANCE

Meeting Room Level

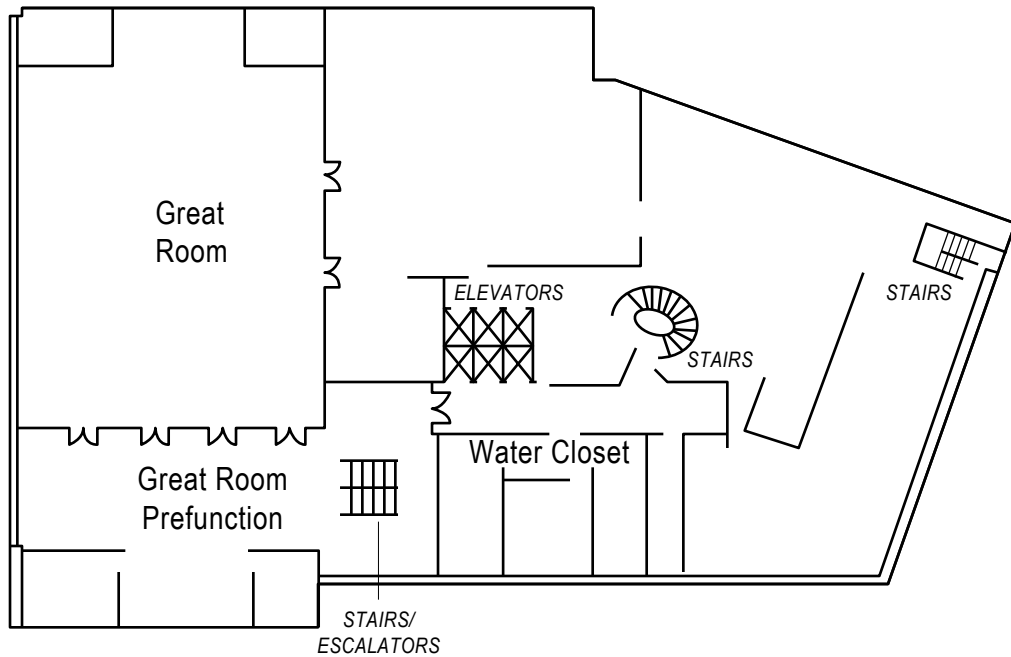


W HOTEL

Living Room Level

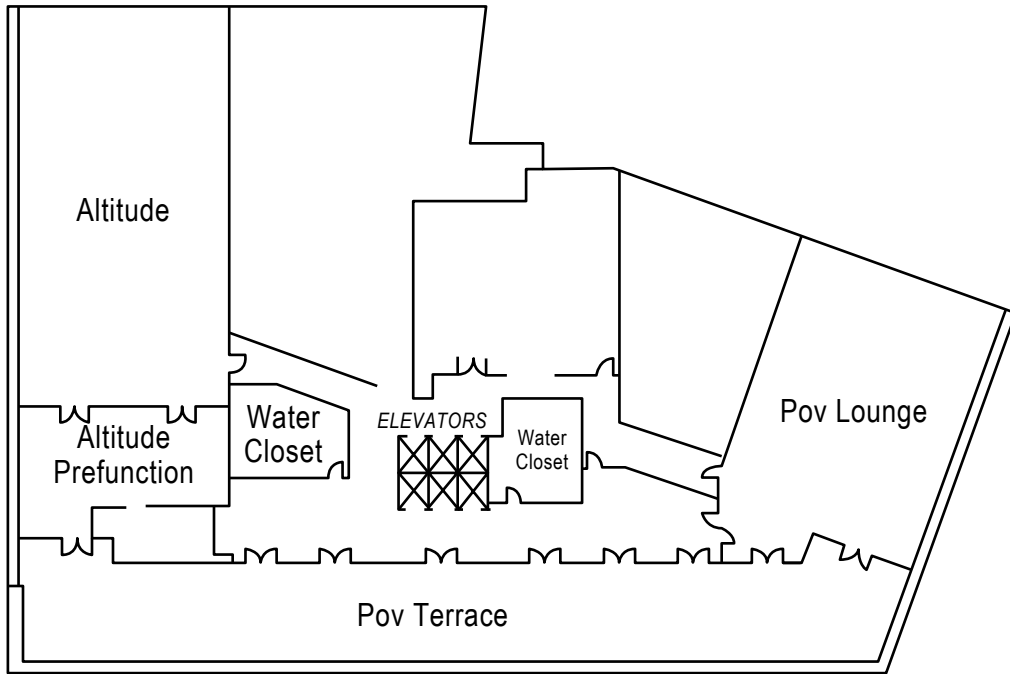


Lower Level



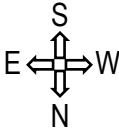
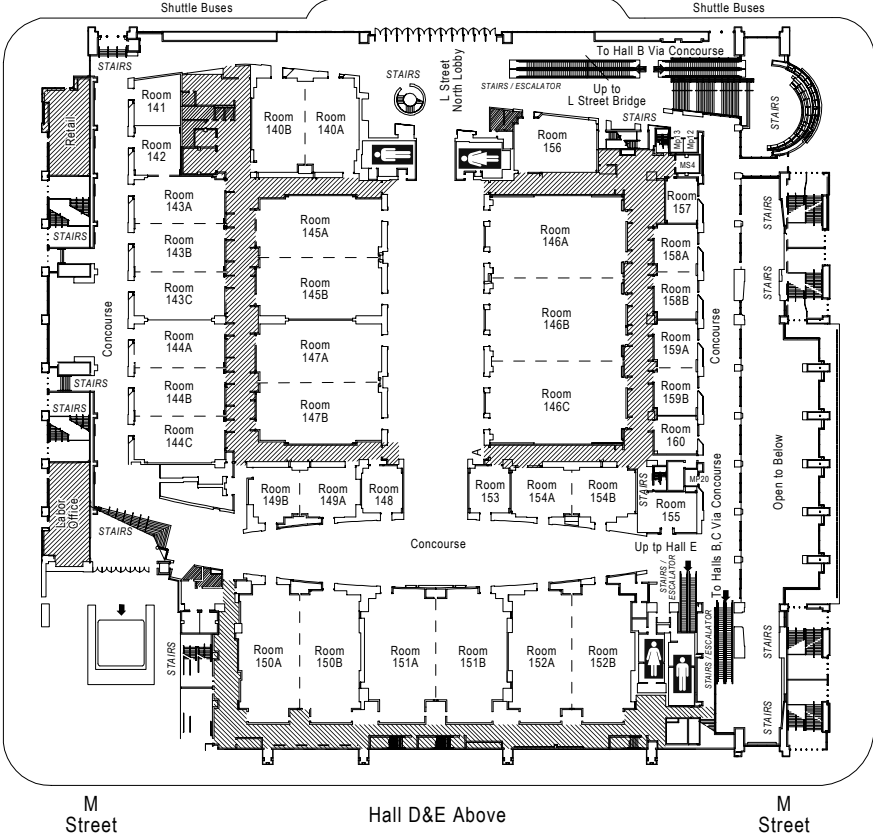
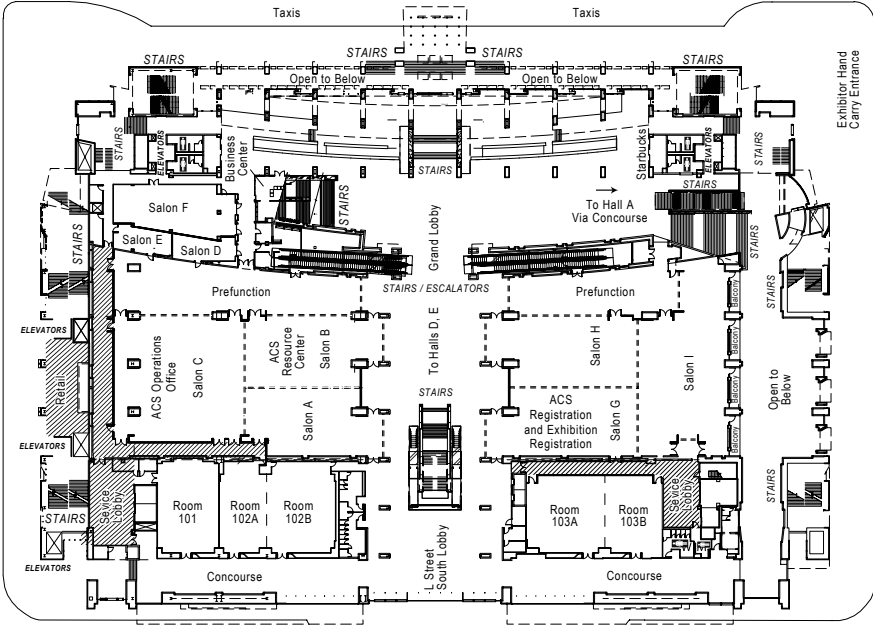
W HOTEL

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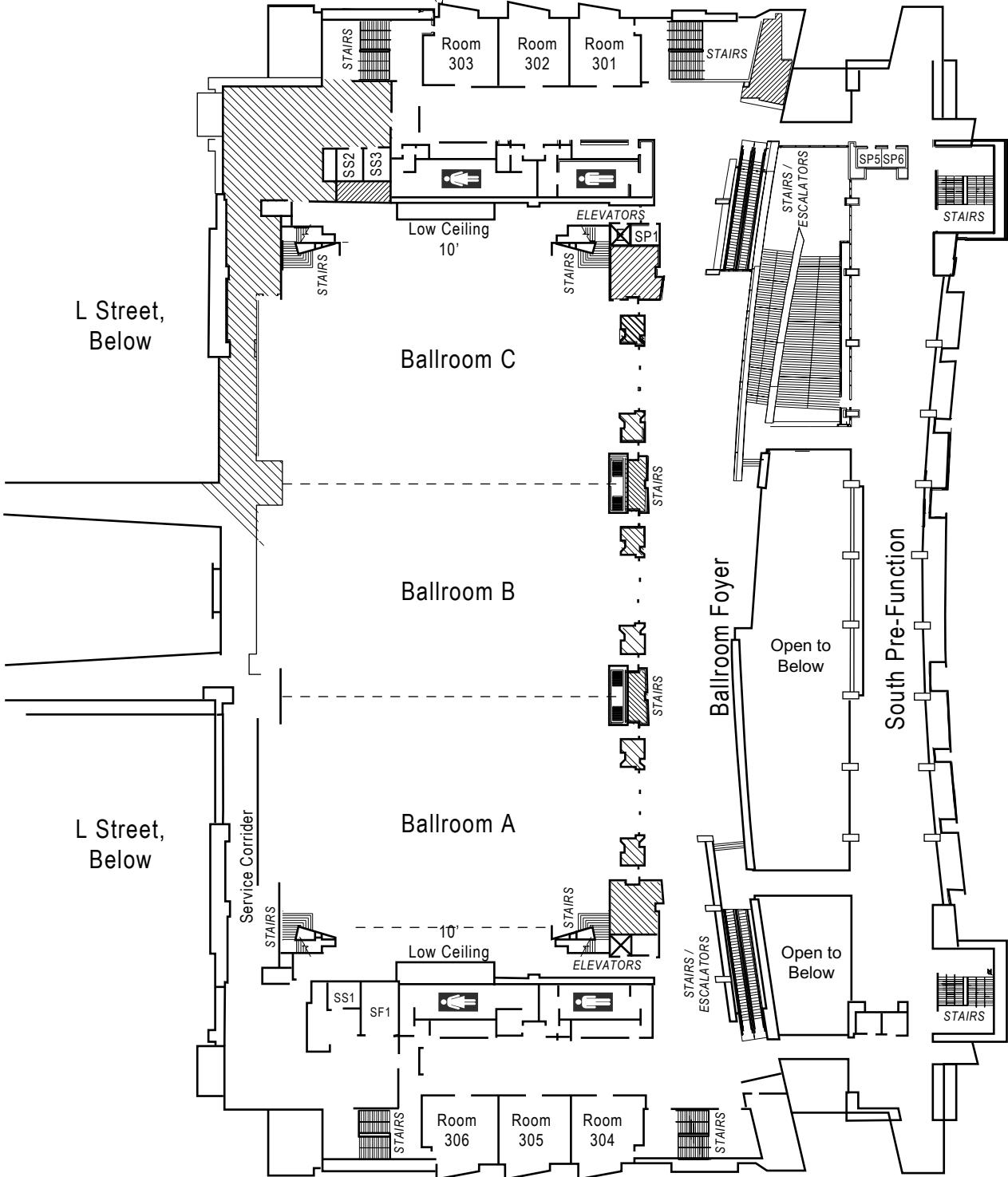
WALTER E. WASHINGTON CONVENTION CENTER

Street Level Mount Vernon Place



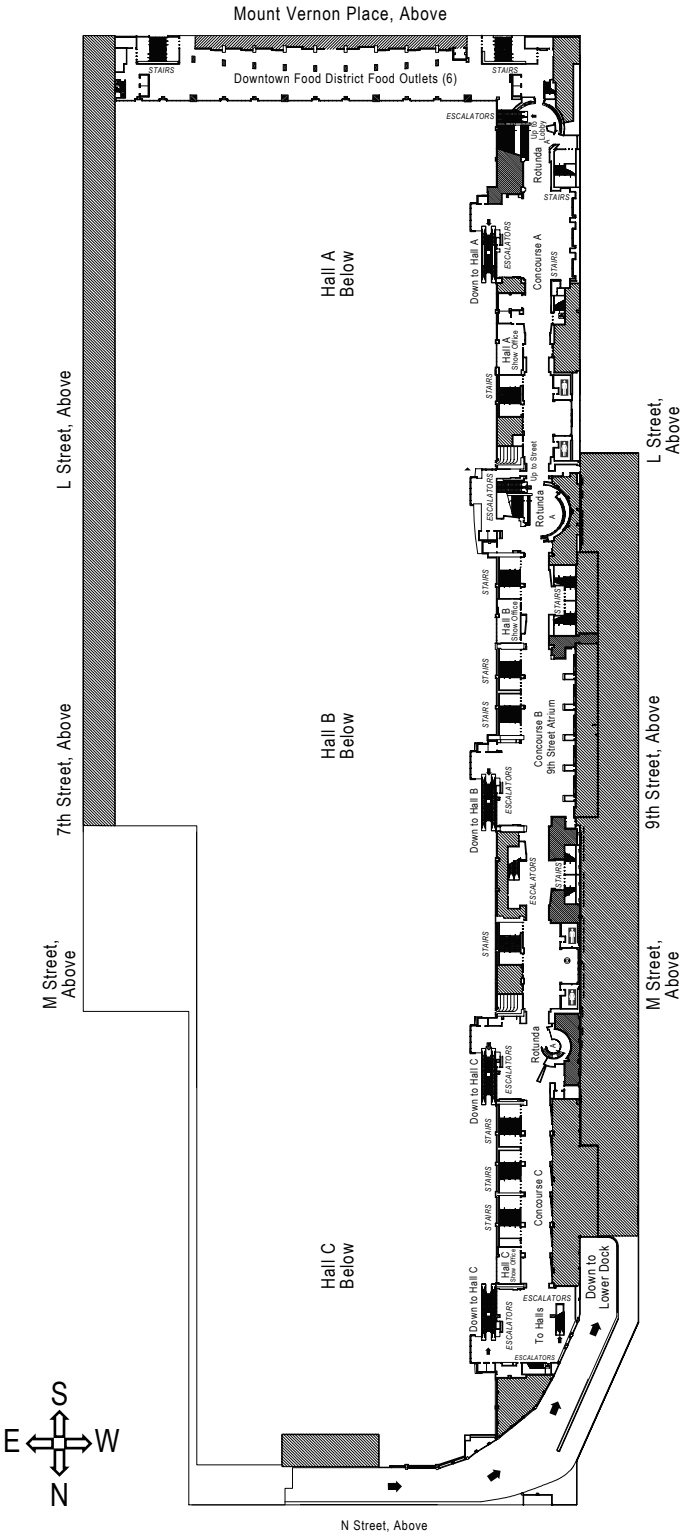
WALTER E. WASHINGTON CONVENTION CENTER

Ballroom Level



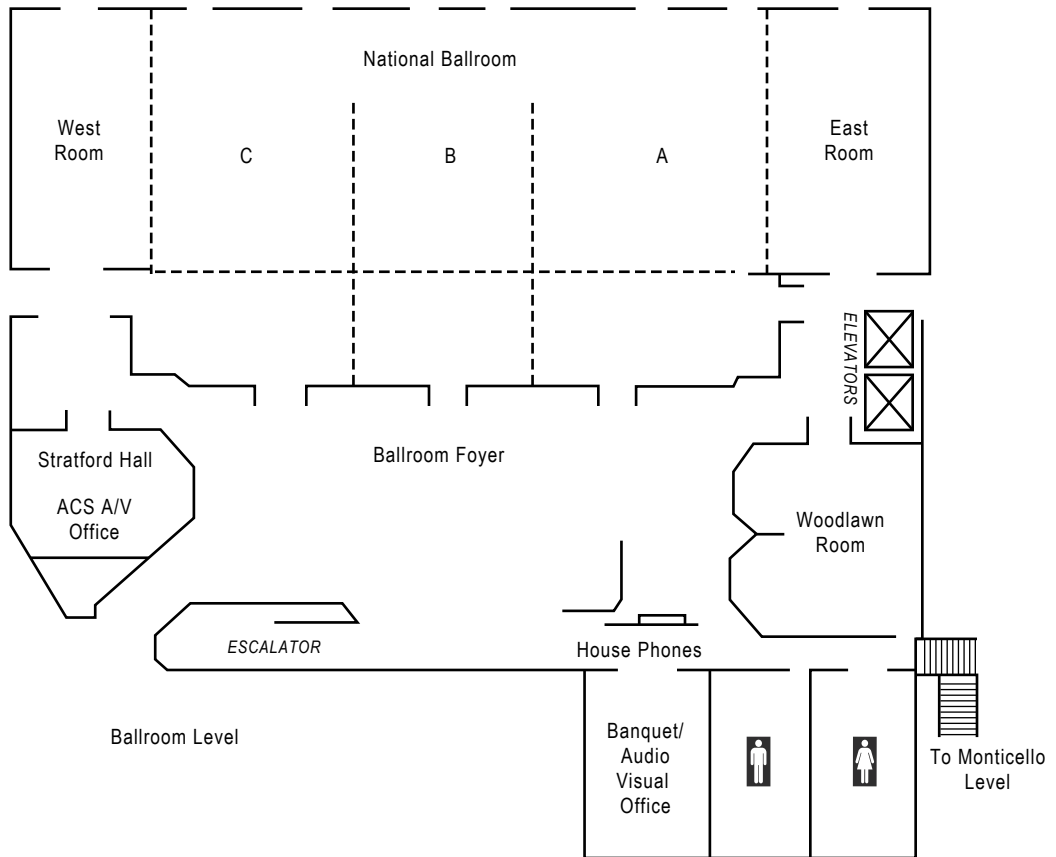
WALTER E. WASHINGTON CONVENTION CENTER

Halls A, B & C

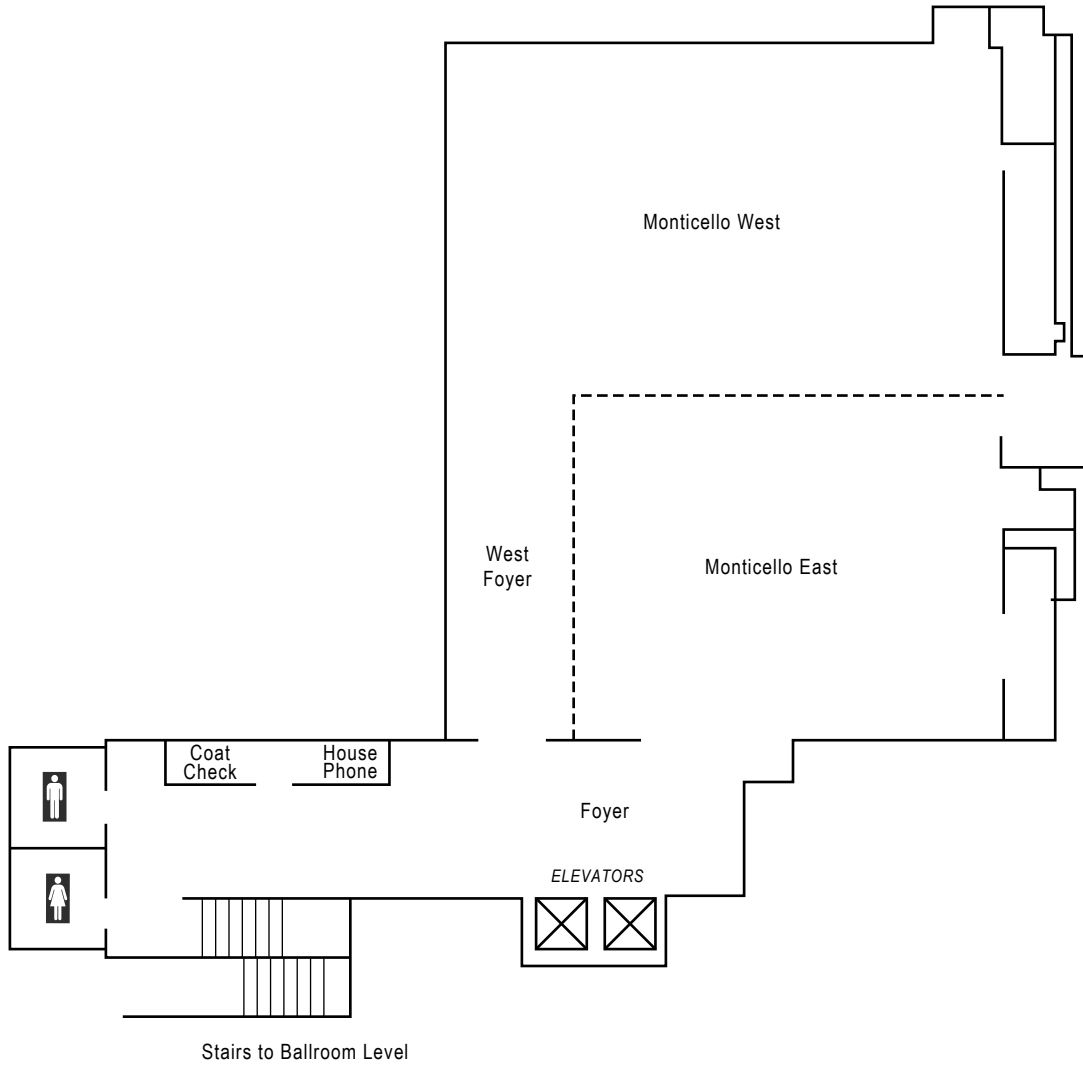


WESTIN

Ballroom Level

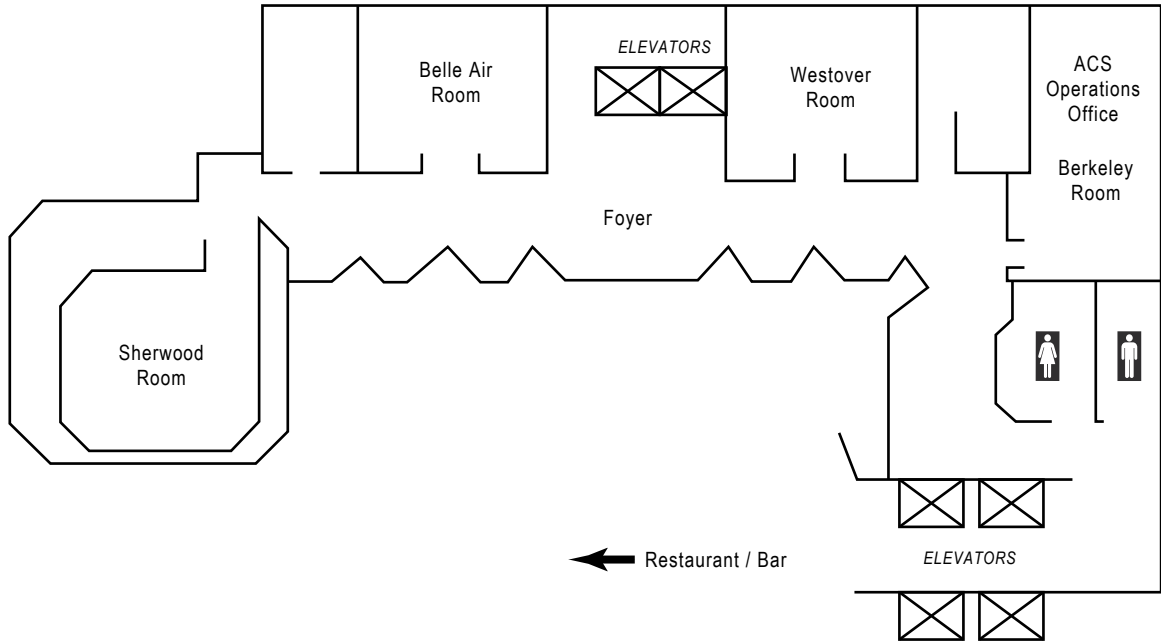


WESTIN

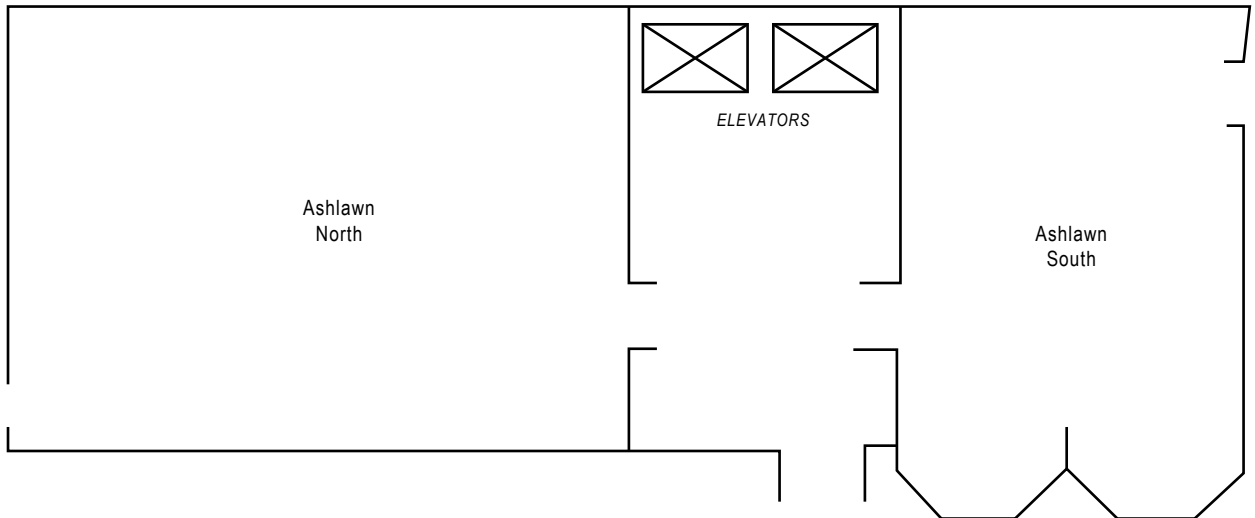


WESTIN

Upper Mezzanine



Lower Mezzanine



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Akalonu, G.	PMSE	549	Albrecht-Schmitt, T.E.	CATL	134	Ali, S.	NUCL	5
Akamatsu, N.	PMSE	588	Albrecht-Schmitt, T.E.	INOR	539	Ali, S.	PMSE	122
Akanda, N.	CHED	203	Albrecht-Schmitt, T.E.	INOR	640	Ali, Y.	AGRO	312
Akano, I.	CHED	260	Albrecht-Schmitt, T.E.	INOR	641	Alibegovic, K.	ENFL	295
Akbar Zadeh, K.	ENFL	472	Albrecht-Schmitt, T.E.	INOR	642	Alimard, P.	INOR	653
Akehi, M.	MEDI	196	Albrecht-Schmitt, T.E.	NUCL	17			
			Albrecht-Schmitt, T.E.	NUCL	22			

Alvisatos, P.	MPPG	11	Alqahtani, Y.	MEDI	145	Amaya, T.	INOR	626
Alvisatos, P.	PHYS	155	Alqurafi, M.A.	MEDI	328	Ambrogio, E.	CATL	13
Alizadeh, B.N.	COLL	531	Al-Sabban, B.	CATL	359	Ambulo, C.	POLY	541
Aljhdli, M.	ORGN	424	Alsaieri, H.	ENFL	469	Ambulo, C.	POLY	543
Alkan, B.	AGFD	132	Alsaieri, H.	ENFL	474	Ameduri, B.M.	INOR	880
Al-Khouja, A.	COLL	412	Alsaieri, H.	GEOC	9	Ameduri, B.M.	POLY	413
Al-Khouja, A.	COLL	547	Alsaieri, S.	COLL	104	Ameduri, B.M.	POLY	415
Al-Khouja, A.	ORGN	671	Al-Sayah, M.	AGRO	191	Ameer, G.A.	PMSE	229
Allais, C.	ORGN	354	Alsaiee, A.	POLY	59	Ameloot, M.	COLL	110
Allais, F.	CATL	444	Alsaiee, A.	POLY	240	Am Ende, C.	MEDI	249
Allais, F.	COMP	174	Alshawabkeh, A.	ENVR	281	Amezcuca, F.	CHED	200
Allais, F.	POLY	629	Alshawabkeh, A.	ENVR	328	Amine, K.	ENFL	231
Allamandola, L.J.	PHYS	1	Alshehri, I.	POLY	128	Amine, K.	ENFL	330
Allanore, A.	I&EC	39	Alshehri, I.	POLY	432	Amine, K.	ENFL	479
Allbritton, N.L.	ANYL	235	Al-Sheikhly, M.	ENVR	346	Amir, F.	POLY	322
Allcock, H.R.	ENFL	39	Al-Sheikhly, M.	I&EC	31	Ammal, S.	CATL	65
Allcock, H.R.	PMSE	46	Alston, J.R.	COLL	604	Ammann, M.	CATL	323
Allcock, H.R.	PMSE	48	Alston, J.R.	POLY	217	Ammann, M.	ENVR	293
Allcock, H.R.	PMSE	112	Alt, A.	MEDI	358	Ammann, M.	ENVR	556
Allcock, H.R.	PMSE	168	Alt, J.	MEDI	318	Ammirati, M.	MEDI	63
Allcock, H.R.	PMSE	170	Altabet, Y.	PHYS	171	Amo-Kwao, G.	PHYS	133
Allcock, H.R.	PMSE	171	Altaf, A.	CATL	464	Amorim, S.S.	AGRO	316
Allcock, H.R.	POLY	606	Altaf, A.	COLL	593	Amos, H.	YCC	15
Allec, S.	COMP	145	Altaf, A.	MEDI	168	Amos, J.	AGRO	287
Allec, S.	PHYS	78	Altahan, O.	COLL	289	Amos, J.	AGRO	378
Alleman, J.	CATL	452	Al-Taie, I.	ENFL	474	Ampadu Boateng, D.	PHYS	567
Allen, A.	INOR	486	Altalhi, A.	POLY	494	Amselem, S.	YCC	2
Allen, A.	ENVR	523	Al-Tall, N.	AGRO	299	Amsler, M.	PHYS	318
Allen, B.	ORGN	307	Altamirano, J.	MEDI	170	Amsler, M.	WCC	1
Allen, C.R.	COMP	346	Althafh Hussain, M.H.	ORGN	695	Amundsen, T.	ENVR	93
Allen, H.C.	ENVR	528	Althaus, S.	ENFL	422	Amy, B.	ENVR	307
Allen, J.A.	MEDI	278	Altieri, A.	AGRO	114	An, J.	TOXI	58
Allen, K.N.	ORGN	467	Altieri, A.	AGRO	147	An, B.	CATL	315
Allen, K.N.	PHYS	40	Altieri, I.	CHED	177	An, H.	INOR	248
Allen, K.	INOR	325	Altin, B.	COLL	245	An, J.	GEOC	19
Allen, K.	INOR	239	Altit, A.S.	ORGN	392	An, J.	INOR	290
Allen, M.A.	COLL	349	Altmaier, M.	ENVR	230	An, Q.	INOR	282
Allen, M.A.	ENFL	305	Altmaier, M.	ENVR	412	An, S.	BIOL	51
Allen, M.A.	INOR	456	Altmaier, M.	NUCL	17	An, S.	BIOL	81
Allen, M.P.	MEDI	269	Altun, B.	ANYL	56	An, T.	ENVR	108
Allen, M.	ENVR	135	Altuntas, S.	BIOL	176	An, Y.	ANYL	281
Allen, R.	AGRO	271	Alva, G.	COLL	21	An, Y.	COMP	41
Allen, S.	ENVR	251	Alvarado-Tenorio, B.	PMSE	382	An, Y.	PMSE	31
Allen, W.J.	COMP	265	Alvarez, F.M.	ENVR	390	Anaemejeh, C.	CHED	304
Allen, W.J.	COMP	319	Alvarez, J.C.	ANYL	160	Anagnostopoulos, V.	ENVR	413
Allendorf, M.	CATL	413	Alvarez, J.C.	ANYL	230	Anake, W.U.	ENVR	100
Allendorf, M.	PHYS	538	Alvarez, N.	COLL	413	Anake, W.U.	ENVR	497
Allingham, J.S.	ORGN	207	Alvarez, P.J.	ENVR	36	Anake, W.U.	ENVR	524
Alliod, C.	COMP	339	Alvarez, S.	PHYS	115	Anake, W.U.	ENVR	525
Allison, B.D.	ORGN	92	Alvarez-Dorta, D.	CARB	16	Anake, W.U.	ENVR	526
Allison, T.	COMP	363	Alverdy, J.C.	PMSE	478	Ananikov, V.	INOR	848
Allison, T.C.	CATL	387	Alves de Matos, A.	CARB	28	Ananikov, V.	ORGN	490
Allison, T.	PHYS	537	Alvey, M.	ENFL	276	Ananta, S.	COLL	210
Allmon, S.	COLL	616	Alwaseem, H.	ORGN	83	Ananth, N.	PHYS	553
Allmon, S.	COLL	258	Alwattar, A.	ORGN	425	Ananth, R.	POLY	459
Allushi, A.	POLY	61	Alwohaibi, M.	CELL	33	Ananthan, S.	MEDI	102
Almalki, F.	CATL	441	Aly, Y.	I&EC	59	Ananthapadmanabhan, K.	COLL	319
Almallahi, R.	POLY	632	Alyahya, S.	ORGN	577	Anantpadma, M.	MEDI	197
Almanza, E.M.	CHED	235	Al Yahyaei, B.	MEDI	274	Anastasaki, A.	POLY	65
Almanza, E.M.	INOR	924	Alzahrani, N.	MEDI	310	Anastasaki, A.	POLY	126
Almanza-Pérez, J.	MEDI	151	Alzate Sanchez, D.M.	PMSE	575	Anastasio, N.C.	MEDI	278
Al-Mashat, H.	ENVR	532	Alzobaidi, S.	COLL	389	Anayee, M.	PMSE	530
Al-Masum, M.	ORGN	577	Al-Zubaidi, H.A.	ENVR	358	Anbukarasu, P.	POLY	503
Almatarneh, M.	COMP	401	Al-Zubaidi, H.A.	AEI	13	Anchell, J.	CATL	430
Al-Megren, H.	PHYS	357	Amada, H.	MEDI	125	Anderluh, M.	CARB	17
Almeida, N.	PMSE	140	Amaker, D.	ORGN	418	Anders, S.	PMSE	344
Almutairi, A.	COLL	264	Amalfitano, E.	ANYL	332	Anders, S.	POLY	610
Almutairi, A.	PMSE	507	Amama, P.	ENFL	477	Andersen, A.	CATL	277
Almutiri, A.	INOR	766	Amamiya, K.	ANYL	80	Andersen, E.	CATL	422
Alnasser, F.	PHYS	381	Amani, J.	ORGN	637	Andersen, H.	ENVR	478
Alocilja, E.C.	AGFD	275	Amaral, D.	ENVR	256	Andersen, J.M.	ORGN	112
Alocilja, E.C.	AGFD	276	Amaral, M.	COMP	63	Andersen, M.	BIOL	124
Alonso, J.	ENFL	258	Amarante, D.	INOR	573	Andersen, R.J.	ORGN	386
Alonso-Mori, R.	INOR	87	Amarasekarage, C.M.	ORGN	413	Andersen, W.	AGRO	48
A Lopez-Ruiz, J.	CATL	171	Amarasiriwardena, D.D.	ANYL	311	Anderson, A.	BIOL	41
Alpert, A.J.	ANYL	407	Amaravadi, R.	ORGN	210	Anderson, A.	PMSE	345
Alpert, P.A.	ENVR	550	Amariet, F.	ANYL	339	Anderson, B.	INOR	627
Alpert, P.A.	ENVR	556	Amasha, M.	ANYL	92	Anderson, C.F.	PMSE	346
Alqahtani, D.	ENFL	242	Amato, D.	POLY	707	Anderson, C.M.	BIOL	27
Alqahtani, F.	INOR	531	Amato, D.	POLY	707	Anderson, C.M.	INOR	263

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Anderson, D.G.	WCC	2	Ang, S.	I&EC	35	Apkarian, V.A.	PHYS	100
Anderson, E.	MEDI	23	Angel, D.	PMSE	616	Aponte, V.	ENVR	564
Anderson, E.	COLL	182	Angelaud, R.	ORGN	40	Appel, A.M.	INOR	433
Anderson, E.	COLL	266	Angeles, A.R.	ORGN	315	Appel, M.	INOR	799
Anderson, G.P.	ANYL	131	Angeles Boza, A.M.	INOR	464	Appelhans, D.	COLL	568
Anderson, J.C.	POLY	428	Angeles Boza, A.M.	INOR	910	Appelhans, D.	POLY	27
Anderson, J.	ENVR	87	Angeles Boza, A.M.	MEDI	298	Appell, M.	AGFD	45
Anderson, J.P.	CHED	384	Angeles Boza, A.M.	PHYS	578	Appella, D.H.	ANYL	126
Anderson, J.S.	INOR	940	Angeles Boza, A.M.	POLY	24	Appella, D.H.	ORGN	401
Anderson, K.	CHED	128	Angelini, T.E.	PMSE	544	Appella, D.H.	ORGN	415
Anderson, K.E.	COMP	184	Angell, C.	INOR	121	Applegate, G.A.	ORGN	274
Anderson, K.A.	ENVR	279	Angelotti, B.	ENVR	152	Applegate, G.A.	ORGN	421
Anderson, L.E.	POLY	106	Angelotti, B.	ENVR	563	Applegate, J.C.	INOR	47
Anderson, L.	BIOL	129	Anger, M.L.	INOR	247	Appulage, D.K.	ANYL	270
Anderson, L.	PMSE	329	Angevine, C.	ANYL	151	Aprahamian, M.L.	PHYS	320
Anderson, L.	POLY	433	Angjelo, K.	CHAS	5	Apsokardu, M.J.	ENVR	339
Anderson, M.E.	COLL	180	Angjelo, K.	CHAS	25	Apul, O.	ENVR	169
Anderson, M.E.	COLL	287	Angjelo, K.	CHAS	30	Aqad, E.	ORGN	506
Anderson, M.E.	COLL	288	Angjelo, K.	CHAS	40	Åqvist, J.	PHYS	283
Anderson, M.E.	INOR	62	Angrand, G.	PHYS	203	Arabnejad, H.	PHYS	144
Anderson, M.E.	INOR	129	Angulo, A.	ENVR	273	Arachchige, I.U.	COLL	77
Anderson, M.E.	INOR	277	Anisimov, M.A.	COMP	18	Arachchige, I.U.	COLL	254
Anderson, M.	AGRO	218	Anisimov, M.A.	PHYS	20	Arachchige, I.U.	INOR	657
Anderson, M.	ENFL	188	Anjum, D.	COLL	104	Arachchige, I.U.	INOR	661
Anderson, N.C.	CATL	127	Anjum, U.	ENFL	134	Arachchige, I.U.	INOR	779
Anderson, N.C.	INOR	777	Anker, J.N.	ANYL	208	Arachchige, I.U.	INOR	786
Anderson, N.H.	INOR	468	Anker, J.N.	COLL	613	Aragón-Quiroz, J.A.	ENFL	444
Anderson, R.	COLL	21	Anker, J.N.	INOR	919	Arai, R.	ENFL	189
Anderson, R.G.	HIST	7	Ankner, J.	PMSE	319	Arakawa, Y.	ENFL	63
Anderson, R.	AGRO	217	Ankner, J.	PMSE	393	Araki, T.	COMP	371
Anderson, R.L.	TOXI	42	Ankner, J.	PMSE	421	Aramburo, S.	COLL	28
Anderson, S.	ANYL	140	Ankner, J.	PMSE	494	Araneda, J.F.	I&EC	43
Anderson, T.J.	INOR	513	Ankner, J.	PHYS	499	Arangio, A.	ENVR	550
Anderson, T.D.	AGRO	101	Anna, J.M.	INOR	364	Aranibar, N.	MEDI	7
Anderson, T.D.	AGRO	104	Anna, J.M.	INOR	398	Arashiro, M.	ENVR	189
Anderson, T.D.	AGRO	172	Anna, S.L.	COLL	342	Arata, C.	BIOL	187
Anderson, T.D.	AGRO	206	Annamalai, P.	PMSE	234	Aravamudhan, S.	CATL	117
Anderson, T.D.	AGRO	294	Annamalai, P.	PMSE	471	Araya-Duran, I.D.	POLY	745
Anderson, W.F.	MEDI	271	Annangudi, S.	AGFD	151	Arbabi, A.	AEI	73
Andersone, A.	MEDI	75	Annett, H.	NUCL	48	Arbabi, E.	AEI	73
Andersson, M.	BIOL	140	Ansari, M.	AGRO	264	Arbaugh, B.M.	AGFD	8
Andersson, M.G.	PMSE	618	Ansari, N.H.	ORGN	101	Arboleda, C.	COLL	264
Anderton, A.M.	PHYS	377	Anselme, K.	POLY	610	Arce, W.	ORGN	658
Anderton, C.R.	ANYL	430	Anseth, K.S.	CHED	332	Archer, K.E.	MEDI	157
Andler, S.	COLL	411	Anseth, K.S.	PMSE	4	Archer, L.A.	ENFL	278
Ando, H.	COLL	531	Anseth, K.S.	PMSE	469	Archer, L.A.	ENFL	284
Andolina, C.M.	COLL	375	Anslyn, E.V.	PMSE	10	Archer, M.	COLL	488
Andrade, R.B.	ORGN	314	Ansteatt, S.	ORGN	633	Archevald-Cansobre, M.	AGRO	202
Andrady, A.L.	ENVR	411	Anthamatten, M.L.	PMSE	353	Archevald-Cansobre, M.	AGRO	303
Andreaana, P.R.	CARB	7	Anthamatten, M.L.	PMSE	545	Arcidiacono, S.	AGFD	36
Andreas, L.	PHYS	342	Anthamatten, M.L.	POLY	719	Arcidiacono, S.	AGFD	50
Andreassi, J.	AGRO	140	Anthony, A.	PMSE	616	Ardejani, M.	PMSE	256
Andrescu, D.	ENVR	114	Anthony, J.E.	I&EC	56	Arefeayne, Y.	MEDI	173
Andrescu, E.	AGFD	274	Anthony, N.J.	MEDI	131	Arellano, N.	PMSE	118
Andrescu, E.	ANYL	42	Anthony, S.	CHED	334	Arencibia, J.M.	COMP	340
Andrescu, E.	ENVR	114	Anthony, S.	CHED	336	Arend, J.	PHYS	406
Andreev, M.	PMSE	320	Anthony, T.	PHYS	451	Arepally, S.	ORGN	56
Andresen, T.L.	COLL	576	Antila, H.S.	PMSE	202	Arevalo, R.L.	CATL	148
Andrew, T.L.	POLY	587	Antle, S.	AGRO	89	Arguello, A.	ORGN	411
Andrews, A.M.	COLL	179	Antolinez, F.V.	COLL	555	Arguien, M.N.	COLL	615
Andrews, A.M.	COLL	467	Antonioti, S.	AGFD	267	Arias, G.	CATL	329
Andrews, A.M.	INOR	98	Antonyams, A.	ANYL	151	Arias, G.	CATL	338
Andrews, B.A.	INOR	137	Antunes, A.	TOXI	81	Arias-Rotondo, D.M.	ORGN	366
Andrews, J.L.	CATL	428	Antunes, A.	TOXI	101	Arifuzzaman, M.	ORGN	702
Andrews, K.	AGFD	258	Antwi, F.	ENVR	349	Arlt, V.	TOXI	48
Andrews, R.S.	AGRO	29	Anumol, T.	ENVR	197	Armocost, K.	COMP	355
Andrez, J.	MEDI	252	Anwar, J.	COMP	400	Armas, J.	CHED	260
Andrez, J.	MEDI	253	Anyanwu, C.P.	ORGN	155	Armbrust, K.L.	AGRO	75
Andrianov, A.K.	PMSE	47	Ao, G.	PHYS	504	Armbrust, K.L.	AGRO	283
Andrianov, A.K.	PMSE	111	Aoki, T.	MEDI	175	Armbrust, K.L.	AGRO	325
Andrianov, A.K.	PMSE	169	Aobangkhen, C.	ORGN	209	Armbrust, K.L.	AGRO	343
Andrianov, A.K.	PMSE	493	Aoyagi, T.	POLY	500	Armentrout, P.B.	PHYS	371
Andrianov, A.K.	PMSE	494	Aoyagi, T.	POLY	499	Armes, S.P.	COLL	409
Andrzejewski, D.	AGFD	212	Aparicio, M.	PMSE	549	Armes, S.P.	PMSE	182
Andzelm, J.	PHYS	27	Apblett, A.W.	CATL	109	Armes, S.P.	POLY	127
Andzelm, J.	PMSE	152	Apblett, A.W.	INOR	531	Armes, S.P.	POLY	282
Aneksampant, A.	AEI	29	Apblett, A.W.	INOR	898	Armes, S.P.	POLY	367
Anene, U.A.	COMP	194	Apebende, E.A.	POLY	538	Armes, S.P.	POLY	423
Anex-Ries, Q.	PMSE	541	Apeloig, Y.	PHYS	57	Armes, S.P.	POLY	424
Ang, S.	MEDI	17	Apfel, U.	CATL	220	Armes, S.P.	POLY	671

Armes, S.P.	POLY	769	Asandei, A.D.	POLY	396	Audus, D.	PMSE	262
Armetta, A.M.	CHED	184	Asandei, A.D.	POLY	122	Augelli-Szafran, C.E.	COMP	216
Armetta, A.M.	CHED	188	Asandei, A.D.	POLY	397	Augelli-Szafran, C.E.	MEDI	133
Armiñan, A.	COLL	371	Asandei, A.D.	POLY	398	Auguste, A.	POLY	360
Armirotti, A.	COMP	340	Asandei, A.D.	POLY	399	Auguste, A.	POLY	724
Armitage, J.	ENVR	350	Asaoka, S.	CATL	292	Auguste, A.D.	POLY	580
Armstrong, L.	ORGN	78	Asapu, S.	ENVR	343	Auguste, A.D.	POLY	581
Armstrong, R.D.	CATL	150	Asayama, S.	INOR	153	Auguste, A.D.	POLY	647
Armstrong, R.D.	CATL	211	Asefa, T.G.	CATL	291	Auguste, A.D.	POLY	767
Arnadottir, L.	CATL	69	Asem, H.	PMSE	41	Augustine, K.F.	POLY	379
Arneson, A.	MEDI	82	Asenath-Smith, E.	CATL	13	Augustine, R.L.	CATL	469
Arnett, S.	MEDI	154	Asgari, P.	ORGN	661	Aujard, I.	BIOL	53
Arnold, A.	ORGN	478	Ashgar, F.	COMP	287	Aulicka, M.	CATL	161
Arnold, A.	PMSE	236	Ash, D.	ORGN	402	Aulin, Y.	CATL	131
Arnold, J.	AGRO	351	Ash, J.	CINF	33	Aulin, Y.	COLL	247
Arnold, L.	MEDI	364	Ash, J.	CINF	129	Ault, A.P.	ANYL	386
Arnold, P.L.	INOR	812	Ashby, J.	AEI	2	Ault, A.P.	ENVR	237
Arnold, W.	ENVR	199	Ashby, M.T.	CHED	43	Aung, E.	CELL	19
Arnold, W.	ENVR	201	Ashby, R.	AGFD	230	Aurbach, D.	ENFL	72
Arnold, W.	ENVR	211	Ashby, R.	POLY	200	Aurian-Blajeni, B.	CHED	387
Arnold, W.	ENVR	274	Ashcroft, N.	PHYS	212	Aurori, K.	ANYL	55
Arnold, W.	ENVR	367	Ashcroft, N.	PHYS	216	Austin, N.	CATL	239
Arnold, W.	I&EC	59	Ashfield, P.	AGRO	20	Autefage, H.	CINF	100
Arnot, J.	ENVR	350	Ashiq, U.	INOR	483	Autschbach, J.	PHYS	229
Arnoult, E.	MEDI	34	Ashkar, M.	BIOL	93	Auxier, J.	NUCL	8
Arnoult, E.	MEDI	35	Ashkar, M.	BIOL	101	Auxier, J.D.	INOR	814
Aro, S.C.	INOR	914	Ashkenasy, N.	ORGN	475	Auxier, J.D.	NUCL	12
Arogbokun, O.	INOR	223	Ashley, D.	INOR	167	Auxier, J.D.	NUCL	84
Arokiyanathan, A.	CATL	281	Ashley, D.	INOR	623	Avalos, B.	AGRO	240
Aronova, M.	PMSE	210	Ashley, D.	NUCL	69	Avan, I.	CATL	324
Aronson, M.	INOR	506	Ashraf, K.	PMSE	75	Avci, F.	CARB	10
Arora, S.	ORGN	629	Ashraf, S.	COLL	39	Avdalovic, J.	ENVR	449
Arora, A.	ORGN	373	Ashraf, M.	BIOL	125	Avdeev, M.	INOR	551
Arora, A.	ORGN	375	Ashtekar, S.	ENFL	472	Averick, S.	POLY	492
Arora, A.	ORGN	378	Ashush, N.	ORGN	333	Averick, S.	POLY	751
Arquero, K.D.	ENVR	340	Ashush, N.	ORGN	573	Averick, S.	POLY	234
Arrecis, J.J.	ANYL	252	Ashworth, D.	AGRO	149	Aversa, G.	INOR	821
Arredondo, J.	POLY	335	Ashworth, D.	AGRO	362	Avery, C.W.	ENVR	182
Arriaga, L.R.	COLL	344	Asim, S.	PHYS	301	Aviyente, V.	COMP	399
Arrington, C.	POLY	315	Askar, S.	PMSE	662	Avneri-Katz, S.	ENVR	121
Arrington, C.	POLY	518	Askim, J.	ANYL	135	Avullala, T.	ORGN	661
Arrington, C.	POLY	774	Askleson, P.	INOR	208	Awad, A.	PHYS	404
Arrington, K.L.	MEDI	192	Asokan, K.	ANYL	385	Awad, A.	PHYS	490
Arrington, K.	POLY	763	Aspera, S.M.	CATL	148	Awad, A.	PHYS	491
Arriola, D.	INOR	328	Aspuru-Guzik, A.	MPPG	26	Awad, A.	PHYS	453
Arroyo, P.C.	ENVR	556	Aspuru-Guzik, A.	MPPG	25	Awad, A.	ENVR	280
Arshad, S.	CATL	464	Asquith, C.R.	MEDI	141	Awad, F.S.	PHYS	495
Arslanoglu, J.	ANYL	225	Assadi-Porter, F.M.	AGFD	110	Awoonor-Williams, E.	COMP	378
Arslanoglu, J.	ANYL	254	Assary, R.S.	CATL	192	Awwa, M.	MEDI	107
Artes Vivancos, J.	AEI	72	Assary, R.S.	CATL	278	Axe, L.	ENVR	125
Arthanari, H.	PHYS	588	Astha, F.	ORGN	105	Axe, L.B.	ENVR	126
Arthur, A.Z.	COLL	150	Asthagiri, A.R.	CATL	155	Axford, L.	MEDI	77
Arthur, E.L.	AGRO	357	Asthagiri, A.R.	CATL	342	Axson, J.L.	ANYL	386
Arthur, R.B.	INOR	373	Asthagiri, A.R.	ENFL	126	Axson, J.L.	ENVR	237
Arthur, R.B.	ORGN	435	Aston, J.C.	AGRO	271	Axtell, J.	WCC	3
Arthur, T.S.	CATL	227	Ataee-Esfahani, H.	CATL	319	Ayalew, B.	POLY	633
Artiglia, L.	CATL	168	Atanassov, P.B.	ENFL	121	Aydin, F.	COLL	60
Artiglia, L.	CATL	323	Atcitty, S.	INOR	216	Aydogan, C.	POLY	61
Arturo, S.G.	COMP	241	Athas, J.	POLY	574	Ayer, S.	ORGN	367
Artz, J.	CATL	219	Athens, G.	COLL	4	Ayitou, A.J.	ORGN	268
Artzi, N.	COLL	97	Atieh, E.L.	CHED	102	Ayivi, F.	AGRO	158
Aruma, J.	CHED	288	Atilgan, A.	INOR	755	Aykac, S.	POLY	61
Arumainayagam, C.R.	CHED	232	Atilla-Gokcumen, G.	AGRO	345	Ayres, N.	PMSE	238
Arumainayagam, C.R.	CHED	290	Atkinson, D.	ANYL	97	Ayscue, R.L.	INOR	514
Arumainayagam, C.R.	PHYS	102	Atkinson, J.	AGRO	58	Ayscue, R.L.	INOR	520
Arumainayagam, M.	CHED	232	Atlas, S.	INOR	130	Aytac, Z.	PMSE	666
Arumugam, S.	I&EC	49	Atlas, S.	INOR	132	Aytenfis, A.	CARB	90
Arunachalam, P.	MEDI	25	Atlas, S.R.	PHYS	133	Aytenfis, A.	COMP	202
Arvidson, K.	CINF	43	Atlasevich, N.	ANYL	225	Azam, H.	ENFL	473
Arvidson, K.	AGFD	87	Atsavaprane, B.	POLY	738	Azam, S.	BIOL	60
Arya, G.	COLL	295	Atsavaprane, B.S.	CHED	192	Azam Glasgow, A.	PMSE	146
Arya, G.	COMP	410	Atta, S.	COLL	281	Azbill, I.	INOR	577
Arya, G.	ENVR	389	Attah, I.K.	PHYS	452	Azer, M.	NUCL	64
Aryal, S.	COLL	143	Attanayake, N.H.	ENFL	416	Azih, M.C.	AGFD	125
Arzhantsev, S.	ANYL	280	Attanayake, N.H.	CATL	131	Azih, M.C.	AGFD	126
Asa-Awuku, A.	ENVR	190	Atwater, H.	ANYL	145	Azih, M.C.	AGFD	127
Asad, N.	ORGN	139	Atwater, M.	CATL	459	Azurmendi, H.	CARB	92
Asahi, M.	AGRO	308	Aubrey, M.	INOR	828	Baalbaki, A.	ANYL	92
Asai, M.	NUCL	48	Auchampach, J.	MEDI	45	Baalbaki, A.	ENVR	111
Asakawa, N.	PMSE	403	Auclair, J.R.	ANYL	429	Babbitt, P.C.	PHYS	90

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Babcock, J.M.	ORGN	472	Bahmutov, V.	INOR	63	Baker, T.	INOR	771
Baber, A.	COLL	136	Bahrami, M.	PMSE	89	Bakhoda, A.	INOR	588
Baber, A.	COLL	151	Bahruji, H.	CATL	211	Bakhoda, A.	ORGN	667
Baber, A.	COLL	284	Bahusetty, A.	CATL	146	Bakhshi, P.R.	ORGN	331
Baber, J.L.	PHYS	288	Bai, B.	COLL	142	Bakhshi, P.R.	ORGN	449
Babu, V.	ORGN	56	Bai, C.	MEDI	157	Bakker, J.	PHYS	6
Baca, A.	POLY	720	Bai, C.	PHYS	164	Bakker, M.G.	POLY	475
Bachman, A.J.	INOR	194	Bai, C.	PHYS	515	Bakó, I.	COMP	14
Bachman, R.E.	ANYL	88	Bai, F.	COMP	298	Bakr, B.W.	COMP	318
Bachman, R.E.	ANYL	227	Bai, H.	POLY	542	Bakr, O.M.	COLL	600
Bachman, R.E.	INOR	194	Bai, J.	INOR	509	Bakshi, R.P.	COLL	65
Bachman, R.E.	INOR	257	Bai, J.	INOR	740	Bakthavatchalam, K.	POLY	633
Bachman, R.E.	INOR	570	Bai, L.	ENFL	135	Bakthavatsalam, S.	INOR	587
Bachmann, J.	INOR	301	Bai, L.	ANYL	327	Bakthavatsalam, S.	INOR	796
Backlund, M.P.	AEI	73	Bai, P.	COMP	193	Balachandran, J.	CATL	430
Backman, R.	ENFL	23	Bai, Q.	INOR	35	Balaich, G.J.	POLY	638
Backman, R.	ENFL	24	Bai, X.	PMSE	500	Balakumar, R.	CATL	435
Backus, E.	PHYS	516	Bai, X.	ENVR	5	Balasanthiran, V.	INOR	737
Baczkowski, M.L.	POLY	608	Baiardi, A.	COMP	331	Balasanthiran, V.	INOR	881
Badange, R.K.	MEDI	95	Baier, G.	BIOL	151	Balasubramanian, A.	CATL	281
Badange, R.K.	MEDI	354	Baier, G.	BIOL	174	Balati, A.	CATL	106
Badding, J.V.	INOR	533	Baier, M.	COLL	619	Balazs, A.Y.	MEDI	19
Badding, J.V.	PMSE	350	Baik, M.	AGFD	83	Balazs, A.	COLL	309
Badding, J.V.	PMSE	375	Baik, M.	AGFD	62	Balbo, S.	TOXI	52
Badding, J.V.	INOR	914	Bailey, B.	ANYL	158	Balbo, S.	TOXI	94
Bader, S.	ORGN	61	Bailey, B.	INOR	328	Balboa, A.	INOR	147
Badiei, Y.M.	CHED	228	Bailey, J.	COLL	261	Balboa, A.	INOR	173
Badiei, Y.M.	CHED	350	Bailey, R.C.	ANYL	334	Balboni, E.	ENVR	227
Badir, S.	ORGN	637	Bailey, R.C.	ANYL	360	Balboni, E.	NUCL	75
Badong, V.	CELL	20	Bailey, R.C.	ANYL	399	Balbuena, P.B.	CATL	232
Badour, A.	ORGN	402	Bailey, R.C.	PHYS	389	Balbuena, P.B.	CATL	274
Badshah, A.	CATL	464	Bailey, R.C.	POLY	479	Balbuena, P.B.	ENFL	164
Badshah, A.	COLL	593	Bailey, S.	BIOL	126	Balci, M.	ORGN	590
Badshah, A.	COMP	287	Bailey, T.S.	POLY	41	Balcells, D.	INOR	679
Badshah, A.	MEDI	168	Bailey Van-Kuren, D.	POLY	187	Balcells, D.	INOR	680
Badu-Tawiah, A.K.	PHYS	501	Baillargeon, A.L.	PMSE	166	Balcer, J.	AGRO	131
Badziai, A.	PHYS	63	Bain, C.D.	COLL	123	Balcer, J.	AGRO	133
Bae, J.	MEDI	93	Bain, E.	PMSE	106	Balcer, J.	AGRO	330
Bae, J.	CATL	105	Bain, J.	ENVR	428	Baldansuren, A.	INOR	583
Bae, J.	ENFL	358	Bain, R.M.	ANYL	76	Baldauf, L.M.	INOR	193
Bae, J.	INOR	190	Bain, R.M.	CHED	77	Baldelli, S.	COLL	224
Bae, S.	ORGN	450	Baird, B.	COLL	594	Balding, P.	PMSE	524
Bae, Y.	BIOL	59	Baird, L.M.	ENVR	222	Balding, P.	ANYL	293
Baek, J.	PMSE	291	Baird, L.M.	PMSE	284	Baldo, M.	INOR	334
Baek, J.	MEDI	126	Bajpai, A.	ORGN	269	Baldridge, K.K.	INOR	726
Baek, S.	ENVR	137	Bajpai, A.	CATL	386	Baldridge, K.K.	ORGN	49
Baek, S.	ANYL	284	Bajpai, L.K.	ANYL	385	Baldridge, K.K.	ORGN	361
Baek, S.	ENVR	41	Bajracharya, D.H.	CHED	211	Baldus, M.	ENFL	446
Baek, S.	ENVR	408	Bak, D.	BIOL	56	Baldwin, A.	I&E	3
Baek, Y.	INOR	856	Bakaj, I.	MEDI	37	Baldwin, D.	AGRO	382
Baek, S.	GEOC	23	Bakare, O.	MEDI	113	Baldwin, L.	POLY	720
Baeky, J.	CHED	80	Bakare, O.	MEDI	144	Baldwin, M.	ORGN	150
Baell, J.B.	MEDI	16	Bakare, O.	MEDI	312	Baled, H.	ENFL	471
Baer, E.	PMSE	280	Bakare, O.	MEDI	344	Balicas, L.	INOR	870
Baer, M.D.	CATL	380	Baker, B.	CHED	230	Balija, A.M.	CHED	294
Baer, M.D.	CATL	423	Baker, B.	CHED	247	Balijepalli, A.	COMP	297
Baer, R.	PHYS	74	Baker, C.C.	POLY	748	Balius, T.E.	AEI	24
Baer, R.	PHYS	175	Baker, C.	INOR	470	Balius, T.E.	COMP	39
Baerga-Ortiz, A.	BIOL	70	Baker, D.C.	CARB	61	Balius, T.E.	COMP	319
Baerga-Ortiz, A.	BIOL	110	Baker, D.R.	INOR	245	Balkenende, D.	POLY	35
Baets, D.	AGRO	81	Baker, D.R.	INOR	473	Balkus, K.J.	ENFL	309
Baetzold, J.P.	CATL	250	Baker, J.L.	PHYS	424	Balkus, K.J.	PMSE	578
Baez Bravo, G.	BIOL	110	Baker, J.L.	PHYS	439	Balkus, K.J.	PMSE	661
Baftizadeh, F.	AEI	23	Baker, J.L.	PHYS	455	Ball, D.W.	CHED	89
Baftizadeh, F.	COLL	9	Baker, J.L.	PHYS	461	Ball, Z.T.	COLL	451
Bagabas, A.	CATL	109	Baker, K.M.	ORGN	137	Ballauff, M.M.	COLL	583
Bagade, C.	PMSE	22	Baker, K.	ORGN	592	Ballinas-Casarrubias, L.	ENVR	373
Bagga, K.K.	CHED	392	Baker, L.	CATL	157	Balog, S.	POLY	91
Bagge, R.E.	PMSE	591	Baker, L.	ENFL	123	Balog, S.	POLY	185
Bagge, R.E.	POLY	306	Baker, L.A.	ANYL	340	Balog, S.	POLY	207
Baggett, A.	POLY	532	Baker, M.T.	CHED	127	Balog, S.	POLY	337
Baghdady, Y.	ANYL	270	Baker, M.T.	CHED	394	Balouga, S.B.	CHED	209
Bagherzadeh, S.	INOR	380	Baker, M.B.	PMSE	514	Balow, R.	COLL	141
Bagherzadeh, S.	INOR	719	Baker, M.	INOR	87	Balow, R.	INOR	138
Bagley, A.	INOR	890	Baker, N.	ANYL	347	Balsara, N.P.	CATL	273
Baglioni, P.	PMSE	269	Baker, R.T.	INOR	46	Balsara, N.P.	CATL	432
Baguc, B.	CATL	317	Baker, R.T.	INOR	503	Balsara, N.P.	POLY	176
Bagwell, C.	ENFL	158	Baker, R.	INOR	600	Balsara, N.P.	POLY	297

Balsells, J.	ORGN	371	Baranoski, M.H.	POLY	83	Bart, S.C.	CATL	134
Balskus, E.P.	BIOL	36	Barashkov, N.	ENVR	400	Bart, S.C.	NUCL	31
Balskus, E.P.	BIOL	62	Barashkov, N.	PHYS	415	Bartberger, M.D.	MEDI	263
Balsou, J.	AGFD	191	Barati, R.	ENVR	258	Bartberger, M.D.	ORGN	273
Baltakys, K.	ENVR	208	Barati, R.	ENVR	369	Barteau, K.	PMSE	587
Baltrus, J.P.	ENFL	127	Barb, A.W.	CARB	87	Barteau, M.A.	INOR	607
Baltrusaitis, J.	CATL	98	Barba, D.	ENFL	48	Bartels-Rausch, T.	ENVR	293
Baltrusaitis, J.	CATL	122	Barbara, L.G.	ENVR	110	Barter, L.	BIOL	98
Baltrusaitis, J.	CATL	197	Barbastathis, G.	COLL	471	Barter, M.	ENFL	21
Baltrusaitis, J.	CATL	279	Barbeau, A.	POLY	330	Barthelmes, K.	INOR	186
Baltrusaitis, J.	ENVR	208	Barber, E.	ORGN	657	Barthelmes, K.	ORGN	674
Balu, R.	PMSE	270	Barbera, C.	ANYL	72	Bartholomay, L.	AGRO	202
Balyan, S.	CATL	201	Barbhahiya, R.H.	SCHB	32	Bartholomay, L.	AGRO	205
Bamberger, D.	PMSE	506	Barbi, N.	ANYL	228	Bartholomay, L.	AGRO	303
Bamberger, S.	TOXI	15	Barbour, J.C.	CHED	246	Bartholomew, A.K.	INOR	866
Bamford, R.	POLY	681	Barchi, J.J.	CARB	88	Bartlett, B.M.	INOR	74
Bamonte, S.	CATL	308	Barden, B.A.	CHED	237	Bartlett, M.	ORGN	598
Bandara, Y.D.	COLL	121	Barden, B.A.	CHED	239	Bartlett, M.J.	INOR	211
Bandason, E.	AGRO	394	Barden, D.	COMP	381	Bartlett, R.A.	BIOL	136
Bandegi, A.	INOR	255	Bare, S.	CATL	57	Bartlett, R.J.	AEI	25
Bandera, I.	COLL	613	Barefoot, A.C.	AGRO	19	Bartlett, R.J.	COMP	5
Bandera, I.	INOR	919	Barefoot, A.C.	AGRO	76	Bartlett, R.J.	COMP	68
Bandera, I.	PMSE	606	Barefoot, A.C.	AGRO	284	Bartlett, R.J.	COMP	132
Bandera, I.	POLY	485	Barefoot, A.C.	AGRO	379	Bartlett, R.J.	COMP	133
Bandi, C.	MEDI	343	Barinka, C.	MEDI	320	Bartlett, R.J.	COMP	368
Bandoro, C.	PMSE	420	Baris, R.	AGRO	292	Bartoli, F.J.	COLL	44
Bandyala, T.	MEDI	354	Barish, M.A.	AEI	22	Barton, H.A.	POLY	302
Bandyopadhyay, A.	BIOL	166	Bark, B.	INOR	205	Barton, H.F.	INOR	1
Bandyopadhyay, D.	ORGN	396	Bark, B.	INOR	498	Barton, J.K.	AEI	48
Bandyopadhyay, D.	ORGN	397	Bark, B.	INOR	598	Barton, J.K.	AEI	54
Bandyopadhyay, D.	ORGN	398	Barkatt, A.	I&E	31	Barton, J.K.	INOR	93
Bandyopadhyay, D.	ORGN	399	Barker, A.	AGFD	3	Barton, J.K.	INOR	305
Bandyopadhyay, D.	ORGN	580	Barker, D.	AGFD	61	Barton, J.K.	INOR	419
Bandyopadhyay, K.	COLL	289	Barker, D.	ORGN	615	Barton, J.K.	INOR	942
Bandyopadhyay, K.	COLL	290	Barker, D.	ORGN	645	Barton, J.K.	INOR	958
Bandyopadhyay, K.	COLL	291	Barksdale, S.	BIOL	24	Barton, J.K.	INOR	963
Bandyopadhyay, K.	COLL	292	Barlow, D.	COLL	141	Bartucci, M.A.	POLY	171
Baner, L.L.	AGFD	105	Barlow, D.	PMSE	141	Bartulovich, C.	ORGN	270
Banerjee, A.S.	COMP	74	Barlow, J.	CATL	271	Bartz, J.A.	PHYS	376
Banerjee, D.R.	TOXI	50	Barmade, M.A.	MEDI	353	Barwick, K.W.	INOR	194
Banerjee, R.	CATL	369	Barnes, B.	COLL	13	Barybin, M.V.	INOR	47
Banerjee, R.	CATL	433	Barnes, M.	POLY	545	Barybin, M.V.	INOR	288
Banerjee, S.	CATL	428	Barnett, B.R.	INOR	366	Barz, M.	PMSE	303
Banerjee, S.	MEDI	146	Barnette, D.A.	TOXI	62	Barzilay, R.	CINF	8
Banerjee, T.	NUCL	78	Barnette, D.A.	TOXI	69	Basappa, S.	CHED	189
Banerjee, T.	NUCL	5	Barnhart, R.	CHED	164	Basappa, S.	CHED	248
Bang, S.	ORGN	410	Barnich, N.	CARB	16	Basch, C.	ORGN	592
Banh, J.	PMSE	541	Barolo, C.	ENFL	98	Basco, M.	ANYL	303
Banik, G.M.	CINF	3	Baron, J.	AGRO	1	Basdogan, Y.	CATL	236
Banin, U.	COLL	496	Baron, J.	AGRO	166	Baser-Kirazli, N.	ORGN	458
Bankar, G.	MEDI	252	Baron, M.	PMSE	224	Bashaw, K.E.	CARB	31
Bankar, G.	MEDI	253	Barona, M.	CATL	414	Bashir, S.	COLL	74
Banks, H.	ORGN	262	Barone, V.	COMP	331	Bashir, S.	ENFL	459
Bannach, G.	POLY	467	Barone, V.	PHYS	55	Bashir, S.	MEDI	366
Bannan, C.C.	WCC	5	Barr, J.L.	INOR	879	Basirico, L.	AGRO	283
Bannin, T.J.	CATL	321	Barr, K.J.	MEDI	131	Basirico, L.	AGRO	325
Bannister, T.D.	MEDI	6	Barragan, F.	BIOL	172	Baskin, A.I.	PHYS	190
Bannwarth, C.	PHYS	135	Barraza, K.	PHYS	369	Basri, A.	INOR	830
Banovetz, H.	ORGN	360	Barreda, O.	INOR	569	Bass, S.	CHED	300
Bansal, A.	ENVR	261	Barrera-Rivera, K.A.	POLY	705	Bassan, A.	CINF	42
Banta, S.	PMSE	259	Barrett, C.J.	CATL	289	Basser, P.	PMSE	211
Banzatti, A.	PHYS	260	Barrett, C.J.	COLL	337	Basser, P.J.	BIOL	116
Bao, Z.	INOR	258	Barrett, C.J.	PMSE	341	Basset, J.M.	CATL	359
Bao, Z.	INOR	370	Barrett, C.J.	PMSE	380	Bassett, A.	POLY	13
Bao, Z.	INOR	743	Barrett, C.J.	PMSE	497	Bassett, A.	POLY	137
Bao, Z.	PMSE	553	Barrett, C.J.	PMSE	588	Bassett, B.	BIOL	109
Bao, Z.	POLY	296	Barrett, J.	COLL	12	Bassett, K.	CATL	384
Bao, Z.	I&E	32	Barrett, T.	BIOL	111	Bassiri-Gharb, N.	CATL	430
Bao, Z.	ORGN	512	Barrett, T.	ORGN	158	Bastakoti, B.P.	POLY	749
Bapat, A.	PMSE	64	Barrick, S.	PHYS	470	Bastelberger, S.	ENVR	553
Bapat, M.	AGRO	4	Barrie, K.	PHYS	458	Basu, A.K.	TOXI	43
Bapat, M.	AGRO	53	Barrie, K.	PHYS	464	Basu, A.K.	TOXI	57
Baptista, D.	PHYS	588	Barrios, C.	POLY	33	Basu, A.K.	TOXI	68
Barajas, S.D.	PMSE	617	Barrios, J.	AGFD	178	Basu, K.	CATL	128
Barak, N.	MEDI	266	Barrow, M.	COLL	39	Basu, M.	AGRO	401
Barak, N.	MPPG	6	Barrows, R.D.	ORGN	581	Basu, P.	INOR	701
Baran, P.S.	CHED	331	Barry, C.	BIOL	141	Basu, P.	AGRO	85
Baraniak, M.K.	POLY	529	Barry, J.	POLY	566	Basu, S.	PMSE	460
Barannikova, E.	ENFL	305	Barry, N.	INOR	575	Basu, S.	POLY	329
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Bataev, Y.S.	INOR	525	Bazzi, J.	CHED	141	Beemer, D.	POLY	37
Batara, N.A.	ANYL	145	Beadell, A.	BIOL	50	Beers, K.	ANYL	295
Bateman, F.	I&EC	31	Beagan, D.M.	INOR	21	Beers, K.	PMSE	44
Bates, F.S.	POLY	225	Beagan, D.M.	INOR	344	Beers, K.	PMSE	101
Bates, F.S.	POLY	375	Beall, G.W.	POLY	756	Beers, K.	POLY	223
Bates, F.S.	POLY	687	Beam, B.	CHED	131	Beers, K.	YCC	13
Bates, J.E.	PHYS	29	Beaman, K.	MEDI	115	Begay, S.C.	COMP	240
Bates, J.	POLY	489	Beams, R.	ANYL	387	Beger, T.W.	ANYL	263
Bathfield, M.	POLY	697	Bear, A.	CHED	47	Begg, J.	ENVR	227
Batista, A.S.	ENVR	110	Beard, M.C.	INOR	412	Begley, T.	AGFD	77
Batista, E.R.	INOR	519	Bearden, D.	CINF	78	Begley, T.	AGFD	81
Batista, E.R.	INOR	523	Beasley, P.A.	CHED	274	Begley, T.	AGFD	237
Batista, E.R.	NUCL	19	Beaty, B.	AGRO	205	Begley, T.	ANYL	201
Batista, E.R.	NUCL	28	Beaucage, P.A.	PMSE	587	Begoyan, V.	TOXI	61
Batista, E.R.	NUCL	47	Beauchamp, J.L.	PHYS	369	Begum, R.	COLL	600
Batista, E.R.	NUCL	50	Beaudegnies, R.	AGRO	411	Behenna, D.	ORGN	64
Batista, E.R.	PHYS	65	Beaumont, S.K.	CATL	12	Behler, R.	PMSE	616
Batista, G.	AGRO	240	Beaumont, S.K.	CATL	349	Behmke, D.	CHED	59
Batista, V.S.	CATL	82	Beaumont, S.K.	COLL	118	Behnia, K.	MEDI	30
Batista, V.S.	INOR	110	Beaumont, S.K.	INOR	838	Behrsing, H.	ENVR	545
Batka, A.	INOR	169	Beaver, J.	AGFD	22	Beio, M.L.	ORGN	90
Batrice, R.	INOR	514	Beavers, W.N.	TOXI	73	Beio, M.L.	ORGN	421
Battacharya, N.	CHED	13	Beavers, W.N.	TOXI	87	Beitlich, N.	AGFD	182
Battaglia, G.	COLL	314	Bebernitz, G.	MEDI	23	Bejagam, K.	COMP	41
Battaglia, M.	ENVR	240	Bebout, D.C.	INOR	341	Bejagam, K.	PMSE	31
Batteas, J.D.	COLL	122	Bebout, D.C.	INOR	565	Bejaoui, S.	PHYS	469
Batteas, J.D.	POLY	572	Bec, K.	PHYS	392	Belai, N.	ANYL	191
Battersby, D.	ORGN	13	Bécart, D.	ORGN	487	Belal, K.	PMSE	570
Battistel, M.	CARB	92	Becer, C.	PMSE	304	Belanger, G.	ORGN	57
Battle, P.D.	INOR	551	Becer, C.	POLY	124	Belanger, M.	ANYL	123
Battle, P.D.	INOR	913	Becer, C.	POLY	194	Belanger, M.	POLY	525
Battocchi, D.	PMSE	177	Bechdel, L.	INOR	658	Belecki, K.	ORGN	211
Baturina, O.A.	INOR	55	Bechdel, L.	INOR	660	Belecki, K.	ORGN	413
Batys, P.	PMSE	265	Becica, J.	INOR	231	Belecki, K.	ORGN	606
Bauduin, P.	COLL	608	Becica, J.	INOR	332	Belisario-Lara, D.	COMP	165
Bauduin, P.	I&EC	14	Becica, J.	INOR	955	Belitsky, J.M.	AEI	60
Bauer, D.	MPPG	4	Beciragic, A.	ENVR	514	Belitsky, J.M.	ORGN	149
Bauerfeind, E.	ENVR	275	Beck, A.	ENVR	278	Bell, A.	POLY	654
Baughman, N.N.	INOR	238	Beck, E.M.	MEDI	246	Bell, A.T.	CATL	130
Baughman, N.N.	ORGN	463	Beck, H.	POLY	185	Bell, A.T.	CATL	151
Bauman, N.P.	PHYS	222	Beck, H.	MEDI	247	Bell, A.T.	CATL	240
Baumann, A.	ENVR	230	Beck, J.J.	AGRO	36	Bell, A.T.	CATL	394
Baumann, A.	INOR	821	Beck, J.J.	AGRO	68	Bell, A.T.	CATL	477
Baumann, H.J.	ORGN	88	Beck, M.P.	COMP	233	Bell, A.T.	ENFL	30
Baumann, M.	ORGN	15	Beck, R.	COMP	144	Bell, A.T.	ENFL	290
Baumann, S.A.	AGRO	228	Beck, T.L.	COLL	152	Bell, D.S.	ANYL	409
Baumer, T.	ENVR	229	Becker, A.	COMP	138	Bell, G.W.	CHED	225
Baumgartner, M.	COMP	393	Becker, D.P.	CHED	315	Bell, I.M.	MEDI	192
Baumgartner, R.	PMSE	16	Becker, J.	COMP	224	Bell, J.A.	ENVR	185
Baumgartner, R.	PMSE	139	Becker, J.	MEDI	62	Bell, K.	MEDI	23
Baumgartner, T.	POLY	655	Becker, J.	MEDI	99	Bell, M.	POLY	690
Bauschlicher, C.W.	PHYS	5	Becker, J.	MEDI	109	Bell, N.L.	INOR	812
Bavington, C.	CARB	84	Becker, M.	COLL	217	Bell, S.	ANYL	346
Bawendi, M.G.	COLL	239	Becker, M.	PMSE	54	Bell, S.	ANYL	349
Bawendi, M.G.	COLL	499	Becker, M.	PMSE	215	Bell, S.	ANYL	350
Bawendi, M.G.	COLL	564	Becker, M.	PMSE	287	Bell, S.	TOXI	41
Bawendi, M.G.	COLL	572	Becker, M.	PMSE	455	Bella, F.	CELL	9
Bax, A.	PHYS	288	Becker, M.	POLY	344	Bella, F.	ENFL	98
Baxa, U.	PMSE	401	Becker, R.A.	AGRO	231	Bella, F.	PMSE	546
Baxendale, I.R.	ORGN	15	Becker, S.	AGFD	235	Bellamri, M.	TOXI	11
Baxi, A.	ANYL	331	Becker, T.E.	POLY	62	Bellani, M.	TOXI	29
Baxter, A.J.	ANYL	11	Beckham, G.	CATL	7	Beller, M.	CATL	185
Baxter, A.J.	COLL	353	Beckham, G.	CATL	55	Belley, M.	INOR	246
Baxter, J.B.	INOR	892	Beckham, G.	CATL	101	Bello, M.	POLY	220
Baxter, N.	CATL	368	Beckham, G.	CATL	210	Bellukonda, S.	ENFL	460
Baxter, N.	ENFL	153	Beckham, G.	INOR	466	Belmona, D.	CHED	37
Bayer, H.	AGRO	259	Becknell, N.	INOR	121	Belmont, B.L.	PROF	16
Bayer, I.	COLL	535	Beckstein, O.	PHYS	245	Belorusova, A.	MEDI	83
Baykoucheva, S.P.	CINF	70	Beckwith, T.	ORGN	360	Belosludov, R.	ENFL	347
Bayly, C.I.	WCC	5	Bedelean, H.	ENVR	381	Belshaw, S.	MEDI	225
Baysal, M.	AGFD	132	Bedford, B.	AGFD	164	Beltran, M.	PHYS	108
Bayse, C.A.	INOR	160	Bedford, B.	ANYL	284	Beltran, R.D.	COLL	615
Bayse, C.A.	INOR	341	Bedford, M.	POLY	22	Beltran-Villegas, D.J.	PMSE	585
Bayya, S.S.	COLL	526	Bedford, N.	PMSE	164	Belyk, K.M.	ORGN	259
Bazemore, K.M.	AGFD	41	Bedi, M.	MEDI	130	Bemis, K.A.	ANYL	429
Bazemore, R.A.	AGFD	41	Bediako, D.K.	INOR	315	Bemister-Buffington, J.	COMP	104
Bazyleva, A.	CINF	106	Bee, M.Y.	AGFD	171	Benade, V.	MEDI	95
Bazzi, A.A.	CHED	62	Bee, M.Y.	CHED	28	Benali, A.	COMP	75

Benassi, E.	ORGN	183	Berberich, J.	POLY	187	Berrie, C.L.	INOR	47
Benchekroun, M.	ORGN	53	Berda, E.B.	PMSE	131	Berrios Camacho, A.M.	PMSE	586
Benck, J.	ANYL	373	Berdini, V.	COMP	395	Berry, C.	COMP	41
Bendar, D.	PHYS	145	Berendsen, B.J.	AGRO	84	Berry, C.	PMSE	31
Bender, A.	COMP	275	Berg, C.	AGRO	300	Berry, J.F.	ENFL	57
Bender, J.	POLY	167	Berg, D.	POLY	566	Berry, L.	CATL	224
Bender, W.Y.	CHED	297	Berg, D.	MPPG	25	Berry, R.J.	POLY	30
Bender, W.Y.	CHED	366	Berg, D.	COLL	532	Berry, J.D.	COLL	343
Bender, W.Y.	COLL	528	Berg, J.M.	NUCL	47	Berstis, L.	CATL	55
Bender, W.Y.	PMSE	347	Bergana, M.	AGFD	213	Berstis, L.	CATL	101
Benderly, B.	CHAS	23	Bergbreiter, D.E.	INOR	48	Bertan, D.	MEDI	251
Ben Dhiab, I.	COLL	611	Bergbreiter, D.E.	POLY	484	Bertaux, J.	PHYS	531
Benetti, D.	ENFL	48	Berge, N.D.	ENVR	209	Berthoud, R.	POLY	295
Benetti, E.	COLL	468	Bergebit, C.	POLY	67	Berti, F.	CARB	9
Benetti, E.	PMSE	288	Berger, A.W.	ENVR	27	Berti, F.	CARB	63
Benetti, E.	PMSE	622	Berger, M.	ORGN	134	Bertke, J.A.	INOR	251
Benetti, E.	POLY	201	Berger, M.	CHED	351	Bertke, J.A.	INOR	514
Benetti, E.	POLY	557	Berger, M.	ENVR	506	Bertke, J.A.	INOR	520
Benforado, J.	YCC	15	Berger, P.C.	INOR	257	Bertke, J.A.	INOR	815
Benhusen, A.	CHED	67	Berger, R.	PHYS	312	Bertocchi, M.J.	ORGN	269
Beniah, G.	PMSE	1	Bergeron, P.	MEDI	76	Bertozzi, C.R.	ORGN	340
Beniah, G.	PMSE	277	Bergeron, P.	MEDI	252	Bertozzi, C.R.	ORGN	405
Benicewicz, B.C.	I&EC	20	Berghout, H.L.	CHED	86	Bertozzi, C.R.	PHYS	330
Benicewicz, B.C.	POLY	690	Berghout, H.L.	CHED	113	Bertozzi, C.R.	PMSE	19
Benincosa, W.	ENFL	135	Bergman, A.	MEDI	258	Bertram, S.N.	COLL	499
Benitex, Y.	MEDI	269	Bergman, E.	ENFL	457	Bertrand, G.	INOR	687
Benitez, L.	COMP	403	Bergo, C.H.	CHED	348	Bertrand, O.	POLY	670
Benke, K.	INOR	692	Bergo, C.H.	CHED	349	Bertucci, M.A.	CHED	276
Benkö, Z.	INOR	482	Bergonzini, G.	ORGN	639	Bertucci, M.A.	CHED	278
Benkoski, J.J.	PMSE	461	Bergonzo, C.	COMP	349	Bertucci, M.A.	ORGN	37
Benmore, C.	COMP	19	Bergseth, Z.K.	PMSE	177	Berugoda Arachchige, D.M.	ORGN	163
Bennadji, H.	CELL	4	Bergstrom, H.	CATL	74	Berugoda Arachchige, D.M.	ORGN	319
Benner, E.	AGRO	140	Berim, A.	ANYL	83	Besan, M.	MEDI	114
Bennett, C.	CARB	64	Berk, B.	PHYS	518	Besan, M.	MEDI	129
Bennett, D.J.	MEDI	225	Berk, J.R.	SCHB	9	Beshore, D.C.	MEDI	242
Bennett, G.	MEDI	2	Berke, H.	PHYS	13	Besic, S.	POLY	466
Bennett, J.M.	MEDI	141	Berke, V.R.	INOR	163	Besic, S.	POLY	732
Bennett, J.A.	INOR	941	Berkebach, T.C.	PHYS	153	Beskoski, V.P.	ENVR	449
Bennett, J.	ANYL	307	Berkemeier, T.	ENVR	550	Bespalova, Y.	POLY	717
Bennett, J.	ENVR	118	Berkowitz, D.B.	ORGN	90	Besse, D.	INOR	582
Bennett, K.T.	NUCL	44	Berkowitz, D.B.	ORGN	274	Bessel, C.A.	INOR	131
Bennett, M.	MEDI	328	Berkowitz, D.B.	ORGN	421	Bessen, N.	NUCL	60
Benoit, D.	ENFL	408	Berks, A.	CHAL	1	Besson, C.	INOR	559
Benoit, D.	ENFL	418	Berks, A.	CHAL	17	Besson, C.	INOR	637
Bens, C.	BMGT	8	Berks, A.	CHAL	18	Beste, A.	CATL	390
Ben-Shalom, I.Y.	COMP	82	Berlin, J.M.	COLL	28	Bethke, J.A.	AGRO	106
Ben-Shaul, A.	PHYS	15	Berlinguette, C.P.	POLY	139	Betley, T.	INOR	296
Benson, E.	ENFL	259	Berman, H.M.	CHED	193	Betley, T.	INOR	306
Benson, N.	ENVR	47	Berman, R.M.	MEDI	254	Betley, T.	INOR	487
Benson, N.	ENVR	497	Bermejo Gómez, A.	ORGN	260	Betley, T.	INOR	856
Benson, N.	ENVR	524	Bermingham, A.	MEDI	250	Betley, T.	INOR	866
Benson, N.	ENVR	526	Bermudez, V.M.	COLL	141	Beto, C.	INOR	886
Benson, N.U.	ENVR	100	Berné, O.	PHYS	3	Bettinger, C.	PMSE	233
Benson, N.U.	ENVR	525	Bernales, V.	CATL	414	Bettinger, C.J.	POLY	431
Benson, Z.A.	COLL	386	Bernales, V.	INOR	68	Betz, M.	MEDI	260
Bentayeb, K.	AGFD	133	Bernales, V.	INOR	292	Beuning, P.	COMP	240
Bentley, A.K.	INOR	547	Bernales, V.	INOR	690	Beuning, P.	PHYS	474
Bentley, K.	ORGN	449	Bernales Candia, S.	COMP	310	Beuning, P.J.	BIOL	182
Bentley, W.E.	BIOL	159	Bernales Candia, S.	INOR	728	Beuning, P.J.	TOXI	16
Bentley, W.E.	ENVR	300	Bernales Candia, S.	PHYS	228	Beutler, J.A.	ORGN	407
Benton, M.	COMP	234	Bernard, C.	AGRO	235	Beutner, G.	ORGN	521
Bentz, K.C.	PMSE	274	Bernard, D.	MEDI	323	Bevan, M.A.	COLL	427
Bentz, N.	CHED	262	Bernard, C.R.	AGRO	240	Bevan, M.A.	COLL	470
Bentzel, T.C.	CHED	283	Bernart, M.	AGFD	194	Beverly, B.	CINF	28
Benvenuto, M.A.	ENVR	368	Bernhard, F.	PHYS	246	Bewley, C.A.	BIOL	114
Benyamin, M.	ENFL	157	Bernhardson, D.	ORGN	625	Bewley, C.A.	MEDI	309
Benyamin, M.	ENVR	254	Bernier, U.R.	AGRO	104	Bewley, C.A.	ORGN	400
Benz, L.B.	COLL	259	Bernier, U.R.	AGRO	112	Beydoun, N.	INOR	846
Benz, L.B.	COLL	272	Bernier, U.R.	AGRO	309	Beyene, S.	POLY	633
Benza, D.	ANYL	208	Bernier, W.E.	INOR	675	Beyer, F.L.	POLY	83
Bera, P.	PHYS	156	Bernier, W.E.	PMSE	616	Beyer, F.L.	POLY	642
Bera, P.	PHYS	157	Bernier, W.E.	POLY	735	Beylkin, D.	MEDI	273
Bera, P.	PHYS	158	Bernstein, J.	PHYS	7	Bezgin Carbas, B.	POLY	460
Bera, I.	COMP	151	Bernstein, N.	PMSE	96	Bezpalko, M.	INOR	562
Berardi, A.J.	COLL	176	Bernstein, N.	PMSE	141	Bezpalko, M.	INOR	567
Beratan, D.N.	INOR	113	Bernstein, P.R.	MEDI	205	Bezpalko, M.	INOR	568
Berberan-Santos, M.B.	INOR	177	Berquist, E.	PHYS	161	Bhadra, M.	INOR	713
Berberan-Santos, M.B.	INOR	178	Berquist, E.	PHYS	274	Bhagat, D.	INOR	616
Berberich, J.	ENVR	250	Berrie, B.H.	ANYL	224	Bhagat, D.	INOR	617
Berberich, J.	PMSE	348	Berrie, B.H.	ANYL	255	Bhagi, A.	INOR	363

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Bhagwagar, M.	ENVR	368	Bienfait, B.	CINF	34	Blair, I.A.	TOXI	48
Bhagwandin, D.	INOR	599	Biermann, B.C.	INOR	570	Blair, I.A.	TOXI	75
Bhakta, S.	MEDI	332	Biewer, M.C.	POLY	237	Blair, T.	AGFD	22
Bhakta, R.	BIOL	120	Biewer, M.C.	POLY	736	Blais, J.	MEDI	250
Bhakta, T.	AGRO	252	Bifulco, G.	ORGN	400	Blake, G.A.	PHYS	260
Bhan, A.	CATL	75	Bigley, A.N.	PHYS	43	Blakeley-Smith, M.	AGRO	281
Bhandari, S.D.	AGFD	188	Bigley Iii, E.	AGFD	228	Blanazs, A.	POLY	367
Bharadwaj, D.	AGFD	162	Bignan, G.	MEDI	279	Blancafort, P.	PMSE	561
Bharadwaj, V.S.	CELL	16	Bijelic, J.	INOR	524	Blancher, D.	AGRO	355
Bharadwaj, V.S.	COMP	217	Bilal, M.	CINF	96	Blanchfield, S.	AGRO	273
Bharali, D.J.	MEDI	342	Bilic, O.	POLY	516	Blanco, M.J.	IAC	5
Bharti, N.	CHAS	27	Bill, E.	INOR	347	Blanco-Fernandez, B.	INOR	474
Bhatia, H.	ANYL	187	Bill, E.	INOR	690	Blanden, M.J.	BIOL	145
Bhatt, A.	MEDI	112	Billen, D.	ORGN	390	Blanke, G.	CINF	11
Bhatt, A.	MEDI	148	Billeter, E.	ENFL	243	Blanke, G.	CINF	15
Bhatta, V.	MEDI	354	Billeter, E.	ENFL	478	Blankenship, J.	NUCL	86
Bhattacharya, P.	INOR	233	Billings, H.M.	ANYL	62	Blankschtein, D.	COLL	471
Bhattacharya, A.	COLL	358	Billon, C.	MEDI	146	Blanquart, G.	PHYS	129
Bhattacharya, C.	CHED	67	Billow, B.	INOR	10	Blasi, P.	CINF	92
Bhattacharya, P.	ENFL	60	Bim, D.	INOR	86	Blasiole, A.	ANYL	174
Bhattacharya, S.K.	MEDI	63	Binder, A.J.	CATL	402	Blass, B.E.	MEDI	313
Bhattacharyya, D.	ENVR	282	Binder, W.H.	PMSE	9	Blaum, B.S.	CARB	77
Bhattacharyya, D.	ENVR	283	Bindon, K.	AGFD	24	Blayney, M.	PRES	13
Bhattarai, B.T.	ORGN	551	Bindon, K.	AGFD	27	Blazenović, I.	AGRO	228
Bhattarai, N.	ANYL	285	Biner, D.	COMP	263	Blecking, A.	CHED	98
Bhatti, I.A.	PHYS	301	Bingham, L.M.	COLL	118	Blecking, A.	CHED	318
Bhaumik, M.	ANYL	55	Binks, B.	COLL	387	Bleich, A.	ENVR	512
Bhethanabotla, V.	ENFL	28	Bird, L.	ENVR	535	Bleiholder, C.	PHYS	321
Bhosale, P.	INOR	505	Bird, R.G.	PHYS	346	Blench, T.	MEDI	103
Bhoyate, S.	ENFL	201	Bireley, R.	AGRO	189	Blenner, M.A.	POLY	684
Bhoyate, S.	ENFL	381	Biria, S.	PMSE	349	Blincoe, W.	ANYL	139
Bhuiyan, N.H.	MEDI	301	Birnbaum, E.R.	NUCL	1	Blinov, K.	CINF	101
Bhunia, A.	AEI	1	Birnbaum, E.R.	NUCL	47	Bloch, E.D.	INOR	149
Bhutani, U.	PMSE	462	Biros, S.M.	CHED	70	Bloch, E.D.	INOR	187
Bhuvanesh, N.	INOR	159	Biros, S.M.	INOR	644	Bloch, E.D.	INOR	250
Bhyrapuneni, G.	MEDI	94	Biros, S.M.	INOR	809	Bloch, E.D.	INOR	569
Bhyrapuneni, G.	MEDI	354	Birschbach, M.	POLY	466	Bloch, E.D.	INOR	628
Bi, J.	ORGN	408	Birschbach, M.	POLY	732	Bloch, E.D.	INOR	754
Bi, L.	MEDI	187	Bisbey, R.P.	POLY	742	Block, D.E.	AGFD	22
Bi, L.	MEDI	199	Bischof, T.	COLL	572	Block, M.	NUCL	46
Bi, L.	MEDI	291	Bishai, W.	MEDI	41	Block, M.	NUCL	48
Bi, S.	POLY	58	Bishop, B.	BIOL	24	Block, M.	NUCL	49
Bi, T.	PHYS	215	Bishop, B.	BIOL	99	Bloino, J.	COMP	331
Bi, X.	ENVR	267	Bishop, B.	COLL	166	Bloino, J.	PHYS	513
Bi, X.	ENVR	410	Bishop, B.	ORGN	256	Bloino, J.	PHYS	520
Bi, X.	ORGN	412	Bishop, J.	CINF	119	Blokland, M.H.	AGRO	84
Bi, Y.	COMP	15	Bishop, K.J.	COLL	312	Bloom, M.S.	ANYL	276
Bi, Y.	ENVR	40	Bishop, L.	INOR	934	Bloomfield, A.	CATL	82
Biacchi, A.J.	COLL	587	Bissantz, C.	MEDI	256	Bloomfield, A.	INOR	110
Bian, H.	MEDI	254	Bissell, K.	AGRO	20	Bloomquist, J.R.	AGRO	101
Bian, K.	TOXI	63	Biswal, S.L.	COLL	392	Bloomquist, J.R.	AGRO	104
Bian, K.	TOXI	64	Biswas, A.	PMSE	350	Bloomquist, J.R.	AGRO	107
Bian, K.	TOXI	70	Biswas, P.	CATL	404	Bloomquist, J.R.	AGRO	111
Bianchet, M.	MEDI	183	Biswas, P.	COMP	17	Bloomquist, J.R.	AGRO	138
Bianciotto, M.	COMP	63	Biswas, P.	INOR	843	Bloomquist, J.R.	AGRO	203
Bianco, K.E.	CHAL	3	Biswas, P.	POLY	142	Bloomquist, J.R.	AGRO	204
Bianco, K.E.	CHAL	6	Biswas, R.	NUCL	5	Bloomquist, J.R.	AGRO	294
Bianco, K.E.	CHAL	12	Biswas, R.	NUCL	78	Bloomquist, J.R.	AGRO	306
Bichler, P.	MEDI	252	Biswas, S.	AGRO	80	Bloomquist, J.R.	AGRO	309
Bichler, P.	MEDI	253	Biswas, S.	INOR	202	Blough, R.T.	CHED	265
Bickel, E.E.	CATL	125	Biswas, S.	ORGN	261	Blount, B.	ANYL	102
Bickelhaupt, F.	ORGN	222	Bitar, A.	COLL	292	Blount, B.	ANYL	175
Bickelhaupt, F.	PHYS	310	Bitz, E.	MEDI	137	Blount, J.	CHAS	36
Bickler, J.R.	MEDI	55	Bitz, E.	MEDI	139	Bluemel, J.	ORGN	685
Bickler, J.R.	MEDI	56	Biyklı, N.	PMSE	21	Bluhm, H.	COLL	537
Bickler, J.R.	ORGN	171	Bizeau, J.	POLY	773	Bluhm, H.	COLL	588
Biczysko, M.	PHYS	513	Bjerkfeldt, E.	CATL	422	Bluhm, L.	AGRO	168
Biczysko, M.	PHYS	520	Black, B.	CHED	222	Blum, D.	CHED	24
Biddinger, E.J.	ENFL	122	Black, I.	CHED	372	Blum, F.D.	POLY	219
Biddle, W.	ENVR	532	Blackburn, J.	ENFL	259	Blume, R.	CATL	116
Biddy, M.	CATL	7	Blackmond, D.G.	MPPG	26	Blumenfeld, A.	INOR	448
Biddy, M.	ENFL	106	Blackshaw, K.J.	PHYS	571	Blumenfeld, C.	PMSE	560
Bidne, K.	AGRO	302	Blackstock, S.C.	CATL	485	Blunt, N.S.	PHYS	232
Biederman, M.	COMP	250	Blackwell, S.	CHED	13	Blythe, A.J.	COLL	488
Biederman, M.	COMP	282	Blackwell, T.	TOXI	73	Bo, S.	ENFL	261
Bielawski, C.	POLY	303	Blagbrough, I.S.	ANYL	354	Boatz, J.A.	POLY	521
Bielenberg, J.	CATL	199	Blair, I.	TOXI	47	Boaz, N.	CATL	196
Bielski, R.	CARB	44	Blair, I.A.	TOXI	9	Boaz, N.	INOR	15
Biemans, B.	MEDI	256	Blair, I.A.	TOXI	10	Bobach, C.	CINF	87
Biener, J.	PMSE	122	Blair, I.A.	TOXI	44	Bobade, S.	POLY	746

Bobb, J.	PHYS	453	Bonavolonta, F.	PMSE	665	Bossmann, S.H.	COLL	147
Bobb, J.	PHYS	490	Boncella, J.M.	INOR	468	Bossmann, S.H.	INOR	836
Bobba, P.	CATL	360	Bond, C.S.	COLL	488	Bosson, J.	PMSE	224
Bobyk, K.	MEDI	309	Bondarenko, S.V.	AGRO	193	Bost, R.	ENVR	518
Boca, M.	INOR	525	Bondy, A.	ANYL	386	Bostick, B.C.	ENVR	284
Bocharova, V.	PMSE	598	Bondy, A.	ENVR	237	Bostick, B.C.	ENVR	285
Bock, D.C.	INOR	513	Bonetti, C.	AGRO	297	Boström, D.	ENFL	23
Bockman, M.	MEDI	325	Bonin, A.	MEDI	59	Boström, D.	ENFL	24
Bockstaller, M.R.	COLL	425	Bonitatibus, S.C.	CHED	235	Boström, D.	ENFL	25
Bockstaller, M.R.	POLY	378	Bonitatibus, S.C.	INOR	924	Botello-Smith, W.M.	COMP	102
Bockstaller, M.R.	POLY	390	Bonk, P.J.	SCHB	21	Bothe, U.	MEDI	266
Bockstaller, M.R.	POLY	394	Bonn, M.	PHYS	516	Bothner, B.	CATL	224
Bockstaller, M.R.	POLY	698	Bonnaillie, L.	POLY	755	Bothun, G.D.	COLL	361
Bode, S.	PMSE	8	Bonneau, R.A.	COMP	276	Bothun, G.D.	COLL	363
Bode, S.	POLY	206	Bonnel, I.A.	PHYS	541	Botka, G.	CINF	89
Bode, S.	POLY	258	Bonnell, M.	ENVR	350	Botlani, M.	COMP	391
Bode, S.	POLY	340	Bonney, N.T.	ORGN	610	Bou-Abdallah, F.	BIOL	152
Bode, S.	POLY	527	Bonnot, L.	POLY	138	Bouch, V.	ORGN	572
Boden, S.	PMSE	577	Bono, L.	COMP	340	Bouchard, D.C.	ENVR	411
Bodenreider, C.	ENVR	55	Bonser, S.M.	CHED	284	Boucher, D.S.	COLL	517
Bodenreider, C.	ENVR	469	Booksh, K.S.	AEI	5	Boucher, D.S.	COLL	519
Bodenreider, C.	ENVR	473	Booksh, K.S.	ANYL	322	Boucher, D.G.	INOR	619
Bodenschatz, C.	ENVR	130	Boon, E.M.	CHED	171	Boucher, M.C.	ANYL	359
Bodner, G.M.	CHED	48	Boontongto, T.	AGRO	344	Boucher, M.A.	SOCED	3
Bodner, G.M.	ENVR	184	Booth, C.	NUCL	54	Bouckaert, J.	CARB	16
Bodor, A.	POLY	551	Boothby, J.	POLY	541	Boudouris, B.W.	ENVR	216
Boecker, J.	ENVR	208	Boothby, J.	POLY	543	Boudouris, B.W.	PMSE	443
Boehm, S.J.	COLL	232	Boothby, J.	POLY	576	Boudreaux, R.L.	ENFL	321
Boehringler, T.	I&EC	43	Boothroyd, S.	COMP	400	Boudreaux, R.L.	ENFL	325
Boelke, C.L.	INOR	191	Booysen, L.	COMP	257	Bouges, H.	AGFD	267
Boer, R.	MEDI	69	Bopp, C.	MEDI	225	Boul, P.	ENFL	369
Boer, R.E.	ORGN	394	Bopp, R.C.	POLY	756	Boulais, M.	ENVR	482
Boecker, J.E.	COLL	563	Boralugodage, N.	CATL	268	Boulesbaa, A.	ENFL	361
Boerman, M.	POLY	167	Borbon, A.P.	COLL	418	Bouley, R.	MEDI	227
Boerner, H.	POLY	188	Borca, C.H.	COMP	244	Boulton, R.	AGFD	209
Boerner, H.	POLY	421	Borch, T.	ENVR	121	Bouquillon, S.	COMP	174
Boes, K.	ENFL	254	Borchardt, R.	CINF	75	Bour, W.	POLY	773
Bogalhas, M.	MEDI	157	Bordi, S.	ORGN	619	Bourgeois, D.	I&EC	4
Bogan, L.	CATL	59	Borean, M.	I&EC	6	Bourin, C.	MEDI	358
Bogaraju, N.	MEDI	355	Boreriboon, N.	ENFL	7	Boury, S.	INOR	280
Bogart, J.	I&EC	6	Boresch, S.	COMP	123	Bouthillette, L.M.	CHED	35
Bogart, R.	CHED	198	Borg, R.E.	ORGN	217	Bouwer, E.J.	ENVR	200
Bohaty, R.F.	AGRO	152	Borgert, C.J.	AGRO	404	Bouwer, E.J.	ENVR	344
Bohaty, R.F.	AGRO	221	Borgert, C.J.	ANYL	24	Bou Zerdan, R.	POLY	233
Bohaty, R.F.	AGRO	286	Borges, R.	AGRO	240	Bové, H.	COLL	110
Bohmann, J.A.	ENVR	296	Borguet, E.	CATL	131	Bowden, M.	ENFL	136
Böhmer, V.	POLY	189	Borguet, E.	COLL	247	Bowen, A.	PMSE	119
Bohn, L.M.	MEDI	6	Borguet, E.	COLL	401	Bowen, A.	CARB	75
Bohn, P.W.	ANYL	266	Borguet, E.	COLL	602	Bowen, J.P.	MEDI	305
Bohn-Gettler, C.	CHED	327	Borguet, E.	PHYS	236	Bowen, K.H.	INOR	545
Bohre, A.	CATL	445	Borguet, E.	PHYS	532	Bowen, K.H.	INOR	735
Boigenzahn, H.	PMSE	262	Borguet, Y.	POLY	261	Bowen, K.H.	PHYS	585
Boije Af Gennas, G.	CINF	138	Borkovec, M.	POLY	207	Bowen, R.	TOXI	15
Bojja, K.	MEDI	95	Bornstein, J.	POLY	187	Bowers, G.M.	CHED	217
Bojja, K.	MEDI	354	Borodina, Y.	CINF	44	Bowers, L.	AGRO	291
Bok, F.	NUCL	2	Borodina, Y.	CINF	47	Bowker, M.	CATL	211
Bokesch, H.R.	ORGN	26	Borodinov, N.	PMSE	408	Bowles, I.	BIOL	108
Boles, G.C.	PHYS	371	Borodinov, N.	PMSE	530	Bowman, C.	PMSE	127
Bolinger, J.	MEDI	83	Borovik, A.	CATL	265	Bowman, C.	PMSE	244
Boltalina, O.V.	ORGN	428	Borovik, A.	INOR	421	Bowman, C.	PMSE	345
Boltersdorf, J.	INOR	245	Borovilas, J.	CHED	231	Bowman, C.	POLY	361
Boltersdorf, J.	INOR	473	Borovilas, J.	I&EC	62	Bowman, C.	POLY	364
Boltoeva, M.	NUCL	11	Borrecho, G.	CARB	28	Bowman, C.	POLY	372
Bolton, E.	CHAS	34	Borrel, A.	CINF	138	Bowman, C.	POLY	549
Bolton, E.	CHED	345	Borrel, A.	COMP	253	Bowman, C.	POLY	652
Bolton, E.	CINF	1	Bortner, M.J.	CELL	8	Bowman, C.	CHED	68
Bolton, E.	CINF	45	Borysko, P.	MEDI	357	Bowman, M.	CARB	50
Bolton, E.	CINF	108	Borzilleri, K.A.	MEDI	63	Bowser, B.	COLL	288
Bolton, E.	CINF	112	Borzilleri, K.A.	MEDI	258	Bowser, B.	INOR	129
Bolton, E.	CINF	136	Borzilleri, R.M.	MEDI	147	Bowsher, M.S.	MEDI	269
Bolton, E.	COMP	115	Boschert, D.	COLL	355	Bowsher, M.S.	MEDI	365
Bolton, J.L.	TOXI	25	Boscoboinik, J.A.	COLL	592	Boxer, S.G.	PHYS	46
Bolze, J.	ORGN	157	Bose, A.	COLL	55	Boy, K.M.	MEDI	269
Boman, C.	ENFL	23	Bose, A.	COLL	361	Boyd, A.T.	POLY	489
Boman, C.	ENFL	24	Boshoff, H.I.	MEDI	154	Boyd, D.A.	COLL	526
Bomke, J.	COMP	63	Boshoff, H.I.	MEDI	184	Boyd, D.A.	POLY	748
Bommakanti, S.	I&EC	60	Boshoff, H.I.	MEDI	324	Boyd, J.W.	ANYL	15
Bommarius, A.S.	POLY	709	Bosio, A.	POLY	60	Boyd, J.W.	TOXI	76
Bonacorsi, S.	MEDI	269	Bosma, W.	AGFD	45	Boyd, K.J.	COMP	168
Bonaventure, P.	MEDI	211	Boss, P.	AGFD	27	Boyd, L.	CHED	194

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Boyd, L.	CHED	195	Brekalo, I.	ORGN	682	Bronstein, L.	COLL	231
Boyde, N.C.	CHED	236	Bremner-Hay, N.	ORGN	653	Bronstein, L.	COLL	236
Boydston, A.	PMSE	436	Brendler, V.	NUCL	2	Bronstein, L.	ENFL	295
Boydston, A.	POLY	31	Brennan, C.B.	CHED	156	Brook, C.P.	ORGN	428
Boydston, A.J.	PMSE	52	Brennan, C.B.	CHED	159	Brookhart, M.	INOR	326
Boyer, C.	POLY	42	Brennan, J.	INOR	811	Brookhart, M.	POLY	662
Boyer, C.	POLY	66	Brennan, R.	AEI	35	Brooks, A.	COLL	312
Boyer, C.	POLY	416	Brennan, R.	ENVR	204	Brooks, A.	PHYS	493
Boyer, C.	POLY	418	Brennessel, W.	INOR	230	Brooks, B.	COMP	152
Boyer, H.	PHYS	122	Brennessel, W.	INOR	445	Brooks, B.	COMP	311
Boyer, S.M.	PMSE	616	Brent, C.	ENVR	232	Brooks, B.	COMP	315
Boyle, D.T.	COLL	136	Brent, C.	ENVR	417	Brooks, B.	COMP	380
Boyle, D.T.	COLL	151	Brereton, K.R.	INOR	109	Brooks, B.	COMP	387
Boyle, D.T.	COLL	284	Brereton, K.R.	INOR	214	Brooks, B.	COMP	390
Boyle, K.	INOR	958	Brereton, K.R.	INOR	390	Brooks, M.	ENVR	152
Boyle, T.J.	INOR	343	Brereton, K.R.	INOR	608	Brooks, M.	ENVR	563
Boysen, G.	TOXI	72	Breshears, M.	BIOL	27	Brooks, S.	POLY	627
Bozarth, J.M.	MEDI	308	Bret, G.	CINF	133	Brooks, S.	ANYL	350
Bracey, S.M.	BIOL	81	Bretz, S.	CHED	96	Brooks, C.L.	COMP	78
Bracken, C.	BIOL	187	Bretz, S.	CHED	97	Brooks, C.L.	COMP	89
Brackett, R.	AGRO	360	Breuer, A.	COMP	402	Brooks, C.L.	COMP	113
Bradbury, S.	AGRO	302	Breuer, R.	AGRO	157	Brooks, C.L.	COMP	355
Bradbury, S.	AGRO	358	Breuillac, A.	PMSE	512	Brorsen, K.	AEI	74
Braden, T.	ORGN	471	Brevet, P.	I&EC	16	Brorsen, K.	PHYS	184
Bradley, C.A.	POLY	110	Brewer, L.	AGRO	187	Brorson, K.A.	ANYL	187
Bradley, V.C.	CHED	158	Brewster, R.	CHED	218	Brorson, M.	CATL	206
Brady, A.	ENFL	482	Brewster, T.	INOR	499	Broscha, E.L.	CATL	348
Brady, K.	ORGN	448	Brewster, T.	INOR	500	Brostoff, L.	ANYL	27
Brady, P.	GEOC	8	Brewster, T.P.	INOR	602	Brostoff, L.	ANYL	253
Braese, S.	PMSE	26	Breyta, C.	CHED	223	Brostoff, L.	CHED	1
Bragg, D.T.	PMSE	382	Brezinski, W.	POLY	273	Broström, M.	ENFL	23
Braide, O.	PHYS	580	Brezny, A.C.	ORGN	197	Broström, M.	ENFL	24
Brain, D.	POLY	681	Briceno, A.	CHED	197	Brothers, E.N.	INOR	678
Brain, R.A.	AGRO	178	Brichacek, M.	CARB	42	Brothers, R.C.	MEDI	154
Brain, R.A.	AGRO	253	Brichacek, M.	ORGN	435	Brothers, R.C.	MEDI	163
Brakestad, A.	PHYS	276	Bricker, L.	CHED	55	Brothers, R.C.	MEDI	184
Brale, J.	I&EC	3	Bridges, C.A.	CATL	430	Brower, L.	COLL	287
Brale, J.	NUCL	60	Bridges, T.M.	MEDI	75	Brower, L.	COLL	288
Bram, S.	COLL	231	Briere, C.	ENVR	313	Brower, L.	INOR	129
Bramante, J.	SCHB	36	Briere, C.	ENVR	317	Brown, J.	CATL	413
Brame, J.	CATL	13	Briggs, M.E.	COLL	82	Brown, A.	COLL	255
Branch, F.	ENVR	307	Briggs, N.	CATL	165	Brown, A.	ORGN	416
Brandes, A.	CHAS	45	Briggs, N.	ENVR	127	Brown, A.	POLY	585
Brandl, F.P.	PMSE	365	Bright, M.	ORGN	646	Brown, A.	AGRO	388
Brandner, D.	CATL	7	Brigmon, R.	ENFL	272	Brown, A.	COLL	100
Brandvold, K.	ORGN	389	Brignole, E.J.	BIOL	33	Brown, A.E.	AGFD	236
Brandvold, K.	ORGN	395	Brik, A.	ORGN	70	Brown, A.E.	AGRO	339
Brandy, N.Z.	MEDI	312	Brill, J.	AGRO	241	Brown, C.	INOR	764
Branon, T.	BIOL	5	Brillas, E.	ENVR	65	Brown, C.	COLL	449
Brasacchio, A.M.	INOR	609	Brimble, M.	AEI	69	Brown, C.	AGRO	40
Bratko, D.	PHYS	528	Brimble, M.	ORGN	655	Brown, C.M.	INOR	395
Bratton, A.	POLY	116	Brindle, C.	ORGN	330	Brown, C.	AGRO	407
Braun, M.	MEDI	22	Brinker, C.	COLL	27	Brown, C.M.	INOR	149
Braun, M.	MEDI	103	Brinker, C.	COLL	14	Brown, C.M.	INOR	754
Braun, P.V.	ENFL	118	Brinker, C.	COLL	30	Brown, D.	COMP	263
Braun, P.V.	PMSE	300	Brinkmeyer, R.	AGRO	296	Brown, D.G.	MEDI	8
Braun, P.V.	POLY	479	Brintlinger, T.	COLL	563	Brown, D.	ENVR	295
Braun, T.	CHED	363	Briot, N.	ENVR	283	Brown, D.	ENVR	565
Braunecker, W.A.	ORGN	428	Brisdon, A.K.	INOR	759	Brown, E.	CHED	32
Braunschweig, A.B.	ORGN	480	Briseno, A.L.	ORGN	223	Brown, E.	CHED	31
Bravaya, K.B.	PHYS	488	Briseno, A.L.	ORGN	290	Brown, F.	ENVR	40
Braverman, M.P.	AGRO	1	Briseno, A.L.	POLY	734	Brown, G.A.	MEDI	8
Brawand, N.	COLL	382	Bristow, L.	MEDI	358	Brown, G.A.	MEDI	244
Braxton, C.	BIOL	112	Brites, M.	INOR	177	Brown, G.G.	PHYS	374
Braziel, S.	CHED	185	Brits, S.	PMSE	568	Brown, K.	CHAS	39
Brea Fernandez, R.	COLL	359	Britt, P.F.	ENFL	173	Brown, K.	CHAS	45
Breaux, N.	ORGN	472	Brletic, P.A.	CHED	134	Brown, K.	ENVR	325
Brechin, E.K.	INOR	930	Brletic, P.A.	CHED	135	Brown, L.	ENVR	314
Bredas, J.E.	ORGN	223	Brletic, P.A.	CHED	136	Brown, L.	PHYS	384
Bredas, J.E.	POLY	734	Brletic, P.A.	CHED	214	Brown, L.	MEDI	225
Bredas, J.E.	POLY	737	Brockman, J.D.	NUCL	77	Brown, L.	YCC	19
Bredenkamp, S.E.	ORGN	612	Brockman, M.A.	ORGN	386	Brown, L.J.	AEI	67
Breedveld, V.	ANYL	25	Brodeur-Campbell, M.	ENFL	274	Brown, L.J.	ORGN	226
Breffke, J.	ANYL	387	Brodney, M.A.	MEDI	246	Brown, M.	ENVR	292
Breffke, J.	PROF	7	Brodsky, C.	INOR	315	Brown, M.D.	ANYL	229
Bregadiolli, B.A.	ORGN	432	Broer, D.	POLY	652	Brown, M.K.	ORGN	358
Breger, J.	COLL	449	Broere, D.	INOR	347	Brown, P.A.	COLL	385
Bregman, J.D.	PHYS	543	Bromberg, Y.	PHYS	93	Brown, P.	POLY	450
Breitenbach, B.	COLL	569	Bromby, P.L.	POLY	489	Brown, R.P.	COLL	585
Breitzman, T.	POLY	30	Bronson, J.J.	MEDI	358	Brown, R.C.	CATL	364

Brown, R.	ANYL	250	Bryson, S.	MEDI	108	Burdynska, J.	POLY	384
Brown, S.P.	MEDI	198	Bu, L.	CATL	190	Burgeson, S.	ORGN	170
Brown, S.	ANYL	99	Bu, L.	ENFL	112	Burgey, C.S.	MEDI	192
Brown, T.L.	COLL	100	Bu, L.	ENFL	397	Burghardt, W.	PMSE	294
Brown, T.	PMSE	4	Buback, M.J.	POLY	2	Burgos, W.D.	GEOC	16
Browning, J.	PHYS	327	Buban, M.	AGRO	348	Burke, J.	POLY	489
Browning, L.	CHED	340	Bubenheim, D.	AGRO	160	Burke, J.R.	MEDI	7
Browning, N.	INOR	127	Bubenheim, D.	AGRO	164	Burke, R.P.	BIOL	126
Brownmiller, C.	AGFD	232	Buchan, Z.	AGRO	135	Burke, T.R.	MEDI	116
Brown-Xu, S.E.	INOR	117	Buchanan, R.M.	INOR	888	Burke, T.R.	MEDI	117
Broyde, S.	TOXI	46	Buchanan, R.M.	INOR	894	Burke, T.R.	MEDI	118
Bruce, J.	COLL	478	Buchecker, T.	COLL	608	Burke, T.R.	MEDI	228
Bruce, R.C.	ORGN	542	Buchek, K.	AGRO	57	Burkhardt, A.	COLL	450
Bruch, Q.J.	INOR	425	Bucher, C.	INOR	46	Burkholder, M.	ORGN	133
Bruch, Q.J.	INOR	612	Buchholz, L.	AGRO	194	Burley, S.	CHED	193
Bruch, Q.J.	INOR	928	Buchholz, M.	MEDI	181	Burli, R.	MEDI	8
Bruckner, C.	AEI	44	Bucholtz, E.C.	CHED	401	Burn, K.	COLL	621
Bruckner, C.	INOR	862	Buchstaller, H.	ORGN	622	Burnie, A.	ORGN	235
Brucoli, F.	MEDI	332	Buck, E.	NUCL	67	Burns, A.C.	ORGN	66
Brudno, Y.	COLL	548	Buck, M.E.	PMSE	541	Burns, A.J.	AGRO	121
Brudvig, G.W.	CATL	422	Budd, R.	AGRO	159	Burns, C.	AGRO	119
Brudvig, G.W.	INOR	581	Budhathoki-Uprety, J.	COLL	514	Burns, C.J.	AGRO	121
Brudvig, G.W.	INOR	679	Budhathoki-Uprety, J.	PMSE	88	Burns, C.J.	AGRO	122
Brudvig, G.W.	INOR	680	Budhathoki-Uprety, J.	POLY	236	Burns, C.	INOR	516
Brugh, M.	NUCL	1	Budisulistiorini, S.	ENVR	189	Burns, N.Z.	ORGN	550
Bruix, A.	CATL	92	Budzalek, K.	POLY	695	Burns, N.Z.	POLY	214
Bruix, A.	COMP	147	Buehler, M.J.	COLL	460	Burns, P.C.	NUCL	73
Brumfield, J.T.	CHED	289	Buehler, M.J.	PMSE	257	Burns, P.C.	NUCL	75
Brumlik, C.	POLY	377	Buehler, M.	AGFD	213	Burns, P.C.	NUCL	76
Brummond, K.M.	ORGN	515	Buer, B.	MEDI	185	Burr, N.A.	ORGN	632
Brunauer, L.S.	CHED	80	Bueschl, C.	AGFD	208	Burris, D.	PMSE	226
Bruneau, C.	CATL	181	Buffo, C.	PHYS	102	Burris, T.P.	MEDI	146
Brunelle, E.	ANYL	70	Bugarin, A.	PMSE	231	Burroughs, J.	POLY	543
Brunelle, E.	ANYL	71	Bui, T.	PHYS	397	Burroughs, J.J.	POLY	541
Brunelle, E.	ANYL	77	Bui, T.H.	ENVR	167	Burrows, A.	PHYS	545
Brunelle, E.	ANYL	78	Buist, N.	MEDI	225	Burrows, C.J.	ANYL	368
Brunelle, E.	ANYL	169	Bukhari, H.	CHED	195	Burrows, C.J.	ANYL	421
Brunelle, L.D.	ANYL	159	Bukowski, B.	ENFL	171	Burrows, M.	PHYS	488
Brunelli, N.A.	ENFL	75	Bulavin, L.	COLL	428	Burrows, N.D.	COLL	426
Bruno, I.	CINF	16	Bulger, P.	ORGN	256	Burrows, S.	ANYL	390
Bruno, J.G.	MEDI	192	Bullock, J.	INOR	886	Burrows, S.M.	ENVR	531
Brunold, T.C.	INOR	27	Bullock, R.	ENFL	59	Burton, C.A.	SCHB	2
Bruns, N.	POLY	91	Bullock, R.	INOR	133	Burton, C.A.	SCHB	7
Bruns, N.	POLY	185	Bullock, R.	INOR	233	Burton, F.	ENFL	277
Bruns, N.	POLY	201	Bullock, R.	INOR	670	Burton-Pye, B.P.	ENVR	232
Bruns, N.	POLY	538	Bulluck, J.	AGRO	21	Burtovvy, R.	PMSE	530
Bruns, N.	POLY	557	Bulumulla, C.	POLY	237	Burzynski, E.A.	AGFD	68
Bruns, O.	COLL	572	Bulumulla, C.	POLY	736	Burzynski, E.A.	CHED	28
Brunschweiler, A.	MEDI	216	Bulut, A.	COLL	209	Busemann, M.	MEDI	266
Brunschwig, B.S.	COLL	541	Buma, W.J.	PHYS	4	Buser, M.D.	AGRO	115
Brunschwig, B.S.	INOR	920	Buma, W.J.	PHYS	6	Buser, M.D.	AGRO	347
Brunsen, A.	BIOL	174	Buma, W.J.	PHYS	475	Bush, M.F.	ANYL	269
Brus, J.	POLY	305	Bump, C.M.	CHED	343	Bush, M.F.	PHYS	322
Brus, L.E.	PHYS	48	Bunagan, M.R.	PHYS	458	Bushey, M.	INOR	132
Brush, E.J.	CHED	357	Bunagan, M.R.	PHYS	464	Buslov, I.	ORGN	72
Brustad, E.M.	ORGN	294	Bunce, D.M.	CHED	99	Busse, L.E.	COLL	526
Brutman, J.	PMSE	246	Bunce, D.M.	CHED	406	Bussiere, D.	MEDI	10
Bruzas, I.	COLL	36	Bunck, D.N.	CHED	192	Butcher, R.	CATL	320
Bruzas, I.	COLL	42	Bunck, D.N.	POLY	738	Butcher, R.	INOR	341
Bruzas, I.	COLL	152	Bunel, E.	INOR	388	Butler, C.	MEDI	246
Bruzas, I.	COLL	270	Bungard, C.J.	MEDI	164	Butler, I.S.	COMP	287
Bruzas, I.	COLL	447	Bunin, B.A.	CINF	114	Butler, I.S.	INOR	689
Bryan, B.J.	GEOC	32	Bunker, K.D.	INOR	726	Butler, J.	ENVR	441
Bryan, R.S.	PMSE	368	Bunning, T.J.	POLY	170	Butler, K.E.	CHED	376
Bryant, J.L.	ENFL	320	Bunning, T.	PMSE	86	Butler, K.	COLL	14
Bryant, J.L.	ENFL	325	Bunrit, A.	ORGN	261	Butler, K.	COLL	27
Bryant, J.L.	PROF	13	Bunrit, A.	ORGN	486	Butler, N.	POLY	251
Bryant, J.L.	YCC	9	Bunz, U.	POLY	653	Butler, S.E.	AGFD	49
Bryant, S.J.	PMSE	345	Burakham, R.	AGRO	344	Butler, T.	ORGN	439
Bryant, S.H.	CHED	345	Burch, C.P.	CHED	59	Butler, J.	MEDI	275
Bryant, S.H.	CINF	36	Burch, J.	CARB	6	Butman, H.	MEDI	163
Bryant, V.C.	CHED	67	Burden, F.R.	CINF	100	Butt, H.	COLL	56
Bryant-Friedrich, A.C.	MEDI	130	Burdette, J.E.	MEDI	295	Butt, H.	POLY	95
Bryant-Friedrich, A.C.	MEDI	350	Burdette, M.K.	COLL	613	Butterfoss, G.L.	POLY	75
Bryant-Friedrich, A.C.	MEDI	351	Burdette, M.K.	INOR	919	Butts, S.B.	YCC	23
Bryant-Friedrich, A.C.	TOXI	19	Burdick, J.A.	CHED	333	Butun, V.	COLL	205
Bryant-Friedrich, A.C.	TOXI	84	Burdick, J.A.	PMSE	184	Buyanova, I.A.	INOR	666
Bryantsev, V.	I&EC	18	Burdick, M.	MEDI	80	Buynak, J.D.	MEDI	328
Bryantsev, V.	I&EC	19	Burdick, R.	INOR	208	Buysse, A.	AGRO	385
Bryce, D.	ANYL	111	Burdsall, A.	ENVR	79	Buysse, A.	ORGN	472

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Buyukserin, F.	BIOL	176	Calvo, D.	ENVR	538	Cantu, D.	ENVR	94
Buzitis, N.	CHED	300	Camacho, I.	ENVR	307	Cantu, D.	PHYS	265
Buzon, L.	ORGN	469	Camacho-Forero, L.E.	CATL	232	Cantu, D.C.	ENFL	139
Bwanali, L.	ANYL	413	Camacho-Forero, L.E.	CATL	274	Canturk, B.	ORGN	523
Bwanali, L.	ANYL	417	Camaioni, D.M.	INOR	292	Canuti, V.	AGFD	93
Bwanali, L.	ANYL	418	Camaleño de la Calle, A.	COLL	350	Cao, A.	ENFL	263
Bwanali, L.	ANYL	416	Camaleño de la Calle, A.	PMSE	577	Cao, B.	POLY	31
Byard, S.	POLY	367	Camara, A.	ENVR	384	Cao, B.	COMP	15
Byrd, A.L.	ENFL	90	Cambay, S.	BIOL	166	Cao, D.D.	ORGN	438
Byrd, J.	COMP	5	Cambrea, L.	POLY	720	Cao, D.D.	ORGN	441
Byrd, R.	INOR	632	Cambridge, G.	POLY	768	Cao, G.	ENFL	476
Byrne, A.	ENVR	441	Camden, J.P.	PHYS	96	Cao, G.	ENFL	481
Byrne, J.	AGRO	373	Camerino, E.	PMSE	359	Cao, H.	I&EC	9
Cabana, J.	CATL	428	Camerino, E.	PMSE	654	Cao, H.	PHYS	517
Cabello, M.E.	INOR	275	Cameron, A.D.	PHYS	245	Cao, H.	PMSE	457
Cabelof, A.	INOR	21	Cameron, N.R.	COLL	566	Cao, J.	PMSE	195
Cabelof, A.	INOR	345	Cameron, N.R.	POLY	414	Cao, K.	PMSE	614
Cabelof, A.	INOR	424	Cameron, S.	COMP	107	Cao, L.	CATL	238
Cabezas, M.D.	ANYL	2	Camp, A.	INOR	82	Cao, L.	INOR	552
Caceres, B.	COMP	203	Campana, M.	BIOL	93	Cao, L.	ENFL	467
Cachau, R.E.	CINF	126	Campana, M.	BIOL	101	Cao, P.	AEI	83
Cadwallader, K.R.	AGFD	173	Campanella, A.	ORGN	191	Cao, P.	PMSE	12
Cadwallader, K.R.	AGFD	214	Campbell, A.	PRES	4	Cao, P.	PMSE	598
Caferro, T.R.	MEDI	267	Campbell, B.	ORGN	471	Cao, P.	POLY	447
Cafiso, D.S.	BIOL	106	Campbell, C.T.	CATL	25	Cao, P.	COLL	28
Cagasova, K.	COMP	278	Campbell, C.T.	CATL	466	Cao, Q.	ANYL	245
Cagasova, K.	MEDI	82	Campbell, D.D.	AGRO	18	Cao, S.	ENVR	539
Cagli, E.	PMSE	537	Campbell, E.L.	I&EC	7	Cao, W.	COMP	36
Cahan, R.	ENVR	559	Campbell, E.L.	I&EC	8	Cao, W.	ORGN	565
Cahill, C.L.	INOR	633	Campbell, J.W.	COLL	230	Cao, W.	ORGN	566
Cahill, C.L.	NUCL	26	Campbell, J.	CHED	300	Cao, Y.	POLY	608
Cahill, C.L.	NUCL	81	Campbell, K.M.	AGRO	337	Cao, Y.	INOR	430
Cahill, D.	PHYS	494	Campbell, K.M.	AGRO	329	Cao, Y.	ANYL	233
Cahoon, E.	BIOL	128	Campbell, Z.	ORGN	495	Cao, Y.	POLY	513
Cai, Z.	GEOC	15	Campellone, S.	MEDI	269	Cao, Z.	PMSE	94
Cai, J.	ORGN	165	Campos, D.	ORGN	9	Capasse, R.C.	ENVR	220
Cai, J.	ORGN	166	Campos, F.	COLL	622	Capiglia, C.	PHYS	140
Cai, J.	ORGN	167	Campos, K.R.	ORGN	256	Capka, V.	MEDI	250
Cai, J.	ORGN	626	Campos, K.R.	ORGN	303	Caplen, N.J.	MEDI	69
Cai, J.	MEDI	225	Campos, L.	ORGN	679	Capone, D.L.	AGFD	1
Cai, K.	PMSE	73	Campos, L.	PMSE	120	Capone, D.L.	AGFD	3
Cai, L.	NUCL	3	Campos, L.	POLY	204	Capone, D.L.	AGFD	196
Cai, M.	INOR	242	Campos, L.	POLY	288	Capozzi, B.	ORGN	687
Cai, T.	ENVR	163	Campos, L.	POLY	290	Capozzi, S.L.	ENVR	205
Cai, T.	MEDI	225	Campos, L.	POLY	730	Capozzi, S.L.	ENVR	469
Cai, W.	ENFL	481	Campos, L.M.	ORGN	687	Capozzi, S.L.	ENVR	471
Cai, W.	POLY	272	Campos, L.M.	PMSE	67	Capozzi, S.L.	ENVR	473
Cai, X.	ORGN	460	Campos, L.M.	POLY	100	Capozzi, S.L.	ENVR	539
Cai, Z.	INOR	882	Campos, M.P.	INOR	709	Cappello, J.	PMSE	144
Caico, S.T.	COLL	176	Campos, R.	PMSE	608	Capraz, Ö.Ö.	ENFL	120
Cain, C.	ANYL	383	Camproux, A.	CINF	138	Caprio, V.	ORGN	281
Cairnie, D.	COLL	167	Can, M.	BIOL	33	Caputo, C.A.	INOR	449
Cairns, A.	ENFL	474	Can, T.	PHYS	342	Caputo, G.A.	BIOL	103
Cairns, A.	INOR	13	Canagaratna, M.	ENVR	189	Caputo, G.A.	BIOL	107
Caitlin, L.	CHED	327	Canagaratna, M.	ENVR	555	Caputo, J.	COLL	497
Cakmak, M.	POLY	579	Canary, J.W.	ORGN	455	Caram, J.	COLL	239
Calabrese, D.	MEDI	12	Canavan, J.	AGFD	167	Caram, J.R.	COLL	499
Calabrese, D.	MEDI	69	Canavan, J.	COLL	275	Caramés-Méndez, P.	INOR	830
Calabrese, V.T.	AGFD	266	Candian, A.	PHYS	4	Caran, K.L.	CHED	281
Calambur, D.	MEDI	30	Candian, A.	PHYS	6	Caran, K.L.	COLL	22
Calame, J.	PMSE	157	Candian, A.	PHYS	50	Caranto, J.D.	INOR	943
Caldarone, B.J.	MEDI	143	Canelas, D.A.	WCC	15	Caranto, J.D.	AEI	39
Calderon, A.	MEDI	329	Canene-Adams, K.	AGFD	20	Carbajo, R.	MEDI	19
Calderón-Colón, X.	PMSE	284	Canene-Adams, K.	AGFD	49	Carballo-Jane, E.	MEDI	245
Caldwell, I.	AGRO	384	Caner, N.	COLL	209	Carberry, S.E.	AGFD	14
Caldwell, K.R.	COLL	280	Canning, A.	COMP	49	Card, M.	ENVR	349
Caldwell, K.	ANYL	310	Cannon, K.	PMSE	255	Card, M.	ENVR	351
Caldwell-Overdier, A.	CHED	290	Cannone, Z.	ORGN	36	Cardenal, A.	INOR	295
Calhorda, M.J.	PHYS	61	Cano, V.M.	ORGN	396	Cardenas, A.	CHED	230
Calhoun, J.	ENVR	543	Cano, V.M.	ORGN	397	Cardenas, A.	CHED	247
Calhoun, J.	ENVR	562	Cantillo, D.	ORGN	11	Cárdenas-Chaparro, A.	ORGN	624
Calis, G.	COLL	208	Canton, S.	COLL	402	Cardona-Quintero, Y.P.	COLL	135
Callahan, J.F.	MEDI	111	Canton, S.	COLL	489	Cardone, G.	INOR	771
Callahan, L.	CINF	44	Cantos, P.	INOR	514	Carey, J.	CATL	70
Callahan, M.	COLL	261	Cantrell, C.	AGRO	313	Carey, M.C.	INOR	118
Callaway, C.P.	COMP	408	Cantrell, C.L.	AGRO	314	Carey, S.	CATL	466
Calligaris, D.	ANYL	429	Cantrell, C.L.	AGRO	316	Carey-De la Torre, O.	PMSE	300
Calvary, C.A.	CHED	234	Cantu, D.	CATL	174	Cargnello, M.	CATL	57
Calverley, T.	COLL	4	Cantu, D.	ENFL	136	Cargnello, M.	INOR	39
Calvino, C.	POLY	211	Cantu, D.	ENFL	137	Carim, A.	ANYL	145

Cariou, K.	ORGN	53	Carroll, S.	CHED	398	Catalano, S.M.	MEDI	255
Carlberg, A.	POLY	60	Carrow, B.P.	INOR	80	Catchmark, J.M.	POLY	329
Carleton, J.	AGRO	151	Carrow, B.P.	INOR	857	Catherman, K.	ANYL	55
Carleton, J.	AGRO	155	Carruthers, N.I.	MEDI	211	Catsoulis, P.	INOR	192
Carleton, J.	AGRO	220	Carswell, E.	MEDI	225	Cattalani, M.	BIOL	113
Carlier, P.R.	AGRO	111	Cartaya, A.	CHED	268	Caulton, K.G.	CATL	20
Carlier, P.R.	AGRO	138	Carter, E.A.	COMP	71	Caulton, K.G.	COLL	188
Carlier, P.R.	MEDI	275	Carter, E.A.	PHYS	231	Caulton, K.G.	INOR	21
Carlin, C.M.	ANYL	35	Carter, E.A.	PHYS	280	Caulton, K.G.	INOR	344
Carlin, D.J.	ENVR	276	Carter, K.R.	POLY	729	Caulton, K.G.	INOR	345
Carlin, S.	AGFD	4	Carter, K.	NUCL	26	Caulton, K.G.	INOR	424
Carlmark, A.E.	PMSE	41	Carter, P.	ANYL	50	Caulton, K.G.	INOR	485
Carlmark, A.E.	POLY	696	Carter, P.H.	MEDI	7	Caulton, K.G.	INOR	489
Carlo, S.R.	ANYL	30	Carter, P.H.	MEDI	269	Caulton, K.G.	INOR	676
Carlo, S.R.	ANYL	31	Carter-Cooper, B.A.	MEDI	74	Caulton, K.G.	INOR	677
Carlos, K.	AGFD	34	Cartiff, B.	ANYL	361	Causser, V.	ORGN	572
Carlos, K.	ANYL	201	Caruso, F.	COLL	455	Cavac-Paulo, A.	COLL	149
Carlsen, J.	ORGN	163	Caruthers, M.H.	ORGN	32	Cavac-Paulo, A.	POLY	71
Carlsen, J.	ORGN	319	Caruthers, M.H.	ORGN	33	Cavac-Paulo, A.	POLY	268
Carlson, D.A.	BIOL	156	Caruthers, M.H.	ORGN	675	Cavalli, A.	COMP	64
Carlson, E.	TOXI	39	Carvalho, C.	AGRO	313	Cavalli, A.	COMP	385
Carlson, E.S.	TOXI	45	Carvalho, C.	AGRO	316	Cavallo, L.	INOR	34
Carlson, F.	COMP	184	Carvalho, S.	COMP	275	Cavanaugh, J.	MEDI	112
Carlson, J.	ORGN	680	Carver, J.	ANYL	64	Cavanaugh, J.	MEDI	148
Carlson, K.	MEDI	82	Carver, L.	AGRO	76	Cave, R.J.	PHYS	296
Carlson, K.	COLL	236	Carver, L.	AGRO	77	Cave, R.J.	INOR	130
Carlson, M.	INOR	692	Cary, R.	ANYL	100	Cave, R.J.	INOR	132
Carlson, M.R.	AEI	40	Cary, R.	ANYL	398	Cavicchi, K.A.	PMSE	275
Carlson, M.R.	INOR	769	Casa, D.M.	INOR	87	Cavicchi, K.A.	PMSE	295
Carlson, R.	I&EC	35	Casadevall, A.	CARB	75	Cavicchi, K.A.	POLY	579
Carlson, R.	AGRO	229	Casadonte, D.J.	INOR	861	Cavicchi, K.A.	POLY	725
Carlsson, A.	CATL	259	Casalini, R.	POLY	459	Cawley, M.	ENVR	307
Carlton, A.	ENVR	239	Casanova, D.	ORGN	221	Cawrse, B.	MEDI	337
Carlton, D.D.	ENVR	249	Casarez, A.	MEDI	250	Cayan, Y.	ORGN	379
Carluer, N.	AGRO	15	Casasanta, M.	MEDI	275	Cay Durgun, P.	ENVR	165
Carmali, S.	POLY	184	Caselli, P.	PHYS	108	Cebeci, F.C.	AGFD	132
Carmali, S.	POLY	386	Caselli, P.	PHYS	303	Ceccarelli, C.	PHYS	106
Carmean, D.	I&EC	35	Caselli, P.	PHYS	512	Cech, N.B.	ANYL	381
Carmean, R.N.	POLY	62	Casey, S.M.	COLL	521	Celaje, J.	ORGN	131
Carmean, R.	POLY	418	Cash, C.	PMSE	348	Celani, C.P.	CHED	214
Carmel, J.H.	CHED	26	Cash, J.J.	PMSE	132	Celebi, M.	CATL	317
Carmen, B.	COLL	98	Cashman, J.	POLY	520	Celebioglu, A.	PMSE	21
Carmichael, A.	PMSE	214	Cashman, J.	POLY	682	Celik, F.E.	CATL	194
Carmody, R.N.	AGFD	19	Casner, A.	ENVR	314	Celik, F.E.	INOR	203
Carneiro, R.L.	ANYL	132	Caspary Toroker, M.	PHYS	238	Celik, F.E.	INOR	330
Carnevale, D.	INOR	668	Cassera, M.	MEDI	275	Celik, F.E.	INOR	596
Carnevale, V.	PHYS	236	Cassidy, B.	POLY	362	Celik, H.	COLL	286
Carnevale, V.	PHYS	532	Cassidy, P.	AGRO	28	Celis-Salazar, P.J.	INOR	817
Carney, J.M.	CHED	267	Cassidy, P.	AGRO	337	Celiz, M.D.	AGFD	81
Carney, J.M.	CHED	287	Cassity, A.	ORGN	139	Celly, C.	AGRO	83
Carney, K.P.	NUCL	83	Cassity, A.	ORGN	423	Cen, J.	CATL	303
Carothers, K.	POLY	594	Casson, J.	INOR	480	Cen, J.	ENFL	180
Carpena-Núñez, J.	COLL	592	Castaldi, M.J.	CHED	265	Cen, J.	ENVR	409
Carpenter, A.	ENVR	327	Castaneda-Lopez, H.	PMSE	664	Cen, S.	COMP	279
Carpenter, G.	NUCL	75	Castellano, F.N.	INOR	81	Cenizal, T.	AGRO	412
Carpenter, S.H.	INOR	170	Castellano, F.N.	INOR	111	Centeno, J.A.	ANYL	308
Carpenter, S.H.	INOR	760	Castellano, F.N.	INOR	117	Centore, R.	POLY	266
Carpenter, T.S.	CHED	302	Castellano, F.N.	INOR	179	Centrella, P.A.	MEDI	104
Carpenter, T.S.	CHED	337	Castellano, F.N.	INOR	180	Cerda, J.	BIOL	150
Carr, R.	MEDI	111	Castellano, F.N.	INOR	333	Cerdeirina, C.	PHYS	120
Carr, J.	COLL	239	Castellano, F.N.	INOR	336	Cerkez, E.B.	ENVR	77
Carr, J.	COLL	572	Castellano, F.N.	INOR	693	Cerkez, E.B.	INOR	61
Carraher, C.E.	PMSE	351	Castellano, F.N.	INOR	46	Cernicharo, J.	PHYS	52
Carraher, C.E.	PMSE	352	Castellano, R.K.	ORGN	558	Cernoch, P.	PMSE	79
Carrero, N.	CHED	255	Castellano, R.K.	ORGN	696	Cesa, I.G.	CHED	27
Carrero, N.	CHED	256	Castellanos, M.	ORGN	31	Cesar, T.B.	AGFD	90
Carrie, C.	CHED	231	Castellanos, M.	PMSE	402	Cessna, J.T.	NUCL	83
Carrie, C.	I&EC	62	Castellino, S.	ORGN	59	Cessna, S.G.	CHED	322
Carriedo, G.	PMSE	108	Caster, K.	POLY	169	Cetin, B.	CATL	452
Carril, M.	COLL	516	Castillo, J.	COLL	622	Cetin, M.	ANYL	166
Carrillo, P.C.	CATL	111	Castillo, O.	ORGN	397	Cevallos, S.	AEI	67
Carro, T.	AGRO	379	Castillo-Lora, J.	INOR	389	Cevallos, S.	ORGN	226
Carroll, D.	PMSE	607	Castillo Ramos, V.	ENVR	363	Cevirim, N.	ENVR	412
Carroll, B.	PMSE	598	Castle, S.L.	ORGN	169	Ceze, L.	I&EC	35
Carroll, K.S.	COLL	452	Castracane, E.	PHYS	370	Cha, J.	ORGN	675
Carroll, K.M.	COLL	297	Castro, C.	COMP	410	Cha, J.	ENFL	464
Carroll, P.	COLL	535	Castro, S.	ENFL	473	Cha, Y.	AGFD	67
Carroll, P.	I&EC	6	Casuras, A.	INOR	219	Cha, Y.	AGFD	69
Carroll, P.	INOR	364	Casuras, A.	INOR	611	Chabal, Y.J.	CATL	116
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Chacon, M.L.	ENFL	404	Chan, E.	PMSE	101	Chang, T.	POLY	621
Chada, S.	ORGN	17	Chan, E.	POLY	56	Chang, V.Y.	CATL	289
Chadha, R.	MEDI	114	Chan, E.	MEDI	252	Chang, W.	COLL	527
Chadrasekaran, A.	AGRO	280	Chan, G.	COMP	137	Chang, W.K.	ORGN	103
Chadrasekaran, A.	AGRO	333	Chan, G.	PHYS	77	Chang, W.	ENFL	96
Chadrasekaran, A.	AGRO	359	Chan, G.	PHYS	152	Chang, X.	CATL	408
Chae, J.	PHYS	423	Chan, G.	PHYS	181	Chang, X.	INOR	394
Chae, J.	CHED	68	Chan, H.	INOR	183	Chang, Y.	CELL	31
Chae, M.	POLY	407	Chan, H.	INOR	553	Chang, Y.	PMSE	387
Chae, S.	ENVR	44	Chan, H.	CATL	186	Chang, Y.	ENVR	341
Chae, S.	ENVR	139	Chan, H.	COLL	298	Chang, Y.	ENVR	342
Chae, S.	ENVR	140	Chan, H.	COMP	19	Chantarojsiri, T.	CATL	271
Chafin, A.	CELL	37	Chan, K.	CELL	8	Chao, A.	PMSE	70
Chai, C.L.	I&EC	41	Chan, M.	CATL	275	Chao, J.	AGRO	201
Chai, H.	MEDI	295	Chan, R.	PHYS	440	Chao, K.	AGFD	213
Chai, M.	ANYL	137	Chan, R.	ANYL	378	Chao, M.N.	MEDI	294
Chai, Q.	PMSE	238	Chan, S.	CHAS	3	Chaoqiu, C.	CATL	33
Chai, W.	MEDI	328	Chan, V.S.	ORGN	3	Chapa, I.M.	ORGN	396
Chai, W.	CARB	84	Chan, W.	POLY	271	Chapin, A.	BIOL	159
Chaisuwan, T.	ENFL	204	Chan, W.	AGRO	190	Chapina, M.	INOR	254
Chaki, S.	ORGN	176	Chan, W.	INOR	553	Chaplin, B.P.	ENVR	11
Chakma, P.	PMSE	74	Chan, W.	PMSE	518	Chaplin, B.P.	ENVR	12
Chakma, P.	PMSE	243	Chan, Y.	ENVR	377	Chapman, C.A.	PMSE	434
Chakma, P.	PMSE	456	Chan, Y.	INOR	471	Chapman, D.V.	COLL	615
Chakma, P.	POLY	472	Chan, Y.	POLY	23	Chapman, K.W.	INOR	292
Chakrabarti, A.	CATL	15	Chanbasha, B.	ENFL	402	Chapman, K.W.	INOR	820
Chakrabarti, A.	CATL	60	Chance, B.S.	CHAS	7	Chapp, T.	INOR	53
Chakrabarti, A.	MEDI	343	Chandler, D.	ENVR	555	Chapp, T.W.	AEI	40
Chakrabarti, K.	INOR	444	Chandran, P.	CARB	98	Char, K.	PMSE	583
Chakrabarti, S.K.	PHYS	104	Chandran, P.	PMSE	212	Char, K.	PMSE	601
Chakraborty, A.	PHYS	25	Chandran, P.	PMSE	426	Char, K.	POLY	106
Chakraborty, A.	PHYS	142	Chandran, P.	PMSE	460	Char, K.	POLY	490
Chakraborty, A.	INOR	117	Chaney, R.	AGRO	218	Char, K.	POLY	594
Chakraborty, A.	INOR	180	Chang, A.	POLY	369	Char, K.	POLY	693
Chakraborty, H.	CATL	131	Chang, A.	POLY	486	Charbonneau, P.	MPPG	18
Chakraborty, I.	INOR	834	Chang, A.	POLY	607	Charbonneau, P.	PHYS	154
Chakraborty, K.	COMP	347	Chang, B.	COLL	389	Chareonviriyaphap, T.	AGRO	310
Chakraborty, K.	COMP	409	Chang, C.	COMP	87	Chareonviriyaphap, T.	AGRO	393
Chakraborty, K.	PMSE	92	Chang, C.	COMP	126	Chareonviriyaphap, T.	AGRO	395
Chakraborty, S.	POLY	86	Chang, C.	COMP	259	Charette, B.	INOR	11
Chakraborty, S.	I&EC	38	Chang, C.	COMP	356	Chari, R.V.	MEDI	157
Chakravarty, S.	INOR	474	Chang, C.J.	INOR	72	Charlebois, A.	CHED	36
Chakravorty, A.	COLL	199	Chang, C.J.	INOR	321	Charlebois, A.	CHED	271
Chakroun, R.W.	PMSE	521	Chang, C.	BIOL	76	Charlebois, A.F.	CHED	150
Chalasani, A.S.	CHED	149	Chang, C.	CATL	339	Charlebois, A.F.	WCC	14
Chalasani, A.S.	CHED	157	Chang, C.	CATL	396	Charlebois, J.	CHED	215
Chalermwat, N.	ENFL	204	Chang, D.T.	ENVR	305	Charleson, E.	POLY	710
Chalk, S.J.	CINF	6	Chang, D.T.	ENVR	309	Charnawskas, J.C.	ENVR	550
Chalk, S.J.	CINF	41	Chang, D.T.	ENVR	355	Charnley, S.	PHYS	204
Chalopin, T.	CARB	16	Chang, D.T.	ENVR	546	Charnley, S.	PHYS	551
Chaloux, B.L.	PMSE	375	Chang, E.	MEDI	253	Charoensaeng, A.	COLL	246
Chaloux, B.L.	INOR	749	Chang, F.	CATL	302	Charoensaeng, A.	ENFL	218
Chaloux, B.L.	INOR	802	Chang, F.J.	ENVR	530	Chartrain, N.	PMSE	55
Chalyavi, F.	PHYS	471	Chang, H.	INOR	536	Chartrain, N.	PMSE	218
Chalyavi, F.	PHYS	483	Chang, H.	ANYL	86	Chartrain, N.	PMSE	219
Chamack, M.	CATL	458	Chang, I.	INOR	6	Chartrain, N.	POLY	315
Chamas, A.	PHYS	88	Chang, J.	MEDI	252	Chase, D.	CHED	280
Chambers, J.E.	AGRO	237	Chang, J.	MEDI	253	Chatani, N.	ORGN	38
Chambers, M.B.	INOR	396	Chang, J.S.	AGRO	229	Chatare, V.K.	ORGN	314
Chambers, T.	AGRO	49	Chang, J.	CATL	482	Chaterjee, K.	PMSE	402
Chambreau, S.	PHYS	511	Chang, J.	ENFL	468	Chatham, C.	POLY	498
Chamieh, J.	POLY	697	Chang, L.	PMSE	266	Chatterjee, A.	TOXI	43
Champagne, P.	ENVR	361	Chang, L.	PMSE	536	Chatterjee, A.	CHED	15
Champagne, P.	POLY	335	Chang, M.F.	MEDI	227	Chatterjee, M.	CHED	347
Champeil, E.	MEDI	194	Chang, M.	ANYL	190	Chatterjee, P.	COLL	593
Champeil, E.	MEDI	311	Chang, M.	INOR	71	Chatterjee, R.	ENVR	70
Champion, J.	PMSE	196	Chang, N.	ORGN	604	Chatterjee, R.	ENVR	71
Champion, J.	POLY	349	Chang, Q.	BIOL	115	Chatterjee, R.	ENVR	72
Champness, E.	CINF	116	Chang, Q.	ENVR	345	Chatterjee, S.	NUCL	21
Champness, E.	MEDI	348	Chang, Q.	ENVR	456	Chatterjee, S.	NUCL	36
Chamsaz, E.	POLY	302	Chang, Q.	INOR	265	Chatterjee, S.	NUCL	37
Chan, A.	ENVR	539	Chang, R.	COMP	167	Chatterjee, S.	NUCL	38
Chan, B.C.	INOR	548	Chang, R.	COMP	215	Chatterjee, S.	ENVR	215
Chan, B.C.	PROF	1	Chang, S.	ENFL	372	Chatterjee, S.	ENVR	464
Chan, B.C.	PROF	14	Chang, S.	ENFL	421	Chatterjee, S.	INOR	690
Chan, B.C.	PROF	16	Chang, S.X.	INOR	246	Chattopadhyaya, C.	ANYL	182
Chan, C.K.	ENVR	264	Chang, S.	MEDI	124	Chaudhari, R.	CATL	360
Chan, C.	MEDI	22	Chang, S.	ANYL	320	Chaudhry, C.	MEDI	7

Chaudhuri, O.	PMSE	326	Chen, E.Y.	AEI	41	Chen, L.	AGFD	196
Chaudhuri, S.	ORGN	509	Chen, E.Y.	POLY	45	Chen, L.	CELL	26
Chaudhuri, S.	CATL	82	Chen, E.Y.	POLY	131	Chen, L.	POLY	214
Chauhan, B.	ORGN	587	Chen, E.Y.	POLY	279	Chen, L.	POLY	728
Chauhan, B.	ORGN	611	Chen, F.	TOXI	63	Chen, L.	CATL	259
Chauhan, K.R.	AGRO	394	Chen, F.	TOXI	64	Chen, L.	I&EC	67
Chauhan, R.	ORGN	134	Chen, F.	TOXI	70	Chen, L.C.	ANYL	104
Chauhan, S.	ORGN	629	Chen, F.	ENVR	166	Chen, L.C.	ANYL	108
Chauhan, V.	MEDI	269	Chen, G.	COLL	439	Chen, L.X.	INOR	117
Chaurd, S.	ENVR	219	Chen, G.	INOR	298	Chen, L.X.	INOR	315
Chaves Claudino, D.	COMP	368	Chen, G.	POLY	334	Chen, L.X.	INOR	402
Chavez, A.	POLY	742	Chen, G.	COLL	423	Chen, L.	PMSE	376
Chavez-Gil, T.	AGFD	120	Chen, G.	POLY	262	Chen, L.	CELL	27
Chavez-Gil, T.	ENFL	406	Chen, G.	PMSE	250	Chen, L.	AGFD	33
Chazin, W.J.	INOR	942	Chen, G.	POLY	163	Chen, L.	INOR	857
Cheatham, T.E.	COMP	349	Chen, H.	COMP	56	Chen, L.	PMSE	352
Cheek, G.T.	INOR	415	Chen, H.	ENFL	424	Chen, L.	COMP	288
Cheeseman, E.N.	CHAL	16	Chen, H.	MEDI	278	Chen, L.	AEI	22
Cheeseman, E.N.	CINF	144	Chen, H.	CATL	242	Chen, L.	CELL	22
Cheeseman, M.	AGFD	102	Chen, H.	ENFL	301	Chen, M.	ORGN	272
Cheeseman, M.	TOXI	80	Chen, H.	CATL	47	Chen, M.S.	ORGN	97
Cheewawisuttichai, T.	CARB	42	Chen, H.	CATL	283	Chen, M.	ANYL	369
Chefetz, B.	ENVR	121	Chen, H.	MEDI	83	Chen, M.	ANYL	372
Chemelle, J.	COMP	339	Chen, H.C.	AGFD	144	Chen, M.	BIOL	169
Chemey, A.	NUCL	30	Chen, H.C.	TOXI	37	Chen, M.	ORGN	386
Chemler, S.R.	ORGN	289	Chen, H.	ANYL	85	Chen, M.	PHYS	440
Chen, J.	ENVR	382	Chen, H.	MEDI	8	Chen, M.	POLY	433
Chen, J.	ENVR	511	Chen, H.	ANYL	208	Chen, M.	POLY	442
Chen, R.	AGRO	307	Chen, H.	INOR	532	Chen, M.	POLY	744
Chen, Y.	CATL	293	Chen, H.	AGRO	12	Chen, M.	COLL	445
Chen, Y.	ORGN	652	Chen, H.	AGRO	124	Chen, M.	INOR	776
Chen, A.	ORGN	417	Chen, H.	AGRO	163	Chen, N.	ENVR	120
Chen, A.	ORGN	419	Chen, H.	ENVR	121	Chen, N.	POLY	272
Chen, A.	POLY	735	Chen, H.	ORGN	328	Chen, O.	COLL	293
Chen, B.	ENVR	69	Chen, H.	MEDI	23	Chen, O.	COLL	235
Chen, B.	ENVR	176	Chen, H.	COMP	397	Chen, O.	COLL	265
Chen, B.	ENVR	269	Chen, I.	COLL	27	Chen, O.	COLL	556
Chen, B.	PHYS	544	Chen, J.	INOR	453	Chen, O.	INOR	476
Chen, B.	COMP	59	Chen, J.	CHED	31	Chen, P.	AGFD	161
Chen, C.	BIOL	160	Chen, J.	CHED	32	Chen, P.	TOXI	86
Chen, C.	COLL	383	Chen, J.	AGRO	73	Chen, P.	TOXI	89
Chen, C.	ENFL	379	Chen, J.	CATL	300	Chen, P.	INOR	314
Chen, C.	ENVR	49	Chen, J.	COMP	213	Chen, P.	POLY	589
Chen, C.	ENVR	54	Chen, J.	ANYL	432	Chen, P.	MEDI	313
Chen, C.	CATL	158	Chen, J.	AEI	41	Chen, P.Y.	BIOL	33
Chen, C.	MEDI	365	Chen, J.	ORGN	565	Chen, P.	ORGN	499
Chen, C.	PMSE	170	Chen, J.	ORGN	566	Chen, Q.	MEDI	33
Chen, C.	POLY	606	Chen, J.	AGFD	249	Chen, Q.	COLL	424
Chen, C.	POLY	272	Chen, J.	MEDI	7	Chen, Q.	MEDI	225
Chen, C.	ORGN	391	Chen, J.	NUCL	34	Chen, R.	MEDI	8
Chen, C.	MEDI	253	Chen, J.	PMSE	397	Chen, R.	POLY	775
Chen, C.	COLL	532	Chen, J.G.	CATL	68	Chen, S.	INOR	666
Chen, C.	INOR	244	Chen, J.G.	CATL	303	Chen, S.	PMSE	9
Chen, C.	ENVR	13	Chen, J.G.	ENFL	180	Chen, S.	ENFL	395
Chen, C.	ENVR	26	Chen, J.G.	PHYS	87	Chen, S.	ENFL	336
Chen, C.	POLY	98	Chen, J.	COLL	117	Chen, S.	COMP	32
Chen, C.	INOR	21	Chen, J.	ORGN	206	Chen, S.	AGFD	197
Chen, C.	INOR	262	Chen, J.	MEDI	267	Chen, S.	CATL	471
Chen, C.	INOR	424	Chen, J.	ANYL	8	Chen, S.	AGFD	212
Chen, C.	INOR	485	Chen, J.	COLL	172	Chen, S.	ANYL	176
Chen, C.	INOR	489	Chen, J.	ENFL	187	Chen, S.	MEDI	128
Chen, C.	INOR	623	Chen, J.	ORGN	63	Chen, S.	CATL	327
Chen, C.	INOR	676	Chen, J.	MEDI	253	Chen, S.	COLL	202
Chen, C.	ENFL	359	Chen, J.	AGFD	272	Chen, S.	CATL	323
Chen, C.	INOR	471	Chen, J.	CATL	176	Chen, S.	INOR	374
Chen, C.	CATL	423	Chen, J.	ENFL	133	Chen, S.	POLY	412
Chen, C.	COLL	460	Chen, J.	INOR	849	Chen, S.	POLY	773
Chen, C.	MEDI	7	Chen, J.	ENFL	327	Chen, S.	COLL	3
Chen, D.	ENVR	45	Chen, K.	ENVR	156	Chen, S.	PHYS	523
Chen, D.	PMSE	353	Chen, K.	ENVR	272	Chen, S.M.	AGRO	77
Chen, D.	CATL	177	Chen, K.	ENVR	344	Chen, S.	MEDI	254
Chen, D.	CATL	319	Chen, K.	I&EC	37	Chen, T.	CATL	465
Chen, D.	CATL	376	Chen, K.	ORGN	304	Chen, T.	PHYS	521
Chen, D.	PHYS	537	Chen, K.	ORGN	521	Chen, T.	CHED	220
Chen, D.	ENVR	271	Chen, K.	CATL	16	Chen, T.	CHED	261
Chen, D.	I&EC	59	Chen, L.	PMSE	24	Chen, T.H.	COLL	103
Chen, D.	PMSE	647	Chen, L.	POLY	285	Chen, W.	COMP	259
Chen, E.	PHYS	416	Chen, L.	AGRO	341	Chen, W.	COMP	356
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Chen, W.W.	ENVR	21	Cheng, W.	MEDI	276	Cheung, K.M.	COLL	179
Chen, W.W.	ENVR	25	Cheng, W.	ORGN	391	Cheung, L.	PHYS	421
Chen, W.W.	ENVR	70	Cheng, C.C.	PMSE	227	Cheung, M.	ORGN	59
Chen, W.W.	ENVR	71	Cheng, C.	ORGN	313	Chevalier, R.B.	COLL	121
Chen, W.W.	ENVR	72	Cheng, C.	COMP	42	Chevrier, D.	CATL	291
Chen, W.	ORGN	391	Cheng, C.	CINF	37	Chew, R.	ORGN	117
Chen, W.	ENFL	269	Cheng, C.	COMP	169	Cheyne, C.	ANYL	368
Chen, W.	POLY	759	Cheng, C.	PMSE	321	Cheynier, V.	AGFD	23
Chen, W.M.	INOR	666	Cheng, C.	PMSE	479	Chhetri, B.P.	INOR	280
Chen, W.	ENVR	43	Cheng, C.	ORGN	243	Chhotaray, P.K.	ENFL	245
Chen, W.	TOXI	30	Cheng, D.	ENVR	166	Chi, K.	ORGN	452
Chen, W.	AGRO	255	Cheng, F.	POLY	532	Chi, M.	ENFL	179
Chen, W.	AGRO	257	Cheng, G.J.	COLL	261	Chia, B.	MEDI	277
Chen, W.	AGRO	275	Cheng, G.	COLL	81	Chiang, L.	INOR	435
Chen, W.	AGRO	285	Cheng, G.	TOXI	52	Chiang, M.Y.	PMSE	204
Chen, X.	ENVR	365	Cheng, G.	ORGN	39	Chiang, P.	ENFL	156
Chen, X.	PMSE	293	Cheng, H.	POLY	53	Chiang, P.	MEDI	253
Chen, X.	PMSE	296	Cheng, H.	POLY	760	Chiapasco, M.	POLY	240
Chen, X.	POLY	365	Cheng, H.	CHED	51	Chiappisi, L.	COLL	93
Chen, X.	POLY	474	Cheng, H.	ENFL	382	Chiarparin, E.	MEDI	19
Chen, X.	MEDI	12	Cheng, H.	ENVR	499	Chivone-Filho, O.	ENVR	384
Chen, X.	ENFL	236	Cheng, H.	ENVR	501	Chiba, H.	MEDI	106
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Chen, X.	POLY	575	Cheng, J.	PMSE	16	Chiefari, J.	POLY	414
Chen, X.	COLL	259	Cheng, J.	PMSE	73	Chiemezie, C.	ORGN	181
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Chen, X.	PMSE	80	Cheng, K.	PMSE	26	Childress, K.	POLY	456
Chen, Y.	INOR	248	Cheng, K.	AGFD	53	Childs, B.	INOR	916
Chen, Y.	COLL	595	Cheng, L.	CATL	278	Childs, B.	NUCL	18
Chen, Y.	COLL	553	Cheng, L.	ORGN	384	Chiliveri, C.S.	PHYS	288
Chen, Y.	PMSE	438	Cheng, L.	MEDI	7	Chilkoti, A.	PMSE	253
Chen, Y.	ENVR	80	Cheng, L.	COMP	129	Chilkoti, A.	PMSE	308
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Chen, Y.	MEDI	356	Cheng, R.	MEDI	8	Chin, A.	COLL	294
Chen, Y.	ENFL	301	Cheng, R.	PMSE	77	Chin, C.	INOR	551
Chen, Y.	ENFL	223	Cheng, R.	COLL	144	Chin, Y.	MEDI	126
Chen, Y.	ENVR	52	Cheng, R.	PHYS	244	Chinn, S.C.	PMSE	332
Chen, Y.	ENVR	34	Cheng, S.	POLY	774	Chino, J.P.	INOR	246
Chen, Y.	INOR	471	Cheng, S.	PMSE	12	Chiou, P.	COLL	467
Chen, Y.	POLY	622	Cheng, S.	POLY	447	Chirik, P.J.	CATL	141
Chen, Y.	ENFL	312	Cheng, S.Z.	PMSE	584	Chirik, P.J.	INOR	850
Chen, Y.	INOR	391	Cheng, T.	CATL	28	Chisholm, C.	ANYL	369
Chen, Y.	INOR	393	Cheng, W.	CATL	446	Chisholm, M.H.	INOR	881
Chen, Y.	I&EC	35	Cheng, X.	POLY	713	Chisholm, M.F.	CATL	125
Chen, Y.	INOR	532	Cheng, X.	COLL	308	Chislock, M.	ENVR	46
Chen, Y.	PMSE	376	Cheng, X.	CATL	254	Chistov, A.A.	MEDI	319
Chen, Y.	INOR	735	Cheng, Y.	CATL	49	Chitarrini, G.	AGFD	94
Chen, Y.	COLL	73	Cheng, Y.	CATL	430	Chitnumsub, P.	MEDI	72
Chen, Y.	PHYS	132	Cheng, Y.	INOR	753	Chittimalla, S.K.	MEDI	343
Chen, Y.	ENVR	189	Cheng, Y.	CATL	43	Chiu, C.K.	ORGN	42
Chen, Y.	ORGN	102	Cheng, Z.	ENFL	454	Chiu, M.	ANYL	53
Chen, Z.	ORGN	212	Cheng, Y.	ORGN	385	Chiu, P.	ENVR	20
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Chen, Z.	POLY	214	Chenoweth, D.M.	ORGN	209	Chmielarz, P.	POLY	387
Chen, Z.	ENFL	97	Cheon, G.	ENFL	312	Cho, A.	COMP	344
Chen, Z.	POLY	662	Cheon, S.I.	ORGN	612	Cho, B.	ORGN	634
Chen, Z.	MEDI	45	Cheong, D.	COLL	414	Cho, C.	POLY	656
Chen, Z.	CATL	465	Cheplick, M.J.	AGRO	128	Cho, E.	ENVR	464
Chen, Z.	COLL	481	Cheplick, M.J.	AGRO	257	Cho, H.	CATL	363
Chen, Z.	COLL	617	Cheplick, M.J.	AGRO	352	Cho, H.	ENVR	131
Chen, Z.	INOR	125	Cherevko, S.	ENFL	350	Cho, H.	PMSE	601
Chen, J.	ANYL	240	Cherian, J.	MEDI	17	Cho, H.	BIOL	82
Chen, Y.	ENVR	57	Chernyshov, M.V.	INOR	622	Cho, J.	INOR	714
Chen, A.	CELL	29	Chernyshova, I.	CATL	253	Cho, J.	COLL	228
Chen, J.	AGFD	123	Cherpak, V.	PMSE	86	Cho, J.	BIOL	30
Chen, K.	AGFD	123	Cherukara, M.	CATL	186	Cho, J.	ENFL	114
Chen, W.	ENFL	38	Cherukara, M.	COMP	19	Cho, J.	COLL	228
Chenail, G.	MEDI	267	Cherukuri, P.	ANYL	3	Cho, J.	CATL	389
Chene, P.	MEDI	306	Cherukuri, P.	ANYL	209	Cho, J.	MEDI	93
Cheneval, O.	MEDI	63	Chervanyov, A.	COLL	301	Cho, J.	CHAL	12
Cheney, D.L.	COMP	318	Chesmel, K.	CHED	7	Cho, K.	ANYL	98

Cho, K.	COLL	154	Chou, T.	BIOL	44	Chung, H.	ORGN	493
Cho, S.	PMSE	121	Chou, T.	MEDI	182	Chung, H.	POLY	34
Cho, S.	POLY	324	Chou, P.	AGFD	53	Chung, H.	POLY	641
Cho, S.H.	TOXI	84	Chou, C.	ENVR	504	Chung, H.	POLY	716
Cho, S.	PMSE	539	Choudhary, K.	COMP	336	Chung, H.	ENVR	458
Cho, T.	ENVR	161	Choudhury, A.	INOR	742	Chung, H.	INOR	738
Cho, Y.	INOR	414	Choudhury, N.R.	PMSE	270	Chung, J.	ANYL	200
Cho, Y.	ORGN	426	Choudhury, R.	COLL	72	Chung, J.	ANYL	202
Cho, Y.	ORGN	427	Choudhury, S.	ENFL	484	Chung, M.	BIOL	160
Cho, Y.	MEDI	267	Chow, C.S.	ORGN	93	Chung, M.	MEDI	16
Cho, Y.	COMP	215	Chow, E.	COMP	30	Chung, M.	ORGN	409
Cho, Y.	POLY	490	Chow, H.	ENVR	62	Chung, M.	ORGN	456
Chodera, J.D.	WCC	5	Chow, P.	MEDI	269	Chung, S.	ENVR	429
Chohan, P.	ORGN	277	Chow, S.J.	ENVR	200	Chung, T.D.	ENVR	137
Chohan, P.	ORGN	591	Chow, S.	WCC	3	Chung, W.	ANYL	320
Choi, K.	BIOL	123	Chow, W.I.	INOR	158	Chung, W.	ORGN	501
Choi, B.	BIOL	72	Chowdhury, I.	ENVR	61	Chung, Y.K.	ORGN	576
Choi, B.	INOR	511	Chowdhury, I.	ENVR	218	Chuong, J.N.	AGRO	36
Choi, B.	INOR	874	Chowdhury, I.	ENVR	263	Chuprin, A.	BIOL	87
Choi, C.	CATL	88	Chowdhury, S.	COLL	587	Chupryna, A.	CINF	29
Choi, G.	AGFD	62	Chowdhury, S.	COMP	146	Chupryna, A.	CINF	139
Choi, H.	POLY	409	Chowdhury, S.	INOR	871	Chupryna, A.	MEDI	357
Choi, H.	BIOL	72	Chowdhury, S.	MEDI	252	Church, C.	ENVR	71
Choi, H.	BIOL	82	Chowdhury, S.	MEDI	253	Church, P.	CINF	96
Choi, I.	ENVR	154	Choy, Y.	AGRO	331	Chytil, P.	POLY	455
Choi, J.S.	CATL	8	Chremos, A.	PMSE	163	Ciampi, S.	POLY	417
Choi, J.S.	ENFL	297	Chrétien, S.	CATL	119	Ciancetta, A.	MEDI	1
Choi, J.	ENFL	360	Chringma, S.	BIOL	48	Giano, L.	INOR	583
Choi, J.	ENVR	372	Christe, K.O.	INOR	806	Ciblak, A.	ENVR	328
Choi, J.	ANYL	376	Christenholz, C.L.	PHYS	377	Ciceri, D.	I&EC	39
Choi, J.	POLY	407	Christensen, M.	ORGN	71	Gid, C.	ENVR	14
Choi, J.	MEDI	126	Christensen, P.R.	INOR	395	Ciferri, C.	ANYL	55
Choi, K.	ENFL	353	Christensen, S.	CATL	101	Ciglenecki, I.	ENVR	496
Choi, M.	CATL	88	Christian, O.E.	ORGN	418	Cimander, C.	ANYL	51
Choi, M.	PMSE	291	Christian, O.E.	ORGN	420	Cimatu, K.A.	COLL	210
Choi, M.	BIOL	65	Christodoulides, D.	COLL	299	Cimatu, K.A.	COLL	463
Choi, M.	BIOL	66	Christon, A.	CHED	222	Cimatu, K.A.	COLL	518
Choi, S.	ANYL	438	Christopher, P.	CATL	91	Cimatu, K.A.	POLY	678
Choi, S.	ENFL	239	Christopher, P.	CATL	113	Cimino, R.T.	ANYL	298
Choi, S.	ANYL	98	Christopher, P.	CATL	169	Gimmino, A.	AGRO	33
Choi, S.	PMSE	374	Christopher, P.	COLL	339	Cinoman, D.	INOR	813
Choi, S.	ANYL	184	Christou, G.	INOR	932	Cinti, N.	ORGN	602
Choi, S.	ANYL	185	Christus, J.	CARB	56	Cintora, A.	POLY	609
Choi, S.	AGFD	62	Chrivia, J.C.	MEDI	146	Cione, A.	AGRO	256
Choi, S.	COMP	189	Chrnyak, B.	MEDI	63	Cipollo, J.	ANYL	279
Choi, T.	POLY	752	Chu, C.	INOR	204	Cipollo, J.F.	ANYL	281
Choi, W.	POLY	155	Chu, C.	POLY	368	Cipollo, J.F.	ANYL	392
Choi, W.	ENVR	175	Chu, D.D.	ENFL	85	Ćirić-Marjanović, G.	COLL	362
Choi, Y.	AGFD	265	Chu, F.	ENVR	482	Girovic, D.	CINF	141
Choi, Y.	CELL	42	Chu, H.	COMP	80	Cisneros, G.A.	PHYS	44
Choi, Y.	ENVR	374	Chu, P.K.	PMSE	237	Citra, M.	ENVR	419
Choi, Y.	COLL	190	Chu, P.	PMSE	524	Civic, M.	PMSE	616
Choi, Y.	MEDI	126	Chu, Q.R.	POLY	299	Civitello, L.	HIST	15
Choi, Y.	COLL	227	Chu, Q.R.	POLY	496	Cizer, Ö.	I&EC	40
Choi, Y.	ANYL	376	Chu, S.	AGRO	270	Clabo, D.A.	PHYS	572
Choi, Y.	ORGN	450	Chu, S.	MEDI	274	Claesson, P.	COLL	340
Choi, Y.	ENVR	138	Chu, S.	INOR	362	Claire, F.	INOR	128
Cholewczynski, A.	ORGN	644	Chu, T.	ENFL	430	Clairmont, B.P.	ORGN	77
Cholko, T.	COMP	259	Chu, W.	INOR	212	Clapham, J.	INOR	614
Chong, C.	ORGN	587	Chu, X.	COLL	60	Clardy, J.	BIOL	34
Chong, C.	ORGN	611	Chua, C.	MEDI	17	Claridge, S.A.	ANYL	215
Chong, H.	AGFD	26	Chuang, G.	COMP	293	Clarine, J.	ORGN	63
Chong, J.	AGRO	106	Chuaqui, C.	MEDI	23	Clark, A.	ENVR	491
Chong, J.	ANYL	98	Chudasama, S.S.	ANYL	274	Clark, A.	CINF	5
Chong, L.	COLL	606	Chudasama, V.	COLL	314	Clark, A.	CINF	114
Chong, L.T.	COMP	109	Chujo, Y.	POLY	18	Clark, A.	CINF	115
Chong, N.	ANYL	95	Chujo, Y.	POLY	352	Clark, A.	CINF	118
Chong, N.	ANYL	96	Chukin, A.	INOR	525	Clark, A.	MEDI	270
Chong, N.	ANYL	94	Chukin, A.	INOR	639	Clark, A.E.	COMP	14
Choon, M.	MEDI	17	Chukwudebe, A.	AGRO	232	Clark, A.E.	COMP	193
Chopade, S.	POLY	298	Chulhai, D.	PHYS	182	Clark, A.E.	I&EC	17
Chopra, S.	ENVR	40	Chun, J.	INOR	544	Clark, B.	PMSE	535
Chopra, S.	MEDI	289	Chun, S.	ORGN	576	Clark, B.	AGRO	219
Chorghade, M.	ENFL	154	Chung, R.	CELL	31	Clark, C.G.	MEDI	308
Chorghade, M.	SCHB	7	Chung, R.	CELL	32	Clark, D.	CHED	140
Chorghade, M.	SCHB	32	Chung, B.	ORGN	410	Clark, G.	CHED	313
Chorghade, M.	SCHB	34	Chung, B.	NUCL	69	Clark, J.M.	AGRO	175
Chorghade, M.	SCHB	35	Chung, D.	ANYL	376	Clark, J.M.	AGRO	312
Chorkendorff, I.	CATL	129	Chung, E.	GEOC	10	Clark, J.M.	AGRO	366
Chou, K.	PMSE	37	Chung, H.	POLY	492	Clark, K.	PMSE	595

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Clark, L.	PHYS	342	Cobb, C.R.	INOR	589	Collins, R.	ENVR	123
Clark, M.	CINF	26	Cobb, C.R.	INOR	895	Collins, T.S.	AGFD	7
Clark, M.	CINF	84	Cobb, D.	PROF	12	Collins-Chase, C.	CHAL	5
Clark, M.A.	MEDI	104	Cobb, G.P.	ENVR	391	Collinson, M.M.	ANYL	110
Clark, M.B.	PMSE	369	Cobb, J.	INOR	239	Collinson, M.M.	ANYL	232
Clark, M.T.	MPPG	15	Cobos, J.	COMP	198	Collinson, M.M.	ANYL	383
Clark, R.D.	CINF	130	Cocco, M.J.	PHYS	242	Collinson, M.M.	PMSE	75
Clark, R.D.	COMP	359	Cochran, E.W.	POLY	197	Collins-Wildman, D.L.	CATL	314
Clark, S.	PHYS	253	Cochran, M.	ENVR	278	Collison, C.J.	ORGN	617
Clark, S.L.	AGRO	186	Cockcroft, J.	INOR	748	Colman, D.	ORGN	411
Clark, T.	PMSE	141	Cockett, M.	MEDI	269	Colò, F.	CELL	9
Clark, T.P.	INOR	439	Cockett, M.	MEDI	365	Colon, J.L.	INOR	63
Clark, T.B.	INOR	226	Coco, M.G.	INOR	914	Colón, J.	INOR	143
Clark, T.B.	INOR	227	Cody, J.A.	CHED	198	Colson, J.	POLY	743
Clark, T.B.	ORGN	140	Cody, J.A.	CHED	200	Colson, K.	AGFD	57
Clark, T.B.	ORGN	494	Cody, J.A.	CHED	383	Colson, K.	AGFD	59
Clark, T.B.	ORGN	586	Cody, J.A.	ORGN	617	Coltharp, R.	CHED	206
Clark, T.R.	CINF	94	Coelho, J.F.	POLY	623	Columbus, L.M.	PHYS	339
Clarke, A.	AGRO	293	Coffey, J.	CHED	36	Colussi, A.J.	ENVR	289
Clarke, B.	ENVR	197	Coffey, J.	CHED	271	Colussi, A.J.	PHYS	368
Clarke, D.D.	CHED	78	Coffey, S.B.	MEDI	258	Colvin, D.C.	ANYL	208
Clarke, M.L.	CATL	473	Coffin, A.	AGRO	177	Colvin, R.	MEDI	250
Clarke, S.M.	INOR	358	Coffman, A.H.	CHED	219	Colvin, V.	ENFL	370
Clarke, S.M.	INOR	918	Coffman, A.H.	HIST	25	Combee, L.A.	ORGN	584
Clarke, S.M.	WCC	1	Coffman, D.	CHED	219	Combs, R.	CATL	271
Clarkson, G.	ORGN	42	Coggan, T.	ENVR	197	Comenge, J.	COLL	39
Clarkson, G.	ORGN	44	Cohen, A.	COLL	250	Comer, J.	POLY	614
Clarkson, T.	MEDI	225	Cohen, A.	COMP	250	Comiskey, M.	ENFL	219
Clarson, S.J.	POLY	269	Cohen, B.	ORGN	521	Comito, R.	AEI	42
Classick, T.	ANYL	26	Cohen, C.	ORGN	550	Comito, R.	INOR	122
Clausen, B.M.	AGRO	34	Cohen, C.	MEDI	252	Comito, R.	INOR	293
Clausen, S.	MEDI	22	Cohen, C.	MEDI	253	Commodore, A.	ENVR	411
Clausen, S.	MEDI	103	Cohen, J.H.	PROF	3	Composto, R.J.	COLL	38
Clauser, A.L.	CATL	69	Cohen, M.	AGFD	64	Composto, R.J.	PHYS	199
Clay, A.	ORGN	193	Cohen, R.	INOR	387	Compton, J.	ANYL	131
Clay, A.	ORGN	225	Cohen, R.	ORGN	256	Compton, J.	BIOL	20
Clay, C.D.	ORGN	139	Cohen, S.	CHED	303	Comstock, L.	ORGN	653
Clay, C.D.	ORGN	423	Cohen, S.	COLL	259	Conca, K.R.	AGFD	51
Clayden, J.	ORGN	43	Cohen, S.	COLL	272	Conca, K.R.	AGFD	63
Clayton, B.C.	ENFL	420	Cohen, S.	INOR	460	Conca, K.R.	AGFD	72
Clearfield, A.	INOR	63	Cohen, S.	INOR	825	Concepcion, J.J.	INOR	899
Clearfield, A.	INOR	448	Cohen, S.	MEDI	339	Concepcion, J.J.	INOR	900
Cleary, B.	MEDI	16	Cohen, S.	MEDI	341	Conda-Sheridan, M.M.	PMSE	140
Cleary, M.T.	AGFD	26	Cohen, S.Z.	AGRO	376	Condon, J.	PMSE	519
Cleator, E.	ORGN	256	Cohen, Y.	CINF	96	Coneski, P.N.	AGFD	103
Cleeren, M.	CINF	7	Cohen-Karni, D.	POLY	234	Confer, A.M.	INOR	422
Clemas, J.	MEDI	225	Cohen-Karni, D.	POLY	751	Cong, L.	CATL	110
Clement, C.C.	MEDI	349	Cohn, A.	ENFL	317	Conger, R.	INOR	566
Clement, G.	CINF	56	Coincon, M.	PHYS	245	Conger, R.	INOR	860
Clement, K.	PMSE	331	Colabroy, K.L.	BIOL	78	Congreves, M.S.	MEDI	8
Clement, S.	AGRO	33	Cole, A.C.	INOR	849	Conklin, S.	AGFD	223
Clément, J.	PMSE	224	Cole, B.E.	I&EC	6	Conklin, S.E.	INOR	793
Clementi, C.	COMP	3	Cole, D.C.	MEDI	110	Conley, M.	INOR	883
Clements, A.	PHYS	518	Cole, E.	MEDI	269	Conlon, D.A.	ORGN	521
Clements, L.	CHED	6	Cole, J.	ENFL	52	Conmy, R.	ENVR	483
Clements, L.	ENVR	183	Cole, J.T.	AGRO	329	Connal, L.	CATL	424
Cleveland, G.	INOR	709	Cole, J.	CINF	117	Connal, L.	PMSE	11
Cleveland, N.	CATL	101	Cole, M.	AGRO	268	Connal, L.	PMSE	221
Cleverdon, E.	BIOL	171	Cole, R.S.	CHED	114	Connal, L.	PMSE	576
Cleves, A.E.	COMP	114	Cole, R.S.	CHED	117	Connell, J.W.	ENFL	149
Cleves, A.E.	COMP	394	Cole, R.S.	CHED	412	Connell, J.W.	ENFL	151
Clift, M.D.	ORGN	280	Cole, S.	ANYL	177	Connell, N.	MEDI	330
Clifton, G.M.	PMSE	396	Colell, J.	INOR	190	Connell, R.D.	MPPG	15
Climent, C.	ORGN	221	Coleman, E.	CATL	29	Connell, T.L.	ENFL	450
Clinger, J.A.	PHYS	416	Coleman, E.	ENFL	125	Connolly, C.M.	ORGN	394
Clobes, A.	CINF	52	Coleman, M.	PMSE	628	Connolly, M.	ENVR	512
Clough, L.	ENVR	1	Coler, R.	AGRO	184	Connolly Ryan, C.	ANYL	223
Clough, M.	ENFL	447	Coley, C.W.	CINF	8	Connick, W.B.	CHAS	39
Clouston, L.J.	INOR	690	Colgan, S.	PHYS	205	Connick, W.B.	INOR	348
Co, A.	ENFL	125	Colin-Lozano, B.	MEDI	151	Connick, W.B.	NUCL	38
Coate, H.	MEDI	211	Collard, D.M.	POLY	491	Connolly, M.P.	ENFL	219
Coates, G.W.	POLY	136	Collard, J.	AEI	63	Connolly, P.J.	MEDI	279
Coates, G.W.	POLY	374	Colley, K.L.	CHED	152	Connor, E.K.	INOR	644
Coates, G.W.	POLY	741	Colliard, I.	CATL	326	Connor, G.P.	INOR	218
Coats, J.R.	AGRO	3	Collie, C.	CHED	288	Conny, J.M.	ENVR	10
Coats, J.R.	AGRO	202	Collier, S.	ENVR	193	Conny, J.M.	ENVR	487
Coats, J.R.	AGRO	302	Collinge, G.	ENFL	300	Conrad, J.	CHED	11
Coats, J.R.	AGRO	303	Collins, L.	INOR	730	Conrado, R.	CATL	257
Coats, J.R.	AGRO	304	Collins, M.	MEDI	203	Conroy, M.	NUCL	35
Coats, J.R.	AGRO	397	Collins, R.	ENVR	81	Conroy, N.	NUCL	40

Conry, R.R.	INOR	860	Corilo, Y.	ENVR	121	Crabb, M.	AGRO	360
Consortium, C.	ANYL	309	Corio, P.	INOR	254	Crabtree, R.H.	CATL	82
Consortium, E.	PHYS	351	Corley, R.	TOXI	85	Crabtree, R.H.	INOR	110
Constable, D.J.	CHED	358	Corma, A.	CATL	41	Crabtree, R.H.	INOR	581
Conte, E.D.	AGRO	89	Corman, R.E.	PMSE	214	Crabtree, R.H.	INOR	679
Conte, M.P.	PMSE	523	Cormode, D.	COLL	484	Crabtree, R.H.	INOR	680
Conticello, V.P.	BIOL	136	Cormode, D.	PMSE	50	Craciunescu, O.	INOR	246
Contrera, J.	SCHB	4	Corn, R.M.	ANYL	267	Craft, B.D.	AGFD	12
Contrera, J.G.	CHAL	12	Corn, R.M.	ANYL	401	Craft, K.M.	CARB	59
Contreras, E.Q.	ENFL	371	Cornax, I.	TOXI	94	Craig, A.W.	ORGN	207
Contreras, E.Q.	ENFL	419	Cornel, E.	POLY	423	Craig, P.	BIOL	113
Contreras, G.	INOR	128	Cornell, T.	PMSE	256	Craig, R.L.	ENVR	237
Contreras, J.	PMSE	463	Cornil, J.	PMSE	356	Craig, S.	POLY	147
Contreras, J.	PMSE	567	Cornil, J.	CARB	20	Craik, D.	MEDI	63
Contreras, L.	INOR	620	Cornish, V.W.	ORGN	347	Crain, C.A.	COLL	62
Contreras-Garcia, J.	PHYS	213	Cornwell, G.	ENVR	532	Crain, E.	MEDI	308
Coody, P.N.	AGRO	82	Coronella, C.	ENVR	24	Cramail, H.	POLY	138
Coody, P.N.	AGRO	268	Corrêa, I.V.	ENVR	110	Cramail, H.	POLY	195
Coody, P.N.	AGRO	273	Correll, C.	MEDI	131	Cramer, B.	AGFD	235
Coody, P.N.	AGRO	357	Cort, J.R.	CELL	1	Cramer, C.J.	CATL	391
Cook, B.J.	CATL	20	Cort, J.R.	CELL	2	Cramer, C.J.	COMP	333
Cook, G.	INOR	914	Cort, J.R.	CELL	30	Cramer, C.J.	INOR	2
Cook, G.R.	ORGN	666	Corte, J.R.	MEDI	308	Cramer, C.J.	INOR	68
Cook, J.M.	MEDI	364	Cortés-Benitez, F.	MEDI	165	Cramer, C.J.	INOR	292
Cook, K.	INOR	132	Cortina, G.	PHYS	92	Cramer, C.J.	INOR	728
Cook, M.	ENFL	302	Coscia, B.	COMP	304	Cramer, J.	MEDI	260
Cook, M.	ORGN	544	Coscia, B.	PMSE	354	Cramer, S.P.	INOR	769
Cook, R.	ENFL	247	Cosgriff, C.	PHYS	63	Crandall, D.	ENFL	91
Cook, R.	CHED	165	Cosović, B.	ENVR	496	Crandall, L.	BIOL	118
Cooke, A.	MEDI	225	Costa, A.A.	CATL	330	Crans, D.C.	COLL	593
Cooke, I.	PHYS	518	Costales, A.	MEDI	267	Cravatt, B.F.	MEDI	232
Cooke, R.	COMP	85	Costanza-Robinson, M.	ENVR	440	Craven, G.	PHYS	85
Cooke, R.	MEDI	8	Costanzi, S.	COMP	250	Craven, G.	ORGN	52
Cooke, S.	PMSE	464	Costanzi, S.	COMP	282	Crawford, C.L.	INOR	323
Cooks, R.G.	CHED	77	Coste, S.	INOR	349	Crawford, M.	PROF	4
Cook-Sneathen, A.K.	INOR	610	Coste, S.C.	INOR	342	Crawford, M.	PROF	13
Cook-Sneathen, A.K.	INOR	953	Coster, M.J.	MEDI	285	Crawford, M.	PROF	14
Coon, Z.	ORGN	163	Cote, G.L.	PMSE	566	Crawford, M.	PROF	15
Coon, Z.	ORGN	319	Cote, G.L.	AGFD	263	Crawford, M.	PROF	16
Cooper, A.	ENVR	246	Cottaz, S.	INOR	583	Crawford, M.	CHED	329
Cooper, A.I.	ORGN	562	Cotten, M.	PHYS	578	Crawford, S.	COLL	375
Cooper, B.	ENFL	469	Cotter, D.	INOR	636	Crawford, T.	COMP	3
Cooper, B.T.	ANYL	35	Cotterman, R.L.	POLY	247	Credille, C.V.	MEDI	339
Cooper, J.	CATL	101	Cottet, H.	POLY	697	Credille, C.V.	MEDI	341
Cooper, J.H.	CATL	55	Cottrill, A.	ORGN	669	Cremer, P.S.	ANYL	10
Cooper, M.	CHED	26	Cottrill, A.	PHYS	507	Cremer, P.S.	ANYL	11
Cooper, M.	ORGN	59	Cottrill, A.	PMSE	355	Cremer, P.S.	COLL	89
Cooper, P.D.	PHYS	395	Couch, M.	AGRO	89	Cremer, P.S.	COLL	212
Cooper, P.D.	PHYS	441	Couch, R.D.	MEDI	184	Cremer, P.S.	COLL	269
Cooper, R.	PMSE	543	Couch, R.D.	MEDI	324	Cremer, P.S.	COLL	348
Cooper, S.	CINF	105	Couillaud, F.	COLL	96	Cremer, P.S.	COLL	353
Cooper, W.J.	ENVR	104	Couillaud, F.	PMSE	516	Cremer, P.S.	COLL	456
Coote, M.L.	POLY	3	Coulembier, O.R.	PMSE	356	Cresawn, K.	CHED	58
Coote, M.L.	POLY	417	Coulembier, O.R.	PMSE	398	Crespi, V.	INOR	870
Cope, S.	ORGN	49	Coulther, T.A.	TOXI	16	Crespo, A.	COMP	57
Cope, S.	ORGN	50	Counago, R.	MEDI	123	Crespo, E.A.	I&EC	64
Copeland, R.	COMP	61	Coutinho, A.	MEDI	127	Cress, B.	ORGN	649
Copenhaver, K.	AGRO	383	Coutinho, J.	I&EC	33	Crich, D.	CARB	39
Copenhaver, K.	AGRO	384	Coutinho, J.	I&EC	64	Crich, D.	CARB	50
Coperet, C.	INOR	610	Coutsias, E.	ORGN	372	Crick, C.R.	POLY	739
Coperet, C.	INOR	953	Covert, K.J.	INOR	131	Crihfield, C.	ANYL	64
Coperet, C.	PHYS	59	Cowan, A.	ANYL	75	Crihfield, C.	ANYL	417
Copley, S.D.	PHYS	333	Cowan, A.	ANYL	352	Crihfield, C.L.	ANYL	413
Copp, B.	ORGN	615	Cowan, J.A.	INOR	574	Crihfield, C.L.	ANYL	416
Copp, J.N.	PHYS	90	Cowart, J.	ENFL	251	Crihfield, C.L.	ANYL	418
Coppens, M.	ENFL	342	Cowles, R.S.	AGRO	106	Crihfield, C.L.	ANYL	65
Coppens, M.	INOR	748	Cowman, M.K.	ANYL	113	Criollo, A.	CHED	298
Copping, R.	NUCL	1	Cox, A.	ORGN	658	Crist, K.	AGRO	116
Coppock, M.B.	BIOL	43	Cox, C.T.	CHAS	3	Cristiglio, V.	ORGN	31
Corbett, A.J.	ORGN	212	Cox, E.	ENVR	326	Cristofaro, M.	AGRO	33
Corcoran, L.	NUCL	73	Cox, L.	POLY	549	Cristofol-Clough, M.	COMP	307
Corcoran, L.	NUCL	76	Cox, M.	AGRO	77	Crittenden, J.C.	ENVR	382
Corcos, A.R.	POLY	55	Cox, M.	MEDI	328	Critton, D.	MEDI	269
Cordero, R.	CARB	75	Cox, N.	PHYS	351	Croatt, M.P.	ORGN	232
Cordiner, M.	PHYS	351	Cox, N.	PHYS	356	Crocker, J.	COLL	18
Cordiner, M.	PHYS	551	Coyle Rees, M.	BMGT	8	Crocker, M.	CATL	451
Cordon, M.	ENVR	88	Coyne, J.	PMSE	357	Croissant, J.	COLL	104
Cordova, D.	AGRO	140	Cozzoli, L.	ORGN	502	Croissant, J.	COLL	229
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Croley, T.R.	ANYL	216	Cui, L.	POLY	506	Cutucache, C.	CHED	11
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Cromwell, B.	PMSE	358	Cui, S.	ORGN	300	Cwiertny, D.M.	ENVR	198
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Cronstein, B.N.	COLL	277	Cui, X.	PHYS	63	Cyran, J.D.	PHYS	516
Crooke, S.N.	BIOL	170	Cui, Y.	POLY	296	Czekner, J.G.	PHYS	421
Crooke, S.N.	CHED	161	Cui, Z.	ENFL	211	Czerwinski, K.	INOR	916
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Cross, J.N.	NUCL	19	Culver, J.N.	COLL	255	D'Angelo, C.	INOR	470
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Crowley, M.F.	CATL	101	Cundari, T.R.	INOR	608	Daemen, L.	CATL	43
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Crumlin, E.	CATL	378	Cunningham, M.T.	INOR	330	Daga, P.	COMP	359
Crumlin, E.	COLL	537	Cunningham, M.T.	INOR	596	Dagastine, R.R.	COLL	343
Crumlin, E.	COLL	538	Cunningham, P.D.	COLL	563	Dahal, D.	ORGN	88
Crumlin, E.	COLL	540	Cunningham, V.	POLY	424	Dahal, D.	ORGN	187
Crumlin, E.	COLL	541	Cuozzo, J.W.	MEDI	104	Dahal, U.R.	COMP	195
Crumlin, E.	PHYS	190	Curia, S.	POLY	137	Dahal, U.R.	PMSE	30
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Crump, A.	AGRO	96	Curley, P.	COLL	412	Dahanayake, V.	COLL	623
Cruse, C.	AGRO	89	Curley, P.	COLL	547	Dahanayake, V.	INOR	472
Cruz, C.	INOR	879	Curley, P.	ORGN	671	Daher, S.	MEDI	299
Cruz, C.N.	ANYL	315	Curran, S.	CATL	348	Dahl-Petersen, C.	CATL	206
Cruz, C.N.	ANYL	318	Currano, J.N.	CINF	2	Dahlstrand, C.	ORGN	261
Cruz, L.	ENFL	269	Currano, J.N.	CINF	27	Dai, B.	COLL	93
Cruz, P.	ANYL	167	Curreli, D.	NUCL	64	Dai, C.	ENVR	31
Cruz, Y.	CHED	199	Curry, B.	AGRO	102	Dai, C.	ENVR	32
Cruz-Balberdy, A.	COMP	39	Curry, N.A.	INOR	724	Dai, C.	ORGN	430
Cruz-Balberdy, A.	COMP	254	Curry, T.	ANYL	356	Dai, E.	PMSE	595
Cruz Ochoa, N.I.	ENVR	373	Curtin, C.	AGFD	24	Dai, G.	PMSE	235
Cruz Rivera, Y.	CHED	275	Curtin, G.M.	COMP	166	Dai, H.	ANYL	204
Cruz Silva, R.	COMP	371	Curtis, A.	AGFD	203	Dai, H.	CELL	26
Cruz Silva, R.	POLY	511	Curtis, B.	ORGN	658	Dai, H.	ANYL	345
Cryer, S.	AGRO	114	Curtis, J.K.	ANYL	330	Dai, H.	ENVR	225
Cryer, S.	AGRO	147	Curtis, J.E.	ORGN	31	Dai, L.	ENFL	80
Cryer, S.	AGRO	179	Curtis, T.	AGFD	205	Dai, L.	ENFL	462
Csányi, G.	PHYS	360	Curtis-Fisk, J.L.	CHED	47	Dai, L.	POLY	704
Cua, J.	I&E	31	Curtis-Fisk, J.L.	HIST	19	Dai, M.	POLY	346
Cubides, Y.	PMSE	664	Curtiss, A.B.	CHED	56	Dai, N.	AGRO	346
Cuesta, A.	PHYS	33	Curtiss, L.A.	CATL	46	Dai, Q.	ENFL	462
Cueto, R.	ANYL	293	Curtiss, L.A.	CATL	192	Dai, S.	CATL	57
Cui, C.	INOR	385	Curtiss, L.A.	CATL	278	Dai, S.	CATL	126
Cui, D.	MEDI	192	Curtiss, L.A.	CATL	278	Dai, S.	CATL	167
Cui, H.	COMP	409	Cushion, M.T.	MEDI	70	Dai, S.	CATL	336
Cui, H.	PMSE	35	Cushman, M.	MEDI	124	Dai, S.	COLL	174
Cui, H.	PMSE	191	Cussler, E.	ENFL	61	Dai, S.	ENFL	45
Cui, H.	PMSE	230	Costelcean, R.	I&E	25	Dai, S.	ENFL	117
Cui, H.	PMSE	448	Custodio, T.	ENVR	223	Dai, S.	ENFL	179
Cui, H.	PMSE	521	Cusumano, A.Q.	ORGN	96	Dai, S.	ENFL	208
Cui, H.	PMSE	521	Cuthbert, J.L.	POLY	389	Dai, S.	ENVR	494

Dai, S.	I&EC	5	Dare, R.M.	ORGN	602	Davies, G.H.	ORGN	643
Dai, S.	I&EC	18	Darek, L.C.	PHYS	107	Davies, G.	INOR	583
Dai, S.	I&EC	52	Darensbourg, M.Y.	CATL	267	Davies, I.W.	INOR	948
Dai, S.	PMSE	391	Darensbourg, M.Y.	INOR	136	Davies, I.W.	ORGN	383
Dai, W.	PHYS	498	Darensbourg, M.Y.	INOR	159	Davies, K.	CATL	410
Dai, X.	CATL	208	Darensbourg, M.Y.	INOR	698	Davies, N.	MEDI	19
Dai, Y.	BIOL	48	Dares, C.J.	NUCL	28	Davies, R.A.	MEDI	285
Dai, Y.	ORGN	105	Darienzo, R.	CELL	22	Davis, A.	PHYS	345
Dai, Y.	ENFL	156	Darienzo, R.	COLL	293	Davis, A.C.	AEI	28
Dai, Y.	PMSE	64	Darjani, S.	COLL	130	Davis, A.	MEDI	111
Dai, Z.	INOR	536	Darko, A.	INOR	627	Davis, A.P.	ENVR	539
Daigle, K.	BMGT	6	Darnell, B.M.	ORGN	90	Davis, A.	ANYL	27
Dailey, K.	CHED	59	Darr, J.	CHED	11	Davis, A.	HIST	12
Dailey, M.	INOR	637	Dartois, V.	MEDI	330	Davis, A.	POLY	501
Dain, J.	AGFD	149	Darvas, F.	AGRO	56	Davis, A.	CHED	234
Daiss, R.	ENVR	305	Darvas, F.	YCC	5	Davis, B.L.	ENFL	430
Da Jornada, F.H.	COMP	49	Darwich, S.	ANYL	351	Davis, B.	POLY	469
Da Jornada, F.H.	PHYS	72	Das, A.	COLL	560	Davis, B.H.	HIST	18
Dakshanamurthy, S.	MEDI	314	Das, A.	PHYS	104	Davis, B.H.	HIST	27
Dalafu, H.A.	INOR	60	Das, A.	INOR	762	Davis, C.	AEI	30
Dalecki, A.G.	INOR	323	Das, J.	ANYL	423	Davis, C.	ENVR	367
Dales, N.	MEDI	77	Das, P.	PMSE	495	Davis, C.W.	ENVR	102
Daley, C.J.	INOR	158	Das, S.	COLL	305	Davis, C.W.	ENVR	211
Daley, C.J.	INOR	193	Das, S.R.	POLY	393	Davis, D.	POLY	727
Dalilian, M.	ANYL	94	Dasary, S.S.	ENVR	479	Davis, J.	CHED	252
Dalkmann, P.	AGRO	38	Dasgupta, N.P.	CATL	426	Davis, J.	ORGN	505
Dallinger, D.	CHED	380	Dasgupta, S.	ORGN	310	Davis, J.	ORGN	507
Dalton, C.	CARB	70	Dasgupta, S.	ORGN	642	Davis, J.	ORGN	557
Dalton, L.R.	PMSE	609	Dasgupta, T.	CATL	331	Davis, J.M.	ANYL	329
Dalton, L.R.	PMSE	658	Dasgupta, T.P.	INOR	150	Davis, K.M.	PHYS	501
Dalton, L.	ENFL	91	Dasgupta, T.P.	INOR	966	Davis, M.C.	POLY	12
Daly, M.	INOR	541	Dash, R.	MEDI	100	Davis, M.C.	POLY	521
Daly, M.	POLY	145	Dash, S.	MEDI	74	Davis, P.	INOR	448
Daly, N.	MEDI	63	DaSilva, N.	AGFD	149	Davis, R.S.	ANYL	30
Daly, S.R.	INOR	51	Da Silva, B.S.	ORGN	614	Davis, R.	CATL	379
Dama, J.F.	PHYS	432	Da Silva Filho, L.C.	ORGN	432	Davis, R.M.	INOR	852
Damatov, D.	INOR	389	Da Silva Filho, L.C.	ORGN	613	Davis, T.	PMSE	644
Damborsky, J.	PHYS	145	Da Silva Filho, L.C.	ORGN	614	Davis, T.	POLY	425
Damkaci, F.	CHED	363	Da Silva Filho, L.C.	POLY	467	Davis, T.	CATL	117
Damrauer, N.H.	INOR	73	Dasog, M.	INOR	920	Davis, T.A.	ORGN	127
Damrauer, N.H.	INOR	672	Dasoju, M.	MEDI	94	Davis, T.	ANYL	64
Damrauer, N.H.	INOR	691	Dass, L.	BIOL	75	Davis, T.	ANYL	65
Dan, D.	NUCL	41	Dassonville-Klimpt, A.	MEDI	62	Davis, T.	ANYL	357
Danaher, M.	AGRO	45	Dassonville-Klimpt, A.	MEDI	99	Davis, Z.	AGFD	9
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Dandliker, P.	MEDI	39	Dastidar, S.	INOR	892	Davoren, J.E.	MEDI	241
Dandliker, P.	MEDI	215	Date, M.S.	COMP	186	Dawber, M.	PHYS	239
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Dang, L.	ENFL	387	Datta, P.	POLY	515	Dawson, B.	ORGN	631
Dang, Z.	ENVR	73	Datta, S.	PHYS	431	Dawson, J.	AGRO	144
Dang, Z.	ENVR	98	Dattlier, D.	AEI	63	Dawson, K.	PHYS	381
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Daniels, G.	PMSE	654	David, D.A.	AGRO	388	Dean, C.	POLY	91
Daniels, G.C.	PMSE	359	David, H.	NUCL	48	Dean, D.J.	NUCL	58
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DeBoef, B.L.	ORGN	634	de la Fuente, A.	ENVR	362	Deng, T.	AGFD	87
DeBoever, M.	CINF	103	De La Fuente, S.	ENVR	493	Deng, Y.	COLL	171
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Decker, S.	MEDI	253	Delevoeye, L.	CATL	124	Dennis, E.A.	COMP	392
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DeCoste, J.B.	INOR	750	Delgado Carrión, A.S.	BIOL	119	Dennis, J.M.	POLY	510
DeCoste, J.B.	INOR	755	Delgass, W.	CATL	67	Dennis, J.M.	POLY	522
DeCoste, J.B.	INOR	756	Delgass, W.	CATL	243	Dennis, P.	PMSE	311
De Cremer, G.	POLY	295	Delgass, W.	ENFL	73	Denny, M.S.	INOR	825
Decroly, A.	PMSE	356	Del Grosso, A.	ORGN	42	Denton, D.	AGRO	13
de Dios, A.C.	ORGN	323	Del Grosso, A.	ORGN	141	Denton, D.	AGRO	157
Dedyukhin, A.S.	INOR	639	Delhomme, O.	ENVR	242	Denton, D.	AGRO	158
Deeds, J.	AGFD	211	del Hoyo, A.M.	ORGN	51	Denton, E.	MEDI	55
Deeds, J.	ANYL	217	del Hoyo, A.M.	ORGN	638	Denton, E.	MEDI	56
Deegan, J.	ORGN	656	Delikatny, E.J.	MEDI	292	Denton, E.	ORGN	171
Deegan, M.	INOR	53	Deliz, D.	ORGN	682	Denton, K.E.	MEDI	218
Deegan, M.	INOR	935	Dellinger, T.	COLL	28	Denton, K.E.	MEDI	315
DeerInWater, K.M.	CMA	4	Delmau, L.H.	NUCL	59	Denton, R.	MEDI	269
DeForest, C.A.	PMSE	58	Delmonte, P.	AGFD	30	Denver, J.	CHED	179
Defranc, D.	PMSE	323	Delmonte, P.	AGFD	210	Denver, J.	CHED	188
de Funari, C.S.	ANYL	132	Delmonte, P.	ANYL	168	Deodhar, G.	INOR	872
Degaga, G.D.	COMP	172	Delmonte, P.	ANYL	328	de Oliveira, M.	I&EC	39
Degaga, G.D.	COMP	370	Delong, B.	POLY	520	De Pablo, J.J.	PMSE	29
De Gasparo, R.E.	MEDI	108	De Long, H.	ANYL	287	De Pablo, J.J.	PMSE	119
Degnan, A.P.	MEDI	335	de los Santos, M.	CHED	132	De Pablo, J.J.	PMSE	158
DeGrandi-Hoffman, G.	AGRO	102	de los Santos, M.	CHED	145	De Pablo, J.J.	PMSE	320
Degroote, M.	PHYS	180	de los Santos, M.	CHED	146	de Paz, J.	CARB	80
Deguchi, Y.	PMSE	409	de los Santos, M.	CHED	171	Depner, C.	AGFD	38
Dehaan, D.O.	ENVR	238	De Los Santos, Z.	ORGN	447	DePrince, A.E.	COMP	156
DeHaven, B.	ORGN	451	Delpassand, E.	CARB	60	DePrince, A.E.	COMP	306
Dehghani, E.	POLY	557	Delpe-Acharige, A.	INOR	836	De Proft, F.J.	CATL	191
Dehnhardt, C.M.	MEDI	76	del Pino, P.	COLL	622	De Proft, F.J.	BIOL	156
Dehnhardt, C.M.	MEDI	252	del Pino, P.	COLL	625	Derbyshire, E.	INOR	524
Dehnhardt, C.M.	MEDI	253	DeLuca, M.	CATL	365	Dereli, B.	CATL	391
De Hoe, G.	PMSE	246	Delucca, I.	MEDI	308	Deria, P.	INOR	407
Deibel, C.C.	ANYL	63	de Luna, M.G.	ENFL	269	Deria, P.	INOR	818
Deibel, C.C.	CHED	158	Demars, M.	ORGN	132	Deringer, V.L.	PHYS	360
Deibel, M.	ANYL	63	Demars, C.	AGRO	97	Derocher, J.	COLL	525
Deibel, M.	CHED	158	Demartino, M.P.	ORGN	59	DeRosa, C.A.	ANYL	101
Deiters, A.	ORGN	348	Demas, J.N.	POLY	145	DeRosa, C.A.	INOR	541
Dejager, L.	AGFD	34	Demassa, J.	ORGN	213	DeRosa, C.A.	INOR	542
Dejager, L.	AGFD	77	Demchenko, D.O.	INOR	779	DeRosa, C.A.	INOR	543
Dejager, L.	AGFD	81	Demchuk, Z.	PMSE	174	DeRosa, C.A.	POLY	145
Dejager, L.	AGFD	237	Demchuk, Z.	POLY	635	DeRosa, C.A.	POLY	525
Dejager, L.	ANYL	199	Demejia, E.	AGFD	219	Derry, M.J.	POLY	671
Dejager, L.	ANYL	201	DeMella, K.C.	POLY	650	Dervilly-Pinel, G.	AGRO	44
De Jesus, M.	ORGN	185	De Mesmaecker, A.	AGRO	411	de Sa, S.	ENVR	189
De Jesus Flores, M.	CHED	275	Deming, T.J.	PMSE	15	de Sa, S.	ENVR	192
Dejong, W.	NUCL	54	Demir, T.	POLY	450	Desaeger, J.	AGRO	140
de Jong, R.	PHYS	193	Demirtepe, H.	ENVR	472	Desai, R.	COLL	548
de Jong, R.N.	ANYL	51	DeMott, P.J.	ENVR	532	Desai, S.	INOR	820
de Jong, R.	ORGN	222	Demuth, H.U.	MEDI	181	Desai, S.	MEDI	365
de Jong, W.	CATL	255	De Mutsert, K.	ENVR	389	Desai, V.	CINF	120
de Jongh, P.A.	POLY	601	Denard, C.	INOR	211	Desaphy, J.	CINF	133
De Keersmaecker, M.	PMSE	5	Denemark, E.	AGRO	95	Deschamps, J.	ORGN	597

Deschenes, A.	COMP	251	Dewyer, A.L.	COMP	330	Dieterich, J.	PHYS	231
Deschenes, A.	COMP	252	Dey, A.	INOR	90	Dietsche, T.	POLY	482
Deschenes, L.	AGFD	124	Dey, B.K.	COMP	173	Dietz, T.	I&EC	31
Deshmane, V.G.	CATL	117	Dey, F.	COMP	7	Dietzek, B.	ORGN	674
Deshmukh, S.	COMP	41	Dey, S.	BIOL	155	Dieudonne-George, P.	POLY	697
Deshmukh, S.	PMSE	31	Dey, S.	COLL	398	Digby, Z.	PMSE	7
Deshpande, N.	ENFL	75	Deydier, E.	INOR	229	Digby, Z.	PMSE	74
de Silva, M.	CHED	260	DeYoreo, J.	CATL	380	Digby, Z.	PMSE	456
De Silva, D.T.	CARB	48	Dhainy, J.	INOR	615	DiGuisseppi, D.M.	COLL	413
De Silva, D.T.	INOR	930	Dhaka, S.	ENVR	383	Di Iorio, J.	CATL	243
De Silva, T.	ENFL	245	Dhaked, D.	CINF	61	Di Iorio, J.	ENFL	73
De Silva Indrasekara, S.	AEI	18	Dhanyala, S.	ENVR	292	Dikarev, E.	INOR	20
De Silva Indrasekara, S.	COLL	69	Dhankher, A.	POLY	349	Dikmen, E.	ORGN	630
DeSimone, J.M.	MPPG	2	Dhar, D.	CATL	391	Diky, V.	CINF	106
DeSimone, J.M.	POLY	230	Dhar, S.	BIOL	7	Dilbeck, T.	INOR	340
DeSimone, J.M.	POLY	667	Dharani, A.	INOR	587	Dill, R.	INOR	672
Deskins, N.A.	CATL	45	Dharmaratne, N.	CATL	321	Dillner, D.K.	CHED	99
Deskins, N.A.	CATL	237	Dharmawardana, M.	INOR	125	Dillon, A.D.	INOR	892
Deskins, N.A.	CATL	305	Dharmawardhana, C.C.	COMP	40	Dilworth, J.	PHYS	357
Deskins, N.A.	ENFL	209	Dhinojwala, A.N.	POLY	32	Dima, R.I.	COMP	246
Deskins, N.A.	ENVR	134	Dhungana, B.	ENVR	391	Dimandja, J.	ANYL	252
Deskins, S.	INOR	518	Dhungana, B.	ENVR	395	Dimitriadis, E.	BIOL	116
Deslippe, J.	COMP	49	Dia, V.	AGFD	247	Dimitriadis, E.	PMSE	212
Deslippe, J.	COMP	54	Diakova, G.B.	COLL	575	Dimitrievska, M.	ENFL	71
Desman, P.	ORGN	694	Diallo, M.S.	PMSE	571	DiMucci, I.	INOR	284
Desmarteau, D.A.	AGRO	154	Dianovsky, M.T.	CHED	334	Dinan, F.J.	PROF	22
Desmarteau, D.A.	AGRO	352	Dianovsky, M.T.	CHED	338	Dinca, M.	INOR	293
Desmarteau, D.A.	AGRO	353	Diao, Y.	COMP	295	Dinca, M.	INOR	355
Desmarteau, D.A.	AGRO	381	Diao, Y.	COMP	296	Dinescu, A.	COMP	161
De Smet, L.	PMSE	570	Dias, M.	ANYL	148	Ding, Y.	AGFD	270
De Smet, L.	PMSE	652	Dias, M.	COLL	386	Ding, F.	COMP	11
de Souza, J.D.	INOR	254	Dias, M.	INOR	788	Ding, H.	ENVR	495
de Souza, M.	AGFD	20	Dias, R.	INOR	590	Ding, J.	AGFD	78
de Souza, M.	AGFD	49	Diat, O.	I&EC	14	Ding, J.	ANYL	150
de Souza, R.	ENVR	189	Diat, O.	I&EC	16	Ding, J.	CATL	430
De Souza, M.	PHYS	439	Diaz, L.	MEDI	363	Ding, K.	CATL	204
Despotopulos, J.	NUCL	48	Diaz, R.	INOR	141	Ding, L.	BIOL	170
Despres, H.	SCHB	38	Diaz, R.	BIOL	157	Ding, M.	I&EC	36
Desroches, M.	POLY	274	Diaz, S.	COLL	449	Ding, P.	CHED	189
Destailats, F.	AGFD	12	Diaz-Diaz, D.	COLL	509	Ding, P.	CHED	248
Destarac, M.	POLY	618	Diaz Romero, D.E.	INOR	790	Ding, R.	ORGN	331
Destarac, M.	POLY	697	Diaz-Tielas, C.	AGRO	32	Ding, R.	ORGN	447
Destefani, T.	COLL	94	DiBattista, G.S.	PHYS	493	Ding, S.	CATL	267
Destefano, M.	INOR	5	DiCarlo, D.A.	ENVR	421	Ding, S.	INOR	698
Destefano, M.	INOR	820	Dichiara, A.B.	ENVR	220	Ding, S.	ANYL	268
Detchou, C.	MEDI	286	Dichtel, W.	COLL	594	Ding, W.	POLY	631
Detrembleur, C.	POLY	255	Dichtel, W.	PMSE	1	Ding, X.	MEDI	253
Deutsch, D.G.	COMP	260	Dichtel, W.	PMSE	63	Ding, X.	COMP	89
Deutsch, D.J.	SCHB	7	Dichtel, W.	PMSE	246	Ding, Y.	BIOL	38
Dev, P.	PMSE	22	Dichtel, W.	PMSE	575	Ding, Y.	MEDI	217
Devadas, M.	INOR	507	Dichtel, W.	POLY	36	Dingemans, T.J.	POLY	663
Devadas, M.	INOR	658	Dichtel, W.	POLY	43	Dingley, K.	TOXI	108
Devadas, M.	INOR	659	Dichtel, W.	POLY	55	Dinh, A.	ENFL	258
Devadas, M.	INOR	660	Dichtel, W.	POLY	59	Di Nitto, A.	NUCL	48
Devanathan, R.	NUCL	35	Dichtel, W.	POLY	240	Dinsmore, T.	COLL	126
Devaraj, N.K.	COLL	359	Dichtel, W.	POLY	293	Dinu, M.	POLY	201
Devaraj, A.	CATL	431	Dichtel, W.	POLY	742	Dinu, Z.	POLY	77
Devarajan, D.S.	COLL	464	Dichtel, W.	POLY	743	Dionysiou, D.D.	ENVR	147
Devarapalli, M.	INOR	505	Dichtel, W.	POLY	779	Dionysiou, D.D.	ENVR	159
Devaux, D.	CATL	273	Dick, A.	POLY	362	Dionysiou, D.D.	ENVR	248
Devaux, D.	CATL	432	Dick, T.	MEDI	277	Dipple, K.	COLL	501
Devaux, R.S.	COLL	242	Dicker, K.T.	PMSE	226	DiRico, K.J.	ORGN	474
Deveau, E.	ANYL	82	Dickerson, J.H.	AEI	22	Dirkes, D.J.	POLY	731
Deveney, B.	POLY	651	Dickerson, R.	ENVR	487	DiRocco, D.	INOR	387
Devine, M.	BIOL	24	Dickey, M.D.	POLY	727	Diroll, B.	COLL	492
Devine, M.C.	BIOL	99	Dickey, A.	INOR	919	DiScenza, D.J.	ENVR	427
Devins, B.	ENVR	152	Dickie, C.	INOR	516	DiScenza, D.J.	ORGN	388
Devivo, M.	COMP	143	Dickinson, B.C.	PHYS	331	Dissanayake, G.C.	ORGN	659
Devivo, M.	COMP	340	Dickinson, W.W.	ENFL	265	Dissanayake, G.C.	ORGN	691
De Vleeschouwer, F.	CATL	191	Dickson, A.	COMP	108	Dissanayake, N.M.	AEI	31
Devore, T.C.	CHED	87	Dickson, A.	COMP	117	Distasio, R.A.	COMP	50
Devore, T.C.	INOR	890	DiCola, A.	BIOL	113	Distefano, M.D.	BIOL	145
Devore, T.C.	PHYS	574	DiCostanzo, L.	CHED	193	Distefano, M.D.	ORGN	82
De Vries, J.G.	CATL	178	Di Domizio, G.	CHED	179	Distefano, M.D.	TOXI	60
Dewage, S.W.	COMP	200	Diederich, F.N.	MEDI	72	Ditoro, D.M.	ENVR	102
Dewese, K.R.	ORGN	231	Diederich, F.N.	MEDI	108	Di Toro, D.M.	AEI	30
Dewhirst, M.W.	POLY	145	Diederich, F.N.	MEDI	259	Dittmar, J.	COLL	231
Dewing, B.	INOR	782	Diemer, V.	ORGN	487	Dittmar, J.	COLL	236
De Winter, J.	ORGN	539	Diepenbrock, A.	ORGN	139	Dittrich, T.M.	ENVR	415
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Divar, M.	PMSE	586	Dominguez-Calva, J.	INOR	29	Dormidontova, E.	PMSE	32
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Dixit, M.	ENFL	72	Donahue, C.E.	ANYL	263	Dorn, A.	AGRO	38
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Dixon, D.A.	INOR	776	Donahue, J.P.	ENFL	357	Dorr, B.	ANYL	90
Dixon, D.A.	INOR	815	Donahue, M.G.	ORGN	99	Dorresteijn, P.C.	AGFD	38
Dixon, D.A.	NUCL	45	Donahue, M.G.	ORGN	552	Dorris, R.E.	PHYS	377
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Djurovich, P.I.	INOR	687	Dong, C.	ENFL	236	Dotsenko, I.A.	MEDI	334
Djurovich, P.I.	INOR	730	Dong, G.	ORGN	286	Dotson, D.L.	PHYS	245
Dlamini, S.	MEDI	321	Dong, H.T.	INOR	168	Dotzler, S.	INOR	816
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Do, C.H.	HIST	16	Dong, J.	PMSE	437	Dou, W.	PHYS	151
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Do, N.	ORGN	301	Dong, J.	AGFD	187	Doucet, M.	PHYS	327
Doan, M.Y.	INOR	415	Dong, J.	AEI	3	Doud, E.	INOR	512
Doan, S.	BIOL	55	Dong, J.	ANYL	39	Doud, M.	AEI	62
Dobereiner, G.	INOR	231	Dong, J.	ANYL	125	Dougan, D.R.	MEDI	110
Dobereiner, G.	INOR	332	Dong, J.	ANYL	364	Dougan, M.	MEDI	195
Dobereiner, G.	INOR	955	Dong, K.	AGRO	174	Dougherty, M.	CHAS	3
Dobrev, V.S.	ORGN	323	Dong, K.	AGRO	394	Dougherty, M.	CHAS	4
Dobrovetsky, R.	INOR	734	Dong, L.	PMSE	438	Doughty, B.	CATL	43
Dobrucki, W.	COLL	515	Dong, L.	I&EC	37	Douglas, G.	ORGN	362
Dobrynin, A.V.	ENFL	265	Dong, M.	POLY	371	Douglas, J.	PMSE	163
Dobrynin, A.V.	PMSE	94	Dong, R.	POLY	775	Douglas, J.	PMSE	208
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Dobrynin, A.V.	POLY	766	Dong, S.	CARB	68	Douglas, J.F.	PMSE	160
Dobson, K.	COLL	532	Dong, W.	CATL	297	Douglas, J.F.	PMSE	320
Dockendorff, C.	MEDI	101	Dong, W.	ENFL	236	Douglas, S.	ENVR	240
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Dodd, R.	ORGN	53	Dong, X.	ORGN	267	Dove, A.P.	PMSE	325
Dodd, S.	MEDI	267	Dong, X.	ENVR	460	Dove, A.P.	PMSE	400
Dodder, S.	INOR	636	Dong, X.	ENVR	461	Dove, A.P.	PMSE	640
Dodge, C.	COLL	291	Dong, X.	COLL	187	Dove, A.P.	POLY	768
Dodson, L.G.	PHYS	489	Dong, X.	CATL	393	Dover, H.E.	AGFD	76
Dodson, L.G.	PHYS	563	Dong, X.	ENFL	420	Dow, R.L.	MEDI	207
Dodson, R.	CHED	120	Dong, Y.	ENFL	441	Dowbiggin, B.	ENVR	152
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Doering, E.	MEDI	15	Dong, Y.	CATL	361	Dowd, C.S.	MEDI	184
Doetsch, V.	PHYS	246	Dong, Z.	COMP	239	Dowd, C.S.	MEDI	324
Doghieri, F.	PMSE	665	Dongre, A.	MEDI	195	Dowd, M.K.	POLY	760
Doherty, B.	COMP	205	Donic, A.	BIOL	26	Dowd, P.	AGRO	315
Doherty, B.	COMP	214	Donic, A.	BIOL	84	Dowling, M.S.	MEDI	258
Doherty, B.	COMP	316	Donnelly, D.	MEDI	269	Downes, C.	INOR	279
Doherty, L.	AGFD	36	Donnelly, J.	INOR	716	Downes, C.	INOR	893
Doherty, L.	AGFD	50	Donoso, M.	MEDI	269	Downey, C.W.	ORGN	75
Doherty, M.	AGRO	199	Donovan, A.	CHED	59	Downey, G.	AGFD	213
Döhler, D.	PMSE	9	Donovan, B.	POLY	360	Downey, P.	AGRO	115
Dohn, D.	AGRO	331	Donovan, B.	POLY	724	Downey, P.	AGRO	347
Dohnalek, Z.	CATL	102	Donovan, B.R.	POLY	726	Downie, D.	AGRO	324
Dohnalek, Z.	COLL	133	Donovan, D.	NUCL	8	Draeger, E.W.	COMP	52
Dohnalkova, A.	INOR	127	Donovan, M.A.	PHYS	516	Drahushuk, L.	ANYL	373
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Doi, M.	ORGN	119	Dooley, J.	INOR	246	Drake, J.	AGFD	140
Doi, M.	ORGN	124	Dooley, J.	MEDI	267	Drake, T.	CATL	204
Doi, M.	ORGN	156	Dooley, K.	ANYL	259	Dranchak, P.	BIOL	51
Doi, M.	ORGN	159	Dooley, P.	PHYS	299	Draper, E.	ORGN	479
Dokoozlian, N.	AGFD	26	Dooley, S.	CATL	193	Dravid, V.P.	COLL	101
Dolan, E.	POLY	78	Dooley, S.	CATL	463	Dravid, V.P.	COLL	103
Dolente, C.	MEDI	256	Doong, R.	ENVR	22	Drazkowski, P.A.	ENFL	90
Dolganov, I.	AEI	38	Doorn, S.K.	PHYS	504	Dréan, M.	POLY	255
Dolganova, I.	AEI	38	Dorais, C.	NUCL	75	Drenckhan, W.	COLL	388
Dolgopolova, E.A.	INOR	120	Dorau, B.	POLY	627	Drenichev, M.S.	MEDI	186
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Domack, A.	CHED	369	Dorzio, S.J.	INOR	862	Drennan, C.	CATL	8
Domagalski, J.	AGRO	162	Dordick, J.S.	CARB	58	Drennen, B.	MEDI	229
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Domena, J.	ORGN	611	Dorh, N.	ORGN	408	Drewry, D.	MEDI	123
Domenech, T.	PMSE	512	Dorhout, P.K.	WCC	11	Drexler, R.	ANYL	156
Domenico, J.	PHYS	538	Dormidontova, E.	COLL	303	Drexler, C.I.	COLL	212
Domingo-Snyder, E.	ANYL	305	Dormidontova, E.	COMP	190	Drexler, D.	MEDI	269

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Dreyer, M.	COMP	63	Duellmann, C.	NUCL	49	Dutt, M.	COMP	411
Driguez, H.	INOR	583	Duerig, U.	COLL	297	Dutta, A.	CATL	268
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Driscoll, J.N.	ANYL	379	Duersch, B.	ANYL	79	Dutta, K.	PMSE	465
Drisdell, W.	CATL	379	Duff, A.	COLL	21	Dutta, N.	PMSE	270
Driver, J.H.	AGRO	236	Duffy, J.L.	MEDI	245	Dutta, T.	CELL	1
Driver, J.	AGRO	237	Dufréche, J.	I&EC	16	Dutta, T.	CELL	2
Droescher, P.	MEDI	266	Dugger, J.	POLY	744	Dutta, T.	CELL	30
Drohat, A.	COMP	235	Dugovic, C.	MEDI	211	Dutton, K.	INOR	61
Dronskowski, R.	PHYS	317	Duke, S.	AGRO	313	Duveau, D.Y.	AEI	8
Dronskowski, R.V.	PHYS	159	Duke, S.O.	AGRO	32	Duveau, D.Y.	ORGN	28
Dropinski, J.F.	CATL	460	Duke, S.O.	AGRO	34	Duverna, R.	AGRO	168
Dror, R.O.	COMP	379	Duke, S.O.	AGRO	314	Duvoisin, S.	ENVR	189
Dror, R.O.	PHYS	291	Dullea, R.	MEDI	63	Duvvuri, K.	ORGN	231
Drucker, S.	PHYS	300	Duman, L.M.	INOR	671	Dvorak, C.A.	MEDI	211
Drucker, S.	PHYS	454	Duman, L.M.	INOR	770	Dwaraknath, S.	CATL	86
Drummer, M.	PHYS	485	Dumas, A.	ORGN	256	Dworatzek, S.	ENVR	326
Drummey, K.	PMSE	293	Dumbrepatil, A.B.	BIOL	83	Dwyer, D.	INOR	675
Drummey, K.	PMSE	480	Dumbrepatil, A.B.	BIOL	96	Dwyer, J.R.	COLL	121
Drummond, T.	INOR	966	Dumelin, C.	MEDI	8	Dyatkin, B.	I&EC	50
Drury, K.	CHED	25	Dumesic, J.A.	ENVR	87	Dybeck, E.	COMP	335
Druzhilovskiy, D.	CINF	83	Dumesic, J.A.	ENVR	89	Dybeck, E.	PHYS	462
Druzhilovskiy, D.	CINF	134	Dumitrescu, E.	ANYL	42	Dyer, D.G.	AGRO	268
Drwal, M.N.	CINF	133	Dunbar, S.R.	ORGN	37	Dykstra, K.	INOR	387
Dryfe, R.A.	PHYS	234	Duncan, A.J.	POLY	252	Dymock, B.W.	MEDI	277
Dryman, C.	NUCL	59	Duncan, K.	CHED	29	Dzamba, M.	COMP	90
Du, G.	INOR	878	Duncan, T.	ANYL	255	Dzielawa, J.	PROF	19
Du, H.	PMSE	371	Duncan, T.V.	AGFD	253	Dzierba, C.D.	MEDI	5
Du, J.	POLY	736	Dunham, N.	ENFL	258	Dzikovski, B.	COLL	559
Du, L.	ENFL	84	Dunkel, A.	AGFD	168	Dzubiella, J.	COMP	129
Du, L.	AGFD	184	Dunkel, A.	AGFD	172	D'Arienzo, C.	MEDI	7
Du, L.	POLY	271	Dunkel, A.	AGFD	183	Eady, S.	INOR	391
Du, P.	ENVR	54	Dunkers, J.	ENVR	470	Eady, S.	INOR	607
Du, S.	MEDI	269	Dunlap, B.I.	INOR	545	Eagleton, A.M.	PMSE	360
Du, X.	AGFD	200	Dunlap, B.I.	INOR	735	Eam, B.	ORGN	63
Du, X.	PMSE	190	Dunlap, N.K.	ORGN	73	Eastep, J.	AGRO	351
Du, Y.	NUCL	36	Dunn, A.L.	ORGN	271	Easter, J.A.	MEDI	269
Du, Y.	NUCL	37	Dunn, F.	ENFL	473	Eastgate, M.D.	ORGN	521
Du, Y.	POLY	557	Dunne, J.	CINF	121	Eastman, P.	PMSE	369
Du, Y.	PMSE	222	Dunne, J.	ENVR	387	Eastman, S.	ENFL	182
Du, Y.	AGRO	394	Dunne, J.	TOXI	91	Eastmond, D.A.	AGRO	233
Du, Z.	COLL	575	Dunning, T.H.	COMP	4	Easton, A.	MEDI	358
Duan, J.	CATL	220	Dunwell, M.	PHYS	87	Eaton, S.J.	ENFL	449
Duan, L.	INOR	904	Duong, T.	COLL	43	Eaton, T.	NUCL	14
Duan, P.	ENVR	92	Dupradeau, F.	COMP	224	Eaton, T.	NUCL	28
Duan, W.	ENFL	431	Dupree, P.	INOR	583	Eaton, T.R.	CATL	7
Duan, X.	ENFL	260	Du Prez, F.E.	PMSE	279	Eaton, T.R.	CATL	210
Duan, X.	INOR	710	Du Prez, F.E.	PMSE	515	Ebaid, M.	CATL	203
Duan, X.	ENVR	248	Du Prez, F.E.	POLY	165	Ebara, M.	POLY	499
Duan, X.	ORGN	455	Du Prez, F.E.	POLY	323	Ebara, M.	POLY	500
Duan, Y.	COLL	606	Dupuis, L.	POLY	771	Ebbesen, M.F.	PMSE	577
Duan, Y.	PHYS	408	Dupuis, M.	COMP	22	Ebeler, S.E.	AGFD	93
Duan, Z.	CATL	24	Dura, J.	PHYS	328	Ebeler, S.E.	AGFD	209
Dubbin, K.	PMSE	56	Duraiswamy, A.J.	MEDI	17	Eberhardt, K.	NUCL	49
Dubbin, K.	PMSE	309	Duraiswamy, N.	ANYL	179	Eberhardt, L.	ENVR	252
Dubey, A.	INOR	102	Duraj-Thatte, A.	PMSE	623	Eberhardt, K.	NUCL	48
Dubey, A.	INOR	949	Duran, J.	NUCL	8	Ebron, V.	POLY	466
Dubey, M.	INOR	870	Durant, N.D.	ENVR	200	Ebron, V.	POLY	732
Dubey, R.	INOR	122	Durant, N.D.	ENVR	326	Ebule, R.	ORGN	596
Dubey, R.	INOR	293	Durfee, P.N.	COLL	27	Echavarren, A.M.	ORGN	145
Dubois, P.	PMSE	356	Durham, O.Z.	COLL	615	Echegoyen, L.	POLY	272
Dubois, P.	POLY	328	Durian, D.	COLL	393	Echelman, D.	BIOL	181
Dubois, P.	POLY	558	Durke, E.M.	ENVR	292	Echelman, D.	POLY	150
DuBois, J.	INOR	466	Durkin, D.P.	ANYL	287	Echeverria, A.	ORGN	398
Duchesne, P.	ENFL	206	Dursch, T.J.	PMSE	33	Echeverria, J.	PHYS	115
Duchon, T.	CATL	112	Dursch, T.J.	PMSE	155	Echeverria, M.	AGRO	182
Duchon, T.	CATL	161	Dursun, I.	COLL	600	EchoHawk, S.	CMA	4
Duchon, T.	CATL	299	Duscher, G.	ENFL	361	Eck, W.	POLY	13
Duckely, M.	MEDI	306	Dusek, K.	PMSE	40	Eckard, H.E.	COLL	220
Ducker, W.A.	COLL	124	Dusek, K.	PMSE	102	Eckel, W.P.	ENVR	352
Ducker, W.A.	ENVR	341	Duskova Smrckova, M.	PMSE	40	Eckelbarger, J.D.	AGRO	385
Ducker, W.A.	ENVR	342	Duskova-Smrckova, M.	PMSE	102	Ecker, M.	AEI	84
Duckworth, O.	ENVR	284	Dussan, K.	CATL	193	Eckert, J.	AGRO	295
Duckworth, R.	POLY	60	Dusselier, M.	CELL	5	Edalji, R.	MEDI	322
Duclos, F.J.	MEDI	73	Dutcher, C.	PHYS	122	Edayilam, N.	ENVR	228
Dudak, F.	INOR	936	Dutoi, A.D.	PHYS	272	Eddie, B.	ENVR	535
Duddu, S.S.	ORGN	56	Dutra, J.	ORGN	469	Eddie, B.	ENVR	561
Dudek, M.	COMP	226	Dutt, M.	COLL	60	Eddy, M.	PHYS	342
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Edelstein, E.	ORGN	570	Eisele, D.M.	ANYL	210	Ellison, M.D.	CHED	258
Edgar, K.J.	COMP	244	Eisenberg, R.	INOR	23	Ells, T.	AGFD	124
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Edmiston, E.	CINF	121	Ekins, S.	BIOL	158	Elmore, B.	POLY	514
Edmiston, E.	ENVR	387	Ekins, S.	CINF	115	Elmore, S.	AGFD	204
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Edwards, E.A.	ENVR	326	Ekins, S.	SCHB	24	El-Samak, A.	PMSE	361
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Edwards, J.	ENVR	387	Elacqua, E.	POLY	567	El-Sayed, M.A.	ANYL	6
Edwards, J.	TOXI	91	Eladgham, E.	COLL	254	El-Sayed, M.A.	SOCED	4
Edwards, J.	ORGN	256	Eladgham, E.	INOR	661	El-Shall, M.S.	PHYS	304
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Edwards, K.	POLY	236	El-Arab, M.E.	MEDI	81	El-Shall, M.S.	PHYS	404
Edwards, M.	ENVR	243	El-Assaad, T.H.	ORGN	440	El-Shall, M.S.	PHYS	452
Edwards, M.	ENVR	325	Elathram, N.	COLL	153	El-Shall, M.S.	PHYS	453
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Edwards, M.A.	COLL	108	Eldalatony, M.	ENFL	159	El-Shall, M.S.	PHYS	491
Edwards, P.	AGRO	330	Elder, D.L.	PMSE	658	El-Shall, M.S.	PHYS	495
Edwards, P.	INOR	865	Elder, V.A.	AGFD	174	Elsokkary, A.	PMSE	479
Edwards, P.	PHYS	357	Eldredge, A.	COLL	315	Eltahir, A.	MEDI	42
Edwards, P.M.	ORGN	236	Eleazer, B.	INOR	427	EITall, O.	ENFL	380
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Edwards, R.	MEDI	324	Elgendy, A.	PMSE	361	Elwell, J.	CATL	252
Edwards, S.J.	ENVR	66	El Hadri, H.	ANYL	297	Elwood, S.	CHAS	25
Edwards, S.R.	AGRO	200	Elias, A.	PHYS	466	Elwood, S.	CHAS	30
Edwards, S.	PMSE	624	Elias, A.	POLY	503	Elwood, S.	CHAS	40
Edwards, S.	ENVR	546	Elias, R.	ENVR	357	Elzes, R.	COLL	436
Edwards-Brandt, J.	ENVR	560	Elias, R.	AGFD	96	Elzinga, E.	ENVR	33
Eey, S.T.	CATL	486	Elias, R.	AGFD	97	Elzinga, P.	MEDI	7
Egap, E.	ORGN	527	Elimelech, M.	AEI	37	Elzinga, P.A.	MEDI	25
Egashira, H.	MEDI	343	Elimelech, M.	ENVR	146	Emadi, A.	MEDI	74
Egbert, J.	CATL	479	Elimelech, M.	ENVR	271	Emami, S.	PHYS	384
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Egeghy, P.	ENVR	546	Elizondo-Garcia, M.	POLY	745	Emenike, B.U.	CHED	292
Egegekenze, R.N.	CATL	320	El-Kadri, O.	INOR	557	Emenike, B.U.	ORGN	192
Eger, E.	CATL	184	El-Kharbachi, A.	ENFL	67	Emenike, M.	CHED	13
Egidi, F.	COMP	331	Elkins, J.M.	MEDI	141	Emerson, J.P.	INOR	151
Egiebor, N.O.	ENVR	21	Elkins, K.M.	ANYL	75	Emge, T.	INOR	811
Egiebor, N.O.	ENVR	70	Elkins, K.M.	ANYL	352	Emge, T.	ORGN	581
Egiebor, N.O.	ENVR	71	Elkins, K.M.	CHED	118	Emmerich, J.	MEDI	221
Eglio, M.	TOXI	17	Ellefson-Kuehn, J.	CHED	59	Emmert, M.	ENVR	92
Eglio, M.	TOXI	93	Eller, M.	PMSE	121	Emmert, M.	INOR	504
Ehlinger, A.C.	INOR	942	Ellington, M.	ANYL	358	Emmons, E.	PMSE	386
Ehrich, M.	PMSE	470	Elliott, M.	AGFD	124	Empting, M.	MEDI	231
Ehrman, S.H.	CATL	405	Elliott, J.	ENVR	10	Emrick, T.	POLY	257
Ehudin, M.	INOR	721	Elliott, J.	ENVR	161	Emsley, L.	PHYS	342
Eiblmaier, J.	COMP	283	Elliott, R.	MEDI	103	Emtiaz, S.	PHYS	305
Eichhorn, B.W.	ANYL	253	Elliott, R.	MEDI	274	Enami, S.	ENVR	287
Eichhorn, B.W.	CATL	17	Elliott, S.	AEI	67	Enami, S.	ENVR	289
Eichhorn, B.W.	COLL	538	Elliott, S.	ORGN	226	Enamuotor, O.B.	ENVR	100
Eichhorn, B.W.	INOR	545	Elliott, W.	PHYS	88	Enciso, A.E.	POLY	386
Eichhorn, B.W.	INOR	735	Ellis, C.	COLL	563	Enders, A.	INOR	298
Eichhorn, B.W.	INOR	739	Ellis, C.R.	COMP	127	Endo, A.	ANYL	319
Eichhorn, B.W.	PHYS	190	Ellis, C.R.	COMP	223	Endo, M.	COMP	371
Eichhorn, J.	CATL	382	Ellis, C.R.	COMP	270	Endo, T.	CELL	19
Eichler, A.	ENVR	293	Ellis, C.R.	COMP	389	Endo, T.	CELL	24
Eichmann, S.L.	ENFL	372	Ellis, E.	CHED	194	Endres, K.J.	POLY	82
Eichmann, S.L.	ENFL	421	Ellis, H.R.	BIOL	168	Endres, N.	MEDI	22
Eidam, H.S.	ORGN	59	Ellis, J.P.	CHED	312	Endres, N.	MEDI	103
Eigenbrodt, B.C.	ENFL	255	Ellis, J.	AGRO	186	Endres, P.	POLY	140
Eigenbrodt, B.C.	INOR	36	Ellis, K.	POLY	711	Endrodi, B.	ENFL	190
Eigenbrodt, B.C.	INOR	271	Ellis, K.C.	BIOL	74	Enemark, J.H.	INOR	945
Eigenbrot, C.	MEDI	22	Ellis, K.C.	ORGN	133	Engbersen, J.M.	COLL	436
Eigenbrot, C.	MEDI	103	Ellis, M.	TOXI	19	Engel, J.	MEDI	15
Eigner Pitto, V.	CINF	24	Ellis, R.J.	I&EC	3	Engel, R.	MEDI	101
Eigner Pitto, V.	CINF	88	Ellis, R.J.	I&EC	19	Engelhard, M.	CATL	262
Eikermann, M.	ORGN	510	Ellison, M.D.	ANYL	373	Engelhard, M.	ENFL	164
Eikey, E.A.	COLL	213	Ellison, M.D.	CHED	88	Engelhard, M.	ENFL	390

Engelhard, M.	NUCL	36	Erk, K.A.	PMSE	547	Eubanks, C.S.	BIOL	26
Engelhard, M.	NUCL	37	Erkoc Ilter, S.	POLY	57	Eubanks, C.S.	BIOL	183
Engelhart, C.	MEDI	325	Ermel, A.	COMP	263	Eubanks, T.	ORGN	397
Engelhart, J.	POLY	284	Ernould, B.	POLY	670	Eubanks, T.	ORGN	398
Engelis, N.	POLY	126	Ernst, B.	CARB	15	Eubanks, T.	ORGN	399
Engelking, L.	AGRO	211	Ernst, J.T.	ORGN	63	Eun Lee, Y.	ORGN	309
Engels, T.	POLY	295	Ernst, M.	MEDI	364	Evangelista, F.A.	COMP	24
England, J.P.	BIOL	180	Errey, J.	COMP	85	Evangelista, F.A.	PHYS	223
England, J.P.	BIOL	184	Ersoz, N.	INOR	936	Evangelista, S.	CHED	186
England, M.	POLY	38	Ertem, M.Z.	INOR	22	Evangelista, S.	CHED	187
Engle, J.W.	NUCL	1	Ertem, M.Z.	INOR	274	Evans, A.	POLY	742
Engle, J.W.	NUCL	47	Ervin, K.	PHYS	378	Evans, C.W.	COLL	488
Engler, K.	ENFL	248	Erwin, A.J.	COLL	428	Evans, C.W.	PMSE	561
Engstrom, D.	ENVR	274	Erwin, A.J.	PMSE	319	Evans, D.	COMP	393
Engstrom, J.	PMSE	41	Erwin, A.J.	PMSE	491	Evans, D.H.	INOR	221
Enick, R.M.	ENFL	471	Erzgraeber, B.	AGRO	259	Evans, J.C.	MEDI	163
Eniola-Adefeso, O.	COLL	356	Esaka, Y.	ORGN	174	Evans, J.	ANYL	30
Eniola-Adefeso, O.	COLL	367	Esaka, Y.	ORGN	585	Evans, L.	AGRO	195
Eniola-Adefeso, O.	COLL	410	Escano, M.S.	CATL	148	Evans, P.	ORGN	207
Enke, M.	POLY	258	Eschweiler, J.D.	PHYS	319	Evans, P.	ORGN	235
Enke, M.	POLY	340	Escobar, H.	ANYL	196	Evans, P.	ORGN	288
Enke, M.	POLY	527	Escobar, I.C.	ENVR	343	Evans, P.	ORGN	497
Enmi, J.	PMSE	564	Escobar, I.C.	POLY	762	Evans, P.	ENVR	152
Eno, M.	ORGN	103	Escobar Ivirico, J.L.	PMSE	48	Evans, P.	ENVR	563
Enright, M.C.	CHED	128	Escobar Ivirico, J.L.	PMSE	168	Evans, R.	PHYS	69
Enriquez, E.	ANYL	141	Escorcia, A.	WCC	4	Evans III, R.L.	INOR	382
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Enriquez, E.	INOR	275	Escudero, E.J.	CHED	123	Everlof, G.	MEDI	25
Ensley, T.	INOR	686	Escudero, E.J.	CHED	124	Everson, B.	CATL	422
Ensley, T.	ORGN	678	Escudero, E.J.	CHED	125	Evidente, A.	AGRO	33
Ensminger, M.	AGRO	158	Esemoto, N.	ORGN	377	Ewing, E.	AGRO	80
Ensminger, M.	AGRO	159	Esfahani, M.R.	ANYL	211	Ewing, J.	INOR	667
Entwistle, D.	PHYS	195	Esfahani, M.R.	ANYL	211	Ewing, K.	ANYL	73
Entzminger, I.	CHED	302	Esguerra, J.	ORGN	569	Ewing, R.C.	NUCL	16
Enyedy, I.J.	COMP	320	Eshleman, A.	MEDI	45	Ewing, W.R.	MEDI	308
Epie, A.Y.	TOXI	95	Eshon, J.	ORGN	197	Ewoldt, R.	PMSE	214
Epley, C.	INOR	353	Eskandari, S.	CATL	202	Ewoldt, R.	PMSE	300
Epley, C.	INOR	817	Esparza, A.J.	PMSE	390	Experton, J.	ANYL	370
Epling, W.	CATL	401	Espelet, A.	PHYS	471	Ezzell, N.	PMSE	352
Epling, W.S.	AEI	14	Espinal, R.	COLL	242	Fa, S.	ORGN	553
Epling, W.S.	CATL	246	Espino, O.	ORGN	396	Faber, D.	AGRO	38
Eppell, S.J.	ANYL	161	Espinosa, J.R.	COMP	198	Facchetti, A.	POLY	734
Eppell, S.J.	ANYL	388	Espinosa-Díaz, S.	CHED	277	Fach, M.	PMSE	506
Eppell, S.J.	COLL	68	Espinosa-Díaz, S.	ORGN	186	Fach, M.	POLY	703
Eppell, S.J.	COLL	607	Espinosa-Marzal, R.M.	COLL	462	Fackler, S.	CATL	379
Eppley, H.J.	INOR	547	Espinosa-Marzal, R.M.	PMSE	214	Fadden, A.	BIOL	113
Epps, T.H.	COLL	88	Esposito, M.	CHED	150	Fafarman, A.T.	INOR	844
Epps, T.H.	INOR	757	Esselborn, J.	CATL	220	Fafarman, A.T.	INOR	847
Epps, T.H.	PMSE	117	Esselman, B.J.	CHED	112	Fafarman, A.T.	INOR	892
Epps, T.H.	POLY	712	Essen, S.	ANYL	171	Fagnani, D.E.	ORGN	558
Epshteyn, A.	ENFL	450	Esser-Kahn, A.	COLL	450	Fagnoni, M.	ORGN	179
Epshteyn, A.	INOR	749	Esser-Kahn, A.P.	MEDI	9	Fahie, M.A.	ANYL	369
Epshteyn, A.	INOR	802	Esser-Kahn, A.P.	PMSE	487	Fahie, M.A.	ANYL	372
Epshteyn, A.	PMSE	375	Essex, R.M.	NUCL	83	Fahie, M.A.	BIOL	169
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Epsky, N.D.	AGRO	69	Essumang, D.	CHED	139	Fahs, G.B.	POLY	676
Epstein, E.S.	PMSE	300	Estabrook, D.	COLL	473	Faiola, C.L.	ENVR	191
Epstein, L.	AGRO	125	Esterline, D.	CHED	52	Fair, J.D.	CHED	66
Erbas-Cakmak, S.	ORGN	538	Estes, K.	CHED	233	Fair, J.D.	CHED	104
Erbel, P.	MEDI	46	Estes, T.L.	AGRO	75	Fair, J.D.	CHED	202
Ercek, D.T.	PMSE	146	Esteves, M.	INOR	177	Fair, J.D.	CHED	371
Erdinger, L.	ENVR	438	Esteves, R.J.	INOR	786	Fair, J.D.	ORGN	572
Erdmann, D.	MEDI	306	Estevez, A.	ANYL	55	Fairbanks, B.	POLY	372
Erdmann, M.A.	CHED	341	Estrada, D.	INOR	448	Fairbrother, A.	PMSE	669
Erdmann, V.	PHYS	196	Estrada Ortiz, J.M.	ENVR	373	Fairbrother, H.	ANYL	287
Erdosy, D.	ENFL	206	Estrada-Soto, S.	MEDI	151	Fairburn, A.	ENVR	97
Erel-Goktepe, I.	COLL	205	Estrella, L.A.	PMSE	312	Fairlie, D.P.	ORGN	212
Erel-Goktepe, I.	COLL	208	Estrella, L.A.	PMSE	405	Faist, J.	ANYL	9
Erel-Goktepe, I.	PMSE	537	Estridge, C.	PMSE	150	Fakharifar, M.	ENVR	45
Eren, T.	POLY	370	Etersque, J.	ORGN	569	Fakhraai, Z.	COLL	38
Eren, B.	COLL	416	Etrych, T.	POLY	455	Fakhraai, Z.	PHYS	200
Eren, H.	PMSE	21	Ettegui, J.	ANYL	371	Fakhraai, Z.	PHYS	203
Eres, G.	ENFL	361	Etz, B.D.	ORGN	224	Fakhroo, A.	ANYL	351
Ergas, S.	ENVR	564	Etzcorn, F.A.	CHED	355	Falat, A.	MEDI	132
Ergene, C.	PMSE	466	Etzcorn, F.A.	CHED	356	Falceto, A.	PHYS	115
Erhan, S.	ENFL	105	Etzcorn, F.A.	ORGN	203	Falco, M.	ENFL	98
Erickson, L.	ORGN	363	Etzold, B.J.	ENFL	378	Falcone, P.	ANYL	302
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Fallek, A.	ORGN	333	Farha, O.K.	INOR	292	Feig, M.	PHYS	442
Fallek, A.	ORGN	579	Farha, O.K.	INOR	755	Feinberg, A.W.	PMSE	57
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Fan, D.	PHYS	436	Farmer, B.L.	COMP	155	Feke, D.	PMSE	156
Fan, D.	PHYS	517	Farmer, D.	ENVR	486	Feke, D.	PMSE	324
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Fan, H.	INOR	532	Farrar, J.J.	AGRO	96	Felice, K.	PMSE	362
Fan, H.	ENFL	244	Farrell, J.K.	CHED	369	Felipe, A.	GEOC	31
Fan, H.	ENFL	480	Farrell, J.	ENFL	111	Feliu, N.	COLL	510
Fan, H.	ENFL	485	Farrell, S.	ANYL	70	Felix, K.H.	INOR	645
Fan, H.	ORGN	172	Farrell, S.	ANYL	71	Felix Lanao, R.	POLY	167
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Fan, X.	POLY	507	Fast, W.	MEDI	341	Feng, P.	ORGN	680
Fan, X.	AGFD	230	Fastow, E.	I&EC	31	Feng, Q.	POLY	301
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Fang, D.Z.	ORGN	575	Fatur, S.M.	INOR	691	Feng, X.	ENFL	340
Fang, D.	ENFL	210	Faul, C.F.	POLY	342	Feng, X.	ENVR	124
Fang, H.	MEDI	335	Faul, C.F.	POLY	654	Feng, X.	GEOC	6
Fang, H.	MEDI	365	Faure, A.	PHYS	101	Feng, X.	POLY	637
Fang, M.	ORGN	408	Fauser, A.	AGRO	293	Feng, X.	POLY	643
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Fang, M.	ORGN	442	Faust, T.M.	CHED	157	Feng, Y.	COLL	24
Fang, S.	ORGN	206	Faustino, P.	ANYL	178	Feng, Y.	PMSE	190
Fang, T.	MEDI	308	Faustino, P.	ANYL	181	Feng, Z.	PHYS	594
Fang, T.	ENVR	335	Faustino, P.	ANYL	186	Feng, Z.	ENFL	391
Fang, T.	POLY	765	Faustino, P.	ANYL	187	Fennell, C.	ORGN	372
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Fang, X.	ENFL	240	Faustino, P.	ANYL	189	Fenter, P.	CATL	383
Fang, Y.	ENVR	489	Faustino, P.	ANYL	312	Fenter, P.	CATL	384
Fang, Y.	CATL	254	Faustino, P.	ANYL	315	Fenton, A.	CATL	370
Fang, Z.	ORGN	141	Faustino, P.	ANYL	316	Fenton, J.L.	INOR	540
Fang, Z.	ENFL	318	Faustino, P.	ANYL	318	Fenton, J.L.	INOR	703
Fang, Z.	POLY	721	Favaro, M.	CATL	28	Fenyves, R.D.	POLY	431
Fanjul, A.	MEDI	110	Favaro, M.	COLL	537	Ferber, C.J.	ORGN	494
Fannin, H.B.	POLY	116	Favaro, M.	COLL	540	Ferber, C.J.	ORGN	586
Fanta, G.F.	CELL	14	Favaro, M.	YCC	25	Ferdinandus, F.	COLL	577
Fantin, M.	POLY	7	Favaro, M.	YCC	26	Ferebee, R.	POLY	394
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Fantin, M.	POLY	381	Fayyad, R.	ORGN	418	Ferguson, B.	ENVR	228
Fantin, M.	POLY	387	Fayzullin, R.	INOR	102	Ferguson, H.	MEDI	131
Fantin, M.	POLY	388	Fazal, A.	CHED	360	Ferguson, J.	AGRO	329
Fantin, M.	POLY	392	Fears, K.	PMSE	141	Ferguson, K.	ANYL	109
Fantin, M.	POLY	395	Feaster, J.	CATL	379	Ferguson, L.	MEDI	332
Farajallah, A.	INOR	669	Fedick, P.W.	ANYL	76	Ferguson, M.A.	CHED	298
Farajidzaji, B.	ORGN	424	Fedick, P.W.	CHED	77	Ferguson, S.S.	TOXI	24
Farajidzaji, B.	ORGN	463	Fedin, I.	COLL	492	Feringa, B.	ORGN	246
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Farberow, C.	CATL	362	Fedor, A.M.	CHED	176	Feringa, B.	ORGN	535
Fares, H.	PMSE	318	Fedrizzi, B.	AGFD	61	Fernandes, A.M.	I&EC	33
Farghaly, A.	ANYL	232	Fedrizzi, B.	ORGN	645	Fernandes, J.	AGFD	91
Farghaly, A.	INOR	786	Feeney, W.	ANYL	349	Fernandes, T.F.	GEOC	1
Fargnoli, J.	MEDI	25	Feeney, W.	ANYL	350	Fernandes da Silva, J.	CARB	29
Farha, O.K.	INOR	5	Feher, K.M.	TOXI	74	Fernandes da Silva, J.	PMSE	292

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Fernandez, F.M.	ANYL	436	Filipovic, N.	INOR	524	Fletcher, J.	CHED	159
Fernandez, J.	BIOL	124	Filippov, S.	POLY	305	Fletcher, S.	MEDI	229
Fernandez, J.	POLY	150	Filippov, S.	POLY	455	Flexner, C.	COLL	412
Fernandez, M.	MEDI	363	Fillman, K.L.	INOR	688	Flexner, C.	COLL	547
Fernandez, R.	ANYL	321	Fincher, G.	AGFD	26	Flexner, C.	ORGN	671
Fernandez, R.D.	INOR	166	Fine, I.	ANYL	338	Fliedel, C.	POLY	773
Fernández, R.	ORGN	355	Fine Nathel, N.F.	PMSE	468	Fliedel, C.	INOR	880
Fernandez-Alos, V.	ENVR	390	Fink, B.E.	MEDI	25	Fliedel, C.	POLY	410
Fernandez-Salas, E.	MEDI	156	Fink, K.	ENVR	440	Fliedel, C.	POLY	411
Fernandez-Serra, M.F.	PHYS	239	Fink, Z.	CATL	197	Fliedel, C.	POLY	413
Fernando, D.	MEDI	258	Finkenstadt, V.	AGFD	131	Flister, M.J.	COLL	98
Fernando, P.I.	ORGN	437	Finko, M.	NUCL	64	Flister, M.J.	COLL	113
Ferrah, D.	COLL	478	Finlayson Pitts, B.J.	ENVR	340	Flood, A.H.	COMP	366
Ferrante, M.	MEDI	358	Finn, M.	BIOL	170	Flood, A.H.	I&EC	22
Ferraris, D.	MEDI	51	Finn, M.	CHED	161	Flood, J.	PHYS	333
Ferraris, D.	MEDI	74	Finn, M.	ORGN	291	Flood, M.	ENFL	219
Ferraris, J.P.	ENFL	309	Finn, M.	CATL	170	Flora, J.R.	ENVR	209
Ferraris, J.P.	ENFL	310	Finn, M.	CATL	411	Flora, J.R.	GEOC	12
Ferraris, J.P.	PMSE	578	Finnerty, M.	CHED	231	Florentino Ribeiro, R.	PHYS	555
Ferraris, J.P.	PMSE	661	Finnerty, M.	I&EC	62	Flores, J.A.	POLY	371
Ferreira, F.	CARB	28	Finney, L.	NUCL	8	Flores, L.	COLL	28
Ferreira, F.	CARB	29	Finsinger, D.	MPPG	15	Flores, M.	ENVR	473
Ferreira, F.	PMSE	289	Finster, D.C.	CHED	27	Flores, M.	ORGN	658
Ferreira, F.	PMSE	292	Fiolek, T.	CARB	57	Floto, M.	COLL	214
Ferreira, M.	AGRO	314	Fioravanzo, E.	CINF	42	Flowers, R.A.	ORGN	270
Ferreira, P.S.	AGFD	90	Firestone, M.A.	INOR	772	Flum, J.	PMSE	7
Ferreira, R.B.	INOR	418	Firestone, M.A.	PMSE	368	Flum, J.	PMSE	243
Ferreira, R.S.	COLL	609	Fischer, A.	AGRO	259	Flum, J.	PMSE	456
Ferreira, T.A.	ENVR	384	Fischer, A.	POLY	173	Flurer, C.	ANYL	314
Ferreira, T.	INOR	915	Fischer, B.	PMSE	636	Flynn, B.L.	ORGN	485
Ferreira Garrudo, F.	CARB	29	Fischer, M.	COMP	39	Flynn, D.	AGRO	23
Ferreira Garrudo, F.	PMSE	292	Fischer, O.	MEDI	266	Flynn, J.	ENVR	491
Ferrence, G.	PROF	5	Fischer, S.J.	ENVR	55	Flynn, J.D.	ANYL	12
Ferrer, M.	COMP	288	Fischer, S.J.	ENVR	202	Flynn, J.D.	BIOL	54
Ferrere, S.	ENFL	259	Fischer, S.	ORGN	150	Flynn, J.D.	BIOL	105
Ferretti, A.	ORGN	549	Fischer, U.	ANYL	13	Flynn, N.O.	AGFD	66
Ferrie, S.	POLY	3	Fischer, U.	COMP	162	Foat, B.	ANYL	93
Ferrier, A.	TOXI	61	Fischer, U.	AGFD	5	Fochtman, B.C.	COMP	319
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Ferrier, M.	NUCL	44	Fish, M.	COLL	367	Focken, T.	MEDI	253
Ferrier, M.	NUCL	47	Fish, S.	ORGN	63	Fodor, C.	POLY	201
Ferrier, R.	COLL	38	Fisher, B.P.	PMSE	390	Fofanov, G.L.	INOR	622
Ferrier, R.C.	POLY	602	Fisher, B.T.	ENFL	450	Fogarasi, G.	COMP	20
Ferrieri, R.	PRES	24	Fisher, K.J.	INOR	581	Fogel, A.L.	PMSE	216
Ferrins, L.	BIOL	157	Fisher, M.A.	CHED	311	Fogg, D.N.	POLY	709
Ferry, J.L.	ENVR	178	Fisher, V.	CHED	98	Fogler, W.E.	CARB	1
Ferry, J.L.	ENVR	443	Fisk, J.	ORGN	495	Fokin, V.V.	COLL	567
Ferry, J.L.	ENVR	444	Fisk, J.D.	ENVR	532	Fokin, V.V.	ORGN	131
Ferry, M.	ORGN	678	Fister, T.	CATL	384	Fokin, V.V.	ORGN	237
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Fessel, J.P.	TOXI	73	Fister, T.	ENFL	120	Folden, C.M.	NUCL	11
Fetisov, E.	COMP	154	Fitchett, B.W.	INOR	46	Folden, C.M.	NUCL	56
Fetterly, B.M.	CHED	320	Fite, J.D.	PMSE	461	Földvári, D.	COMP	69
Fetto, N.R.	PHYS	467	Fitzgerald, J.	ENFL	108	Foley, B.L.	CARB	79
Fetto, N.R.	PHYS	471	Fitzgerald, M.	COLL	488	Foley, C.J.	CHED	344
Feura, E.S.	PMSE	467	Fitzgerald, N.D.	ENFL	109	Foley, H.	CARB	57
Fewkes, C.	COLL	343	Fitz-Gibbon, S.	BIOL	160	Foley, S.	CHED	182
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Figg, C.A.	POLY	418	Flavin, A.	BIOL	113	Foo, G.	CATL	76
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Figyelmesi, Á.	CINF	89	Flechsing, G.	ANYL	262	Forbes, D.L.	BIOL	168
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Foreman-Ortiz, I.U.	COLL	355	Fox, G.	AGRO	9	Fred-Ahmadu, O.H.	ENVR	100
Forgan, R.S.	ENFL	21	Fox, G.	AGRO	10	Fred-Ahmadu, O.H.	ENVR	524
Forien, J.	PMSE	122	Fox, G.	AGRO	15	Fred-Ahmadu, O.H.	ENVR	525
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Fors, B.P.	POLY	103	Foy, G.P.	ENVR	183	Freedberg, D.I.	CARB	92
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Fors, B.P.	POLY	759	Foy, R.L.	CHED	6	Freedman, A.	ENVR	555
Fors, B.P.	POLY	771	Foy, R.L.	ENVR	183	Freedman, D.E.	INOR	342
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Forster, P.	INOR	916	Frame, E.	ANYL	82	Freedman, D.E.	WCC	1
Forster, P.	NUCL	18	France, F.	ANYL	223	Freedman, M.	ENVR	533
Forsythe, J.G.	ANYL	436	France, S.A.	ORGN	381	Freel Meyers, C.	BIOL	58
Fort, S.	INOR	583	Francesconi, L.C.	ENVR	232	Freel Meyers, C.	BIOL	94
Fortado, J.	CHED	298	Francesconi, L.C.	ENVR	417	Freeman, B.D.	I&EC	13
Forte, J.	BIOL	26	Franchetti, J.A.	AGRO	266	Freeman, B.A.	ORGN	422
Forte, J.	BIOL	46	Franchetti, J.A.	AGRO	267	Freeman, C.	POLY	514
Forte, J.	BIOL	183	Francis, E.J.	NUCL	12	Freeman, K.	PRES	16
Forte, J.	MEDI	68	Francis, L.	AGFD	3	Freet, D.	NUCL	75
Forte, J.	MEDI	251	Francis, L.	AGFD	196	Freiberg, J.	ENVR	537
Forte, S.G.	ANYL	412	Francis, L.	PMSE	222	Freichel, T.	PMSE	577
Fortenberry, R.C.	PHYS	468	Francis, M.B.	COLL	454	Freire, M.	I&EC	33
Fortenberry, R.C.	PHYS	522	Francis, M.B.	INOR	455	Freire, S.G.	PMSE	599
Forth, H.	ENVR	314	Francis, M.B.	PMSE	225	Freire, S.G.	PMSE	605
Forth, J.W.	COLL	469	Francis, T.	COLL	530	Freitag, A.	ORGN	521
Fortman, D.	PMSE	246	Franck, J.	PHYS	535	Frenette, L.C.	COLL	497
Fortman, D.J.	PMSE	1	Franco, D.	ENVR	63	Frenkel, A.	CATL	90
Fortman, G.	CATL	196	Franco, I.	COMP	305	Frenkel, A.	CATL	231
Fortman, G.	INOR	15	Franco, J.	CHED	69	Frenkel, A.	CATL	303
Fortner, J.	COLL	610	Frandsen, K.	INOR	583	Frenkel, A.	ENFL	180
Fortunado de Carvalho Rocha, W.	CINF	78	Frank, A.T.	COMP	65	Frenkel, A.	ENFL	348
Forzano, A.	ANYL	383	Frank, A.	AGRO	379	Frenkel, A.	INOR	3
Forzano, A.V.	ANYL	110	Frank, H.M.	CHED	189	Frenkel, A.	INOR	147
Foster, C.	BIOL	179	Frank, H.M.	CHED	248	Frenking, G.	PHYS	110
Foster, E.	PMSE	7	Frank, J.	PMSE	352	Freundlich, J.S.	BIOL	158
Foster, E.	PMSE	243	Frank, J.	AGFD	9	Freundlich, J.S.	MEDI	330
Foster, G.D.	COLL	167	Frank, M.	CARB	77	Freundlich, J.S.	MEDI	197
Foster, G.D.	ENVR	389	Frank, M.	CARB	91	Frey, B.L.	CHED	283
Foster, G.D.	ENVR	517	Frank, D.	COLL	572	Frey, C.	AGFD	111
Foster, J.	PMSE	638	Frankenfield, K.	BIOL	150	Frey, J.G.	CINF	21
Foster, J.	PMSE	522	Fransishyn, K.	INOR	845	Frey, K.	CATL	386
Foster, J.	PMSE	603	Frantz, J.A.	COLL	526	Frey, S.	ENFL	274
Foster, J.	PMSE	484	Franz, K.J.	INOR	324	Friborg, J.	MEDI	365
Foster, J.	POLY	723	Franz, K.J.	INOR	508	Fricke, R.C.	BIOL	160
Foster, M.E.	PHYS	538	Franz, K.J.	INOR	582	Fridh, V.	MEDI	260
Foster, N.	MEDI	348	Franz, K.J.	INOR	585	Friebe, E.	INOR	371
Foster, R.	ORGN	482	Franz, K.J.	INOR	587	Fried, J.R.	PMSE	109
Foster, T.J.	MEDI	101	Franz, K.J.	INOR	793	Friedli, A.C.	CHED	243
Foster, W.	MEDI	25	Franz, K.J.	INOR	795	Friedli, A.C.	CHED	244
Foster, W.	AGRO	240	Franz, K.J.	INOR	796	Friedli, A.C.	INOR	538
Foston, M.B.	CELL	3	Franz, K.J.	POLY	148	Friedli, A.C.	INOR	921
Foston, M.B.	ENVR	133	Fraser, C.L.	ANYL	101	Friedli, A.C.	ORGN	681
Foudazi, R.	INOR	255	Fraser, C.L.	INOR	541	Friedman, A.	AGRO	345
Fouillade, D.	CHED	59	Fraser, C.L.	INOR	542	Friedman, B.	ENVR	532
Foulger, S.H.	COLL	613	Fraser, C.L.	INOR	543	Friedman, L.	MEDI	22
Foulger, S.H.	INOR	919	Fraser, C.L.	ORGN	439	Friedman, L.	MEDI	103
Foulger, S.H.	PMSE	606	Fraser, C.L.	POLY	145	Friedrich, K.J.	ORGN	93
Foulger, S.H.	POLY	485	Fraser, C.L.	POLY	525	Friedrich, K.J.	ORGN	658
Foulkes, M.J.	MEDI	79	Frassica, M.T.	PMSE	501	Friend, C.M.	CATL	367

Friend, C.M.	COLL	416	Fujita, M.	ANYL	241	Gaitzsch, J.	COLL	568
Frischknecht, A.L.	PMSE	200	Fujita, M.	POLY	79	Gaitzsch, J.	POLY	428
Frischknecht, A.L.	POLY	112	Fujiwara, N.	COLL	225	Gajewska, B.	POLY	201
Fritscher, J.	AGRO	23	Fujiwara, N.	COLL	322	Gal, E.	ENVR	381
Frityantti, M.	COLL	351	Fuks, G.	AEI	63	Galagedera, S.	ANYL	262
Fritz, J.A.	ORGN	78	Fuku, K.	ENFL	214	Galanopoulos, L.	ORGN	42
Fritz, S.M.	PHYS	454	Fuku, K.	ENVR	172	Galassi, T.V.	COLL	514
Fritz, V.	TOXI	40	Fuku, K.	ENVR	173	Galassi, T.V.	PMSE	88
Fritzemeier, R.	ORGN	574	Fukuda, H.	ORGN	164	Galati, E.	COLL	465
Froimowicz, P.	PMSE	648	Fukuoka, A.	CATL	95	Galazutdinov, G.	PHYS	354
Fromen, C.	COLL	367	Fukusaku, E.	BIOL	160	Galensowske, N.	POLY	91
Frontiera, R.R.	COLL	329	Fukushima, T.	ORGN	528	Galguen, P.	CATL	235
Frost, L.	CATL	252	Fukuta, K.	ORGN	174	Galhenage, R.	COLL	478
Frost, S.	AGFD	93	Fukuta, K.	ORGN	585	Gali, H.	TOXI	29
Frumento, N.	CHED	163	Fukuto, M.	POLY	114	Gali, R.	AGRO	156
Fry, H.C.	AGFD	253	Fuller, E.J.	INOR	447	Galinato, M.I.	INOR	941
Fry, H.C.	INOR	420	Fuller, J.	CHED	238	Gall, K.	POLY	722
Fry, R.	ENVR	189	Fullington, C.	AGRO	89	Gall, M.A.	ORGN	537
Frye, J.	CATL	8	Fulp, J.	MEDI	78	Gall, M.A.	ORGN	539
Fu, B.	POLY	737	Fulton, D.A.	PMSE	242	Gallagher, J.R.	ENFL	171
Fu, G.C.	ORGN	311	Fulton, J.	INOR	292	Gallagher, K.R.	PROF	15
Fu, H.	PMSE	139	Fultz, M.W.	CHED	65	Gallagher, S.M.	INOR	647
Fu, H.	PHYS	430	Fultz, M.W.	CHED	379	Gallagher, W.P.	ORGN	521
Fu, J.	COMP	338	Fultz, M.W.	ORGN	646	Gallagher Duval, S.	ORGN	57
Fu, J.	CATL	1	Fundator, M.	ANYL	172	Gallardo-Macias, R.	MEDI	333
Fu, J.	CATL	47	Funderburk, C.	PHYS	374	Gallei, M.	PMSE	419
Fu, J.	CATL	421	Fureriu, D.	AEI	63	Gallei, M.	PMSE	632
Fu, J.	CATL	481	Fung, K.	POLY	3	Gallei, M.	POLY	84
Fu, J.	MEDI	310	Fung, V.	CATL	14	Gallei, M.	POLY	370
Fu, J.	ENFL	271	Fung, V.	CATL	125	Gallei, M.	POLY	531
Fu, J.	WCC	7	Funk, M.	INOR	132	Galley, S.	NUCL	10
Fu, L.	ENFL	367	Fura, A.	MEDI	25	Galley, S.S.	CATL	134
Fu, L.	CELL	15	Furgical, J.C.	POLY	686	Galli, G.A.	COLL	382
Fu, L.	POLY	381	Furgical, J.C.	POLY	359	Galli, G.A.	ENFL	353
Fu, Q.	COLL	482	Furkert, D.P.	AEI	69	Galliano, S.	ENFL	98
Fu, Q.	PMSE	223	Furkert, D.P.	ORGN	655	Galicchio, E.	COMP	229
Fu, Q.	ENFL	318	Furnham, N.	PHYS	89	Galicchio, E.	COMP	300
Fu, R.	PHYS	385	Furnham, N.	PHYS	447	Galliford, C.V.	ORGN	523
Fu, R.	PHYS	578	Furr, R.	CHAS	4	Galligan, J.	ANYL	18
Fu, R.	CATL	196	Furst, A.L.	INOR	455	Galligan, J.	TOXI	73
Fu, R.	INOR	15	Furst, A.L.	PMSE	225	Galligan, J.	TOXI	87
Fu, S.	PHYS	456	Furtmueller, G.	MEDI	318	Gallington, L.	INOR	820
Fu, W.	POLY	400	Fusè, M.	COMP	331	Gallo-Rodriguez, C.	CARB	65
Fu, W.	POLY	552	Fushman, D.	BIOL	112	Galperin, M.	PHYS	198
Fu, X.	CATL	295	Fusi, S.	ENVR	471	Galusha, A.	ANYL	276
Fu, Y.	ANYL	431	Futatsugi, K.	MEDI	258	Galusha, A.	ANYL	309
Fu, Y.	AGFD	277	Fye, G.A.	INOR	941	Galvan, I.F.	PHYS	276
Fu, Y.	ANYL	345	Gabaly, F.E.	INOR	447	Galvani, M.	PMSE	206
Fu, Y.	ENVR	225	Gabbert, D.R.	AGRO	273	Galvani, M.	PMSE	209
Fu, Y.	POLY	483	Gabidullin, B.	INOR	222	Galvani, M.	PMSE	335
Fu, Y.	COLL	441	Gabrielli, L.	COMP	143	Galvez-Aranda, D.E.	COMP	403
Fu, Y.	INOR	369	Gad, A.H.	INOR	554	Galy, T.	INOR	64
Fuanta, R.	AEI	59	Gaddamid, V.	AGRO	136	Gamache, R.M.	I&EC	50
Fuanta, R.	MEDI	329	Gadiano, A.	MEDI	318	Gamage, L.P.	ENVR	424
Fuchs, A.	PMSE	220	Gadzhiev, O.	PHYS	441	Gamage McEvoy, J.	INOR	517
Fuchs, G.	POLY	609	Gaffney, A.M.	CATL	195	Gambarotta, S.	ENFL	351
Fuchs, J.	MEDI	295	Gaffney, A.M.	ENFL	26	Gambarotta, S.	ENFL	400
Fuchs, M.	CATL	184	Gagginapally, S.	MEDI	94	Gambetta, J.M.	AGFD	1
Fuentes, C.	AGFD	92	Gagliardi, L.	CATL	414	Gamble, T.	CHED	159
Fuentes, E.	CATL	116	Gagliardi, L.	COMP	310	Gamboia da Costa, G.	AGFD	56
Fuentes-Claudio, L.	CHED	361	Gagliardi, L.	COMP	375	Gameson, L.	ENFL	224
Fuerste, W.	PHYS	406	Gagliardi, L.	INOR	68	Gampe, C.	BIOL	28
Fujie, T.	COLL	219	Gagliardi, L.	INOR	292	Gamwo, I.	ENFL	471
Fujie, T.	COLL	577	Gagliardi, L.	INOR	294	Gan, J.	MEDI	147
Fujii, N.	MEDI	53	Gagliardi, L.	INOR	690	Gan, Q.	MEDI	107
Fujii, S.	COLL	91	Gagliardi, L.	INOR	728	Gan, X.	COLL	185
Fujii, S.	COLL	92	Gagliardi, L.	INOR	729	Gan, X.	COLL	401
Fujii, S.	COLL	249	Gagliardi, L.	INOR	816	Gan, X.	COLL	557
Fujii, S.	CELL	19	Gagliardi, L.	INOR	820	Ganapati, S.	ORGN	510
Fujii, S.	COLL	56	Gagliardi, L.	PHYS	228	Gandhi, A.	BIOL	154
Fujikawa, R.	MEDI	343	Gagliardi, L.	POLY	467	Gandhi, D.	MEDI	101
Fujimoto, M.	NUCL	21	Gagliardi, L.	ORGN	456	Ganduglia-Pirovano, M.	CATL	70
Fujimoto, S.	ENVR	173	Gagne, M.R.	ENVR	84	Ganegamage, S.	MEDI	121
Fujimoto, T.	MEDI	343	Gagnon, G.A.	INOR	903	Ganem Rondero, F.	COLL	268
Fujimoto, V.Y.	ANYL	276	Gagnon, K.J.	INOR	12	Ganesh, P.	CATL	430
Fujioka, N.	TOXI	40	Gaikwad, S.	MEDI	12	Gang, D.	ANYL	83
Fujisawa, K.	INOR	870	Gaines, C.	INOR	376	Gang, O.	POLY	384
Fujisawa, K.	INOR	89	Gaines, P.	BIOL	47	Gangaraju, R.	AGRO	258
Fujita, E.	INOR	891	Gaiser, A.	POLY	330	Gangjee, A.	MEDI	70
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Gangjee, A.	MEDI	150	Garber, E.A.	AGFD	225	Gasteiger, J.	CINF	98
Ganguly, S.	ORGN	675	Garber, K.	AGRO	102	Gaster, S.	PHYS	374
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Gangwah, S.	ENFL	140	Garcia, A.	PMSE	541	Gatadi, S.	MEDI	289
Gani, T.Z.	CATL	272	Garcia, C.	ORGN	186	Gatazka, D.	CHED	266
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Gantzer, R.	AGRO	40	Garcia, F.C.	ANYL	141	Gates, D.P.	POLY	356
Gao, B.	AGRO	364	Garcia, J.	POLY	182	Gates, K.S.	TOXI	2
Gao, Y.	ENVR	103	Garcia, J.	CHED	155	Gates, K.S.	TOXI	27
Gao, Z.	CATL	33	Garcia, J.	ORGN	399	Gates, K.S.	TOXI	28
Gao, Z.	CATL	158	Garcia, J.	ENFL	258	Gates, K.S.	TOXI	66
Gao, Z.	CATL	418	Garcia, J.	INOR	708	Gattu, S.	ANYL	416
Gao, A.	CHED	174	Garcia, J.J.	INOR	224	Gattu, S.	ANYL	413
Gao, A.	PHYS	118	Garcia, K.	SCHB	12	Gattu, S.	ANYL	417
Gao, B.	ENVR	28	Garcia, K.	SCHB	15	Gattu, S.	ANYL	418
Gao, B.	AGRO	354	Garcia, M.	INOR	255	Gaudet, J.R.	INOR	389
Gao, B.	AGFD	184	Garcia, R.C.	ORGN	541	Gaughan, S.	CHED	205
Gao, B.	AGFD	213	Garcia, N.	MEDI	170	Gaulton, A.	CINF	66
Gao, C.	COLL	552	Garcia-Borrás, M.	PHYS	286	Gaunt, M.	ORGN	13
Gao, C.	PMSE	563	Garcia-Borrás, M.	PHYS	444	Gaunt, M.	ORGN	484
Gao, C.	ENFL	313	Garcia-Bosch, I.	INOR	493	Gaur, R.	CATL	356
Gao, C.	ENVR	153	García-Chacón, J.	AGFD	175	Gautier, A.	BIOL	53
Gao, F.	COLL	611	García de Arquer, F.	COLL	601	Gauvin, R.	CATL	124
Gao, F.	CATL	245	Garcia-Jacas, C.R.	CINF	80	Gavai, A.V.	MEDI	25
Gao, F.	CATL	260	García-Jiménez, M.	CARB	80	Gavai, A.V.	MEDI	335
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Gao, F.	CATL	347	García-Rodríguez, O.	ENVR	150	Gavrylenko, O.	CINF	29
Gao, F.	INOR	393	García Sánchez, J.	COLL	268	Gavrylenko, O.	MEDI	357
Gao, G.	PHYS	117	Garcia-Segura, S.	ENVR	402	Gavvalapalli, N.	ORGN	462
Gao, H.	POLY	319	Gard, N.	AGRO	19	Gavvalapalli, N.	PMSE	418
Gao, H.	INOR	938	Garde, S.	PHYS	172	Gavvalapalli, N.	PMSE	422
Gao, H.	ENFL	236	Gardenier, G.	ENVR	428	Gawande, M.	CATL	462
Gao, H.	COLL	534	Gardiner, J.	CARB	70	Gawrisch, K.	PHYS	591
Gao, J.	PHYS	155	Gardner, D.W.	CATL	364	Gay, C.	COLL	388
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Gao, L.	COMP	230	Gardner, E.J.	INOR	895	Gayet, F.	INOR	880
Gao, L.	ENVR	430	Gardner, J.	COMP	153	Gayet, F.	POLY	412
Gao, L.	COLL	484	Gardner, N.	INOR	628	Gayet, F.	POLY	413
Gao, M.	MEDI	269	Gardner, V.	CHED	137	Gayet, F.	POLY	773
Gao, M.	CATL	352	Gareiss, P.	ORGN	394	Gazit, O.	CATL	213
Gao, M.	MEDI	38	Garg, M.	AGFD	87	Gaztambide, D.	PMSE	143
Gao, M.	MEDI	54	Garg, M.	CINF	43	Ge, L.	ORGN	313
Gao, M.	MEDI	307	Garg, N.K.	ORGN	205	Ge, M.	ENFL	240
Gao, P.	COLL	534	Garg, N.K.	PMSE	650	Ge, S.	ENVR	361
Gao, P.	CATL	400	Garg, S.	ENVR	53	Ge, T.	PMSE	153
Gao, W.	ANYL	327	Garibay, S.J.	INOR	5	Ge, T.	PMSE	207
Gao, W.	INOR	762	Garimalla, A.	ORGN	208	Geacintov, N.E.	TOXI	46
Gao, X.	PMSE	531	Garin, D.L.	HIST	4	Geacintov, N.E.	TOXI	74
Gao, X.	POLY	435	Garizi, N.	AGRO	385	Geacintov, N.E.	TOXI	95
Gao, X.	COLL	543	Garland, K.	MEDI	103	Gebre, S.	COMP	107
Gao, X.	ENVR	144	Garnerin, T.	MEDI	109	Gebregiorgis, T.	PHYS	594
Gao, X.	INOR	262	Garnick, K.	NUCL	9	Geckeis, H.	ENVR	230
Gao, X.	ANYL	55	Garr, M.	ORGN	232	Geckeis, H.	ENVR	412
Gao, Y.	INOR	198	Garrett, C.	MEDI	318	Geckeis, H.	NUCL	17
Gao, Y.	INOR	325	Garrett, J.D.	AGRO	358	Geddes, C.D.	PHYS	438
Gao, Y.	POLY	189	Garrett, J.	ENFL	55	Geddes, C.D.	PHYS	457
Gao, Y.	PMSE	273	Garrison, M.	CELL	37	Geddes, C.D.	PHYS	519
Gao, Y.	ENVR	28	Garrison, M.	POLY	720	Gedeck, P.	COMP	294
Gao, Y.	AGRO	311	Garrud, R.T.	PHYS	518	Geden, J.	ORGN	44
Gao, Y.	POLY	241	Garrovillas, M.J.	ANYL	141	Gedler, G.	PMSE	156
Gao, Z.	MEDI	45	Garrudo, F.	PMSE	289	Gedler, G.	POLY	449
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Gaona, S.	ENVR	315	Garvey, E.J.	COLL	387	Gee, M.Y.	INOR	361
Gaona, S.	ENVR	316	Gary, B.	INOR	325	Gee, W.	AGRO	36
Gaona, S.	ENVR	317	Gary, J.B.	INOR	103	Geerlings, P.	CATL	191
Gaona, X.	ENVR	230	Gary, J.B.	INOR	435	Geeson, M.	INOR	304
Gaona, X.	ENVR	412	Garza, A.J.	CATL	240	Geeza, T.J.	GEOC	16
Gaona, X.	NUCL	17	Garza, A.J.	CATL	394	Geeza, T.J.	GEOC	36
Garakyaraghi, S.	INOR	333	Garza, A.J.	CATL	477	Gehen, S.	CINF	141
Garanger, E.	COLL	96	Garza, B.	ORGN	398	Geiger, S.	ENFL	350
Garanger, E.	INOR	708	Garzon, J.I.	COMP	7	Geiser, M.	ANYL	9
Garanger, E.	PMSE	14	Gascon, J.	COMP	405	Geisler-Lee, C.	ENVR	45
Garanger, E.	PMSE	516	Gascon, J.	GEOC	27	Geisse, A.	INOR	146
Garavito, G.	CHED	209	Gasperich, K.	COMP	67	Geissinger, P.	CHED	98
Garayo, E.	INOR	708	Gassaway, E.R.	BIOL	78	Geissinger, P.	CHED	318

Geissler, K.	AGFD	246	Gewirth, A.	CATL	384	Giberti, F.	COLL	382
Geissler, M.	AEI	79	Gewirth, A.A.	CATL	35	Gibson, A.D.	AGRO	322
Geißler, K.	AGFD	141	Gewirth, A.A.	CATL	132	Gibson, G.	AGFD	37
Geißler, T.	AGFD	141	Gewirth, A.A.	ENFL	120	Gibson, J.K.	NUCL	14
Gelbart, W.M.	PHYS	15	Gewirth, A.A.	ENFL	230	Gibson, J.K.	NUCL	28
Gelbaum, C.	ORGN	495	Gewirth, A.A.	ENFL	285	Gibson, J.K.	NUCL	45
Geletii, Y.V.	CATL	458	Gewirth, A.A.	ENFL	434	Gibson, M.I.	BIOL	33
Gelhaus Wendell, S.	ORGN	422	Gewirth, A.A.	INOR	313	Gibson, T.S.	MEDI	110
Gelin, C.	MEDI	211	Ghaadrgadr, Y.	COMP	14	Gichimu, J.	TOXI	29
Gellatly, K.	AGRO	366	Ghanbari, S.	CELL	13	Gichuhi, W.K.	CHED	291
Geller, A.	COLL	538	Ghanbaripour, R.	COLL	612	Gichuhi, W.K.	ENVR	424
Gellman, A.J.	COLL	203	Ghandehari, H.	PMSE	144	Giddings, J.	AGRO	222
Gemene, K.L.	ANYL	261	Ghandour, H.	INOR	615	Giddings, J.	AGRO	381
Gendron, F.	PHYS	229	Ghann, W.	ANYL	143	Gide, M.E.	PMSE	366
Genest, A.	CATL	107	Ghann, W.	ANYL	403	Gieck, I.	CHED	175
Genevois, C.	COLL	96	Ghann, W.	ENFL	51	Giese, R.	ENVR	331
Genevois, C.	PMSE	516	Ghann, W.	ENFL	217	Giesen, D.	COMP	337
Geng, H.Y.	PHYS	211	Ghassemi, A.	INOR	255	Giesler, M.	COLL	619
Geng, J.	COLL	142	Ghaste, M.	AGFD	94	Giesy, J.P.	ENVR	391
Geng, T.	AGRO	278	Ghauch, A.	ANYL	92	Gift, A.	CHED	11
Geng, X.	ENFL	463	Ghauch, A.	ENVR	111	Gigmes, D.	POLY	64
Gengenbacher, M.	MEDI	277	Ghavami, M.	MEDI	275	Gigmes, D.	PMSE	224
Genna, D.	INOR	54	Ghebremichael, H.	CATL	312	Gigmes, D.	POLY	310
Genna, D.	INOR	119	Ghebreyessus, K.Y.	INOR	766	Gigmes, D.	POLY	427
Genna, D.	INOR	146	Ghemtio, L.	CINF	138	Giinther, R.	COLL	138
Genna, D.	INOR	225	Ghiassi, K.B.	POLY	521	Gikunju, D.	MEDI	104
Genna, D.	INOR	558	Ghimire, G.	ORGN	648	Gil, P.	PMSE	646
Gennaro, A.	POLY	7	Ghimire, M.	PHYS	62	Gilbert, A.M.	MEDI	246
Gennaro, A.	POLY	387	Ghimire, S.	CARB	36	Gilbert, B.	ENVR	82
Gennaro, A.	POLY	395	Ghirlando, R.	PHYS	288	Gilbert, B.	GEOC	7
Genovese, B.	BIOL	104	Ghiviriga, I.	INOR	886	Gilbert, J.R.	AGFD	151
Genovese, L.	COMP	51	Ghiviriga, I.	ORGN	46	Gilbert, J.R.	AGRO	194
Gent, D.	ENVR	326	Ghodssi, R.	BIOL	159	Gilbert, T.M.	AEI	71
Gentekos, D.	POLY	771	Ghodssi, R.	ENVR	300	Gilbert, T.M.	ORGN	126
Genthe, B.	ANYL	81	Ghosh, A.	PHYS	9	Gilbert, T.M.	ORGN	130
Gentleman, E.	CINF	100	Ghosh, A.	BIOL	163	Gilbertson, R.D.	ORGN	27
Genualdi, S.	ANYL	199	Ghosh, A.	INOR	280	Gilbert-Wilson, R.	AEI	40
Genualdi, S.	ANYL	201	Ghosh, A.K.	ORGN	578	Gilbraith, W.	ANYL	322
Genzer, J.	POLY	727	Ghosh, G.	ORGN	180	Gil-Caballero, S.	CARB	80
Geoghegan, K.F.	MEDI	249	Ghosh, K.	MEDI	365	Gilder, J.	AGRO	372
Geoghegan, T.	AGRO	118	Ghosh, M.K.	CATL	193	Giles, L.J.	CATL	217
Geoghegan, T.	AGRO	180	Ghosh, M.K.	CATL	463	Giles, S.L.	INOR	55
Geohegan, D.	ENFL	361	Ghosh, P.	NUCL	5	Giles, S.L.	INOR	138
George, C.	CARB	38	Ghosh, P.	NUCL	78	Gilfillan, R.	MEDI	192
George, J.V.	ANYL	114	Ghosh, P.	CATL	267	Gilgen, A.	ENVR	293
George, T.F.	PRES	6	Ghosh, P.	INOR	136	Gilkes, A.	COLL	450
George Rosenker, K.M.	ANYL	126	Ghosh, P.	INOR	159	Gilkey, M.J.	CATL	435
Geppert, W.D.	PHYS	206	Ghosh, P.	INOR	698	Gilkey, M.J.	CATL	442
Geraghty, P.	ENFL	54	Ghosh, S.	AGRO	116	Gillan, M.	PMSE	454
Gerardi, J.	ENFL	255	Ghosh, S.	BIOL	83	Gillani, S.S.	PMSE	586
Gerardin, C.	POLY	697	Ghosh, S.	BIOL	96	Gillens, A.	NUCL	72
Gerbaldi, C.	CELL	9	Ghosh, T.	INOR	932	Gilles, M.K.	ENVR	550
Gerbaldi, C.	ENFL	98	Ghosh, U.	ENVR	277	Gillespie, B.R.	COMP	160
Gerbaldi, C.	PMSE	546	Ghosh Dey, S.	INOR	28	Gillespie, K.	INOR	239
Gerbaux, P.	ORGN	539	Giactalone, A.G.	INOR	577	Gillespie, K.P.	TOXI	75
Gerber, R.B.	ENVR	340	Giactalone, A.G.	INOR	578	Gillet, V.J.	CINF	86
Gerhard, A.	INOR	565	Giaccal, J.A.	ANYL	226	Gilliard, R.J.	INOR	482
Gerhard, J.	ENVR	326	Giampietro, N.	ORGN	523	Gilliard, R.J.	INOR	884
Gerig, A.	ENVR	476	Gian, S.	ORGN	14	Gillies, R.	AGRO	350
Gerke, C.	PMSE	577	Giancaspro, J.	CHED	185	Gilligan, P.	MEDI	308
Gerlach, E.M.	ORGN	404	Giannelis, E.P.	CELL	15	Gillikin, D.P.	GEOC	36
Gerland, K.	MEDI	22	Giannelis, E.P.	PMSE	116	Gillis, E.P.	MEDI	269
Gerlt, J.A.	BIOL	11	Gianneschi, N.C.	INOR	828	Gillis, E.P.	MEDI	365
Germani, M.	AGFD	188	Gianneschi, N.C.	POLY	742	Gillis, R.	ENFL	399
Gerona-Navarro, G.	BIOL	172	Gianopoulos, C.G.	INOR	519	Gilman, K.	MEDI	269
Gerringer, J.	POLY	770	Giardiello, M.	COLL	82	Gillooly, K.	MEDI	7
Gerspacher, M.	MEDI	306	Giardiello, M.	COLL	145	Gillum, M.Z.	COLL	284
Gerstein, L.	ORGN	602	Gibb, B.C.	AEI	65	Gilman, J.	ENVR	158
Gerstner, N.	ORGN	609	Gibb, B.C.	ORGN	459	Gilman, J.	PMSE	529
Gertsik, N.	MEDI	249	Gibb, B.C.	ORGN	460	Gilman, J.W.	ANYL	387
Geschwinder, S.	MEDI	8	Gibb, B.C.	ORGN	700	Gilmore, K.M.	INOR	724
Gest, A.	ORGN	318	Gibb, C.L.	AEI	65	Gilroy, K.	COLL	247
Getahun, A.	AGRO	89	Gibb, C.L.	ORGN	700	Gilson, M.K.	COMP	38
Getchew, B.	ENVR	162	Gibbons, B.J.	INOR	145	Gilson, M.K.	COMP	39
Getman, R.	CATL	414	Gibbons, R.	CHED	71	Gilson, M.K.	COMP	100
Getman, R.	CATL	416	Gibbons, S.K.	INOR	100	Gilson, M.K.	COMP	220
Getman, R.	ENVR	130	Gibbons, S.K.	INOR	261	Gilson, M.K.	WCC	5
Getman, R.	INOR	68	Gibbons, S.K.	INOR	373	Gimeno-Fabra, M.	PMSE	567
Geva, N.	PHYS	185	Gibbons, W.	CATL	17	Gin, D.L.	POLY	41
Gewirth, A.	AEI	54	Gibbs, L.M.	CHAS	4	Gindulyte, A.	CHAS	34

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Gindulyte, A.	CINF	45	Gnaim, S.	ORGN	30	Goldberg, K.I.	INOR	599
Ginger, D.S.	COLL	120	Gnanou, Y.	COLL	565	Goldberg, K.I.	INOR	767
Ginger, D.S.	COMSCI	4	Gnanou, Y.	PMSE	307	Goldberger, J.E.	INOR	94
Ginovska, B.	CATL	217	Gnegy, M.	ANYL	440	Golden, J.H.	ORGN	686
Ginovska, B.	CATL	223	Goacher, R.E.	ANYL	159	Golden, N.	AGRO	377
Ginter, H.	CHED	170	Gobrogge, E.	PHYS	463	Golden, N.	AGRO	382
Giordan, J.C.	BMGT	1	Goddard, J.M.	AGFD	137	Golden, T.	INOR	618
Giordan, J.C.	ENFL	320	Goddard, J.M.	COLL	411	Goldfarb, J.L.	CHED	351
Giordan, J.C.	ENFL	325	Goddard, W.A.	CATL	26	Goldfarb, J.L.	ENVR	506
Giordan, J.C.	SCHB	8	Goddard, W.A.	CATL	28	Goldfeld, D.J.	PMSE	478
Giordano, F.	ENFL	98	Goddard, W.A.	CATL	196	Goldfield, E.	INOR	132
Giordano, L.	ORGN	272	Goddard, W.A.	CATL	329	Goldman, A.	INOR	198
Giovani, S.	ORGN	83	Goddard, W.A.	CATL	338	Goldman, A.	INOR	218
Girard, L.	ANYL	196	Goddard, W.A.	CATL	341	Goldman, A.	INOR	389
Girard, L.	I&E	16	Goddard, W.A.	ENFL	286	Goldman, A.	INOR	609
Girgis, A.S.	MEDI	85	Goddard, W.A.	INOR	15	Goldman, A.	INOR	611
Giri, B.	ANYL	119	Godinho, A.L.	TOXI	81	Goldman, A.S.	INOR	200
Giri, R.	INOR	443	Godinho, V.	AGRO	313	Goldman, A.S.	INOR	202
Giri, S.	ANYL	119	Godman, N.P.	POLY	360	Goldman, A.S.	INOR	203
Girolami, G.S.	INOR	648	Godman, N.P.	POLY	580	Goldman, A.S.	INOR	215
Girona, M.	ANYL	228	Godman, N.P.	POLY	647	Goldman, A.S.	INOR	219
Girotti, J.	AGRO	191	Godman, N.P.	POLY	724	Goldman, A.S.	INOR	325
Giroto, S.	COMP	340	Godman, N.P.	POLY	767	Goldman, A.S.	INOR	326
Giroud, F.	CATL	422	Godoi, P.H.	MEDI	141	Goldman, A.S.	INOR	330
Gisewhite, D.	INOR	163	Godoy-Gallardo, M.	COLL	576	Goldman, A.S.	INOR	445
Giuliano, R.M.	CARB	54	Godshaw, J.	AGFD	209	Goldman, A.S.	INOR	594
Giulianotti, J.	ANYL	55	Godula, K.	ORGN	295	Goldman, A.S.	INOR	595
Giuseppone, N.	AEI	63	Gody, G.	POLY	426	Goldman, A.S.	INOR	596
Giuseppone, N.	ANYL	245	Gody, G.	POLY	553	Goldman, A.S.	INOR	597
Giusti, M.	AGFD	177	Goel, D.	ORGN	206	Goldman, A.R.	ANYL	131
Giustra, Z.	INOR	298	Goel, M.	AGRO	191	Goldman, M.	CATL	253
Givens, B.	COLL	215	Goepferich, A.	PMSE	339	Goldman, N.	PHYS	162
Gizewski, E.	MEDI	45	Goepferich, A.	PMSE	365	Goldschmid, S.	INOR	375
Gizzatov, A.	ENFL	421	Goerls, H.	INOR	45	Goldschmidt, M.	AGFD	217
Gjonaj, L.	ORGN	502	Goethe, O.	ORGN	390	Goldsmith, C.R.	INOR	829
Gkourmpis, T.	PMSE	615	Goetschi, E.	MEDI	256	Goldsmith, M.R.	MEDI	189
Gkourmpis, T.	PMSE	618	Goetz, R.	ORGN	11	Goldsmith, R.H.	ORGN	299
Glace, A.	ORGN	521	Goetz, M.	NUCL	48	Goldsmith, R.H.	PHYS	390
Gladfelter, W.L.	COMP	333	Goetz, S.	NUCL	48	Goldstein, A.	PMSE	567
Gladich, I.	CATL	323	Gogineni, V.	COLL	113	Golosov, A.	COMP	106
Gladysz, J.A.	ORGN	685	Gogotsi, Y.	ENFL	383	Golov, A.A.	PHYS	360
Glas, J.	CATL	469	Goh, K.S.	AGRO	159	Gombedza, F.	ORGN	88
Glaser, T.	INOR	316	Goh, M.	COLL	366	Gombedza, F.	ORGN	89
Glaser, E.	INOR	545	Goh, M.	MEDI	296	Gomes, E.	ENVR	189
Glass, E.N.	CATL	18	Goh, M.	PMSE	227	Gomez, C.R.	CHED	33
Glass, P.	BIOL	20	Gohara, D.W.	BIOL	71	Gomez, D.	CHED	361
Glass, R.S.	INOR	221	Gohlke, H.	COMP	82	Gomez, J.A.	PHYS	224
Glass, R.S.	POLY	106	Gohre, K.	AGRO	271	Gómez-Gualdrón, D.	INOR	127
Glass, R.S.	POLY	273	Gohre, K.	AGRO	272	Gomez Magenti, J.	PMSE	185
Glass, R.S.	POLY	594	Gohy, J.	POLY	670	Gómez-Moreno, R.	BIOL	110
Glass, T.E.	ORGN	91	Gojic-Cvijovic, G.	ENVR	449	Gonawala, S.	INOR	667
Glaven, S.	ENVR	535	Gökmen, V.	AGFD	206	Goncalves, R.B.	PHYS	424
Glavin, N.	ENFL	365	Golakoti, N.	MEDI	293	Goncalves, R.B.	PHYS	455
Glaze, O.D.	INOR	231	Gold, A.	ENVR	189	Gonçalves, V.	AGRO	313
Glazer, P.C.	INOR	400	Gold, A.	ENVR	555	Gondal, M.	POLY	156
Gledhill, J.	CHAL	11	Goldade, D.A.	ANYL	382	Gong, B.	MEDI	286
Glezakou, V.	CATL	174	Goldberg, A.	COMP	337	Gong, C.	ANYL	148
Glezakou, V.	CATL	425	Goldberg, C.	INOR	501	Gong, C.	COLL	386
Glezakou, V.	COLL	133	Goldberg, D.P.	INOR	416	Gong, C.	INOR	447
Glezakou, V.	ENFL	136	Goldberg, D.P.	INOR	422	Gong, C.	INOR	788
Glezakou, V.	ENFL	137	Goldberg, I.	INOR	905	Gong, H.	ORGN	250
Glezakou, V.	ENFL	139	Goldberg, J.M.	INOR	207	Gong, J.	POLY	777
Glezakou, V.	ENVR	94	Goldberg, J.M.	INOR	208	Gong, J.	CATL	408
Glezakou, V.	PHYS	265	Goldberg, J.M.	INOR	498	Gong, J.	ENFL	95
Glezakou, V.	POLY	451	Goldberg, J.M.	INOR	499	Gong, J.	ENFL	99
Gliege, M.E.	INOR	330	Goldberg, J.M.	INOR	598	Gong, J.	I&E	48
Gliege, M.E.	INOR	596	Goldberg, K.I.	INOR	79	Gong, J.	INOR	526
Glocer, A.	POLY	681	Goldberg, K.I.	INOR	197	Gong, J.	INOR	530
Gloer, J.B.	ENVR	353	Goldberg, K.I.	INOR	199	Gong, K.	ENFL	276
Glomb, M.A.	AGFD	145	Goldberg, K.I.	INOR	205	Gong, P.	ENVR	425
Glor, E.	COLL	38	Goldberg, K.I.	INOR	207	Gong, T.	ENFL	55
Glor, E.	PHYS	203	Goldberg, K.I.	INOR	212	Gong, W.	MEDI	250
Glover, S.	POLY	203	Goldberg, K.I.	INOR	213	Gong, W.	MEDI	252
Glueck, D.S.	INOR	53	Goldberg, K.I.	INOR	220	Gong, W.	PHYS	503
Glueck, D.S.	INOR	100	Goldberg, K.I.	INOR	325	Gong, X.	CELL	27
Glueck, D.S.	INOR	261	Goldberg, K.I.	INOR	498	Gong, X.	ENFL	13
Glueck, D.S.	INOR	373	Goldberg, K.I.	INOR	499	Gong, Z.	ENVR	192
Glueck, D.S.	INOR	803	Goldberg, K.I.	INOR	591	Gonnella, N.C.	ANYL	13
Glueck, D.S.	INOR	935	Goldberg, K.I.	INOR	593	Gonnella, N.C.	COMP	162
Glugla, D.	POLY	456	Goldberg, K.I.	INOR	598	Gonsales, S.A.	INOR	75

Gontier, E.	COLL	96	Gorte, R.J.	INOR	655	Grady, Z.M.	COLL	150
Gontier, E.	PMSE	516	Gorte, R.J.	INOR	837	Gradzielski, M.	COLL	93
Gonzalez, A.	PMSE	396	Gorunmez, Z.	COLL	36	Gradzielski, M.	COLL	341
Gonzalez, J.	MEDI	349	Gorunmez, Z.	COLL	42	Graf, R.	ORGN	506
Gonzalez, K.	INOR	156	Gorunmez, Z.	COLL	152	Gräfe, D.	POLY	27
Gonzalez, M.	ORGN	9	Gorunmez, Z.	COLL	447	Graham, D.L.	ORGN	421
Gonzalez-Cortes, S.	PHYS	357	Gorycki, P.D.	ORGN	59	Graham, G.	CATL	57
Gonzalez Jimenez, E.	ENVR	122	Goseki, R.	PMSE	129	Graham, G.	CATL	167
Gonzalez-Martinez, D.	ENVR	338	Goseki, R.	PMSE	392	Graham, K.J.	CHED	107
Gonzalez-Martinez, D.	ENVR	490	Gosmini, C.	ORGN	252	Graham, K.J.	CHED	319
Gonzalez-Martinez, E.	POLY	632	Goss, J.	COLL	4	Graham, K.J.	CHED	327
González-Medina, M.	CINF	137	Gosselin, E.	INOR	252	Graham, L.	AGRO	129
González-Medina, M.	CINF	142	Gosselin, E.	INOR	754	Graham, M.	INOR	358
González-Medina, M.	COMP	176	Gosselin, F.	ORGN	40	Graham, S.	ORGN	147
González-Méndez, R.	BIOL	70	Goswami, A.	INOR	376	Graham, S.M.	CARB	37
Gonzalez-Nilo, F.D.	POLY	745	Goswami, A.	POLY	142	Graham, S.M.	CARB	95
Gonzalez-Rodriguez, D.	ORGN	531	Goswami, S.	INOR	337	Graham, T.	ANYL	256
González Sánchez, G.	ENVR	373	Gosztola, D.J.	COLL	402	Grainger, R.	ORGN	13
González-Villegas, J.	INOR	63	Goto, A.	POLY	6	Grajeda, J.	INOR	82
Gooch, R.	AGRO	23	Goto, H.	MEDI	269	Grajeda, J.	INOR	431
Good, D.	PHYS	384	Goto, K.	ORGN	650	Gram, S.	PMSE	586
Gooding, R.F.	AGRO	29	Goto, M.	ORGN	650	Gramlich, W.	ENVR	135
Goodman, E.	CATL	57	Goto, T.	COLL	137	Gramlich, W.	POLY	133
Goodman, J.M.	CINF	11	Goto, T.	PHYS	392	Gramlich, W.	POLY	478
Goodman, J.M.	CINF	12	Goto, Y.	MEDI	106	Grampp, G.	PHYS	301
Goodman, K.B.	MPPG	16	Gottesburen, B.	AGRO	258	Grana, E.	AGRO	32
Goodpaster, J.	PHYS	182	Gottesburen, B.	AGRO	259	Granados Focil, S.	ENVR	92
Goodrich, J.	MEDI	269	Gottlieb, E.	POLY	385	Grandbois, M.	PROF	1
Goodrich, J.T.	POLY	546	Gou, M.	PMSE	474	Grandbois, M.	YCC	24
Goodrich, J.T.	POLY	372	Gou, M.	PMSE	503	Grandcolas, D.	AGRO	58
Goodson, T.G.	PHYS	143	Gou, N.	ENVR	330	Grandgenett, N.	CHED	11
Goodson, T.G.	PMSE	89	Goubert, G.	CATL	322	Grandjean, T.	CARB	1
Goodwill, J.	ENVR	149	Goubert, G.	PHYS	323	Grando, S.	AGFD	94
Goodwin, A.P.	COLL	32	Gouda, C.	POLY	778	Grange, R.L.	ORGN	207
Goodwin, A.P.	COLL	574	Goudreau Collison, T.G.	CHED	198	Granja, R.H.	AGRO	46
Goodwin, A.P.	POLY	26	Goudreau Collison, T.G.	CHED	200	Grant, A.M.	COMP	155
Goodwin, D.G.	ENVR	160	Goudreau Collison, T.G.	CHED	268	Grant, G.	ENVR	326
Goodwin, D.	CHED	124	Goudreau Collison, T.G.	CHED	383	Grant, J.C.	POLY	117
Goodwin, D.C.	AEI	59	Goudreau Collison, T.G.	ORGN	144	Grant, O.C.	CARB	79
Goodwin, D.C.	MEDI	329	Gough, J.	POLY	453	Grant, R.	MEDI	51
Goodwin, G.	AGRO	77	Gouin, S.G.	CARB	16	Grant, S.	AGRO	116
Goodwin, L.	PMSE	577	Gouin, T.G.	ENVR	350	Grant-Young, K.	MEDI	269
Goodyear, A.	ORGN	256	Goujon, A.	AEI	63	Grantz, E.M.	AGRO	181
Gopal, P.	MEDI	277	Gould, M.	ORGN	415	Granvogel, M.	AGFD	153
Gopalan, V.	INOR	914	Gould, N.	CATL	72	Granvogel, M.	AGFD	199
Gorden, A.E.	INOR	638	Gould, N.	ENVR	86	Granvogel, M.	AGFD	221
Gordon, B.	INOR	202	Gould, N.	ENVR	131	Granzotto, C.	ANYL	254
Gordon, C.P.	ORGN	283	Gould, P.	ORGN	495	Grapperhaus, C.A.	CHED	234
Gordon, E.	COMP	163	Gould, T.	MEDI	267	Grapperhaus, C.A.	INOR	888
Gordon, K.	CHAL	13	Goulet, T.	INOR	371	Grapperhaus, C.A.	INOR	894
Gordon, M.	PHYS	163	Goulet Fortin, J.	AGRO	259	Grason, G.M.	PMSE	95
Gordon, M.	PHYS	227	Goulian, M.	COLL	127	Grass, A.	INOR	360
Gordon, M.S.	COMP	23	Goulian, M.	PMSE	586	Grassian, V.H.	COLL	215
Gordon, M.S.	COMP	26	Gounaris, C.	CATL	11	Grassian, V.H.	ENVR	489
Gordon, R.	YCC	15	Gounder, R.	CATL	243	Grassian, V.H.	ENVR	527
Gordon, U.	AGRO	242	Gounder, R.	ENFL	73	Grassian, V.H.	ENVR	532
Gordon, W.O.	COLL	141	Gounder, R.	ENVR	88	Grassie, D.	INOR	155
Gordon, W.O.	INOR	147	Gourdie, R.	PMSE	484	Gratia, A.	CATL	444
Gordon, Z.	INOR	702	Goutopoulos, A.	MEDI	268	Gratier, P.	PHYS	541
Gordon, J.C.	MEDI	313	Govind, N.	CATL	277	Gratton, E.	BIOL	130
Gore, J.C.	ANYL	208	Govindaraju, G.V.	ENFL	353	Grätzel, M.	ENFL	98
Goren, F.	AGFD	142	Govindasamy, S.	ORGN	599	Grau, E.	POLY	138
Gorham, J.M.	ENVR	38	Govor, E.V.	I&EC	21	Grau, E.	POLY	195
Gorham, J.M.	ENVR	112	Govorov, A.	COLL	380	Grau, H.J.	BIOL	104
Gorham, J.M.	ENVR	160	Govorov, A.	COLL	492	Graupner, P.	AGRO	135
Gorham, J.M.	INOR	775	Gower, M.	PMSE	234	Graupner, P.	AGRO	194
Gorin, D.J.	ORGN	411	Gower, M.	PMSE	290	Graves, B.	ORGN	147
Gorin, D.J.	ORGN	598	Gower, M.	PMSE	471	Graves, C.R.	INOR	481
Goriparti, S.	CATL	427	Goyal, V.	MEDI	95	Graves, C.R.	INOR	546
Gorka, D.	ENVR	112	Goyal, V.	MEDI	354	Graves, C.R.	INOR	563
Gorka, D.	ENVR	426	Goydel, R.S.	MEDI	228	Gravina Ricci, C.	COMP	129
Gorka, D.E.	ENVR	38	Graber, S.	ANYL	73	Gray, H.B.	INOR	25
Gorman, C.B.	ORGN	541	Graber, S.	I&EC	58	Gray, H.B.	INOR	309
Gorman, I.	PMSE	668	Grabitz, S.D.	ORGN	510	Gray, H.B.	INOR	800
Gorodetsky, A.A.	ORGN	297	Grabow, L.	CATL	165	Gray, K.A.	ENFL	2
Goroff, N.S.	CHED	40	Gracia Mora, J.	INOR	188	Gray, L.	CATL	485
Gorski, C.	ENVR	477	Gracias, D.H.	AEI	91	Gray, M.	COLL	606
Gorsline, B.	INOR	80	Gracias, D.H.	COLL	84	Gray, M.	GEOC	20
Gorte, R.J.	CATL	456	Gracias, D.H.	COLL	460	Gray, M.	CATL	99
Gorte, R.J.	ENVR	131	Gracias, D.H.	POLY	577	Gray, M.	CATL	455

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Gray, P.	AGFD	30	Grillo, I.	ORGN	31	Grubbs, R.H.	PMSE	560
Gray, S.K.	COLL	379	Grillo, I.	POLY	754	Grubbs, R.H.	POLY	304
Gray, S.K.	COLL	492	Grills, D.C.	I&EC	31	Grubbs, R.H.	POLY	368
Gray, S.K.	COMP	19	Grills, D.C.	INOR	22	Grubbs, R.H.	POLY	369
Gray, T.G.	INOR	77	Grills, D.C.	INOR	274	Grubbs, R.H.	POLY	486
Gray, W.	CHED	223	Grills, D.C.	INOR	278	Grubbs, R.H.	POLY	607
Greathouse, J.	INOR	65	Grills, D.C.	INOR	891	Grubbs, R.H.	SCHB	29
Greathouse, J.A.	INOR	4	Grim, J.C.	PMSE	469	Gruber, K.	POLY	72
Greathouse, J.A.	INOR	343	Grimes, C.L.	BIOL	144	Grudpan, K.	CHED	348
Greco, G.E.	CHED	273	Grimes, C.L.	BIOL	164	Grudpan, K.	CHED	349
Greco, G.E.	INOR	957	Grimes, C.L.	CARB	6	Grudt, R.	ENFL	215
Greco, J.B.	CHED	323	Grimes, C.	ENVR	487	Gruhn, N.E.	INOR	220
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Greeley, J.P.	ENFL	171	Grimster, N.	MEDI	23	Grulke, C.	ANYL	435
Green, A.	INOR	652	Grimwood, M.E.	MEDI	252	Grulke, C.	CINF	93
Green, A.	CARB	85	Grimwood, M.E.	MEDI	253	Grulke, C.	CINF	101
Green, C.	AGRO	218	Grinter, D.	COLL	417	Grulke, C.	CINF	121
Green, J.	POLY	681	Grishaeve, A.	COMP	349	Grulke, C.	CINF	122
Green, M.	INOR	840	Grissom, T.	INOR	752	Grulke, C.	ENVR	2
Green, M.J.	COLL	464	Grochala, W.	PHYS	214	Grulke, C.	ENVR	355
Green, M.J.	COLL	534	Grochala, W.	PHYS	560	Grulke, C.	ENVR	387
Green, M.J.	PMSE	548	Grodan, K.	CATL	260	Grulke, C.	ENVR	548
Green, N.	ORGN	206	Grodan, K.	CATL	398	Grulke, C.	TOXI	56
Green, W.H.	CINF	8	Groenenboom, M.C.	CATL	343	Grulke, C.	TOXI	91
Green, W.H.	ENFL	399	Groenenboom, M.C.	COMP	182	Grulke, C.	TOXI	100
Green, W.H.	ENFL	456	Groll, M.	MEDI	121	Grumbles, W.	CHED	155
Greenberg, A.	ORGN	201	Grollman, A.P.	COMP	31	Grundel, E.	ANYL	198
Greenberg, E.	AGFD	99	Gronbeck, H.	CATL	259	Grundschober, C.	MEDI	256
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Greenberg, M.M.	TOXI	18	Gronquist, M.	BIOL	16	Grüneis, A.	PHYS	79
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Greenberg, M.M.	TOXI	82	Grosch, J.S.	COMP	263	Grunlan, J.C.	COLL	214
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Greenberger, V.R.	ANYL	46	Groshens, T.	INOR	107	Grunlan, J.C.	PMSE	427
Greene, C.M.	INOR	584	Gross, A.D.	AGRO	138	Grunlan, J.C.	PMSE	492
Greene, C.S.	ENVR	320	Gross, A.D.	AGRO	204	Grunlan, J.C.	PMSE	534
Greene, D.	COMP	102	Gross, A.D.	AGRO	202	Grunlan, J.C.	POLY	656
Greene, J.P.	NUCL	43	Gross, A.D.	AGRO	303	Grunlan, J.C.	POLY	770
Greene, T.	PHYS	549	Gross, E.	PHYS	174	Grunlan, M.	PMSE	239
Greenlee, A.J.	ORGN	438	Gross, E.	CATL	432	Grunlan, M.	PMSE	501
Greenstein, J.	COLL	60	Gross, R.	PMSE	343	Grunlan, M.	PMSE	566
Greenwalt, S.	INOR	505	Gross, R.A.	ORGN	649	Grusenmeyer, T.	INOR	686
Greenway, S.	ENFL	158	Gross, R.A.	POLY	75	Grushow, A.	CHED	110
Greenwood-Van Meerveld, B.	ORGN	59	Gross, R.A.	POLY	78	Grützmacher, H.	CATL	183
Greer, A.	ORGN	179	Gross, R.A.	POLY	266	Grützmacher, H.	INOR	482
Greer, A.	ORGN	180	Gross, R.A.	POLY	328	Grützmacher, H.	INOR	884
Greer, A.	ORGN	181	Gross, R.A.	POLY	333	Grützmacher, H.	POLY	777
Greer, A.	ORGN	182	Gross, R.A.	POLY	512	Grygiel, K.	TOXI	2
Greer, E.	PHYS	63	Gross, R.A.	POLY	559	Gu, A.	ENVR	330
Greer, J.R.	PMSE	560	Gross, R.A.	POLY	560	Gu, A.	ENFL	427
Greer, R.	INOR	642	Gross, R.A.	POLY	562	Gu, J.	I&EC	49
Greeson, K.	COLL	604	Gross, R.A.	POLY	563	Gu, J.	PMSE	369
Gregg, D.	NUCL	20	Gross, R.A.	POLY	700	Gu, K.	ORGN	512
Gregoire, J.	CATL	382	Gross, R.A.	POLY	701	Gu, M.	CATL	297
Gregor, L.	INOR	82	Grossman, J.	ANYL	348	Gu, S.	INOR	103
Gregorczyk, K.E.	ENFL	283	Grossman, J.N.	ANYL	21	Gu, X.	MEDI	22
Gregoritz, M.	PMSE	365	Grossman, J.N.	ANYL	347	Gu, X.	MEDI	103
Gregory, K.B.	BIOL	162	Grote, C.	PHYS	312	Gu, Y.	ANYL	165
Grest, G.S.	PMSE	207	Grotjahn, D.B.	ORGN	154	Guagenti, M.	CHED	144
Grethe, G.	CINF	11	Grove, P.	CHED	326	Guan, A.	ENVR	302
Grew, K.	INOR	473	Groveman, S.L.	ENVR	417	Guan, A.	ENVR	348
Grey, C.	ENFL	428	Grover, M.	ANYL	436	Guan, H.	INOR	226
Greybush, N.	INOR	704	Groves, J.T.	CATL	136	Guan, X.	MEDI	145
Greytak, A.B.	INOR	361	Groves, J.T.	CATL	196	Guan, X.	MEDI	159
Grieneisen, M.	AGRO	12	Groves, J.T.	INOR	15	Guan, X.	MEDI	160
Grieneisen, M.	AGRO	92	Groves, J.T.	INOR	157	Guan, X.	MEDI	303
Grieneisen, M.	AGRO	127	Groves, J.T.	INOR	938	Guan, Z.	COLL	315
Grieneisen, M.	AGRO	124	Groves, J.T.	ORGN	665	Guan, Z.	PMSE	69
Grier, S.	ANYL	136	Groves, L.M.	INOR	184	Guan, Z.	POLY	152
Griesser, M.	TOXI	18	Groves, L.M.	INOR	379	Guard, L.M.	INOR	207
Griffett, K.	MEDI	146	Growcott, E.	MEDI	250	Guard, L.M.	INOR	208
Griffin, K.R.	COLL	360	Growney, J.D.	MEDI	267	Guard, L.M.	INOR	213
Griffin, K.	AGFD	233	Grow-Sadler, M.E.	CHED	41	Guard, L.M.	INOR	598
Griffin, R.G.	PHYS	342	Groysman, S.	INOR	360	Gubara, S.	COLL	484
Griffini, G.	PMSE	546	Grubbs, G.S.	PHYS	587	Gubbins, K.E.	PHYS	173
Griffith, J.	ANYL	377	Grubbs, R.B.	POLY	554	Guberman, S.	ENVR	491
Griffith, K.J.	ENFL	428	Grubbs, R.B.	POLY	568	Gublo, K.	CHED	363
Griffor, M.C.	MEDI	63	Grubbs, R.H.	INOR	204	Guclu, S.	POLY	57
Grillo, I.	COLL	93	Grubbs, R.H.	ORGN	496	Gudipati, S.	COLL	200

Guduru, S.	ORGN	279	Guo, F.	ORGN	147	Gurjar, P.N.	TOXI	12
Guebitz, G.M.	POLY	72	Guo, H.	MEDI	41	Gurjar, R.	COLL	82
Guégan, P.	POLY	255	Guo, H.	POLY	520	Gurjar, R.	COLL	145
Guengerich, F.P.	TOXI	5	Guo, H.	POLY	682	Gurney, R.	CHED	351
Guengerich, F.P.	TOXI	17	Guo, H.	MEDI	250	Guron, G.K.	ENVR	54
Guentert, M.A.	AGFD	138	Guo, H.	COLL	590	Guros, N.	COMP	297
Guenther, A.	PRES	22	Guo, H.	COLL	271	Gurram, R.	ANYL	385
Guenther, M.	MEDI	15	Guo, H.	ENVR	335	Gurtler, J.B.	AGFD	189
Guenthner, A.J.	COLL	604	Guo, H.	PMSE	137	Gurung, E.	ANYL	166
Guenthner, A.J.	PMSE	608	Guo, J.	ANYL	247	Gusa, A.	GEOC	12
Guenthner, A.J.	POLY	12	Guo, J.	POLY	575	Gustafson, J.	COLL	418
Guenthner, A.J.	POLY	217	Guo, J.	COMP	268	Gustafson, K.R.	ORGN	26
Guenthner, A.J.	POLY	517	Guo, J.	CATL	229	Gustafson, T.L.	ANYL	124
Guenthner, A.J.	POLY	521	Guo, J.	TOXI	88	Guterman, R.	POLY	565
Guevara, M.	PHYS	21	Guo, J.	TOXI	108	Gutierrez, J.	MEDI	258
Guerre, M.	POLY	415	Guo, J.	PMSE	397	Gutierrez, M.	COLL	356
Guerreiro, C.	CARB	20	Guo, J.	ENFL	333	Gutierrez, M.	ENVR	530
Guertin, N.	AGFD	124	Guo, J.C.	AGRO	226	Gutierrez, S.	MEDI	258
Guery, B.	CARB	1	Guo, L.	TOXI	1	Gutsev, G.	PHYS	567
Guevara, E.L.	BIOL	68	Guo, L.	MEDI	37	Gutteridge, S.	AGRO	140
Guevara, E.L.	MEDI	13	Guo, L.	TOXI	9	Guttman, A.	YCC	4
Guevara, J.	CHED	228	Guo, L.	TOXI	10	Guzei, I.A.	ORGN	609
Guevara, J.	CHED	350	Guo, L.	PHYS	235	Guzman-Santiago, A.J.	INOR	947
Guevara, L.	CATL	459	Guo, M.	ENFL	454	Gyedu, A.	COLL	2
Guevara, M.	AGRO	352	Guo, M.	AGFD	55	Gygi, F.	COMP	76
Guggisberg, A.	BIOL	154	Guo, M.	CATL	99	Ha, J.	CATL	52
Guha, R.	CINF	60	Guo, P.	COLL	492	Ha, S.	ENFL	331
Guha, R.	COMP	288	Guo, P.	INOR	459	Haagenson, D.C.	CHED	79
Guha, S.	AGFD	74	Guo, R.	PMSE	444	Haas, D.	CHED	65
Guichard, G.	ORGN	487	Guo, R.	PMSE	663	Haas, K.L.	INOR	797
Guidry, E.	MEDI	245	Guo, R.	POLY	243	Haase, D.	CHED	8
Guie, M.A.	MEDI	104	Guo, S.	ENFL	388	Haba, H.	NUCL	48
Guillaneuf, Y.	PMSE	224	Guo, S.	CINF	143	Habarakada Liyanage, T.	ANYL	397
Guillaneuf, Y.	POLY	310	Guo, S.	COLL	300	Habel, M.	CHED	16
Guillaneuf, Y.	POLY	427	Guo, W.	CATL	430	Habel, M.	CHED	196
Guillot, T.	ANYL	102	Guo, W.	INOR	3	Haber, J.	CATL	382
Guilloteau, S.	PHYS	255	Guo, W.	INOR	66	Haber, L.H.	ANYL	288
Guin, T.	POLY	360	Guo, W.	INOR	147	Haber, T.	COLL	28
Guin, T.	POLY	581	Guo, X.	CATL	358	Habeshian, S.	MEDI	104
Guin, T.	POLY	724	Guo, X.	COLL	232	Habib, T.	COLL	464
Guin, T.	POLY	767	Guo, Y.	CATL	62	Habib, T.	COLL	534
Guiney, L.	COLL	461	Guo, Y.	CATL	114	Habtesellassie, B.	ORGN	598
Guiney, L.	ENVR	61	Guo, Y.	CATL	403	Habteyes, T.G.	INOR	343
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Guironnet, D.	INOR	331	Guo, Y.	POLY	376	Hachmann, J.	COMP	169
Guironnet, D.	POLY	750	Guo, Y.	ENFL	231	Hachmann, J.	COMP	170
Guiton, B.S.	AEI	43	Guo, Y.	ENFL	234	Hackenber, J.	POLY	513
Guiton, B.S.	INOR	43	Guo, Y.	CATL	62	Hacker, C.A.	COLL	459
Guiton, B.S.	INOR	774	Guo, Y.	CATL	114	Hacker, C.A.	ORGN	542
Guлcius-Lagoy, S.	COLL	522	Guo, Y.	CATL	403	Hackl, J.	CATL	161
Guldberg, S.M.	CHED	161	Guo, Z.	COMP	354	Hackley, V.A.	ANYL	142
Guldi, D.	INOR	114	Guo, Y.	ENFL	279	Hackley, V.A.	ANYL	297
Gulianello, M.	MEDI	358	Guo, C.	ENVR	501	Hackley, V.A.	ENVR	161
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Gunnoe, T.B.	INOR	15	Gupta, S.	CATL	445	Hadden, M.K.	MEDI	100
Gunnoe, T.B.	INOR	103	Gupta, S.	CATL	467	Hadden, M.K.	MEDI	226
Gunnoe, T.B.	INOR	737	Gupton, F.	ORGN	133	Haddleton, D.M.	PMSE	183
Gunnoe, T.B.	INOR	849	Gupton, F.	ORGN	606	Haddleton, D.M.	PMSE	644
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Hahm, H.	CARB	89	Hall, T.	ORGN	141	Han, J.	CATL	389
Hahm, J.	PMSE	84	Hallada, L.	MEDI	121	Han, J.	COLL	146
Hahm, J.	PMSE	114	Halling, P.	COLL	536	Han, K.	CATL	225
Hahn, C.	CATL	379	Hallman, A.	AGRO	250	Han, K.	CATL	381
Hahn, N.	PHYS	190	Halls, M.	COMP	337	Han, K.	ENFL	456
Hahn, S.J.	MEDI	88	Halmes, A.J.	POLY	210	Han, K.	COLL	311
Hahn, S.J.	MEDI	89	Halpern, O.S.	MEDI	73	Han, K.	BIOL	65
Hahn, S.J.	MEDI	91	Halverson, J.	PMSE	207	Han, K.	BIOL	66
Haider, M.	CATL	201	Halvorsen, L.A.	COMP	276	Han, L.	PMSE	370
Haider, M.	CATL	388	Ham, H.	CATL	389	Han, L.	PMSE	646
Haider, M.	CATL	445	Hamachi, L.	INOR	709	Han, L.	PMSE	648
Haider, M.	CATL	467	Hamada, A.	COLL	240	Han, M.	COLL	462
Haider, M.	ENFL	134	Hamada, A.	COLL	241	Han, M.	INOR	859
Haiges, R.M.	INOR	806	Hamada, Y.Z.	INOR	285	Han, S.	CATL	384
Haije, W.	CATL	255	Hamada, Y.Z.	INOR	286	Han, S.	NUCL	27
Haimovitz-Friedman, A.	COLL	320	Hamaguchi, R.	ENFL	184	Han, S.	POLY	366
Hair, M.E.	ANYL	70	Hamaker, B.	AGFD	18	Han, S.	MEDI	128
Hair, M.E.	ANYL	71	Hamaker, K.	BMGT	2	Han, S.	COMP	16
Hajhussein, A.	CHED	244	Hamann, A.	MEDI	181	Han, S.	PHYS	379
Hakey, B.	INOR	571	Hamann, C.	CHED	119	Han, S.	PMSE	333
Hakey, B.M.	INOR	556	Hamann, L.G.	MEDI	77	Han, S.	MEDI	126
Hakim Mouilly, E.	WCC	3	Hamby, K.	AGRO	70	Han, S.	ENVR	363
Haky, J.E.	PMSE	351	Hameed, M.	INOR	773	Han, W.	MEDI	57
Halali, M.A.	ENVR	59	Hameed, N.C.	ENFL	42	Han, X.	ANYL	122
Halalshah, N.	GEOC	18	Hameed, Y.	INOR	222	Han, X.	INOR	37
Halalshah, N.	GEOC	30	Hamel, J.	PMSE	436	Han, Y.	WCC	3
Halamek, J.	ANYL	70	Hamelberg, D.	CATL	372	Han, Y.	COLL	594
Halamek, J.	ANYL	71	Hamer, M.	AGRO	407	Han, Y.	ENFL	244
Halamek, J.	ANYL	77	Hamers, R.J.	COLL	355	Han, Y.	ENFL	480
Halamek, J.	ANYL	78	Hamers, R.J.	COMP	346	Han, Y.	ENFL	485
Halamek, J.	ANYL	169	Hamilton, A.	AEI	9	Han, Y.	COLL	163
Halami, B.	ORGN	206	Hamilton, A.	ORGN	698	Han, Y.	ENVR	192
Halámková, L.	ANYL	70	Hamilton, G.	MEDI	149	Hanada, T.	MEDI	196
Halámková, L.	ANYL	71	Hamilton, J.	ENVR	554	Hanan, E.J.	MEDI	22
Halámková, L.	ANYL	77	Hamilton, M.G.	BIOL	100	Hanan, E.J.	MEDI	103
Halámková, L.	ANYL	78	Hamilton, P.	MEDI	22	Hanania, M.	CHED	266
Halámková, L.	ANYL	169	Hamilton, P.	MEDI	103	Hancock, P.	AGRO	340
Halaoui, L.I.	INOR	615	Hammami, M.	PMSE	367	Handa, S.	ORGN	368
Halaoui, L.I.	INOR	846	Hammann, J.	POLY	614	Haney, C.	BIOL	186
Halarnkar, P.	AGRO	329	Hammarstrom, L.	POLY	203	Haney, C.	CHED	172
Halas, N.J.	COLL	35	Hammel, K.	AGRO	38	Hang, H.C.	BIOL	15
Halas, N.J.	COLL	326	Hammer, B.	CATL	92	Hangarter, S.	INOR	706
Halas, N.J.	COLL	376	Hammer, B.	COMP	147	Hankinson, C.P.	CHED	202
Halas, N.J.	MPPG	12	Hammer, D.A.	PMSE	258	Hanley, P.S.	INOR	439
Halder, A.	CATL	46	Hammer, I.	CHED	226	Hann, S.	COLL	129
Halder, M.	PHYS	431	Hammer, N.	ENFL	357	Hanna, G.	ENFL	15
Hale, M.L.	ANYL	131	Hammerer, L.	CATL	184	Hanna, S.	ANYL	307
Haley, J.E.	INOR	686	Hammes-Schiffer, S.	CATL	375	Hanna, S.	ENVR	10
Halford, N.	AGFD	203	Hammes-Schiffer, S.	INOR	469	Hanna, S.	ENVR	118

Hanna, S.	ENVR	161	Harrilal, C.P.	PHYS	220	Hasan, F.	AGRO	213
Hannaman, A.	INOR	646	Harris, A.G.	INOR	840	Hasanayn, F.	INOR	425
Hannon, D.	CHED	201	Harris, A.R.	MEDI	246	Hasebe, A.	COLL	219
Hannon, M.J.	INOR	833	Harris, B.D.	ANYL	190	Haseen, S.	PHYS	311
Hanrahan, M.P.	ENVR	87	Harris, C.	COLL	71	Hasegawa, T.	MEDI	106
Hans, J.	AGFD	244	Harris, J.W.	ENVR	88	Hasegawa, Y.	INOR	60
Hans, J.	AGFD	245	Harris, J.B.	CINF	113	Hasegawa, Y.	MEDI	175
Hans, J.	AGFD	246	Harris, J.C.	ANYL	111	Haselhorst, T.	CARB	73
Hanselman, C.	CATL	11	Harris, J.M.	CINF	113	Hasell, T.	ORGN	562
Hansen, E.C.	ORGN	249	Harris, K.J.	ENFL	224	Hasford, J.J.	CHAL	2
Hansen, J.	ANYL	19	Harris, M.M.	ORGN	319	Hasford, S.	SCHB	1
Hansen, M.M.	ORGN	471	Harris, M.	ORGN	163	Hashemi, D.	PMSE	89
Hansen, R.F.	ENVR	291	Harris, M.	AGRO	358	Hashemnejad, S.	PMSE	323
Hansen, T.	CATL	116	Harris, M.	ORGN	229	Hashimoto, T.	BIOL	147
Hansknecht, S.	CHED	238	Harris, M.A.	COLL	324	Haskell, R.	MEDI	269
Hanson, A.M.	TOXI	62	Harris, M.A.	COLL	434	Haskell, R.	MEDI	365
Hanson, B.	AGRO	250	Harris, R.C.	COMP	270	Haso, F.	COLL	59
Hanson, K.	INOR	340	Harris, R.C.	COMP	127	Hassan, A.	PMSE	36
Hanson, P.R.	ORGN	139	Harris, R.C.	COMP	223	Hassan, A.	COLL	489
Hanson, P.R.	ORGN	423	Harris, R.C.	COMP	389	Hassan, A.	INOR	297
Hanson, P.R.	ORGN	659	Harris, S.J.	PHYS	188	Hassan, N.	ENVR	346
Hanson, P.R.	ORGN	688	Harris, S.	WCC	12	Hassinger, C.	AGRO	273
Hanson, P.R.	ORGN	691	Harris, T.	PMSE	143	Hastings, H.M.	PHYS	299
Hanson, R.M.	CINF	62	Harrison, A.	ENVR	405	Hastings, M.	AGRO	40
Hanson, S.K.	INOR	499	Harrison, R.J.	COMP	2	Hastings, M.	CINF	141
Hantz, E.R.	CHED	119	Harrison, R.J.	COMP	3	Hatakeyama, J.	AGFD	170
Hanusa, T.P.	CHED	236	Harrison, R.J.	COMP	4	Hatton, F.	COLL	409
Hanwell, M.D.	CINF	65	Harrison, R.J.	INOR	814	Hattori, M.	INOR	732
Hao, Y.	PHYS	414	Harrison, S.T.	MEDI	192	Hatzell, K.	ENVR	58
Hao, C.	ENFL	476	Harrison, S.	POLY	553	Hatzell, M.	ENVR	58
Hao, H.	PHYS	433	Harrison, S.	POLY	618	Hatzell, M.	ENVR	143
Hao, M.	CINF	36	Harrison, S.	POLY	697	Hatzenbeller, Z.	POLY	606
Hao, Q.	ENFL	415	Harrity, J.P.	ORGN	307	Hauback, B.	ENFL	67
Hao, X.	POLY	190	Harro, J.M.	ENVR	294	Haubrich, B.A.	MEDI	122
Hao, Y.	ANYL	330	Harry, A.	ANYL	429	Haug, G.	PHYS	252
Hao, Y.	BIOL	180	Harry, K.	CATL	432	Haun, G.	ORGN	603
Hao, Y.	BIOL	184	Harsha, M.D.	PMSE	368	Haun, G.J.	ORGN	605
Hapeman, C.J.	AGRO	78	Hart, A.C.	MEDI	25	Haupa, K.A.	PHYS	309
Hapeman, C.J.	AGRO	115	Hart, C.	AGRO	183	Hauptmann, E.J.	PMSE	453
Hapeman, C.J.	AGRO	218	Hart, M.D.	INOR	288	Hauser, A.J.	COLL	71
Hapeman, C.J.	AGRO	347	Hart, R.	INOR	348	Hauser, L.A.	TOXI	10
Happe, T.	CATL	220	Harth, E.	PMSE	399	Hausmann, K.	POLY	246
Haq, M.	ENFL	469	Hartings, M.	INOR	758	Havens, P.L.	AGRO	147
Haq, M.	INOR	13	Hartl, M.	INOR	753	Havens, P.L.	AGRO	275
Hara, S.	MEDI	106	Hartlieb, M.	POLY	426	Haverhals, L.M.	ANYL	287
Harbol, M.	CHED	59	Hartman, J.	CHED	99	Hawker, C.J.	POLY	65
Hardy, D.A.	INOR	59	Hartman, M.C.	MEDI	96	Hawker, C.J.	POLY	85
Hardy, E.E.	CHED	56	Hartmann, L.	COLL	350	Hawker, C.J.	POLY	108
Hardy, E.E.	INOR	638	Hartmann, L.	COLL	619	Hawker, C.J.	POLY	179
Hardy, R.	AGRO	117	Hartmann, L.	PMSE	577	Hawker, C.J.	POLY	229
Hare, B.	ENFL	28	Hartmann, M.	ENFL	392	Hawker, C.J.	POLY	233
Hare, S.R.	ORGN	177	Hartmann, M.	COLL	195	Hawker, C.J.	POLY	596
Hare, S.R.	WCC	4	Hartmann, R.W.	MEDI	221	Hawkins, H.	CHED	194
Harfoot, R.	MEDI	273	Hartmann, R.W.	MEDI	225	Hawkins, H.	CHED	195
Hargittai, M.	HIST	17	Hartmann, R.W.	MEDI	231	Hawley, K.	CATL	354
Hargrove, A.E.	BIOL	26	Hartmann-Thompson, C.	CATL	250	Hay, A.	CHED	232
Hargrove, A.E.	BIOL	46	Hartshorn, R.	INOR	484	Hay, W.	CELL	14
Hargrove, A.E.	BIOL	79	Hartson, S.	ORGN	372	Hayakawa, A.	ENFL	63
Hargrove, A.E.	BIOL	84	Hartvigsen, J.J.	CATL	252	Hayashi, S.	POLY	464
Hargrove, A.E.	BIOL	183	Hartweg, M.	PMSE	304	Hayashi, S.	INOR	732
Hargrove, A.E.	MEDI	67	Hartweg, M.	POLY	194	Hayashi, T.	COMP	371
Hargrove, A.E.	MEDI	68	Hartwig, J.F.	CATL	182	Haydel, S.E.	ENFL	395
Hargrove, A.E.	MEDI	251	Hartwig, J.F.	INOR	209	Hayden, S.C.	ENFL	215
Hargus, C.	CATL	74	Hartwig, J.F.	INOR	210	Haydous, F.	INOR	846
Harirforoosh, S.	ANYL	99	Hartwig, J.F.	INOR	211	Hayes, C.	INOR	601
Harkavy, I.	CHED	68	Hartwig, J.F.	INOR	438	Hayes, C.E.	INOR	46
Harkins, R.	COMP	333	Hartwig, J.F.	INOR	497	Hayes, C.E.	INOR	503
Harkness-Brennan, L.	NUCL	48	Hartzell, S.	ENVR	278	Hayes, C.E.	INOR	600
Härkönen, M.	PMSE	202	Hartzyunyan, S.R.	ORGN	116	Hayes, D.	INOR	315
Harman, C.	AGFD	139	Harutyunyan, S.R.	ORGN	305	Hayes, D.	INOR	402
Harman, J.	CINF	47	Harvey, B.	COLL	274	Hayes, R.	COMP	89
Harman, W.D.	ORGN	148	Harvey, B.G.	CELL	37	Hayes, R.	COMP	355
Harman, W.D.	ORGN	152	Harvey, B.G.	INOR	107	Hayes, R.L.	COMP	113
Harmzen, N.	POLY	550	Harvey, B.G.	POLY	12	Hayes, R.L.	PHYS	544
Harnly, J.	AGFD	159	Harvey, B.G.	POLY	13	Hayes, W.	MEDI	269
Harold, M.P.	CATL	345	Harvey, D.T.	ANYL	32	Haymond, A.	MEDI	154
Harper, L.	CATL	207	Harvey, J.D.	COLL	514	Haymond, A.	MEDI	184
Harper, T.W.	MEDI	308	Harvey, J.D.	PMSE	88	Haymond, A.	MEDI	324
Harraz, D.	CHED	252	Harvey, J.	INOR	4	Haynes, C.	PHYS	287
Harrigan, D.J.	ENFL	470	Hasan, A.	MEDI	252	Haynes, C.A.	COLL	368

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Haynes, C.L.	COLL	45	Head-Gordon, M.P.	CATL	477	Helbling, D.	ENVR	354
Haynes, C.L.	COLL	66	Head-Gordon, M.P.	COMP	46	Helbling, D.	POLY	59
Haynes, C.L.	COLL	355	Head-Gordon, T.L.	CATL	221	Helbling, D.E.	PMSE	575
Haynes, D.	AGRO	169	Head-Gordon, T.L.	COMP	3	Helbling, D.E.	POLY	240
Haynes, K.M.	MEDI	146	Heald, C.	PRES	17	Held, C.	I&EC	64
Haynes, S.	MEDI	61	Heald, R.	MEDI	22	Held, G.	COLL	477
Haystead, T.A.	BIOL	156	Heald, R.	MEDI	103	Heldebrant, D.J.	ANYL	431
Haytowitz, D.	AGFD	256	Heard, G.L.	COMP	160	Heldebrant, D.J.	ENFL	136
Hayward, D.	AGRO	229	Heard, G.L.	INOR	501	Heldebrant, D.J.	ENFL	137
Hayward, R.C.	POLY	644	Heard, G.L.	PHYS	372	Heldebrant, D.J.	ENFL	139
Hazard, G.F.	CINF	46	Heard, K.	CHAS	43	Helgren, T.R.	ORGN	404
Hazard, G.F.	CINF	111	Heath, J.R.	BIOL	43	Heller, D.A.	COLL	320
Hazari, N.	INOR	852	Heath, J.R.	CHED	192	Heller, D.A.	COLL	514
He, C.	ENVR	56	Heath, J.R.	POLY	738	Heller, D.A.	PMSE	88
He, C.	PMSE	80	Heath, W.	PMSE	1	Heller, D.A.	POLY	236
He, C.	BIOL	50	Hebrault, D.	ANYL	120	Heller, L.	AGFD	190
He, C.	COLL	262	Hecht, E.	ANYL	361	Heller, S.R.	CINF	4
He, C.	ENVR	35	Hecht, S.S.	TOXI	39	Hellgardt, K.	ORGN	14
He, C.	ENVR	467	Hecht, S.S.	TOXI	40	Hellmich, R.	AGRO	302
He, D.	CATL	9	Hecht, S.S.	TOXI	45	Hellpointner, E.	AGRO	38
He, D.	CATL	439	Hecht, S.S.	TOXI	52	Hellweg, T.	COLL	346
He, D.	ENFL	196	Hecht, S.S.	TOXI	94	Helmers, M.	AGRO	358
He, D.	ENFL	349	Hecker, R.	AGRO	351	Helms, A.B.	CHED	400
He, D.	ENVR	406	Hedhili, M.	ENFL	380	Helms, B.	COLL	469
He, D.	ENVR	56	Hedman, B.G.	INOR	87	Helms, B.	INOR	446
He, D.	ENVR	81	Hedman, B.G.	INOR	318	Helmy, R.M.	ANYL	434
He, D.	COMP	207	Hedrick, J.	CHED	330	Helmy, R.M.	MEDI	39
He, D.	TOXI	65	Hedrick, J.	ORGN	266	Heltzel, J.	CATL	170
He, D.	ORGN	565	Hedrick, J.	PMSE	61	Heltzel, J.	CATL	411
He, F.	AGFD	195	Hedrick, J.	PMSE	105	Helveg, S.	CATL	206
He, H.	MEDI	178	Hedrick, J.	PMSE	468	Hematian, S.	INOR	717
He, H.	PMSE	491	Hedrick, J.	PMSE	580	Hematian, S.	INOR	800
He, H.	ENFL	264	Hedrick, J.	PMSE	641	Hembre, R.T.	INOR	502
He, J.	PHYS	305	Hedrick, J.	POLY	104	Hemeon, I.	MEDI	252
He, J.	PHYS	505	Hedrick, J.	POLY	180	Hemeon, I.	MEDI	253
He, J.	COLL	59	Hedrick, J.	POLY	309	Hemery, G.	COLL	96
He, J.	ANYL	398	Hedrick, J.	POLY	598	Hemery, G.	INOR	708
He, J.	CHED	259	Hedrick, J.	POLY	589	Hemery, G.	PMSE	516
He, J.	COLL	36	Hedstrom, S.	CATL	82	Hemingway, J.	AGRO	170
He, J.	COLL	270	Heeney, M.J.	POLY	582	Hemley, R.	PHYS	212
He, J.	COLL	429	Heffner, C.E.	MEDI	158	Hemley, R.	PHYS	284
He, J.	COLL	554	Hegde, M.	PMSE	55	Hemley, R.J.	PHYS	396
He, J.	ENFL	181	Hegde, M.	POLY	54	Hemmendinger, K.	PMSE	164
He, J.	POLY	24	Hegde, M.	POLY	175	Hemminge, J.C.	COLL	478
He, J.	POLY	366	Hegde, M.	POLY	315	Hemmingsen, C.	COLL	16
He, K.	ANYL	202	Hegde, M.	POLY	518	Hempenius, M.A.	POLY	637
He, L.	AGFD	248	Hegde, M.	POLY	776	Hempenius, M.A.	POLY	643
He, L.	INOR	130	Hegde, V.	PHYS	318	Hemraj-Benny, T.	CHED	255
He, L.	INOR	132	Heid, R.M.	ORGN	549	Hemraj-Benny, T.	CHED	256
He, L.	ANYL	380	Heidel, K.	MEDI	154	Hems, R.F.	ENVR	236
He, L.	MEDI	25	Heiden, Z.M.	INOR	49	Hemsworth, G.	INOR	583
He, L.	MEDI	78	Heiden, Z.M.	INOR	233	Henderson, C.	COLL	269
He, M.	COLL	252	Heiden, Z.M.	INOR	805	Henderson, D.P.	MPPG	23
He, M.	ENFL	241	Heifets, A.	CINF	85	Henderson, I.	MEDI	283
He, P.	ENFL	32	Heifets, A.	COMP	91	Henderson, J.A.	COMP	223
He, P.	AGRO	345	Heifetz, A.	MEDI	262	Henderson, T.J.	MEDI	134
He, R.	POLY	535	Heift, D.	INOR	482	Henderson, R.J.	ANYL	66
He, S.	COLL	264	Heilshorn, S.C.	PMSE	56	Hendley, M.	PMSE	234
He, W.	COLL	126	Heilshorn, S.C.	PMSE	251	Hendley, M.	PMSE	471
He, X.	CATL	406	Heilshorn, S.C.	PMSE	309	Hendley, P.	AGRO	154
He, X.	PHYS	504	Heilshorn, S.C.	POLY	343	Hendley, P.	AGRO	222
He, X.	ENFL	304	Heilweil, E.J.	COLL	587	Hendley, P.	AGRO	353
He, X.	ENFL	307	Heimbach, T.	MEDI	267	Hendley, P.	AGRO	381
He, X.	INOR	35	Heindel, N.D.	HIST	6	Hendricks, M.P.	INOR	709
He, X.	PMSE	81	Heine, A.	MEDI	260	Hendricks, M.P.	PMSE	83
He, X.	POLY	324	Heinekey, D.M.	INOR	205	Hendrickson, A.T.	INOR	914
He, Y.	COLL	406	Heinekey, D.M.	INOR	207	Hendricson, A.	MEDI	358
He, Y.	ENVR	159	Heinekey, D.M.	INOR	208	Hendriks, K.H.	ENFL	302
He, Y.	CHED	385	Heinekey, D.M.	INOR	498	Hendriks, K.H.	ORGN	544
He, Y.	POLY	659	Heinekey, D.M.	INOR	499	Hendriks, M.	POLY	652
He, Y.	ANYL	158	Heinekey, D.M.	INOR	598	Hendrix-Doucette, T.	POLY	632
He, Z.	CHED	293	Heinekey, D.M.	INOR	599	Heng, K.	PHYS	546
He, Z.	AEI	34	Heiney, P.A.	ORGN	506	Henkelman, G.	CATL	24
He, Z.	ENVR	207	Heinzi, G.A.	BIOL	117	Henkelman, G.	INOR	782
He, Z.	ANYL	41	Heise, A.	POLY	238	Henkelman, G.A.	INOR	785
He, Z.	ANYL	129	Heisey, S.	INOR	137	Henley, B.	MEDI	25
He, Z.	POLY	760	Heißler, S.	COLL	139	Henn, D.M.	POLY	552
Heacock, M.	ENVR	276	Heitger, D.R.	INOR	868	Henne, W.A.	COLL	257
Head-Gordon, M.P.	CATL	240	Hejna, M.	ORGN	654	Hennigan, C.	ENVR	240
Head-Gordon, M.P.	CATL	394	Helal, C.J.	MEDI	246	Hennigan, C.	ENVR	484

Henning, C.	ENVR	307	Herzfeld, J.	PHYS	164	Hilfiger, M.G.	ENFL	417
Henning, C.	AGFD	145	Herzfeld, J.	PHYS	342	Hilimire, T.	MEDI	12
Hénon, E.	COMP	174	Herzfeld, J.	PHYS	515	Hilinski, M.K.	ORGN	276
Henrich, E.	PHYS	246	Hesk, D.	ORGN	664	Hilinski, M.K.	ORGN	584
Henriksen-Lacey, M.	COLL	571	Hesketh, A.	CHED	223	Hill, C.K.	CATL	182
Henrique, L.	PMSE	74	Hesp, K.	ORGN	7	Hill, C.L.	CATL	18
Henriques, D.C.	PHYS	459	Hess, D.W.	ANYL	25	Hill, C.L.	CATL	85
Henrissat, B.	INOR	583	Hessberger, F.	NUCL	48	Hill, C.L.	CATL	314
Henry, A.T.	INOR	644	Hesse, S.A.	PMSE	587	Hill, C.L.	CATL	458
Henry, H.K.	ANYL	164	Heth, N.	ORGN	127	Hill, C.L.	INOR	3
Henry, H.	ENVR	276	Hethcox, C.	WCC	9	Hill, C.L.	INOR	66
Henry, J.	ENFL	449	Hetrick, J.	AGRO	220	Hill, C.L.	INOR	147
Henry, K.S.	AGRO	275	Hetrick, J.	AGRO	221	Hill, D.B.	PMSE	340
Henry, T.R.	ENVR	303	Hetrick, J.	AGRO	286	Hill, D.	AGFD	98
Hensley, A.	CATL	398	Hetrick, J.	AGRO	289	Hill, E.	POLY	60
Hensley, J.	CATL	362	Hetrick, K.	ENVR	328	Hill, E.	ENVR	547
Hentschel, F.	AGFD	246	Hetts, S.	PMSE	560	Hill, H.M.	INOR	871
Heo, T.	CATL	413	Heuer, M.	AGRO	348	Hill, J.	MEDI	17
Heo, Y.	POLY	461	Heuser, J.A.	AGRO	51	Hill, J.M.	ENFL	29
Hepel, M.R.	ANYL	44	Hevel, J.	COMP	203	Hill, L.K.	PMSE	310
Hepel, M.R.	ANYL	45	Hewitt, P.	INOR	923	Hill, L.K.	PMSE	314
Hepel, M.R.	ANYL	48	Hewitt, W.	MEDI	12	Hill, M.	AGRO	188
Hepel, M.R.	COLL	242	Hewitt, W.M.	ORGN	26	Hill, M.D.	MEDI	335
Hepp, N.M.	ANYL	192	Hexel, C.R.	NUCL	83	Hill, M.	PMSE	82
Herard, K.	ANYL	74	Heyden, A.	CATL	65	Hill, M.R.	PMSE	64
Herath, K.B.	ANYL	196	Heyden, A.	PHYS	36	Hill, N.	CHED	112
Herath, K.B.	ANYL	221	Heyduk, A.F.	INOR	11	Hill, R.H.	CHAS	1
Herberholz, J.	BIOL	159	Heyert, A.	PHYS	439	Hill, R.	AGRO	26
Herbert, J.	COMP	187	Heyert, A.	PHYS	461	Hill, R.	AGRO	55
Herbert, J.	PHYS	126	Hey-Hawkins, E.	POLY	370	Hill, R.	INOR	505
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Herbst, E.	PHYS	302	Heyman, A.	ENFL	197	Hill, T.	ENVR	532
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Herczeg, G.	PHYS	260	Hiaki, T.	ENVR	429	Hillmyer, M.	POLY	298
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Hergenrother, P.J.	ORGN	337	Hibbitts, D.	CATL	365	Hills-Kimball, K.	COLL	265
Herkert, N.	ENVR	280	Hibbitts, D.	ENVR	88	Hills-Kimball, K.	INOR	476
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Herman, R.	AGRO	26	Hickman, J.D.	POLY	418	Hilvert, D.	INOR	467
Herman, S.	COLL	360	Hicks, D.	COLL	157	Himeda, Y.	CATL	412
Hermann, A.	PHYS	552	Hicks, E.	ORGN	420	Himeda, Y.	INOR	18
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Hernandez, C.	PMSE	382	Higaki, Y.	POLY	69	Hinde, D.	NUCL	48
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Hernández Cabanillas, A.	MEDI	282	Higgins, W.T.	PMSE	393	Hinks, M.	ENVR	195
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Ho, D.	PMSE	561	Hohenstein, E.G.	PHYS	596	Hong, R.	MEDI	22
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Ho, N.	INOR	553	Holder, C.	INOR	62	Hong, S.	AGFD	60
Ho, R.	BIOL	50	Holder, C.	INOR	277	Hong, S.	AGRO	334
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Hocky, G.M.	COMP	247	Holland, R.L.	INOR	727	Hoogenboom, R.	POLY	305
Hocky, G.M.	PHYS	477	Holland, R.L.	ORGN	361	Hoogenboom, R.	POLY	639
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Hook, J.C.	AGRO	382	Hou, Y.	PMSE	20	Hsueh, H.	PMSE	669
Hook, J.	AGRO	151	Hou, Y.	PMSE	373	Hsueh, Y.	BIOL	16
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Hoong, C.	INOR	828	Hou, Z.	MEDI	120	Htoon, H.	INOR	480
Hooper, T.	AGRO	31	Hou, Z.	MEDI	142	Hu, B.	PMSE	429
Hoops, G.C.	BIOL	108	Hou, Z.	MEDI	150	Hu, B.	ENFL	303
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Hoops, G.C.	CHED	166	Hougland, J.	BIOL	93	Hu, C.	ENFL	462
Hoos, S.	CARB	20	Hougland, J.	BIOL	101	Hu, D.	POLY	99
Hoover, A.	ORGN	664	Hougland, J.	BIOL	145	Hu, D.	PMSE	465
Hoover, C.	ANYL	30	Hougland, J.	BIOL	171	Hu, G.	CATL	76
Hoover, C.	ANYL	31	Houk, K.N.	COMP	158	Hu, H.	CATL	55
Hoover, J.	ORGN	588	Houk, K.N.	COMP	309	Hu, H.	CATL	101
Hoover, J.M.	INOR	235	Houk, K.N.	ORGN	20	Hu, H.	AGFD	46
Hoover, J.M.	INOR	237	Houk, K.N.	ORGN	239	Hu, H.	AGFD	85
Hoover, J.M.	INOR	854	Houk, K.N.	ORGN	267	Hu, J.Z.	CATL	225
Hoover, J.M.	ORGN	234	Houle, F.A.	INOR	66	Hu, J.Z.	CATL	230
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Hopkins, T.	PHYS	460	Howard, B.	ENFL	127	Hu, J.	CATL	17
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Hopkinson, D.	PMSE	446	Howard, J.N.	ANYL	436	Hu, J.	INOR	545
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Hoppie, B.	AGRO	273	Howard, M.S.	CATL	193	Hu, L.	ORGN	559
Hoque, M.	ANYL	95	Howard, M.S.	CATL	463	Hu, L.	COLL	457
Horai, E.	ENFL	473	Howarth, A.	INOR	127	Hu, L.	ENFL	149
Horatz, K.	PMSE	480	Howe, D.H.	PMSE	513	Hu, L.	ENFL	151
Horgan, B.	AGRO	357	Howe, D.H.	POLY	9	Hu, L.	ENFL	280
Horgan, J.D.	ORGN	610	Howe, D.H.	POLY	430	Hu, L.	ENFL	314
Horkay, F.	BIOL	116	Howell, B.A.	POLY	702	Hu, M.	CATL	248
Horkay, F.	PMSE	43	Howell, B.A.	POLY	757	Hu, M.	ENFL	46
Horkay, F.	PMSE	212	Howell, J.	COLL	517	Hu, M.	CATL	230
Horkayne-Szakaly, I.	BIOL	116	Howell, J.	COLL	519	Hu, P.	CATL	114
Horlor, B.T.	ANYL	30	Howell, S.	ENFL	103	Hu, P.	CATL	282
Horlor, B.T.	ANYL	31	Howlin, B.	MEDI	274	Hu, P.	CATL	300
Horn, M.	COMP	262	Ho Wu, R.	PHYS	143	Hu, Q.	MEDI	221
Hornat, C.	PMSE	278	Hoye, T.R.	ORGN	338	Hu, Q.	MEDI	225
Hornbuckle, K.C.	ENVR	280	Hoyt, D.W.	PHYS	88	Hu, Q.	MEDI	231
Horne, J.	ENVR	195	Hoyt, S.	MEDI	221	Hu, Q.	ENFL	318
Hornillos, V.	ORGN	355	Hoyt, S.B.	MEDI	225	Hu, R.	ANYL	396
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Horst, M.H.	INOR	508	Hozumi, K.	PMSE	377	Hu, S.	PHYS	539
Horten, M.	ENFL	200	Hranilovic, A.	AGFD	27	Hu, S.	POLY	145
Hosbas Coskun, S.	ENVR	161	Hrdy, D.	AGRO	165	Hu, T.	ANYL	395
Hosein, I.D.	PMSE	349	Hribsek, M.	ORGN	607	Hu, W.	COMP	74
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Hou, Y.	CATL	176	Hsieh, T.	INOR	244	Hu, Y.H.	ENFL	1
Hou, Y.	ENFL	133	Hsieh, T.	INOR	528	Hu, Y.H.	ENFL	93
Hou, B.	CATL	447	Hsin, L.	MEDI	356	Hu, Y.H.	ENFL	131
Hou, B.	ENFL	195	Hsu, C.S.	ANYL	330	Hu, Z.	CARB	20
Hou, C.	ENVR	57	Hsu, C.	COLL	603	Hu, Z.	ENFL	319
Hou, C.	ENVR	75	Hsu, C.	INOR	380	Hu, Z.	ENFL	337
Hou, C.	ENVR	168	Hsu, C.C.	ORGN	82	Hu, Z.	ORGN	403
Hou, J.	INOR	530	Hsu, H.	ORGN	385	Hu, Z.	BIOL	120
Hou, J.	POLY	721	Hsu, H.	INOR	555	Hu, Z.	MEDI	338
Hou, R.	ENVR	398	Hsu, K.C.	ENVR	537	Hu, Z.	INOR	480
Hou, S.	MEDI	187	Hsu, L.	AGFD	166	Hua, G.	PMSE	215
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Huang, C.	ORGN	463	Huang, W.	MEDI	352	Huffman, D.L.	INOR	798
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Huang, C.	CATL	395	Huang, W.	PMSE	605	Hughes, K.A.	AGRO	389
Huang, C.	PHYS	80	Huang, W.	ORGN	48	Hughes, R.	COLL	549
Huang, C.	ENVR	445	Huang, W.	INOR	41	Hughes, R.	INOR	684
Huang, C.	AGFD	71	Huang, W.	INOR	69	Hughes, R.P.	INOR	53
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Itabashi, M.	ENVR	60	Jacobsen, S.D.	INOR	918	Jamal, R.	INOR	483
Itkonen, H.	AEI	8	Jacobsen, S.D.	WCC	1	James, C.	INOR	904
Itkonen, H.	ORGN	28	Jacobson, A.	AGRO	156	James, D.J.	INOR	60
Ito, Y.	POLY	73	Jacobson, A.E.	MEDI	155	James, D.J.	INOR	712
Itoh, A.	ORGN	595	Jacobson, A.E.	ORGN	627	James, I.C.	ANYL	130
Ilu, L.	CATL	473	Jacobson, C.	ORGN	598	James, L.	INOR	858
Iliuicci, R.	CATL	311	Jacobson, C.	MEDI	328	James, L.I.	MEDI	234
Iliuicci, R.	CHED	224	Jacobson, K.A.	MEDI	1	James, S.A.	ORGN	606
Ivan, B.	POLY	551	Jacobson, K.A.	MEDI	2	James, V.	MEDI	366
Ivanov, A.	I&EC	18	Jacobson, K.A.	MEDI	45	Jameson, G.B.	INOR	930
Ivanov, A.S.	I&EC	19	Jacobucci, C.	CHED	194	Jameson, G.N.	INOR	930
Ivanov, N.M.	MEDI	319	Jacobucci, C.	CHED	195	Jamieson, C.	ORGN	228
Ivashkina, E.	AEI	38	Jacques, F.	CHED	212	Jamieson, E.R.	INOR	547
Iverson, B.L.	BIOL	130	Jacques, F.	CHED	213	Jamieson, E.	COLL	343
Ivy, R.	MEDI	137	Jacques, P.	PHYS	301	Jamieson, J.	ENVR	284
Ivy, R.	MEDI	139	Jadambaa, K.	NUCL	48	Jamil, M.	INOR	759
Iwabe, C.N.	ENVR	423	Jadhav, A.	ENVR	447	Jamison, T.F.	ORGN	430
Iwamura, M.	INOR	732	Jadidi, Z.	INOR	447	Jan, A.	MEDI	67
Iwasaki, H.	AEI	77	Jadrich, C.N.	INOR	214	Jana, J.	PHYS	502
Iwasaki, H.	PHYS	128	Jadrich, C.N.	INOR	390	Jana, O.	INOR	933
Iwata, F.	ANYL	153	Jaeger, C.M.	PHYS	94	Jana, S.C.	PMSE	327
Iwata, T.	POLY	332	Jaeger, E.	NUCL	48	Janaky, C.	CATL	108
Iyanobor, E.	CATL	461	Jaeger, H.	COLL	298	Janaky, C.	ENFL	101
Iyemperumal, S.	CATL	45	Jaeger, M.	ENFL	50	Janaky, C.	ENFL	190
Iyemperumal, S.	ENVR	134	Jaeger, M.	INOR	45	Janaky, C.	YCC	6
Iyer, K.	COLL	488	Jaeger, M.	POLY	203	Janco, M.D.	ANYL	327
Iyer, K.	PMSE	561	Jaeger, M.	POLY	422	Janda, K.D.	MEDI	213
Iyer, S.	CINF	51	Jaekle, F.	AEI	41	Janda, K.D.	ORGN	468
Iyer, V.	ORGN	521	Jaekle, F.	ORGN	444	Janesheski, T.	ENVR	252
Iyiola, O.O.	CATL	240	Jaekle, F.	ORGN	458	Janesko, B.G.	INOR	678

Janet, J.	CATL	272	Jayasooriya, I.	INOR	588	Jeong, N.	ENVR	138
Janet, J.	COMP	323	Jayasuriya, H.	ANYL	196	Jeong, N.	ENVR	139
Janetka, J.W.	CARB	14	Jayawardana, K.	COLL	261	Jeong, N.	ENVR	140
Janetzko, J.	AEI	8	Jayawickramage, R.	ENFL	309	Jeong, N.	ENVR	141
Janetzko, J.	ORGN	28	Jayawickramage, R.	ENFL	310	Jeong, P.	MEDI	126
Janeway, F.	INOR	185	Jayne, J.T.	ENVR	189	Jeong, S.	CATL	290
Janezic, D.	COMP	321	Jayne, J.T.	ENVR	555	Jeong, S.	INOR	738
Jang, H.	ENFL	100	Jayson, G.	CARB	70	Jeong, Y.	BIOL	32
Jang, H.	COMP	81	Jazzar, R.	INOR	687	Jernigan, J.C.	PMSE	440
Jang, I.	COLL	161	Jeanneret, R.	CARB	70	Jérôme, C.	POLY	255
Jang, J.	ENVR	383	Jeevan, T.	MEDI	273	Jeskie, K.B.	CHAS	44
Jang, J.	AGFD	254	Jeffcoat, D.	CATL	10	Jeskie, K.B.	PRES	8
Jang, M.	AGRO	338	Jeffery, D.W.	AGFD	1	Jesson, C.P.	POLY	424
Jang, M.	ENVR	241	Jeffery, D.W.	AGFD	27	Jessop, J.L.	PMSE	338
Jang, M.	ENVR	485	Jeffery, D.W.	AGFD	96	Jessop, P.	POLY	335
Jang, S.	CARB	45	Jeffery, D.W.	AGFD	196	Jessop, P.G.	POLY	620
Jang, S.	COMP	404	Jeffries, J.	COLL	289	Jetson, R.	MEDI	218
Jang, S.	COMP	408	Jeffries, M.	ORGN	147	Jewett, M.C.	PMSE	147
Jang, S.	PMSE	381	Jeffries-El, M.	POLY	585	Jezowski, S.	PHYS	250
Jang, S.	POLY	493	Jegal, J.	CATL	306	Jha, J.S.	ORGN	423
Jang, S.	PMSE	384	Jehng, J.	CATL	122	Jha, M.K.	ENVR	261
Jang, W.	ENFL	225	Jeliazkova, N.	CINF	66	Jha, R.	BIOL	170
Jang, Y.	PMSE	196	Jelsch, C.	INOR	519	Jha, S.	COMP	3
Jang, Y.	POLY	752	Jemmis, E.D.	PHYS	208	Jharimune, S.	COLL	400
Jang, Y.	GEOC	10	Jen, A.K.	PMSE	556	Jho, E.	INOR	896
Jangjou, Y.	CATL	246	Jen, L.	I&EC	45	Ji, M.	ENFL	476
Janik, M.J.	CATL	145	Jena, P.V.	COLL	514	Ji, M.	ORGN	477
Janik, M.J.	PHYS	37	Jena, P.V.	PMSE	88	Ji, S.	BIOL	127
Janjetovic, Z.	MEDI	83	Jena, P.V.	POLY	236	Ji, S.	TOXI	60
Janka, M.	CATL	473	Jena, P.	PHYS	567	Ji, S.	TOXI	67
Jankins, T.	INOR	102	Jenkins, C.	PMSE	425	Ji, Y.	ORGN	402
Jankowska, J.	PHYS	75	Jenkins, D.M.	AEI	45	Ji, Y.	POLY	325
Janowsky, A.	MEDI	45	Jenkins, J.	INOR	36	Ji, S.	CATL	304
Jansen, D.	PMSE	577	Jenkins, J.J.	AGRO	250	Jia, H.	CATL	350
Jansen, J.M.	MPPG	17	Jenkins, K.	CHED	229	Jia, L.	INOR	851
Jansen, J.	POLY	167	Jenkins, M.	INOR	131	Jia, L.	ENFL	195
Jansman, M.M.	COLL	576	Jenkins, S.	MEDI	365	Jia, Q.	MEDI	252
Janssen, D.	PHYS	144	Jen-La Plante, I.	INOR	709	Jia, Q.	MEDI	253
Janssens, K.	ANYL	259	Jennifer, C.	AGRO	382	Jia, Q.	CATL	39
Janssens, T.V.	CATL	259	Jennings, A.R.	POLY	221	Jia, Q.	BIOL	140
Jansson, J.	CATL	259	Jennings, A.R.	POLY	517	Jia, X.	INOR	103
Jansson, M.	INOR	666	Jennings, D.P.	CATL	224	Jia, X.	PMSE	226
Janvelyan, N.	COLL	416	Jensen, A.W.	ORGN	402	Jia, X.	PMSE	286
Jaochico, A.	MEDI	103	Jensen, J.	ENFL	274	Jia, Y.	AGRO	341
Jaouen, G.	INOR	689	Jensen, K.F.	CINF	8	Jia, Z.	COLL	199
Jaramillo, T.F.	CATL	379	Jensen, K.F.	COLL	564	Jia, Z.	COMP	105
Jaramillo, T.F.	INOR	39	Jensen, K.F.	ORGN	430	Jia, Z.	AGRO	229
Jaramillo, T.F.	INOR	143	Jensen, L.	COLL	384	Jia, Z.	POLY	322
Jarboe, L.R.	POLY	264	Jensen, L.	PHYS	98	Jian, J.	NUCL	14
Jaron, T.	PHYS	214	Jensen, M.	PMSE	144	Jian, P.	POLY	725
Jarrett, J.	ANYL	310	Jentoft, F.	ENFL	169	Jiang, C.	ORGN	39
Jarry, A.	COLL	538	Jentoft, R.E.	ENFL	169	Jiang, C.	ORGN	597
Jarutikorn, S.	ORGN	561	Jeoh, T.	AGFD	8	Jiang, D.	CATL	14
Jarvis, J.	ENFL	32	Jeon, B.	ENFL	159	Jiang, D.	CATL	76
Jarvis, K.	INOR	782	Jeon, B.	ENFL	257	Jiang, D.	CATL	125
Jarvo, E.R.	ORGN	248	Jeon, B.	ENVR	383	Jiang, H.	COLL	488
Jarvo, E.R.	ORGN	363	Jeon, B.	ENVR	516	Jiang, H.	PMSE	165
Jasinski, J.	ORGN	368	Jeon, H.	ORGN	571	Jiang, H.	CATL	393
Jasinski, J.P.	CHED	235	Jeon, I.	ENVR	458	Jiang, H.	MEDI	169
Jasinski, J.P.	INOR	924	Jeon, I.	COLL	252	Jiang, H.	ENVR	485
Jasinski, M.	ORGN	681	Jeon, J.	ORGN	661	Jiang, H.	CATL	446
Jasper, J.P.	CHAL	14	Jeon, M.	ANYL	117	Jiang, H.	TOXI	20
Jasper, J.	ENVR	14	Jeon, M.	BIOL	81	Jiang, J.	TOXI	53
Jasper, J.	ENVR	17	Jeon, M.	CATL	291	Jiang, J.	ENFL	89
Jasti, V.	MEDI	354	Jeon, S.	COLL	85	Jiang, J.	POLY	571
Jastrzembski, J.A.	AGFD	171	Jeon, S.	COLL	146	Jiang, J.	ENVR	90
Jauslin, I.	PHYS	64	Jeon, Y.T.	MEDI	308	Jiang, J.	ENVR	166
Javed, S.	ORGN	691	Jeon, Y.	ORGN	55	Jiang, J.	CATL	440
Javidialesaadi, A.	COMP	303	Jeong, K.	ANYL	152	Jiang, J.	CATL	251
Javidialesaadi, A.	COMP	386	Jeong, K.	CARB	26	Jiang, K.	ENFL	178
Javni, I.J.	POLY	516	Jeong, A.	ORGN	82	Jiang, K.	ENFL	440
Jawad, K.M.	PHYS	454	Jeong, B.	ANYL	234	Jiang, L.	BIOL	177
Jawerth, M.	PMSE	175	Jeong, B.	ENVR	458	Jiang, Q.	INOR	209
Jayaraj, S.	PHYS	501	Jeong, B.	TOXI	58	Jiang, Q.	INOR	210
Jayarajan, P.	MEDI	94	Jeong, B.	TOXI	59	Jiang, R.	ENFL	85
Jayarajan, P.	MEDI	95	Jeong, D.	POLY	524	Jiang, R.	POLY	542
Jayarajan, P.	MEDI	354	Jeong, I.	ORGN	410	Jiang, S.	INOR	838
Jayaraman, A.	PMSE	91	Jeong, J.	POLY	409	Jiang, S.	ORGN	562
Jayaraman, A.	PMSE	519	Jeong, L.N.	ANYL	412	Jiang, S.	AGRO	203
Jayaraman, A.	PMSE	585	Jeong, N.	ANYL	199	Jiang, S.	AGRO	306

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Jiang, S.	PMSE	489	Jishkariani, D.	PMSE	586	Johnson, P.	CINF	91
Jiang, T.	INOR	113	Jisir, R.	CHED	65	Johnson, R.	BIOL	108
Jiang, W.	COMP	95	Jitianu, A.	PMSE	331	Johnson, R.	BIOL	109
Jiang, W.	NUCL	35	Jitianu, A.	PMSE	549	Johnson, R.	CHED	166
Jiang, W.	ANYL	408	Jitianu, M.	PMSE	331	Johnson, R.	CHED	175
Jiang, W.	COMP	281	J Jaeger, A.	BIOL	160	Johnson, R.	CHED	177
Jiang, W.	ANYL	183	Jo, G.	ANYL	218	Johnson, R.	ORGN	406
Jiang, X.	CATL	273	Jo, K.	ENFL	360	Johnson, R.	AGRO	64
Jiang, X.	ENFL	7	Jo, S.	COLL	206	Johnson, R.	AGRO	301
Jiang, Y.	PMSE	317	Jo, S.	COMP	281	Johnson, R.	ANYL	368
Jiang, Y.	CATL	173	Jo, S.	COMP	284	Johnson, R.D.	AGRO	34
Jiang, Y.	ENVR	149	Jo, S.	COMP	290	Johnson, R.L.	ENVR	87
Jiang, Y.	PMSE	473	Jo, S.	COMP	292	Johnson, R.L.	ENVR	128
Jiang, Y.	MEDI	78	Joannopoulos, J.	COLL	603	Johnson, S.I.	INOR	233
Jiang, Z.	COMP	373	Jockusch, S.	ORGN	188	Johnson, S.L.	ORGN	276
Jiang, Z.	BIOL	185	Jocz, J.N.	ENVR	90	Johnson, S.	AGFD	149
Jiang, Z.	PHYS	417	Johann, T.	ANYL	263	Johnson, T.	ORGN	472
Jiang, X.	CATL	358	Johann, T.	CHED	316	Johnson, W.	MEDI	25
Jiang, X.	ENFL	3	Johannes, C.	CATL	486	Johnson-Salyard, T.	TOXI	15
Jianrattanasawat, S.	AEI	64	Johannes, J.W.	ORGN	548	Johnston, C.T.	ENFL	420
Jiao, F.	ENFL	176	Johansen, K.	INOR	583	Johnston, D.B.	ENFL	247
Jiao, F.	ENFL	289	Johansson, J.	BIOL	140	Johnston, E.M.	INOR	583
Jiao, F.	PHYS	87	Johansson, M.K.	PMSE	175	Johnston, K.	CHED	39
Jiao, J.	ENVR	522	John, G.	COLL	345	Johnston, K.P.	CATL	84
Jiao, L.	CARB	30	John, K.D.	NUCL	1	Johnston, K.P.	COLL	389
Jiao, L.	CELL	26	John, V.T.	COLL	365	Johnston, M.	BIOL	94
Jiao, L.	CATL	307	Johngahr, S.	MEDI	30	Johnston, M.	COLL	21
Jiao, S.	ANYL	306	Johns, B.A.	MEDI	235	Johnston, M.V.	ENVR	339
Jiao, X.	PHYS	517	Johnson, A.R.	INOR	547	Johnston, M.V.	ENVR	488
Jiao, X.	ENFL	415	Johnson, A.	BIOL	33	Johnstone, S.	MEDI	8
Jiaxiong, L.	CATL	439	Johnson, B.	CATL	74	Johnston-Peck, A.	ENVR	523
Jie, L.	AGFD	227	Johnson, B.	MEDI	110	Johnston-Peck, A.C.	COLL	78
Jie, X.	PHYS	357	Johnson, B.N.	ANYL	419	Johnston-Peck, A.C.	INOR	775
Jien, S.	ENVR	502	Johnson, B.	PHYS	253	Jokerst, N.M.	COLL	311
Jihad, T.	PMSE	310	Johnson, B.J.	COLL	211	Jokisaari, J.	CATL	428
Jihad, T.	PMSE	314	Johnson, B.J.	INOR	745	Jolley, R.	CINF	121
Jihao, K.	MEDI	277	Johnson, B.	CHED	263	Jolley, R.	ENVR	387
Jilani, S.	CATL	461	Johnson, B.	INOR	380	Jolley, R.	TOXI	91
Jimenez, J.	INOR	835	Johnson, C.	ENVR	506	Jomaa, N.	CHED	62
Jimenez de Aberasturi, D.	COLL	571	Johnson, C.J.	PHYS	370	Jon, S.	PMSE	291
Jimura, K.	INOR	732	Johnson, D.	PMSE	489	Jonah, T.M.	I&EC	21
Jin, J.	CATL	282	Johnson, D.	INOR	660	Jonas, S.J.	COLL	238
Jin, K.	PMSE	3	Johnson, D.S.	MEDI	246	Jonas, S.J.	COLL	467
Jin, K.	PMSE	296	Johnson, D.S.	MEDI	249	Jonchere, A.	I&EC	16
Jin, K.	POLY	317	Johnson, E.T.	AGRO	315	Jones, A.	ENVR	123
Jin, L.	CHED	259	Johnson, E.	PHYS	378	Jones, A.	POLY	501
Jin, L.	ENFL	181	Johnson, E.R.	COMP	308	Jones, A.	MPPG	5
Jin, M.	POLY	759	Johnson, G.E.	CATL	89	Jones, A.K.	CATL	219
Jin, P.	PMSE	581	Johnson, G.E.	PHYS	268	Jones, A.K.	CATL	224
Jin, Q.	COLL	84	Johnson, I.	NUCL	21	Jones, A.L.	ORGN	543
Jin, R.	COLL	73	Johnson, J.C.	SCHB	10	Jones, B.	PHYS	42
Jin, R.	COLL	378	Johnson, J.A.	HIST	23	Jones, B.	AEI	76
Jin, R.	COLL	584	Johnson, J.B.	CHED	55	Jones, B.	ANYL	387
Jin, R.	INOR	56	Johnson, J.A.	ORGN	272	Jones, B.	ENVR	470
Jin, R.	PHYS	132	Johnson, J.A.	PMSE	39	Jones, B.	PMSE	529
Jin, S.	ORGN	122	Johnson, J.A.	POLY	280	Jones, C.K.	MEDI	214
Jin, S.	PMSE	414	Johnson, J.	MEDI	252	Jones, C.	AGRO	379
Jin, S.	COLL	441	Johnson, K.	CATL	146	Jones, C.	ENVR	389
Jin, S.	ENFL	261	Johnson, K.	INOR	350	Jones, C.	ENVR	517
Jin, S.	ENFL	387	Johnson, K.R.	INOR	645	Jones, C.R.	ORGN	52
Jin, S.	ENFL	441	Johnson, K.	MEDI	269	Jones, C.W.	CATL	162
Jin, S.	ENFL	483	Johnson, K.	MEDI	358	Jones, C.W.	ENFL	172
Jin, S.	INOR	369	Johnson, K.	MEDI	365	Jones, C.	BIOL	43
Jin, S.	BIOL	82	Johnson, L.	AGRO	80	Jones, D.	POLY	468
Jin, T.	ENFL	208	Johnson, L.E.	CATL	223	Jones, D.	ENFL	54
Jin, X.	ORGN	14	Johnson, L.E.	PMSE	658	Jones, D.K.	ORGN	462
Jin, Y.	INOR	364	Johnson, M.A.	PHYS	217	Jones, D.K.	PMSE	418
Jin, Y.	INOR	398	Johnson, M.A.	PHYS	583	Jones, D.K.	PMSE	422
Jin, Y.	COMP	68	Johnson, M.S.	ANYL	237	Jones, F.N.	PMSE	126
Jin, Y.	COMP	132	Johnson, M.D.	ORGN	471	Jones, G.O.	ORGN	266
Jin, Z.	POLY	728	Johnson, M.	ORGN	9	Jones, J.E.	AGRO	29
Jinandra, A.	INOR	783	Johnson, M.	MEDI	271	Jones, J.A.	PMSE	143
Jing, H.	ENVR	264	Johnson, M.A.	CHED	154	Jones, K.E.	BIOL	162
Jing, R.	ENVR	205	Johnson, M.	ANYL	307	Jones, K.C.	ENFL	247
Jing, R.	ENVR	469	Johnson, M.	ENVR	118	Jones, K.L.	CHED	211
Jing, R.	ENVR	503	Johnson, M.	ENVR	161	Jones, K.	MEDI	44
Jing, R.	ENVR	520	Johnson, N.	CINF	49	Jones, M.	COLL	501
Jing, Y.	ENVR	12	Johnson, P.	AGRO	7	Jones, M.E.	CHAS	20
Jingsong, Y.	PMSE	383	Johnson, P.	AGRO	390	Jones, M.E.	PRES	12

Jones, M.	ENFL	21	Joseph, S.	AGRO	191	Kaafarani, B.	CHED	106
Jones, M.	AGRO	340	Josephs, J.	TOXI	104	Kaafarani, B.R.	ORGN	440
Jones, M.	POLY	453	Joshi, A.	COLL	29	Kabanov, A.A.	PHYS	360
Jones, M.R.	COMP	390	Joshi, A.	COLL	98	Kabashima, S.	POLY	441
Jones, N.B.	INOR	66	Joshi, A.	COLL	113	Kabb, C.P.	PMSE	64
Jones, O.G.	AGFD	152	Joshi, A.	INOR	772	Kabb, C.P.	PMSE	132
Jones, P.D.	ENVR	391	Joshi, N.S.	COLL	548	Kabb, C.P.	PMSE	544
Jones, P.	COMP	162	Joshi, P.	CATL	38	Kaberov, L.	POLY	305
Jones, R.D.	AGRO	8	Joshi, R.	PMSE	126	Kaberov, L.	POLY	455
Jones, R.M.	CINF	72	Joshi, R.	ENFL	75	Kabir, H.	INOR	448
Jones, R.A.	INOR	522	Joshi, Y.V.	INOR	392	Kachhwaha, S.	ENFL	222
Jones, R.A.	INOR	572	Josse, T.	PMSE	398	Kadambar, V.	ORGN	316
Jones, R.V.	AGRO	56	Joumaa, A.	INOR	374	Kadir, M.	POLY	407
Jones, R.V.	YCC	5	Joumaa, A.	POLY	412	Kaewnok, N.	ORGN	561
Jones, R.L.	ANYL	310	Joung, I.	COMP	387	Kafafi, Z.H.	COLL	44
Jones, R.L.	PMSE	151	Jourdan, J.	MEDI	99	Kagalwala, H.	INOR	903
Jones, R.	AGRO	222	Journigan, V.B.	MEDI	158	Kagami, T.	AGRO	308
Jones, R.	AGRO	268	Jouy, P.	ANYL	9	Kahl, D.	MEDI	61
Jones, R.	AGRO	273	Jovanovic, M.	PHYS	316	Kahle, C.	MPPG	1
Jones, R.	AGRO	275	Joy, A.	PMSE	472	Kahn, E.L.	INOR	783
Jones, R.	AGRO	407	Joy, A.	POLY	302	Kahol, P.K.	ENFL	201
Jones, S.	MEDI	79	Joy, A.	POLY	376	Kahol, P.K.	ENFL	242
Jones, S.J.	AGFD	271	Joy, A.	POLY	454	Kahol, P.K.	ENFL	381
Jones, S.J.	ENVR	72	Joy, A.	POLY	772	Kahraman, G.	POLY	370
Jones, S.B.	CATL	8	Joy, A.	CATL	459	Kahre, M.	POLY	681
Jones, T.N.	CHED	409	Joy, J.K.	MEDI	17	Kai, G.	ORGN	18
Jones, W.	PHYS	345	Joyce, J.G.	BMGT	2	Kai, H.	MEDI	106
Jones, W.	ORGN	93	Joyce, R.R.	INOR	111	Kais, S.	PHYS	167
Jones, W.E.	INOR	675	Ju, J.	COLL	85	Kaiser, M.	MEDI	108
Jones, W.E.	PMSE	616	Ju, L.	PMSE	659	Kaiser, R.	PHYS	307
Jones, W.E.	POLY	735	Ju, W.	INOR	896	Kajita, S.	CELL	25
Jones, W.D.	INOR	46	Juanjuan, S.	PHYS	434	Kajiwara, A.	POLY	68
Jones, W.D.	INOR	230	Juba, M.	BIOL	24	Kajiwara, A.	POLY	457
Jones, W.D.	INOR	325	Juchum, M.	MEDI	15	Kakonyi, G.	ENVR	97
Jones, W.D.	INOR	389	Juda, C.	INOR	487	Kakuchi, T.	POLY	473
Jones, W.D.	INOR	445	Judson, R.	CINF	113	Kakumanu, P.	CHED	376
Jones, W.D.	INOR	503	Judson, R.	ENVR	2	Kakuta, H.	MEDI	196
Jones, W.D.	INOR	592	Judson, D.	NUCL	48	Kalantari, M.	CATL	42
Jones, W.D.	INOR	597	Jue, P.K.	ANYL	61	Kalariya, H.	AGFD	19
Jones, W.D.	INOR	600	Julfakyan, K.	COLL	104	Kalas, V.	CARB	14
Jones, W.D.	INOR	601	Julian, M.	HIST	24	Kalash, L.	COMP	275
Jones, W.D.	INOR	603	Juliano, B.	BIOL	78	Kalathi, J.	PMSE	207
Jones, W.D.	INOR	604	Julio, F.	BIOL	181	Kalathottukaren, M.	COLL	368
Jones, W.	CATL	211	Jullien, L.	BIOL	53	Kale, S.	PHYS	164
Jones, Z.	ENFL	74	Jumde, R.P.	ORGN	305	Kalelkar, P.	POLY	491
Jones, P.	ANYL	13	Jun, H.	ENFL	6	Kalen, J.	PMSE	449
Jones-Jefferson, T.	AGRO	282	Jun, J.	ORGN	139	Kalescky, R.	COMP	238
Jones-Jefferson, T.	AGRO	406	Jun, J.	ORGN	423	Kaleuati, K.M.	CHED	5
Jong, H.	CATL	486	Junaedi, C.	CATL	354	Kali, G.	POLY	551
Jonnakuti, V.	COLL	484	Jung, J.	COLL	64	Kalinowski, D.	PRES	9
Jonnalagadda, S.C.	MEDI	174	Jung, C.	ENVR	378	Kalirai, S.	ENFL	446
Jonnalagadda, S.C.	MEDI	203	Jung, D.	WCC	3	Kalluri, A.	COLL	253
Jonnalagadda, S.C.	MEDI	204	Jung, H.	COLL	154	Kalman, S.E.	CATL	196
Jonnalagadda, S.C.	ORGN	623	Jung, H.	INOR	268	Kalman, S.E.	INOR	15
Jonsson, L.	I&EC	67	Jung, J.	ENVR	101	Kalow, J.A.	COLL	471
Jonsson, L.	POLY	334	Jung, J.	COMP	161	Kalow, J.A.	PMSE	297
Joo, J.	COLL	579	Jung, J.	ANYL	152	Kalow, J.A.	POLY	470
Joo, M.	POLY	242	Jung, J.	POLY	466	Kalsin, A.M.	INOR	229
Joo, S.	ENVR	41	Jung, J.	POLY	732	Kaltak, M.	PHYS	239
Joo, S.	ENVR	408	Jung, K.	MEDI	180	Kalubowilage, M.	COLL	147
Joo, S.	ENVR	468	Jung, M.	AGRO	133	Kalukuri, P.	MEDI	355
Joo, W.	POLY	362	Jung, S.	ENFL	122	Kaluvu, B.	ORGN	308
Jora, M.Z.	COLL	67	Jung, Y.	ENVR	154	Kalyani, D.	ORGN	519
Jordan, C.T.	ORGN	83	Jung, Y.	MEDI	93	Kalyon, D.M.	PMSE	441
Jordan, D.	CHED	31	Jung, H.	PMSE	385	Kamand, F.	COLL	197
Jordan, D.	CHED	32	Jungjohann, K.L.	CATL	427	Kamariza, M.	ORGN	405
Jordan, F.	BIOL	58	Jungjohann, K.L.	ENFL	168	Kamasamudram, K.	CATL	261
Jordan, F.	BIOL	68	Jungjohann, K.L.	PHYS	189	Kamat, P.V.	INOR	410
Jordan, F.	MEDI	13	Jungwirth, P.	PHYS	70	Kamien, R.	POLY	645
Jordan, J.H.	AEI	65	Jungwirth, P.	PHYS	113	Kamigaito, M.	POLY	404
Jordan, J.H.	ORGN	700	Junkers, T.	POLY	619	Kamigaito, M.	POLY	405
Jordan, K.D.	COMP	67	Jurado Bustamante, E.	ORGN	658	Kaminecki, R.M.	CINF	57
Jordan, R.	POLY	557	Jurca, M.	PMSE	606	Kaminsky, C.	INOR	362
Jordan, S.	CINF	46	Jurca, M.	POLY	485	Kaminsky, W.	INOR	767
Jordan, S.	CINF	111	Jurow, M.J.	AEI	47	Kaminsky, W.	INOR	962
Jorgensen, J.	PHYS	53	Jurss, J.W.	INOR	181	Kamitani, K.	COLL	218
Josan, J.S.	COMP	278	Just-Baringo, X.	ORGN	233	Kamitani, K.	COLL	240
Josan, J.S.	MEDI	14	Justin, R.	CHED	222	Kamitani, K.	COLL	241
Josan, J.S.	MEDI	82	Jusuf, S.J.	MEDI	73	Kamitani, K.	COLL	248
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Kang, I.	AGRO	140	Karawdeniya, B.I.	COLL	121	Kassel, W.S.	INOR	567
Kang, J.	AGRO	334	Karayilan, M.	POLY	273	Kassel, W.S.	INOR	568
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Kang, L.	COLL	232	Karimkhani, V.	PMSE	13	Kaszynski, P.	ORGN	681
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Kang, M.	AGRO	334	Karkamkar, A.J.	CATL	420	Kaszynski, P.	CHED	244
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Kang, M.	COMP	409	Karlberg, T.	MEDI	51	Kativhu, E.	CHED	273
Kang, M.	PMSE	35	Karlin, K.D.	INOR	83	Kativhu, E.	INOR	957
Kang, N.	PMSE	121	Karlin, K.D.	INOR	715	Katiyar, V.	AGFD	136
Kang, P.	INOR	24	Karlin, K.D.	INOR	717	Katiyar, V.	PMSE	629
Kang, R.	CELL	32	Karlin, K.D.	INOR	720	Katiyar, V.	PMSE	630
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Kang, S.	BIOL	72	Karlin, K.D.	INOR	722	Kato, F.	INOR	778
Kang, S.	BIOL	82	Karlin, K.D.	INOR	723	Kato, T.	CARB	39
Kang, S.	CINF	146	Karlin, K.D.	INOR	790	Kato, T.	POLY	481
Kang, S.	COLL	483	Karlin, K.D.	INOR	792	Katsenovich, Y.	ENVR	413
Kang, S.	CHED	210	Karlinse, J.M.	CHED	149	Katsenovich, Y.	ENVR	415
Kang, T.	COLL	146	Karlinse, J.M.	CHED	157	Katsura, H.	NUCL	4
Kang, T.	COLL	237	Karloff, D.	MEDI	251	Kattel, S.	CATL	68
Kang, U.	CATL	409	Karlov, D.S.	BIOL	97	Kattner, H.	POLY	2
Kang, Y.	CATL	294	Karlsson, H.O.	PHYS	276	Katz, D.A.	CHED	364
Kang, Y.	CATL	295	Karlsson, R.	MEDI	260	Katz, D.A.	CHED	365
Kang, Y.	CATL	296	Karlsson, S.	ORGN	548	Katz, H.	ENVR	559
Kang, Y.	CATL	298	Karmakar, A.	PHYS	65	Katz, J.L.	CHED	70
Kang, Y.	ENFL	37	Karna, R.	GEOC	17	Katz, J.S.	PMSE	130
Kang, Y.	ENFL	227	Karnal, P.	POLY	33	Katz, L.	CHED	347
Kang, Y.	ENFL	228	Karnik, K.	AGFD	20	Katz, L.E.	ENVR	119
Kang, H.	INOR	243	Karnik, K.	AGFD	49	Katz, L.E.	GEOC	2
Kang, H.	INOR	268	Karod, M.	ENVR	506	Katzen, S.	CHED	13
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Kaufmann, A.	AGRO	47	Keith, A.	POLY	382	Kennedy, K.M.	MEDI	104
Kaur, K.	PMSE	522	Keith, J.M.	INOR	523	Kennedy, R.	ANYL	440
Kaur, K.	PMSE	638	Keith, J.A.	CATL	236	Kennedy, S.M.	CHED	283
Kaur, M.	INOR	924	Keith, J.A.	CATL	343	Kenemur, J.G.	PMSE	568
Kaur, P.	ORGN	153	Keith, J.A.	COMP	182	Kenepohl, P.	INOR	311
Kaur, P.	ORGN	277	Keith, J.A.	ENFL	291	Kenner, C.	GEOC	11
Kaur, P.	ORGN	591	Keithley, R.B.	ANYL	263	Kenneth, S.S.	ENVR	481
Kaur, S.	POLY	376	Kekec, A.	MEDI	245	Kennicut, A.R.	AEI	32
Kausar, S.	CATL	464	Kelgokmen, Y.	ORGN	379	Kensil, K.	AGFD	36
Kausar, S.	COLL	593	Kelgokmen, Y.	ORGN	630	Kensil, K.	AGFD	50
Kaushal, R.	PMSE	472	Kellenberger, E.	CINF	133	Kensil, K.	AGFD	51
Kaushik, N.	AGFD	162	Keller, A.	INOR	704	Kensil, K.	AGFD	63
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Kavadiya, S.	INOR	843	Keller, K.	AGRO	208	Kent, L.	CARB	48
Kavak, E.	POLY	460	Keller, M.	ENVR	224	Kent, P.	COMP	75
Kavallieratos, K.	I&EC	21	Keller, M.	ENVR	448	Kentala, K.	MEDI	101
Kavallieratos, K.	NUCL	28	Keller, T.M.	I&EC	50	Kenttamaa, H.I.	ENFL	420
Kavandi, J.	POLY	548	Keller, T.H.	MEDI	17	Kenward, C.A.	PHYS	592
Kavunja, H.W.	CARB	57	Keller, T.H.	MEDI	277	Kenworthy, A.	PHYS	575
Kawabata, T.	POLY	74	Kelley, M.S.	INOR	117	Keogh, E.	AGRO	240
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Kawaguchi, T.	COMP	371	Kelley, S.O.	AEI	10	Kepelner, S.	COLL	261
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Kawai, M.	MEDI	265	Kelley, S.O.	ANYL	423	Kern, M.	AGRO	19
Kawakami, H.	CATL	419	Kelley, S.O.	BIOL	8	Kern, M.	AGRO	284
Kawakami, H.	INOR	153	Kelley, S.O.	INOR	92	Kerns, J.K.	MEDI	111
Kawakami, T.	POLY	441	Kellogg, J.J.	ANYL	381	Kerns, S.	CATL	270
Kawanami, H.	CATL	412	Kellum, A.H.	TOXI	68	Kerns, S.A.	INOR	162
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Kawashima, A.	INOR	60	Kelly, C.	ORGN	325	Kerr, S.H.	INOR	423
Kawashima, H.	COLL	56	Kelly, C.	ORGN	641	Kerr, W.J.	ORGN	12
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Kay, S.	AGRO	378	Kelly, J.	PHYS	380	Kersi, D.	INOR	945
Kaye, J.	GEOC	33	Kelly, K.	ANYL	346	Kersting, A.	ENVR	227
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Kazlauskas, R.J.	PHYS	42	Kelly, S.L.	PMSE	161	Kertesz, M.	COMP	334
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Kazmierczak, N.	CINF	39	Kelly, T.	INOR	845	Kertesz, M.	PHYS	10
Kazmierczak, N.	CINF	140	Kelly, T.	POLY	238	Kesmodel, L.L.	CATL	118
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Keane, J.M.	CHED	378	Kemmerer, A.	MEDI	192	Kester, M.	AGFD	9
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Kearns, B.	AGRO	287	Kempa, T.J.	INOR	128	Kettner, M.	CATL	112
Kearns, B.	AGRO	378	Kempe, K.	PMSE	183	Kettner, M.	CATL	299
Kearns, J.	ENVR	67	Kempe, K.	PMSE	644	Keul, M.	MEDI	15
Keating, C.D.	COLL	232	Kempe, K.	POLY	425	Kevlishvili, I.	ORGN	175
Keating, C.D.	COLL	299	Kempe, K.	POLY	601	Keyes, A.C.	INOR	708
Keating, C.D.	COLL	426	Kempen, P.J.	COLL	576	Keyser, S.	ORGN	405
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Kee, C.	POLY	333	Kendall, A.J.	INOR	52	Khafaji Zadeh, M.	CHED	281
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Keebaugh, A.	ENVR	334	Kendall, A.J.	INOR	629	Khakh, K.	MEDI	252
Keefe, A.D.	MEDI	104	Kendall, A.J.	INOR	670	Khakh, K.	MEDI	253
Keefer, A.A.	INOR	137	Kendeou, P.	CHED	15	Khalid, A.	ENVR	474
Keelan, J.A.	COLL	488	Kender, W.	INOR	681	Khalidi, O.	ORGN	649
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Khan, J.	MEDI	73	Kiessling, L.L.	CHED	309	Kim, H.	ENVR	175
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Khan, M.S.	COMP	42	Kiessling, L.L.	POLY	345	Kim, H.	POLY	540
Khan, N.A.	AGRO	264	Kigawa, T.	COMP	79	Kim, H.	CATL	88
Khan, N.	MEDI	168	Kiick, K.L.	PMSE	186	Kim, H.	PHYS	143
Khan, S.A.	ANYL	194	Kiick, K.L.	PMSE	228	Kim, H.	POLY	426
Khan, S.	ANYL	315	Kiick, K.L.	PMSE	313	Kim, H.	ENVR	508
Khan, S.	ENFL	288	Kija, P.	AGRO	240	Kim, I.	ENVR	421
Khan, S.	ENFL	217	Kijak, P.J.	ANYL	182	Kim, I.	CINF	146
Khan, T.	CATL	201	Kijak, P.J.	ANYL	196	Kim, J.	PMSE	387
Khan, T.	CATL	445	Kijak, P.J.	ANYL	221	Kim, J.	ENVR	162
Khan, T.	CATL	467	Kijak, P.	ANYL	195	Kim, J.	ENVR	175
Khan, T.	ENFL	134	Kikkawa, Y.	PMSE	377	Kim, J.	ENVR	264
Khan, T.	CATL	388	Kikuchi, K.	COLL	466	Kim, J.	ENVR	265
Khan, Z.R.	AGRO	31	Kilburg, D.	COMP	300	Kim, J.	ENVR	268
Khanafieva, R.	ORGN	173	Kilburn, M.R.	COLL	488	Kim, J.	INOR	654
Khangarot, R.K.	ORGN	128	Kiledal, S.	ORGN	360	Kim, J.	PMSE	669
Kharas, G.B.	POLY	489	Kilian, K.A.	PMSE	135	Kim, J.	POLY	587
Kharas, K.C.	ENFL	447	Kilic, Y.	CATL	324	Kim, J.	COLL	161
Kharasch, E.	ANYL	396	Kilin, D.	PHYS	398	Kim, J.	ENFL	220
Kharasch, E.	COLL	446	Killen, W.	AGRO	217	Kim, J.	ENFL	149
Kharbouch, R.	INOR	924	Killinger, B.	BIOL	129	Kim, J.	AGFD	60
Khare, K.S.	PMSE	205	Killinger, B.	TOXI	85	Kim, J.	AGRO	334
Khare, R.	COLL	464	Kilmer, M.	ENVR	498	Kim, J.	AGRO	338
Khare, S.D.	POLY	78	Kilyanek, S.M.	INOR	232	Kim, J.	AGRO	363
Kharel, P.	PHYS	494	Kim, D.	ENVR	431	Kim, J.	AGRO	365
Kharel, S.	ORGN	685	Kim, D.	I&EC	27	Kim, J.	MEDI	328
Kharel, Y.	MEDI	201	Kim, K.	POLY	457	Kim, J.	PMSE	388
Kharel, Y.	MEDI	200	Kim, K.	PMSE	649	Kim, J.	ENVR	432
Kharkar, P.	PMSE	186	Kim, B.	GEOC	4	Kim, J.	ENVR	433
Kharlampieva, E.P.	COLL	596	Kim, B.	PMSE	602	Kim, J.	ENVR	435
Kharlampieva, E.P.	PMSE	393	Kim, B.	POLY	458	Kim, J.	ENVR	436
Kharlampieva, E.P.	PMSE	596	Kim, B.	AGFD	265	Kim, J.	INOR	656
Kharlampieva, E.P.	POLY	523	Kim, B.	CELL	42	Kim, J.	COMP	27
Khashab, N.M.	COLL	37	Kim, B.	ENVR	374	Kim, J.	COMP	75
Khashab, N.M.	COLL	104	Kim, B.	BIOL	95	Kim, J.	COMP	141
Khashab, N.M.	COLL	165	Kim, B.	BIOL	134	Kim, J.	ENFL	345
Khashab, N.M.	COLL	229	Kim, B.	AGFD	79	Kim, J.	PMSE	452
Khashab, N.M.	COLL	511	Kim, B.	AGFD	80	Kim, J.	BIOL	65
Khashab, N.M.	PMSE	367	Kim, C.	COLL	610	Kim, J.	BIOL	66
Khaskin, E.	INOR	102	Kim, C.	COLL	18	Kim, J.	COLL	226
Khatib, F.	ANYL	276	Kim, C.	ORGN	701	Kim, J.	COLL	228
Khattar, R.	ANYL	430	Kim, C.	ENVR	138	Kim, J.	POLY	242
Khazeni, N.	INOR	255	Kim, C.	ENVR	139	Kim, J.	PMSE	571
Khelifa, F.	POLY	328	Kim, C.	ENVR	140	Kim, J.	COLL	85
Khlebnikova, E.	AEI	38	Kim, C.	ENVR	141	Kim, J.	COLL	146
Khnayzer, R.S.	INOR	401	Kim, C.	ORGN	493	Kim, J.	COLL	237
Kholmicheva, N.N.	COLL	397	Kim, C.	POLY	641	Kim, J.	NUCL	6
Kholod, Y.	COMP	134	Kim, D.	ENVR	139	Kim, J.	ANYL	7
Kholodar, S.A.	PHYS	91	Kim, D.K.	COLL	555	Kim, J.	ENVR	435
Khongskuniran, T.	AGRO	395	Kim, D.	PMSE	235	Kim, J.	ENVR	436
Khorsandi, S.	PMSE	240	Kim, D.H.	CATL	346	Kim, J.	ENFL	238
Khosravian, H.	ENFL	346	Kim, D.	ORGN	452	Kim, J.	NUCL	6
Khosrowabadi Kotyk, J.	CATL	271	Kim, D.	ENVR	231	Kim, J.	PMSE	452
Khoury, C.	CATL	213	Kim, D.	POLY	233	Kim, J.	POLY	396
Khoury, R.A.	ANYL	288	Kim, D.	MEDI	218	Kim, J.	POLY	397
Khouryieh, H.	AGFD	233	Kim, D.	COLL	484	Kim, J.	POLY	398
Khurana, I.	CATL	243	Kim, E.	PMSE	602	Kim, J.	POLY	399
Khurana, I.	ENFL	73	Kim, E.	POLY	461	Kim, J.	MEDI	269
Khusnutdinova, J.R.	INOR	949	Kim, G.	ORGN	600	Kim, J.	PHYS	327
Khutoryanskiy, V.V.	POLY	754	Kim, H.	CHED	133	Kim, J.H.	AGRO	366
Ki, D.	ENVR	18	Kim, H.	CHED	153	Kim, J.H.	AGRO	175
Kibsgaard, J.	INOR	39	Kim, H.	COMP	221	Kim, J.	PHYS	323
Kick, E.K.	MEDI	30	Kim, H.	POLY	446	Kim, J.	AGRO	312
Kick, E.K.	MEDI	73	Kim, H.	ENVR	138	Kim, J.	ANYL	127
Kidder, M.	COLL	480	Kim, H.	ENVR	141	Kim, J.	COLL	373
Kiddle, J.J.	ORGN	275	Kim, H.	BIOL	82	Kim, J.	PHYS	422
Kidley, N.	BIOL	98	Kim, H.	ENFL	360	Kim, J.	PHYS	423
Kidon, L.	PHYS	155	Kim, H.	PMSE	406	Kim, J.	COLL	161
Kidwell, D.A.	ORGN	673	Kim, H.	COMP	189	Kim, K.	POLY	372
Kieber-Emmons, M.T.	INOR	317	Kim, H.	CELL	32	Kim, K.	CHED	254
Kieber-Emmons, M.T.	INOR	434	Kim, H.	ENFL	257	Kim, K.E.	INOR	593
Kieber-Emmons, M.T.	INOR	722	Kim, H.	COMP	155	Kim, K.	COMP	404
Kieffer, I.	INOR	805	Kim, H.K.	ORGN	9	Kim, K.	ENVR	154
Kieffer, J.	PMSE	89	Kim, H.	COLL	85	Kim, K.	CELL	30
Kiefl, J.	AGFD	141	Kim, H.	COLL	146	Kim, K.S.	MEDI	147
Kieser, J.M.	INOR	884	Kim, H.	COLL	237	Kim, K.	AGFD	231

Kim, K.	ANYL	127	Kim, Y.	ENVR	434	Kirsch, J.K.	ORGN	498
Kim, K.	CHED	82	Kim, Y.	ENVR	435	Kirschner, K.N.	COMP	315
Kim, K.	CHED	83	Kim, Y.	ENVR	436	Kishbaugh, T.L.	CHED	322
Kim, K.	CINF	146	Kim, Y.	INOR	656	Kishi, E.	AGFD	135
Kim, K.	PMSE	384	Kim, Y.	ENFL	331	Kishi, Y.	ORGN	241
Kim, M.T.	CINF	48	Kim, Y.	POLY	490	Kishimura, A.	ANYL	239
Kim, M.T.	ANYL	43	Kim, Y.	ANYL	152	Kishore, R.	AGRO	168
Kim, M.	ORGN	181	Kim, Y.	CARB	26	Kisiel, Z.	PHYS	551
Kim, M.	PHYS	504	Kim, Y.	ANYL	115	Kisley, L.	POLY	479
Kim, M.	PHYS	514	Kim, Y.	POLY	25	Kisliuk, A.	POLY	447
Kim, M.	CATL	155	Kim, D.	POLY	458	Kiss, T.	ENFL	101
Kim, M.	CATL	342	Kim, J.	PMSE	559	Kita, M.R.	INOR	82
Kim, M.	PMSE	197	Kim, J.	ENVR	63	Kitajima, K.	CARB	86
Kim, M.	POLY	34	Kim, H.	MEDI	171	Kitano, S.	CATL	175
Kim, M.	CATL	288	Kim, B.	AGFD	83	Kitching, M.	ORGN	537
Kim, M.	BIOL	41	Kim, H.	INOR	654	Kitching, M.O.	ORGN	15
Kim, M.	CATL	314	Kim, K.	AGRO	311	Kitiyanan, B.	CATL	310
Kim, M.	CATL	458	Kimball, R.W.	ENFL	449	Kitt, J.P.	ANYL	111
Kim, M.	AGFD	213	Kimble Hill, A.C.	CHED	160	Kitt, M.	INOR	395
Kim, M.	AGFD	265	Kimizu, K.	PMSE	389	Kittilstved, K.R.	COLL	558
Kim, M.	CELL	42	Kimmins, S.	POLY	238	Kittilstved, K.R.	INOR	778
Kim, M.	ENVR	374	Kimura, M.	ENVR	371	Kittle, J.	PMSE	390
Kim, M.	AGRO	359	Kimura, T.	PHYS	591	Kivrak, A.	ORGN	136
Kim, N.	ORGN	450	Kimura, Y.	POLY	403	Kivrak, A.	ORGN	513
Kim, N.	MEDI	316	Kindig, D.	ENVR	540	Kivrak, A.	POLY	460
Kim, N.	ANYL	291	Kindler, B.	NUCL	48	Kiwfo, K.	CHED	348
Kim, N.	POLY	477	Kinebuchi, M.	ORGN	647	Kiyokawa, T.	ENVR	172
Kim, O.	CELL	18	King, B.T.	ENFL	412	Kizhakkedathu, J.N.	COLL	368
Kim, O.	POLY	493	King, D.B.	AEI	17	Kizhakkedathu, J.N.	PMSE	37
Kim, P.	INOR	117	King, D.B.	CHED	375	Kjellerup, B.V.	ENFL	457
Kim, S.	AGRO	2	King, D.B.	CHED	388	Kjellerup, B.V.	ENVR	55
Kim, S.	ENVR	458	King, D.B.	CHED	391	Kjellerup, B.V.	ENVR	66
Kim, S.	INOR	738	King, J.	INOR	29	Kjellerup, B.V.	ENVR	205
Kim, S.	ENVR	162	King, J.	PHYS	329	Kjellerup, B.V.	ENVR	347
Kim, S.	CATL	190	King, K.L.	INOR	538	Kjellerup, B.V.	ENVR	469
Kim, S.	ENFL	397	King, N.B.	INOR	253	Kjellerup, B.V.	ENVR	471
Kim, S.	INOR	270	King, P.W.	CATL	127	Kjellerup, B.V.	ENVR	473
Kim, S.	MEDI	92	King, P.W.	CATL	218	Kjellerup, B.V.	ENVR	474
Kim, S.	AGFD	79	King, P.W.	CATL	219	Kjellerup, B.V.	ENVR	503
Kim, S.	ORGN	120	King, P.W.	CATL	224	Kjellerup, B.V.	ENVR	520
Kim, S.Y.	CARB	58	King, S.	INOR	64	Kjellerup, B.V.	ENVR	539
Kim, S.	COLL	395	King, S.M.	CHED	74	Klaehn, J.	PMSE	172
Kim, S.	CATL	384	King, T.	ENVR	517	Klair, N.	ANYL	43
Kim, S.	ORGN	168	King, T.L.	INOR	522	Klarich, K.	ENVR	99
Kim, S.	MEDI	92	King, T.L.	INOR	572	Klasen, K.	CHED	170
Kim, S.	MEDI	92	Kinghorn, A.D.	MEDI	295	Klasson, T.	POLY	53
Kim, S.	AGFD	80	Kingsley, K.	PMSE	174	Klauda, J.B.	CHED	207
Kim, S.	CARB	81	Kingsley, K.	POLY	635	Klauda, J.B.	COMP	18
Kim, S.	ORGN	649	Kingsley, P.	ANYL	18	Klauda, J.B.	COMP	149
Kim, S.	COLL	20	Kingsley, P.	TOXI	73	Klauda, J.B.	COMP	151
Kim, S.	CHED	345	Kingsley, P.	TOXI	87	Klauda, J.B.	COMP	297
Kim, S.	CINF	108	Kingston, C.	ENVR	411	Klaus, A.	AGFD	145
Kim, S.	COMP	115	Kingston, C.K.	AGFD	65	Klausen, R.S.	INOR	801
Kim, S.	PMSE	601	Kinlen, P.J.	POLY	466	Klausen, R.S.	INOR	877
Kim, S.	MEDI	69	Kinlen, P.J.	POLY	732	Klausen, R.S.	ORGN	41
Kim, S.	COLL	190	Kinley, K.	CATL	55	Klausen, R.S.	ORGN	298
Kim, T.	PMSE	374	Kinley, K.	CATL	101	Klausen, R.S.	POLY	286
Kim, T.	MEDI	83	Kinnan, M.K.	INOR	65	Klebanoff, L.	CATL	413
Kim, T.	ENFL	239	Kinugasa, T.	COLL	137	Klebe, G.	MEDI	260
Kim, T.	CHED	49	Kipe, O.	MEDI	74	Klei, H.	MEDI	25
Kim, T.	CHED	53	Kipp, T.	COLL	40	Klein, H.F.	MEDI	87
Kim, W.Y.	INOR	718	Kiratitanavit, W.	CELL	39	Klein, H.F.	MEDI	89
Kim, W.	PMSE	559	Kirby, J.F.	INOR	634	Klein, H.F.	MEDI	90
Kim, W.	ORGN	55	Kirby, J.	ENVR	157	Klein, J.E.	COMP	327
Kim, W.	COLL	526	Kirby, S.M.	COLL	342	Klein, L.C.	PMSE	549
Kim, W.	POLY	748	Kircher, A.	AGFD	157	Klein, M.	PHYS	236
Kim, Y.	MEDI	93	Kirchhoff, M.M.	CHED	358	Klein, M.	PHYS	532
Kim, Y.	MEDI	93	Kiranchuk, V.	PMSE	174	Klein, M.L.	CATL	131
Kim, Y.	MEDI	126	Kiriachchi, H.D.	PHYS	487	Klein, M.L.	ENFL	416
Kim, Y.	BIOL	32	Kirisits, M.	GEOC	2	Klein, M.L.	PMSE	586
Kim, Y.	PMSE	385	Kirk, G.	AGRO	193	Klein, M.T.	ENFL	248
Kim, Y.	MEDI	42	Kirk, K.	AGFD	274	Klein, M.T.	ENFL	256
Kim, Y.	MEDI	93	Kirk, M.L.	INOR	33	Klein, M.T.	ENFL	407
Kim, Y.	ENFL	455	Kirk, M.L.	INOR	115	Klein, T.	ANYL	156
Kim, Y.	POLY	44	Kirk, M.L.	INOR	945	Kleindl, P.J.	MEDI	88
Kim, Y.	PMSE	583	Kirkpatrick, C.C.	BIOL	71	Kleindl, P.J.	MEDI	89
Kim, Y.	POLY	466	Kirmizialtin, S.	COMP	200	Kleindl, P.J.	MEDI	90
Kim, Y.	POLY	732	Kirnosov, V.	COMP	180	Kleine, T.	POLY	106
Kim, Y.	ENVR	432	Kirollos, M.	WCC	3	Kleine, T.	POLY	419
Kim, Y.	ENVR	433	Kirpas, M.	ORGN	656	Kleine, T.	POLY	693

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Kleinoeder, T.	CINF	34	Knott, B.	CATL	190	Kokkoli, E.	COLL	324
Kleintop, B.	ANYL	380	Knott, B.	ENFL	397	Kokkoli, E.	COLL	434
Klemes, M.	POLY	240	Knowlden, S.	INOR	956	Kokkonen, P.	PHYS	145
Klep, O.	PMSE	606	Knowles, B.	COLL	533	Koksal, M.	INOR	936
Klep, O.	POLY	485	Knowles, P.J.	COMP	25	Kol, M.	INOR	905
Klepper, S.	CATL	10	Knox, C.	COLL	141	Kolarich, D.	CARB	89
Kletetschka, K.	ENVR	29	Knurr, B.J.	PHYS	446	Kolb, C.E.	ENVR	555
Kletetschka, K.	ENVR	476	Knutson, D.E.	MEDI	364	Kolbanovskiy, M.	TOXI	95
Klevitch, A.	COLL	71	Ko, E.	MEDI	92	Kolel-Veetil, M.K.	PMSE	141
Klibanov, A.L.	COLL	575	Ko, H.	MEDI	93	Kolhatkar, A.	ENVR	34
Klie, R.	CATL	428	Ko, J.	CHED	173	Kolin, D.	AEI	67
Kliewer, C.E.	ENFL	31	Ko, J.	PMSE	650	Kolin, D.	ORGN	226
Kliewer, C.E.	INOR	392	Ko, K.	PMSE	381	Kolis, J.W.	INOR	919
Kliger, D.S.	PHYS	416	Ko, K.	POLY	493	Kollar, J.	INOR	3
Kligman, A.	ORGN	181	Ko, W.	ENFL	457	Kolle, M.	COLL	87
Klika Skopic, M.	MEDI	216	Koback, M.	PMSE	369	Kolle, M.	COLL	471
Klimavicz, J.S.	AGRO	397	Kobayashi, H.	ENFL	63	Kolle, S.	POLY	157
Klimkewicz, P.A.	ANYL	190	Kobayashi, H.	AGRO	308	Kolling, D.	INOR	518
Kline, D.	AGRO	207	Koca, H.	ORGN	136	Kolmakov, A.	COLL	590
Kling, A.	AGRO	295	Koch, A.S.	CHED	92	Kolodziej, E.P.	ENVR	353
Klingler, F.	COMP	283	Koch, A.S.	CHED	93	Kolomeisky, A.	PHYS	166
Klinman, J.	BIOL	3	Koch, D.	AGRO	360	Kolossvary, I.	COMP	269
Klinman, J.	INOR	382	Koczur, K.M.	COLL	582	Kolpak, A.M.	CATL	84
Klinman, J.	INOR	469	Kodali, R.	MEDI	364	Kolpin, D.W.	AGRO	132
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Klößner, U.	ORGN	546	Koder, R.L.	CATL	422	Kölsch, J.	INOR	397
Klok, H.A.	COLL	504	Koder, R.L.	PHYS	287	Komatsu, C.H.	POLY	196
Klok, H.A.	PMSE	189	Kodera, Y.	ANYL	80	Komatsu, T.	PMSE	409
Klok, H.A.	POLY	624	Kodger, T.E.	COLL	57	Kombolias, M.	ANYL	28
Klosin, J.	ANYL	158	Kodgire, P.	ENFL	222	Komianos, J.	PHYS	261
Klosin, J.	INOR	328	Koehni, P.	ENFL	137	Komminen, S.K.	MEDI	203
Klosterman, M.R.	NUCL	79	Koehni, P.K.	ENFL	136	Komminen, S.	MEDI	95
Kloxin, A.M.	PMSE	133	Koehni, P.K.	ENFL	139	Komolafe, T.D.	CATL	332
Kloxin, A.M.	PMSE	186	Koehn, E.	INOR	382	Komolafe, T.D.	COMP	178
Kloxin, A.M.	PMSE	411	Koel, B.E.	CATL	465	Komorek, R.	ANYL	425
Kloxin, A.M.	PMSE	486	Koel, B.E.	COLL	481	Komorek, R.	ANYL	428
Kloxin, A.M.	PMSE	519	Koellner, S.	AGFD	266	Komoriya, T.	ANYL	80
Kloxin, C.J.	ORGN	642	Koelper, A.	BIOL	109	Kompanijec, V.	CHED	215
Kloxin, C.J.	POLY	363	Koelsch, P.	PMSE	658	Komperda, R.	CHED	99
Klug, D.	BIOL	98	Koenigs, R.M.	ORGN	16	Komperda, R.	CHED	407
Kluherz, K.	INOR	872	Koenigs, R.M.	ORGN	114	Komreddy, V.	INOR	561
Klumperman, B.	POLY	550	Koenigs, R.M.	ORGN	283	Konc, J.	COMP	321
Klumpp, M.	MEDI	306	Koenigsmann, C.	CATL	326	Kondo, A.E.	CHED	66
Klyukin, K.	COMP	373	Koenigsmann, C.	CATL	327	Kondo, A.E.	CHED	104
Knafels, J.D.	MEDI	258	Koerperich, Z.	BIOL	124	Kondo, A.E.	CHED	202
Knall, A.	CHED	380	Koes, D.	COMP	313	Kondo, A.E.	CHED	371
Knall, A.	POLY	747	Koes, D.	COMP	360	Kondo, Y.	COLL	6
Knapp, M.	MEDI	306	Koffas, M.	I&EC	65	Kondrashov, V.	POLY	440
Knapp, S.A.	ORGN	581	Koffas, M.	ORGN	649	Kondratyev, N.	ORGN	351
Knapp, S.A.	SCHB	33	Koganemaru, R.	AGRO	370	Kone, J.	ENFL	422
Knappe, D.	ENVR	67	Koh, K.	CATL	291	Konetski, D.	POLY	361
Kneapler, C.	ANYL	216	Kohen, A.	BIOL	163	Kong, L.	PMSE	391
Knecht, M.R.	COLL	207	Kohen, A.	INOR	467	Kong, D.	ORGN	384
Knehans, T.	COMP	283	Kohen, A.	PHYS	91	Kong, J.	COMP	29
Knight, A.	POLY	85	Kohler, L.	INOR	402	Kong, L.	ENFL	160
Knight, A.	POLY	233	Kohler, L.	INOR	903	Kong, T.	CATL	361
Knight, A.	AGRO	67	Kohler, L.	ORGN	100	Kong, X.	PHYS	470
Knight, C.	COMP	119	Kohli, R.M.	PHYS	44	König, B.	COLL	608
Knight, C.	COMP	154	Kohn, A.W.	PHYS	136	Koning, J.	PHYS	170
Knight, J.	MEDI	22	Kohn, E.M.	BIOL	107	Konishi, Y.	COLL	240
Knight, J.	MEDI	103	Kohn, T.	MEDI	21	Konishi, Y.	COLL	241
Knight, R.	AGFD	38	Kohnhorst, C.	BIOL	81	Konki, J.	NUCL	48
Knizia, G.	COMP	327	Kohno, H.	MEDI	343	Konkolewicz, D.	PMSE	7
Knoblauch, M.	PMSE	468	Kohno, Y.	POLY	41	Konkolewicz, D.	PMSE	74
Knoblauch, M.	PMSE	641	Kohut, A.	COLL	236	Konkolewicz, D.	PMSE	243
Knoblauch, R.	PHYS	457	Kohut, A.	PMSE	174	Konkolewicz, D.	PMSE	348
Knoerzer, T.A.	ORGN	79	Koike, H.	INOR	732	Konkolewicz, D.	PMSE	456
Knolhoff, A.	ANYL	216	Koike, K.	MEDI	106	Konkolewicz, D.	POLY	187
Knoll, A.	COLL	297	Koiwai, K.	COLL	249	Konkolewicz, D.	POLY	472
Knoops, J.	ANYL	245	Koizumi, K.	ANYL	80	Konkolewicz, D.	POLY	751
Knope, K.E.	INOR	251	Koizumi, K.	ENVR	429	Konopka, M.	ORGN	88
Knope, K.E.	INOR	514	Koizumi, N.	CATL	358	Konze, P.	PHYS	317
Knope, K.E.	INOR	515	Koizumi, T.	POLY	464	Koo, B.	ANYL	179
Knope, K.E.	INOR	520	Kojima, Y.	ENFL	16	Koo, B.	ANYL	184
Knope, K.E.	INOR	810	Kojio, K.	COLL	240	Koo, B.	ANYL	185
Knope, K.E.	INOR	815	Kojio, K.	COLL	241	Koo, B.	COLL	206
Knope, K.E.	NUCL	33	Kokh, D.B.	COMP	63	Koo, H.J.	PHYS	364
Knopf, D.A.	ENVR	550	Kokh, D.B.	COMP	262	Koo, H.	COLL	484

Kooijman, E.E.	COLL	347	Koval, A.M.	INOR	161	Kreinbihl, J.	PHYS	370
Kookana, R.S.	AGRO	216	Kovaliov, M.	POLY	234	Kreitler, J.	CHED	366
Kookana, R.S.	ENVR	157	Kovaliov, M.	POLY	751	Kreitler, J.	COLL	528
Koontz, J.L.	AGFD	78	Kovalsky, P.	ENVR	56	Kreitman, G.	AGFD	96
Kopec, M.	POLY	385	Kovar, D.R.	PHYS	477	Kreitman, G.	AGFD	97
Kopelent, R.	CATL	168	Kovarik, L.	CATL	245	Krejci, S.	ORGN	411
Koper, C.	AGRO	151	Kovarik, L.	CATL	262	Kreller, C.	CATL	348
Koper, C.	AGRO	155	Kowalczyk, R.	POLY	754	Krelowski, J.	PHYS	355
Koppel, M.	CINF	70	Kowalczyk, W.	POLY	190	Krempel, M.	AGFD	233
Koppenaal, D.W.	ANYL	430	Kowalewski, T.	PMSE	569	Krempner, C.	INOR	141
Koratkar, N.	POLY	333	Kowalewski, T.	POLY	121	Krempner, C.	INOR	807
Korb, O.	CINF	117	Kowalewski, T.	POLY	385	Kress, S.J.	COLL	555
Korb, O.	MEDI	264	Kowalkowski, N.S.	TOXI	72	Kretchmer, J.	COMP	199
Korch, K.M.	ORGN	690	Kowalski, B.	POLY	360	Kretchmer, J.	PHYS	77
Korell, A.	ANYL	38	Kowalski, B.	POLY	580	Kretzmann, A.L.	PMSE	561
Korkmaz, A.	CHED	249	Kowalski, B.	POLY	581	Kretzmann, J.A.	COLL	488
Korkmaz, M.A.	ORGN	404	Kowalski, B.	POLY	724	Kretzmann, J.A.	PMSE	561
Korkmaz Cokol, N.	ORGN	590	Kowalski, B.	POLY	767	Kreysing, M.	COLL	471
Korman, A.	MEDI	269	Kowalski, K.	COMP	120	Krickl, S.	COLL	608
Kormanyos, A.	ENFL	101	Koyuncu, I.	POLY	57	Krieger, K.	AGRO	80
Kornfield, J.A.	PMSE	38	Koza, M.B.	CHAS	42	Krieger, R.I.	AGRO	233
Kornfield, J.A.	PMSE	571	Kozajda, A.	ENVR	419	Krieger, U.K.	ENVR	553
Kornienko, A.Y.	INOR	811	Kozak, D.	ANYL	184	Krieger, U.K.	ENVR	556
Kornienko, N.	CATL	228	Kozak, D.	ANYL	185	Krier, M.	COMP	283
Kornienko, N.	INOR	937	Kozakov, D.	COMP	249	Krier, J.	NUCL	48
Kornyshev, A.	PHYS	166	Kozakov, D.	COMP	269	Krimmer, S.G.	MEDI	260
Koroglu, B.	NUCL	64	Kozanecki, M.	POLY	695	Krishnamoorthy, R.	CATL	385
Koroloff, S.	PHYS	383	Kozawa, S.K.	PMSE	164	Krishnamoorti, R.	POLY	177
Korolovych, V.	COLL	428	Kozuhharov, S.	POLY	207	Krishnamurthy, M.	ANYL	367
Korolovych, V.	PMSE	86	Kozlowski, A.P.	MEDI	41	Krishnamurthy, R.	ORGN	381
Korolovych, V.F.	PMSE	319	Kozikowski, A.P.	MEDI	320	Krishnamurthy, S.	INOR	480
Korotcov, A.	CINF	9	Kozikowski, A.P.	MEDI	143	Krishnamurti, V.	CHED	227
Korotcov, A.	CINF	131	Kozimor, S.A.	INOR	523	Krishnamurti, V.A.	ORGN	334
Korotcov, A.	COMP	302	Kozimor, S.A.	NUCL	19	Krishnamurti, V.	ORGN	593
Korotcov, A.	TOXI	56	Kozimor, S.A.	NUCL	44	Krishnan, H.B.	AGFD	247
Korshin, G.	ENVR	16	Kozimor, S.A.	NUCL	47	Krishnan, N.	AGRO	302
Korshun, V.A.	MEDI	319	Kozlovskaya, L.I.	CINF	32	Krishnan, R.	PMSE	6
Korter, T.M.	PHYS	394	Kozlovskaya, L.I.	MEDI	186	Krishnan, R.	POLY	770
Kortz, U.	COLL	59	Kozlovskaya, L.I.	MEDI	319	Krishnan, S.	COLL	615
Korzekwa, K.	MEDI	313	Kozlovskaya, V.A.	COLL	596	Krishna Prasad, A.	CARB	12
Korzeniewski, C.L.	ANYL	166	Kozlovskaya, V.A.	PMSE	393	Krist, E.C.	INOR	548
Kosenkov, D.	COMP	134	Kozlovskaya, V.A.	POLY	523	Kristoffersen, H.	CATL	119
Koshkin, S.	AEI	38	Kozlowski, M.	ORGN	24	Kristoffersen, H.	PHYS	237
Kosicek, M.	CHED	66	Kozlowski, M.	ORGN	309	Kristofich, M.	PHYS	333
Kosicek, M.	CHED	371	Krafcik, M.J.	PMSE	161	Kristufek, S.L.	PMSE	642
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Kostecki, R.	MPPG	5	Kral, P.	COLL	449	Kristy, B.	AGRO	388
Kostich, W.	MEDI	358	Kral, P.	WCC	3	Krmeneč, M.	CHED	249
Kosuge, T.	PMSE	392	Krall, E.	CELL	38	Kroeger, F.	AGRO	259
Kota, A.	I&EC	42	Kramer, A.	ANYL	373	Kroenlein, K.	CINF	106
Kota, A.	PMSE	481	Kramer, J.	AGRO	80	Kröger, P.	COLL	614
Kota, A.	POLY	37	Kramer, J.	PMSE	19	Krogh Jespersen, K.	INOR	202
Kota, A.	POLY	153	Kramer, K.	ENVR	498	Krogh Jespersen, K.	INOR	326
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Kota, A.	POLY	439	Kramer, M.	MEDI	365	Kroll, P.	PHYS	311
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Kotcher, J.	ENVR	181	Krammer, G.E.	AGFD	141	Krolski, M.E.	AGRO	234
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Kothe, D.B.	COMP	1	Kranz, J.E.	CINF	114	Kronawitter, C.X.	COLL	481
Kotloski, N.	ENVR	535	Krasmonowitz, J.	ENVR	339	Krone, D.	CHED	3
Kotoski, S.P.	ANYL	220	Krasnec, M.	ENVR	482	Kronowitz, M.	COLL	544
Kotoulas, N.K.	MEDI	296	Krasovskiy, A.L.	INOR	439	Kropf, A.	ENFL	171
Kotra, L.P.	MEDI	71	Kratz, J.	NUCL	48	Kropf, A.J.	GEOC	17
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Kotturi, K.	ORGN	540	Krause, J.	COLL	586	Kroutil, W.	CATL	184
Kotturi, K.	ORGN	704	Krauss, T.D.	COLL	497	Krska, S.W.	INOR	387
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Kou, S.	ENFL	32	Kraut, H.	CINF	24	Krueger, R.	PHYS	129
Kou, Z.	INOR	707	Kraut, H.	CINF	88	Kruger, A.A.	ENVR	231
Koudriakova, T.	MEDI	211	Kraut, H.	COMP	283	Kruhlak, N.	CINF	48
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Kouyoumdjian, H.	CHED	342	Kravchenko, O.G.	POLY	562	Krumpfer, J.W.	CHED	366
Kovac Andric, E.	INOR	524	Kravchenko, P.	CATL	365	Krumpfer, J.W.	COLL	177
Kovacs, A.	MEDI	340	Krayer, L.	INOR	747	Krumpfer, J.W.	COLL	528
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Kübelbeck, S.	BIOL	174	Kumarimaduvu Palanisamy, A.	PMSE	520	Kuwahara, T.	ORGN	164
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Kucharski, T.J.	ENFL	215	Kunal, P.	INOR	782	Kwak, S.	AGRO	334
Kucheryavy, P.	INOR	403	Kunal, P.	INOR	785	Kwak, S.	AGRO	338
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Kuenemann, M.A.	CINF	33	Kundu, S.	POLY	514	Kwan, J.	INOR	266
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Kugalur Shanmugam, R.	CATL	233	Kundu, S.	INOR	845	Kwan, R.	MEDI	253
Kugalur Shanmugam, R.	CATL	434	Kundu, S.	INOR	716	Kwanplod, K.	ORGN	561
Kuhl, N.	PMSE	8	Kundu, S.	INOR	718	Kwee, B.J.	COLL	548
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Kuhn, B.	MEDI	264	Kung, P.	ENFL	357	Kwek, P.	MEDI	17
Kuhn, D.L.	INOR	907	Kunitsky, K.	CINF	3	Kweon, K.E.	ENFL	71
Kuhn, J.	ENFL	28	Kuniyoshi, C.	CHED	41	Kwoczak, R.P.	POLY	755
Kuhn, K.M.	YCC	15	Kunkel, D.	AGRO	1	Kwok, T.	POLY	709
Kuhn, L.A.	COMP	104	Kunkel, D.	AGRO	166	Kwon, B.	ENVR	429
Kuhn, P.	AGFD	19	Kunkel, G.	COLL	180	Kwon, D.	POLY	717
Kuhn, S.P.	PROF	19	Kunkel, G.	INOR	62	Kwon, G.	POLY	156
Kuila, D.	CATL	117	Kunkel, G.	INOR	277	Kwon, H.	ENVR	434
Kukulka, M.	INOR	61	Kunz, N.	CATL	250	Kwon, H.	PHYS	504
Kularatne, R.	POLY	237	Kunz, W.	COLL	608	Kwon, H.	PHYS	514
Kularatne, R.	POLY	736	Kuo, G.	CATL	368	Kwon, K.	PHYS	63
Kularatne, R.S.	POLY	576	Kuo, G.	ENFL	153	Kwon, M.	POLY	408
Kulasinghe, T.	CHED	261	Kuo, L.Y.	INOR	192	Kwon, S.	ENVR	137
Kulathila, R.	MEDI	267	Kuo, N.	CHED	189	Kwon, S.	ENFL	238
Kulig, J.	PHYS	196	Kuo, S.	INOR	471	Kwon, S.	ENFL	239
Kulik, H.	COMP	142	Kuo, T.	COLL	4	Kwon, S.	CATL	204
Kulik, H.	COMP	323	Kuo, W.	ANYL	190	Kwon, S.	COMP	189
Kulik, H.J.	CATL	272	Kuo, N.	CHED	248	Kwon, Y.	ENFL	238
Kulik, H.J.	COMP	141	Kuo, J.	ENVR	504	Kwon, Y.	ORGN	55
Kulikov, O.V.	POLY	471	Küpers, M.	PHYS	317	Kwon, Y.	ORGN	168
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Kulkarni, A.	CATL	154	Kurade, M.B.	ENFL	159	Kwong, E.	BIOL	85
Kulkarni, B.	MEDI	225	Kurade, M.B.	ENFL	257	Kwong, P.D.	COMP	293
Kulkarni, G.	POLY	711	Kurade, M.B.	ENVR	383	Kwun, D.	CHED	147
Kulkarni, N.	INOR	503	Kurade, M.	ENVR	516	Kyaw Zin, P.	CINF	40
Kulkarni, N.	INOR	600	Kuribara, A.	PMSE	409	Kye, H.	ENVR	154
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Kulkarni, R.	ORGN	35	Kuroda, K.	CELL	25	Kye, S.	INOR	268
Kulkarni, S.	PMSE	440	Kuroda, K.	CELL	23	Kym, P.R.	MPPG	14
Kullgren, J.	CATL	299	Kuroda, K.	CELL	19	Kymissis, I.	ANYL	243
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Kumal, R.R.	ANYL	288	Kurtz, H.	INOR	602	Kyriakidou, E.	ENFL	297
Kumar, A.	COLL	221	Kurtzman, T.	COMP	272	Kyser, G.	AGRO	160
Kumar, A.	CATL	246	Kurtzman, T.P.	COMP	38	Kyung, K.	AGFD	60

L'Italian, N.	CHED	142	Lakind, J.S.	AGRO	121	Lane, T.	AGRO	351
La, R.	INOR	666	Lakind, J.S.	AGRO	122	Lanfranchi, E.	PHYS	144
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Laatiaoui, M.	NUCL	48	Lakkaraju, S.K.	COMP	284	Lang, F.	COLL	544
Labay, C.	COLL	576	Lakkaraju, S.K.	COMP	290	Lang, L.	COMP	177
Labet, V.	PHYS	213	Lakkaraju, S.K.	COMP	292	Lang, S.B.	ORGN	325
Labrijn, A.F.	ANYL	51	Lakshmanan, U.	MEDI	277	Lang, S.B.	ORGN	641
Labrum, N.	INOR	489	Lakshmipathi, S.	CATL	281	Lang, S.B.	ORGN	643
Labuda, I.	AGFD	190	Lakshmipathi, S.	CATL	385	Lange, K.J.	ENVR	296
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Lacey, S.	ENFL	151	Lal, R.	PRES	21	Langelaan, D.N.	PHYS	592
LaChance, T.	AGRO	218	Lalancette, R.	ORGN	444	Langenbacher, R.E.	COLL	514
LaChapelle, E.A.	ORGN	469	Lalaoui, N.	CATL	269	Langenbacher, R.E.	PMSE	88
Lachmayr, K.K.	PMSE	395	Lallement, R.	PHYS	351	Langenbacher, R.E.	POLY	236
Lacombe, J.	PMSE	589	Lallement, R.	PHYS	356	Langer, J.	COLL	571
Lacomme, S.	COLL	96	Lallement, R.	PHYS	531	Langevin, D.	COLL	394
Lacomme, S.	PMSE	516	Lalonde, J.J.	PHYS	195	Langford, K.	INOR	659
LaConte, S.	MEDI	42	LaLone, C.	AGRO	103	Langley, D.	COMP	318
LaCroix, A.	INOR	842	Lam, C.	AGRO	268	Langley, D.	MEDI	269
Lacroix-Desmazes, P.	POLY	697	Lam, P.Y.	MEDI	308	Langley, R.	CHED	288
Lacy, S.	BIOL	105	Lam, V.	MEDI	74	Langloss, B.W.	INOR	246
Ladds, G.	COMP	275	Lam, V.H.	COLL	136	Langloss, B.W.	INOR	479
Ladipo, F.T.	CELL	6	Lam, V.H.	COLL	151	Laniado, J.	PMSE	255
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Ladmiral, V.	POLY	415	Lamb, J.	ANYL	30	Lansalot, M.	POLY	412
Lafont, V.	MEDI	269	Lamb, J.	ANYL	31	Lantz, J.	CHED	117
LaFors, H.	ENFL	157	Lamb, J.	CELL	37	Lantz, J.	CHED	412
LaFranzo, N.A.	PROF	1	Lamb, J.T.	POLY	521	Lantz, K.	PMSE	527
LaFranzo, N.A.	PROF	9	Lambe, A.	ENVR	189	Lanzarini-Lopes, M.	ENVR	402
Lafratta, C.N.	PHYS	482	Lambe, A.	ENVR	550	Lao, D.	ANYL	431
Lafratta, C.N.	PMSE	396	Lambe, A.	ENVR	555	Lao, D.	ORGN	40
Laga, E.	CHED	71	Lambert, S.	AGRO	72	Lao, L.	CELL	15
Laga, S.M.	INOR	389	Lamberth, C.	AGRO	391	Lao, L.	COLL	278
Laga, S.M.	INOR	613	Lamberth, C.	AGRO	414	LaPara, T.	ENVR	201
LaGatta, K.	ANYL	74	Lamberti, A.	PMSE	546	LaPara, T.	ENVR	274
Lagerspets, E.	ORGN	486	Lambeth, R.H.	POLY	83	Lape, A.	AGFD	187
Lagiseti, C.	MEDI	273	Lambeth, R.H.	POLY	307	Lapi, S.	NUCL	7
Lago, M.	AGFD	133	Lambeth, R.H.	POLY	642	Lapidus, R.G.	MEDI	74
Lagree, K.	ENVR	341	Lambic, N.	INOR	429	Lapitsky, Y.	PMSE	593
Laguerre, A.	PHYS	246	Lambrecht, D.	CATL	146	Laplante, S.	MEDI	29
Lagunin, A.	CINF	83	Lambrecht, D.	PHYS	161	Lapointe, C.	AGFD	124
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Lahanas, N.O.	INOR	403	Lambrecht, D.	POLY	162	Lara, S.	PHYS	381
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Lahann, J.	PMSE	26	Lambropoulos, J.C.	POLY	719	Lardhi, S.F.	INOR	34
Lahiri, G.K.	INOR	196	Lambson, K.E.	ORGN	547	Larese, J.Z.	COLL	131
Lahiri, S.	NUCL	48	Lamison, K.	POLY	521	Larese, J.Z.	COLL	283
Lahm, G.P.	AGRO	140	Lamm, B.	ENFL	102	Larese, J.Z.	COLL	357
Lahm, G.P.	AGRO	386	Lamm, M.	POLY	539	Larese-Casanova, P.	ENVR	120
Lahr, C.J.	CHED	33	Lammert, H.	PHYS	544	Larese-Casanova, P.	ENVR	442
Lahr, R.	CHED	33	Lamouille, S.	PMSE	484	Larese-Casanova, P.	ENVR	477
Lahr, R.	ENVR	214	Lampe, M.	PMSE	220	Larive, C.	CARB	85
Lahr, R.	ENVR	251	Lampson, M.	ORGN	209	Larsen, C.H.	INOR	934
Lai, A.	MEDI	308	Lan, J.	ENVR	330	Larsen, C.H.	ORGN	94
Lai, B.T.	BIOL	43	Lan, S.	ENVR	124	Larsen, C.H.	ORGN	382
Lai, C.	COMP	111	Lan, T.	AGFD	273	Larsen, E.	ORGN	406
Lai, C.	COLL	532	Lan, Y.	BIOL	151	Larsen, J.B.	COLL	576
Lai, H.	TOXI	78	Lancaster, K.M.	INOR	284	Larsen, K.	BIOL	69
Lai, J.	PHYS	551	Lancaster, K.M.	INOR	347	Larsen, R.W.	CATL	318
Lai, J.	ENFL	276	Lancaster, K.M.	INOR	690	Larsen, R.W.	INOR	155
Lai, P.	INOR	397	Lancaster, K.M.	INOR	943	Larsen, R.W.	INOR	577
Lai, Q.	INOR	241	Lancaster, K.M.	INOR	944	Larsen, R.W.	INOR	578
Lai, Q.	INOR	428	Lanci, M.P.	INOR	392	Larsen, R.W.	INOR	822
Lai, S.	CARB	47	Lancina III, M.	PMSE	643	Larsen, R.W.	PHYS	465
Lai, S.	TOXI	78	Landells, J.	CHAL	11	Larsen, R.W.	PHYS	540
Lai, T.	PMSE	275	Landers, A.	CATL	379	Larsen, S.D.	MEDI	61
Lai, W.	INOR	341	Landfester, K.	COLL	506	Larson, B.	ORGN	428
Lai, Y.	PMSE	255	Landgraf, A.D.	ORGN	414	Larson, N.R.	AGRO	104
Lai, Y.	COLL	606	Landgraf, R.	ORGN	416	Larson, P.	INOR	823
Laine, R.M.	PMSE	89	Landis, C.R.	ORGN	197	Larson, R.G.	PMSE	264
Laine, R.M.	POLY	686	Landis, J.	GEOC	13	Larsson, M.	PHYS	206
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Laird, P.	AGRO	375	Landry, M.	COLL	337	La Scala, J.	CELL	40
Laitinen, T.	MEDI	141	Landry, M.	PMSE	497	La Scala, J.	POLY	13
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Latham, A.L.	AGRO	133	Lazarus, M.B.	AEI	8	Lee, D.	COLL	127
Latham, A.L.	AGRO	194	Lazarus, M.B.	ORGN	28	Lee, D.	COLL	129
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Latifi, R.	ORGN	372	Le, C.	ORGN	366	Lee, D.	COMP	167
Latimer, L.H.	AGRO	245	Le, D.	MEDI	328	Lee, D.	CATL	43
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Latour, R.A.	PMSE	141	Le, J.	CHED	276	Lee, D.	ENFL	239
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Lattimer, J.	CATL	367	Le, M.	POLY	443	Lee, D.	ENFL	345
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Lau, C.	INOR	553	Leach, S.	ORGN	12	Lee, E.	CATL	415
Lau, C.	INOR	630	Leader, A.	AGRO	7	Lee, E.	MEDI	92
Lau, C.	INOR	631	League, A.	INOR	292	Lee, E.	PMSE	291
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Lau, K.	PMSE	523	Leamon, C.P.	MEDI	89	Lee, H.D.	ENVR	530
Lau, S.	POLY	750	Leamon, C.P.	MEDI	90	Lee, H.D.	ENVR	557
Laubacker, B.	INOR	533	Leamon, C.P.	MEDI	91	Lee, H.	ORGN	416
Laufer, S.A.	MEDI	15	Leang, S.	COMP	26	Lee, H.	CATL	43
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Laughlin, S.	ANYL	348	Leartsakulpanich, U.	MEDI	72	Lee, H.	ORGN	391
Lauher, J.W.	PHYS	14	Leary, D.H.	BIOL	20	Lee, H.	MEDI	126
Lauinger, S.M.	CATL	18	Lease, N.	INOR	215	Lee, H.	POLY	651
Laun, A.	MEDI	136	Lease, N.	INOR	218	Lee, H.	CINF	146
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Laurencin, C.	PMSE	48	Lease, N.	INOR	389	Lee, H.	MEDI	271
Laurencin, C.	PMSE	168	Lease, N.	INOR	609	Lee, H.	AGFD	80
Laurency, G.	CATL	357	Lease, N.	INOR	611	Lee, I.	COMP	387
Laurency, G.	CATL	412	Lease, R.	MEDI	51	Lee, I.G.	TOXI	55
Laurens, L.M.	ENFL	110	Leathers, T.	CARB	51	Lee, J.	ENVR	63
Laurichesse, E.	COLL	390	Leaver, D.J.	MEDI	16	Lee, J.	AEI	57
Laurie, V.	AGFD	82	Lebedev, N.	ENVR	301	Lee, J.	COMP	273
Lauritsen, J.	CATL	206	Lebedev, N.	ENVR	535	Lee, J.	COMP	322
Lauritsen, J.	COMP	147	Le Bizec, B.	AGRO	44	Lee, J.	ANYL	7
Lauro, G.	ORGN	400	Leblanc, R.M.	PMSE	482	Lee, J.	ANYL	1
Lauro, N.	AGRO	183	Leblanc, R.M.	POLY	519	Lee, J.	ANYL	144
Lauro, P.C.	SCHB	7	LeBlanc, D.M.	PHYS	592	Lee, J.	COLL	425
Laurvick, K.	AGFD	31	LeBlanc, R.	PHYS	544	Lee, J.	POLY	390
Laurvick, K.	AGFD	33	LeBlond, C.	CHED	202	Lee, J.	ENFL	358
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Lauvernet, C.	AGRO	15	Le Chapelain, C.	MEDI	121	Lee, J.	ORGN	19
Lava, K.	PMSE	652	Leckband, D.E.	PHYS	470	Lee, J.C.	ANYL	12
Lavelle, K.B.	NUCL	83	Leclercq, L.	POLY	697	Lee, J.C.	BIOL	54
Laverty, D.J.	TOXI	14	Lecommandoux, S.	COLL	96	Lee, J.C.	BIOL	105
Lavigne, J.J.	BIOL	91	Lecommandoux, S.	COLL	323	Lee, J.C.	BIOL	185
Laviña, W.	BIOL	160	Lecommandoux, S.	PMSE	14	Lee, J.C.	PHYS	417
Lavis, L.D.	ORGN	349	Lecommandoux, S.	PMSE	516	Lee, J.D.	INOR	655
Laviska, D.A.	INOR	445	Ledbetter, D.	COLL	544	Lee, J.D.	INOR	837
Lavorie, R.H.	INOR	421	Ledbetter, H.	COLL	257	Lee, J.	NUCL	6
Lavric, S.	POLY	675	Ledendecker, M.	ENFL	350	Lee, J.	ANYL	98
Lavy, J.	CATL	235	Leder, L.	MEDI	306	Lee, J.	ANYL	115
Law, C.	INOR	183	Lederkremer, R.M.	CARB	65	Lee, J.	COMP	189
Lawler, J.T.	PHYS	220	Ledezma-Yanez, I.D.	CATL	255	Lee, J.	ENFL	386
Lawler, K.V.	INOR	916	Ledson, T.M.	AGRO	178	Lee, J.	ANYL	414
Lawler, K.V.	NUCL	18	Ledson, T.M.	AGRO	253	Lee, J.	MEDI	316
Lawless-Gattone, A.	CHED	194	Ledson, T.M.	AGRO	288	Lee, J.	INOR	654
Lawless-Gattone, A.	CHED	222	Lee, C.	AGRO	262	Lee, J.	INOR	266
Lawlor, L.	ORGN	693	Lee, S.	CATL	8	Lee, J.	ENFL	411

Lee, J.	NUCL	32	Lee, S.	CHED	180	Lehnherr, D.	INOR	948
Lee, J.	COLL	389	Lee, S.	CHED	181	Lehotay, S.J.	AGRO	342
Lee, J.	POLY	524	Lee, S.	CHED	182	Lei, D.	CATL	361
Lee, J.	AGFD	79	Lee, S.	CHED	183	Lei, Y.	AEI	43
Lee, J.	AGFD	80	Lee, S.	CHED	184	Lei, Y.	CATL	215
Lee, J.	PHYS	100	Lee, S.	CHED	185	Lei, Y.	INOR	43
Lee, J.	COMP	387	Lee, S.	CHED	186	Lei, Y.	INOR	774
Lee, J.	ENFL	484	Lee, S.	CHED	187	Leibfarth, F.A.	POLY	107
Lee, J.	ENFL	239	Lee, S.	CHED	188	Leibfarth, F.A.	POLY	660
Lee, J.	MEDI	126	Lee, S.	INOR	243	Leibig, T.	PHYS	476
Lee, J.	AGFD	180	Lee, T.	ANYL	7	Leibler, L.	PMSE	512
Lee, J.	CARB	26	Lee, T.	POLY	408	Leidy, M.R.	INOR	570
Lee, J.	PMSE	135	Lee, T.	POLY	409	Leigh, D.A.	ORGN	445
Lee, J.	ORGN	123	Lee, T.	POLY	457	Leigh, D.A.	ORGN	534
Lee, J.	CATL	11	Lee, T.	POLY	476	Leigh, D.A.	ORGN	537
Lee, J.	NUCL	17	Lee, T.J.	PHYS	4	Leigh, D.A.	ORGN	538
Lee, J.	AGFD	83	Lee, T.J.	PHYS	54	Leigh, D.A.	ORGN	539
Lee, J.	COMP	387	Lee, T.J.	PHYS	205	Leigh, J.	AGFD	207
Lee, K.	PMSE	602	Lee, T.J.	PHYS	547	Leighton, D.	BIOL	16
Lee, K.H.	ORGN	426	Lee, T.	AGRO	193	Leighton, D.	COLL	253
Lee, K.H.	ORGN	427	Lee, T.	COLL	222	Leighty, W.C.	ENFL	62
Lee, K.H.	PHYS	364	Lee, T.	COLL	223	Leininger, A.	ENFL	457
Lee, K.	PHYS	594	Lee, T.	COLL	224	Leite, M.S.	ANYL	148
Lee, K.	CATL	389	Lee, T.	COLL	234	Leite, M.S.	COLL	386
Lee, K.	INOR	51	Lee, T.	COLL	612	Leite, M.S.	ENFL	11
Lee, K.	INOR	243	Lee, T.	ENVR	34	Leite, M.S.	INOR	447
Lee, K.	INOR	268	Lee, T.	INOR	662	Leite, M.S.	INOR	788
Lee, K.	MEDI	80	Lee, T.	INOR	663	Lekich, T.	INOR	207
Lee, K.	ENFL	331	Lee, T.	INOR	664	Lekich, T.	INOR	208
Lee, M.	AGRO	134	Lee, V.	MEDI	269	Lekich, T.	INOR	598
Lee, M.	CATL	174	Lee, V.M.	CHED	172	Lekse, J.W.	ENFL	127
Lee, M.	CATL	425	Lee, W.	INOR	262	Lekse, J.W.	CATL	11
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Lee, M.	PHYS	265	Lee, W.	ENVR	349	Lemaur, V.	PMSE	356
Lee, M.	MEDI	22	Lee, W.	ENVR	351	Lembrich, D.	AGRO	81
Lee, M.	MEDI	103	Lee, W.	ORGN	673	Lemieux, C.	PMSE	657
Lee, M.	MEDI	17	Lee, W.	INOR	706	Lemkul, J.A.	COMP	227
Lee, M.	ENFL	100	Lee, Y.S.	INOR	632	Lemmen, C.	COMP	283
Lee, M.	BIOL	123	Lee, Y.	COLL	85	Lemmon, T.	CATL	171
Lee, N.	CMA	3	Lee, Y.D.	AGRO	338	Lemons, A.	CATL	468
Lee, P.	ANYL	108	Lee, Y.	PHYS	309	Lemonnier, J.	ORGN	445
Lee, P.H.	ORGN	567	Lee, Y.	ENFL	233	Lemus-Yegres, L.J.	CATL	484
Lee, R.	AGRO	227	Lee, Y.	PHYS	456	Lenaerts, A.	MEDI	326
Lee, S.	ANYL	164	Lee, Y.	INOR	696	Le Neindre, M.	POLY	321
Lee, S.	ANYL	291	Lee, Y.	INOR	789	Lenfant, N.	INOR	583
Lee, S.	ANYL	439	Lee, J.	COLL	579	Leng, W.	AEI	36
Lee, S.	ENFL	306	Lee, J.	POLY	753	Leng, W.	ENVR	426
Lee, S.	PMSE	507	Lee, J.	BIOL	95	Lenhart, J.	PMSE	106
Lee, S.	CATL	389	Lee, K.	INOR	260	Lenhart, J.	PMSE	152
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Lee, S.W.	COMP	404	Le Gal, R.	PHYS	205	Leonard, K.C.	CATL	81
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Lee, S.P.	MEDI	35	Legge, R.L.	AGFD	122	Leone, A.M.	CELL	12
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Lee, S.	ENFL	220	Legler, P.M.	BIOL	20	Leong, D.	TOXI	79
Lee, S.	COLL	610	Le Grice, S.F.	BIOL	48	Leong, J.	CHED	145
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Lee, S.	COLL	212	Lehman-Andino, I.	NUCL	28	Leong, J.	CHED	178
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Lee, S.	AGRO	311	Lehmer, A.	CATL	386	Leong, J.	CHED	213
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Lesser, A.	PMSE	668	Lewis, S.	INOR	156	Li, H.	CATL	243
Lester, E.	PMSE	567	Lewis, S.	CHED	19	Li, H.	CATL	260
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Leung, H.O.	PHYS	484	Li, X.	ENVR	80	Li, J.	COLL	163
Leung, K.	CATL	427	Li, A.	ENFL	212	Li, J.	PHYS	358
Leung, K.	ENFL	168	Li, A.	AGRO	396	Li, J.	PHYS	470
Leung, K.	PHYS	38	Li, A.	ENFL	236	Li, J.	ORGN	263
LeValley, P.	PMSE	186	Li, A.	INOR	688	Li, J.	PMSE	268
Levell, J.R.	MEDI	267	Li, B.	CATL	122	Li, J.	ENFL	221
Levelt Sengers, J.	PHYS	19	Li, B.	ORGN	142	Li, J.	INOR	460
Levenson, R.	BIOL	187	Li, B.	PMSE	12	Li, J.	CATL	339
Levesqu, P.	MEDI	365	Li, B.	PMSE	598	Li, J.	CATL	392
Levin, E.	ENVR	532	Li, B.	POLY	447	Li, J.	MEDI	105
Levine, A.	ORGN	480	Li, B.	PMSE	505	Li, J.	MEDI	253
Levine, B.G.	COMP	329	Li, B.	COMP	129	Li, J.	CATL	246
Levine, B.G.	PHYS	598	Li, B.	INOR	445	Li, J.	ENFL	206
Levine, M.	ANYL	68	Li, B.	INOR	597	Li, K.	ENVR	385
Levine, M.	ENVR	427	Li, B.	POLY	542	Li, K.	ENFL	89
Levine, M.	ORGN	388	Li, B.	I&EC	29	Li, K.	MEDI	198
Levine, M.	ORGN	509	Li, B.	ENFL	205	Li, K.T.	CATL	16
Levine, M.	ORGN	563	Li, B.	PMSE	616	Li, K.T.	CATL	476
Levine, M.	PMSE	358	Li, C.	ENVR	262	Li, L.	ENFL	244
Levine, M.	POLY	468	Li, C.	CATL	289	Li, L.	ENFL	480
Levine, S.	MEDI	365	Li, C.	ORGN	616	Li, L.	ENFL	485
Levine, S.L.	AGRO	52	Li, C.	PHYS	413	Li, L.	PHYS	138
Levine, S.L.	AGRO	319	Li, C.	COLL	38	Li, L.	PHYS	139
Levine, S.L.	AGRO	320	Li, C.	ENFL	99	Li, L.	TOXI	31
Levine, S.L.	AGRO	403	Li, C.	PMSE	575	Li, L.	TOXI	99
Levi-Polyachenko, N.H.	COLL	100	Li, C.	POLY	240	Li, L.	PMSE	590
Levit, S.	PMSE	639	Li, C.	PHYS	223	Li, L.	COLL	68
Levitskaia, T.	NUCL	37	Li, C.	ENFL	233	Li, L.	ENFL	328
Levitskaia, T.	NUCL	38	Li, C.	POLY	552	Li, L.	GEOC	15
Levitskaia, T.G.	I&EC	7	Li, C.	ENVR	264	Li, L.	GEOC	24
Levitskaia, T.G.	I&EC	8	Li, C.	ENVR	265	Li, L.	GEOC	33
Levitskaia, T.G.	NUCL	21	Li, C.	MEDI	352	Li, L.	ENVR	209
Levitskaia, T.G.	NUCL	36	Li, C.	COLL	114	Li, L.	ENVR	510
Levitt, M.	AEI	67	Li, D.	PMSE	437	Li, L.	ENVR	289
Levitt, M.	ORGN	226	Li, D.	ENFL	195	Li, L.	PHYS	401
Levy, J.	AEI	60	Li, D.	TOXI	63	Li, L.	CATL	146
Levy, R.	COLL	39	Li, D.	TOXI	64	Li, L.	COLL	199
Lewandowski, K.	POLY	16	Li, D.	TOXI	70	Li, L.	INOR	350
Lewerenz, A.	COLL	541	Li, D.	CATL	29	Li, L.	TOXI	53
Lewicki, J.P.	PMSE	332	Li, E.Y.	INOR	244	Li, L.	MEDI	269
Lewicki, J.P.	POLY	224	Li, F.	PMSE	78	Li, L.	ORGN	82
Lewinski, K.	CATL	250	Li, F.	ENFL	5	Li, L.	POLY	382
Lewis, D.E.	PROF	21	Li, F.	PMSE	352	Li, L.	ENVR	36
Lewis, D.I.	PROF	8	Li, G.	AGRO	191	Li, L.	PMSE	3
Lewis, E.	PMSE	660	Li, G.	ENVR	108	Li, L.	PMSE	296
Lewis, J.S.	POLY	236	Li, G.	INOR	23	Li, L.	PMSE	299
Lewis, K.	PHYS	27	Li, G.	INOR	195	Li, L.	POLY	317
Lewis, L.	ENVR	51	Li, G.	COMP	80	Li, L.	AGFD	277
Lewis, M.	MEDI	312	Li, H.	INOR	782	Li, L.	ORGN	218
Lewis, M.	AGRO	70	Li, H.	INOR	785	Li, L.	PMSE	228
Lewis, M.M.	MEDI	71	Li, H.	MEDI	200	Li, L.	PMSE	320
Lewis, M.M.	SCHB	39	Li, H.	ORGN	48	Li, L.	POLY	333
Lewis, M.	SCHB	28	Li, H.	ANYL	441	Li, M.	INOR	64
Lewis, N.S.	ANYL	145	Li, H.	AGRO	115	Li, M.	CATL	76
Lewis, N.S.	COLL	541	Li, H.	AGRO	347	Li, M.	ENFL	317
Lewis, N.S.	INOR	920	Li, H.	PMSE	198	Li, M.	MEDI	277

Li, M.	ANYL	297	Li, W.	MEDI	183	Li, Z.	PMSE	168
Li, M.	INOR	128	Li, W.	I&EC	31	Li, Z.	PMSE	170
Li, M.	AGFD	48	Li, X.	ENFL	377	Li, Z.	PMSE	171
Li, N.	CATL	110	Li, X.	PMSE	141	Li, Z.	POLY	606
Li, N.	COMP	248	Li, X.	ENFL	424	Li, C.	BIOL	53
Li, N.	MEDI	48	Li, X.	BIOL	128	Li, Q.	PHYS	498
Li, N.	INOR	315	Li, X.	ANYL	170	Li, S.	CATL	478
Li, N.	PMSE	90	Li, X.S.	INOR	272	Li, X.	BIOL	139
Li, P.	COLL	174	Li, X.	INOR	909	Li, Y.	POLY	599
Li, P.	CELL	21	Li, X.	ENFL	164	Li, C.	POLY	59
Li, P.	INOR	127	Li, X.	ORGN	457	Liakh, D.	PHYS	437
Li, P.	MEDI	7	Li, X.	ORGN	560	Lian, L.	ENVR	380
Li, P.	MEDI	25	Li, X.	ORGN	699	Lian, J.	NUCL	42
Li, P.	MEDI	153	Li, X.	POLY	81	Lian, L.	ENVR	105
Li, P.	BIOL	30	Li, X.	POLY	526	Lian, T.	COLL	46
Li, Q.	COLL	584	Li, X.	POLY	528	Lian, Y.	ORGN	229
Li, Q.	ENVR	262	Li, X.	ANYL	87	Liang, B.	BIOL	10
Li, Q.	POLY	384	Li, X.	COMP	140	Liang, C.	AGRO	197
Li, Q.	POLY	766	Li, X.	COMP	144	Liang, D.	CATL	450
Li, Q.	ORGN	229	Li, X.	COMP	157	Liang, D.	MEDI	177
Li, Q.	MEDI	352	Li, X.	COMP	159	Liang, D.	ORGN	597
Li, Q.	ENFL	206	Li, X.	INOR	117	Liang, G.	INOR	904
Li, Q.X.	AGRO	224	Li, X.	ENVR	251	Liang, G.	MEDI	225
Li, Q.X.	AGRO	270	Li, X.	POLY	342	Liang, G.	MEDI	267
Li, Q.	ENVR	416	Li, X.	MEDI	128	Liang, H.	BIOL	164
Li, Q.	PMSE	397	Li, X.	ORGN	18	Liang, H.	CATL	216
Li, Q.	AEI	63	Li, X.	ENFL	335	Liang, H.	PMSE	162
Li, Q.	COMP	279	Li, X.	INOR	69	Liang, H.	PMSE	473
Li, R.	PMSE	25	Li, X.	MEDI	150	Liang, J.	BIOL	169
Li, R.	POLY	324	Li, X.	ENFL	244	Liang, J.	PMSE	476
Li, R.	AGRO	117	Li, X.	ENFL	480	Liang, J.	MEDI	11
Li, R.	AGRO	176	Li, X.	POLY	744	Liang, L.	ENFL	361
Li, R.	AGRO	349	Li, X.	MEDI	228	Liang, M.	MEDI	352
Li, R.	AGRO	350	Li, X.	ENFL	485	Liang, Q.	CATL	453
Li, R.	COLL	235	Li, X.	ENFL	244	Liang, S.	ORGN	564
Li, R.	INOR	476	Li, X.	ENFL	361	Liang, T.	ANYL	150
Li, S.F.	CATL	483	Li, Y.	AGFD	251	Liang, X.	PHYS	117
Li, S.	ORGN	548	Li, Y.	AGFD	277	Liang, Y.	MEDI	123
Li, S.	INOR	125	Li, Y.	ANYL	345	Liang, Y.	ENFL	316
Li, S.	POLY	233	Li, Y.	ENVR	225	Liang, Y.	CHED	193
Li, S.	ENFL	382	Li, Y.	ENVR	401	Liang, Y.	CATL	405
Li, S.	BIOL	1	Li, Y.	ENVR	439	Liang, Z.	CATL	155
Li, S.	PMSE	583	Li, Y.	POLY	416	Liano, W.	CATL	286
Li, S.	CATL	110	Li, Y.	MEDI	323	Liano, W.	ENVR	224
Li, S.	COLL	366	Li, Y.	ENFL	177	Liano, W.	ENVR	448
Li, S.	COMP	295	Li, Y.	AGFD	268	Liao, C.	ENVR	502
Li, S.	COMP	296	Li, Y.	PMSE	617	Liao, J.	BIOL	160
Li, S.	AGFD	147	Li, Y.	AGFD	108	Liao, L.	COLL	279
Li, S.	ORGN	424	Li, Y.	MEDI	134	Liao, M.	AGFD	251
Li, S.	ORGN	463	Li, Y.	MEDI	43	Liao, P.	CATL	414
Li, S.	COMP	48	Li, Y.	MEDI	159	Liao, P.	CATL	416
Li, S.	COLL	187	Li, Y.	MEDI	64	Liao, Y.	POLY	654
Li, S.	COLL	383	Li, Y.	MEDI	102	Liao, Y.	ENVR	376
Li, S.	CATL	243	Li, Y.	CELL	12	Liao, Y.	PMSE	626
Li, S.	AGFD	24	Li, Y.	PHYS	8	Liao, Y.	POLY	627
Li, S.	AGFD	27	Li, Y.	CATL	231	Liaw, B.	PHYS	187
Li, S.	POLY	381	Li, Y.	ORGN	85	Liba, A.	ANYL	275
Li, S.	POLY	465	Li, Y.	ORGN	597	Libardo, M.	MEDI	298
Li, S.	POLY	492	Li, Y.	BIOL	89	Libardo, M.	PHYS	578
Li, T.	COLL	536	Li, Y.	MEDI	249	Libby, B.	PMSE	579
Li, T.	CATL	155	Li, Y.	ENFL	480	Libby, C.	COMP	216
Li, T.	ENVR	250	Li, Y.	COLL	422	Libby, C.	MEDI	133
Li, T.	ORGN	601	Li, Y.	POLY	659	Libelo, L.	ENVR	306
Li, T.	COMP	15	Li, Y.	PHYS	326	Libelo, L.	ENVR	308
Li, T.	PHYS	313	Li, Y.	AGRO	203	Libera, M.	PMSE	476
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Li, T.	MEDI	42	Li, Z.	INOR	292	Liberman-Martin, A.L.	POLY	368
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Li, T.	PMSE	22	Li, Z.	ENFL	308	Licari, D.	PHYS	55
Li, T.	INOR	132	Li, Z.	INOR	409	Lichiheb, N.	AGRO	348
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Li, W.	CATL	114	Li, Z.	CATL	333	Lichtenberger, D.L.	INOR	945
Li, W.	CATL	403	Li, Z.	ANYL	344	Lichtenberger, D.L.	POLY	273
Li, W.	CATL	247	Li, Z.	PMSE	17	Lichterman, M.	COLL	541
Li, W.	MEDI	83	Li, Z.	COLL	559	Lichti-Kaiser, K.	AGRO	288
Li, W.	TOXI	86	Li, Z.	POLY	462	Lieber, C.M.	ANYL	1
Li, W.	ENFL	441	Li, Z.	AGRO	305	Lieber, C.M.	ANYL	144
Li, W.	AGRO	126	Li, Z.	ENFL	39	Liebman, M.N.	SCHB	31
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Lim, H.	ORGN	277	Lin, W.	INOR	552	Link, S.	COLL	440
Lim, H.	ORGN	591	Lin, X.	ENFL	125	Linnartz, H.	PHYS	308
Lim, H.	ORGN	168	Lin, X.	ORGN	206	Linnartz, H.	PHYS	351
Lim, J.	PMSE	601	Lin, X.	MEDI	250	Linstrom, P.	CINF	127
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Lim, J.	MEDI	192	Lin, X.	COLL	581	Liotta, C.L.	ORGN	495
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Lin, H.	CATL	353	Lindley, B.M.	INOR	425	Litvinov, D.	ENVR	34
Lin, H.	AEI	66	Lindley, B.M.	INOR	609	Liu, K.	ENVR	17
Lin, H.	ORGN	430	Lindley, B.M.	INOR	612	Liu, K.	ENVR	430
Lin, H.	INOR	262	Lindsey, B.	CHED	10	Liu, A.	GEOC	5
Lin, H.	POLY	532	Lindsley, C.W.	MEDI	243	Liu, A.T.	ORGN	669
Lin, H.	MEDI	7	Lindstrom, A.	ENVR	46	Liu, A.T.	PHYS	507
Lin, J.	ENFL	232	Lindvall, M.	MEDI	250	Liu, A.T.	PMSE	355
Lin, J.	AGFD	251	Lineberger, W.	PHYS	366	Liu, A.	COLL	28
Lin, J.	ENVR	560	Lineberger, W.C.	PHYS	582	Liu, A.	BIOL	84
Lin, J.	INOR	394	Linehan, J.C.	INOR	598	Liu, B.	PHYS	498
Lin, J.	CATL	379	Linehan, W.	ORGN	35	Liu, B.	CHED	259
Lin, J.	INOR	39	Ling, J.	PMSE	305	Liu, B.	COLL	554
Lin, J.	ENVR	457	Ling, L.	GEOC	28	Liu, B.	ENFL	181
Lin, K.	ANYL	55	Ling, L.	INOR	276	Liu, B.	AGFD	48
Lin, K.	ORGN	325	Ling, Y.	POLY	240	Liu, B.	ENFL	332
Lin, K.	ORGN	643	Ling, Y.	POLY	59	Liu, B.	ORGN	89
Lin, L.	ANYL	122	Lingel, A.	MEDI	10	Liu, B.	ANYL	30
Lin, L.	CARB	69	Lingel, A.	MEDI	306	Liu, B.	ANYL	426
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Lin, L.	COMP	73	Lingerfelt, D.B.	COMP	159	Liu, B.	MEDI	17
Lin, L.	COMP	74	Lingerfelt, M.A.	CINF	115	Liu, C.	ENFL	4
Lin, L.	PHYS	279	Lingerfelt, M.A.	MEDI	197	Liu, C.	ANYL	291
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Lin, P.	AGFD	269	Linghu, X.	ORGN	62	Liu, C.	PHYS	566
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Liu, C.	COLL	73	Liu, J.	INOR	859	Liu, W.	CATL	226
Liu, C.	INOR	236	Liu, J.	COMP	407	Liu, W.	ORGN	416
Liu, C.	MEDI	7	Liu, J.	ORGN	310	Liu, W.	ENVR	37
Liu, C.	BIOL	111	Liu, J.	ENVR	31	Liu, X.	ANYL	42
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Liu, C.	I&EC	66	Liu, J.	INOR	259	Liu, X.	I&EC	55
Liu, C.	CATL	46	Liu, J.	BIOL	25	Liu, X.	INOR	471
Liu, C.	COLL	402	Liu, J.	COLL	83	Liu, X.	ORGN	548
Liu, C.	COLL	489	Liu, J.C.	PMSE	199	Liu, X.	COMP	213
Liu, C.	COLL	497	Liu, J.	ENFL	327	Liu, X.	ENVR	156
Liu, C.Y.	CINF	79	Liu, J.	PHYS	244	Liu, X.	ENVR	272
Liu, D.	POLY	652	Liu, J.	ENVR	25	Liu, X.	COLL	277
Liu, D.	ENVR	221	Liu, K.	CELL	28	Liu, X.	INOR	136
Liu, D.	CATL	231	Liu, K.	ORGN	444	Liu, Y.	COMP	171
Liu, D.	POLY	362	Liu, K.	POLY	353	Liu, Y.	ENVR	70
Liu, D.	CATL	153	Liu, K.	ENFL	362	Liu, Y.	PMSE	488
Liu, D.	CATL	263	Liu, K.	CATL	234	Liu, Y.	POLY	70
Liu, D.	CATL	405	Liu, K.	COLL	2	Liu, Y.	ENVR	180
Liu, D.	ENFL	393	Liu, K.	ENVR	37	Liu, Y.	ORGN	180
Liu, F.	ENVR	124	Liu, K.	MEDI	225	Liu, Y.	INOR	832
Liu, F.	ANYL	428	Liu, K.	ENVR	144	Liu, Y.	POLY	734
Liu, F.	INOR	24	Liu, K.	ORGN	577	Liu, Y.	CATL	200
Liu, F.	PHYS	321	Liu, L.	POLY	378	Liu, Y.	CATL	172
Liu, F.	POLY	333	Liu, L.	ORGN	212	Liu, Y.	ENFL	237
Liu, F.	POLY	512	Liu, L.	AGFD	33	Liu, Y.	ENFL	240
Liu, F.	POLY	523	Liu, L.	ENVR	262	Liu, Y.	INOR	244
Liu, F.	POLY	700	Liu, L.	MEDI	275	Liu, Y.	INOR	528
Liu, F.	POLY	701	Liu, L.	ORGN	609	Liu, Y.	INOR	532
Liu, F.	AGRO	394	Liu, L.	PMSE	58	Liu, Y.	INOR	536
Liu, F.	COMP	29	Liu, M.	ENFL	424	Liu, Y.	ANYL	170
Liu, F.	I&EC	62	Liu, M.	COLL	532	Liu, Y.	POLY	727
Liu, F.	PMSE	231	Liu, M.	PHYS	39	Liu, Y.	POLY	324
Liu, G.	MEDI	267	Liu, M.Y.	PHYS	44	Liu, Y.	COLL	484
Liu, G.	ANYL	207	Liu, N.	AGRO	369	Liu, Y.	PHYS	218
Liu, G.	CATL	382	Liu, N.	ENVR	75	Liu, Y.	PHYS	272
Liu, G.	ENVR	155	Liu, N.	ENVR	168	Liu, Y.	ENVR	75
Liu, G.	COLL	157	Liu, N.	INOR	603	Liu, Y.	ENFL	244
Liu, G.	COLL	403	Liu, P.	ORGN	175	Liu, Y.	ENFL	480
Liu, G.	PMSE	28	Liu, P.	ORGN	515	Liu, Y.	ENFL	485
Liu, G.	COLL	586	Liu, P.	POLY	303	Liu, Y.	AGFD	176
Liu, H.	CATL	2	Liu, P.	POLY	395	Liu, Y.	PMSE	562
Liu, H.	POLY	716	Liu, P.	ENVR	192	Liu, Y.	AEI	4
Liu, H.	PHYS	139	Liu, P.	CATL	68	Liu, Y.	COLL	61
Liu, H.	ORGN	684	Liu, P.	COMP	374	Liu, Y.	PMSE	255
Liu, H.	ORGN	408	Liu, P.	ENFL	193	Liu, Z.	CATL	250
Liu, H.	ORGN	434	Liu, P.	ENFL	194	Liu, Z.	ORGN	548
Liu, H.	ORGN	442	Liu, Q.	CATL	226	Liu, Z.	ENFL	466
Liu, H.	ENVR	109	Liu, Q.	PHYS	190	Liu, Z.	COLL	540
Liu, H.	PHYS	212	Liu, Q.	PMSE	472	Liu, Z.	ORGN	2
Liu, H.	CINF	96	Liu, Q.	POLY	376	Liu, Z.	ORGN	256
Liu, H.	PMSE	6	Liu, Q.	ORGN	89	Liu, Z.	AGRO	280
Liu, H.	ANYL	55	Liu, Q.	ENFL	224	Liu, Z.	COLL	299
Liu, H.	ORGN	400	Liu, Q.	MEDI	8	Liu, Z.	PMSE	232
Liu, H.	ENFL	208	Liu, Q.	CATL	369	Liu, Z.	ENVR	212
Liu, H.	ENVR	494	Liu, R.	CINF	96	Liu, Z.	COMP	13
Liu, H.	ENFL	223	Liu, R.	PHYS	237	Liu, Z.	COLL	417
Liu, H.	AGRO	341	Liu, R.	CINF	120	Liu, Z.	COLL	419
Liu, I.	ENFL	232	Liu, S.	MEDI	63	Liu, W.	MEDI	153
Liu, I.	ENFL	233	Liu, S.	INOR	298	Liu, Y.	POLY	445
Liu, I.	PHYS	456	Liu, S.	POLY	532	Livi, K.J.	CATL	446
Liu, I.	COLL	305	Liu, S.	COMP	374	Livingston, A.	POLY	775
Liu, J.J.	INOR	715	Liu, S.	POLY	571	Livingston, E.	PMSE	616
Liu, J.	ENVR	37	Liu, S.	TOXI	28	Livingston, K.	INOR	448
Liu, J.	ENFL	253	Liu, S.	ENVR	73	Livshits, M.	NUCL	44
Liu, J.	ENVR	45	Liu, S.	POLY	394	Liyanage, C.D.	COLL	530
Liu, J.	PMSE	627	Liu, S.	INOR	648	Liyanage, C.D.	PMSE	625
Liu, J.	CARB	69	Liu, T.	ENFL	211	Liyanage, D.	COLL	77
Liu, J.	MEDI	34	Liu, T.	CHED	240	Liyanage, D.	INOR	657
Liu, J.	MEDI	35	Liu, T.	COLL	59	Liz Marzan, L.	COLL	571
Liu, J.	ORGN	588	Liu, T.	INOR	824	Llanos, E.J.	CINF	14
Liu, J.	CINF	42	Liu, T.	PHYS	203	Llewellyn, C.	AGFD	15
Liu, J.	ENVR	426	Liu, T.	COMP	404	Lloyd, N.	AGFD	91
Liu, J.	PHYS	126	Liu, T.	ENVR	418	Lloyd, R.S.	TOXI	93
Liu, J.L.	COLL	74	Liu, T.	INOR	662	Lo, C.Y.	AGFD	147
Liu, J.L.	ENFL	459	Liu, W.	MEDI	334	Lo, C.	BIOL	76
Liu, J.L.	MEDI	366	Liu, W.	INOR	272	Lo, K.	POLY	271
Liu, J.	AGFD	229	Liu, W.	POLY	662	Lo, M.M.	MEDI	134
Liu, J.	ANYL	142	Liu, W.	AGFD	149	Lo, W.	ENVR	366
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Lobo, R.F.	ENVR	131	Long, T.E.	POLY	510	Lovaasen, B.M.	CHED	246
Lobo, S.	PMSE	83	Long, T.E.	POLY	518	Lovaasen, B.M.	INOR	289
Locascio, L.	ANYL	300	Long, T.E.	POLY	522	Lovat, G.	INOR	512
Lochmaier, E.	POLY	221	Long, T.E.	POLY	674	Lovat, G.	INOR	873
Lockard, J.V.	INOR	403	Long, T.E.	POLY	708	Lovat, G.	INOR	874
Locke, A.K.	PMSE	566	Long, T.E.	POLY	744	Love, D.	POLY	372
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Locke, G.A.	MEDI	73	Long, T.E.	POLY	774	Love, P.	PHYS	314
Lockett, M.R.	ANYL	394	Long, T.E.	POLY	776	Lovelidge, J.	MEDI	253
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Lodge, T.P.	PMSE	317	Longenberger, T.B.	CHED	366	Loverde, S.	COMP	245
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Lohith, K.	MEDI	309	Lopez, J.	POLY	296	Low, C.	MEDI	277
Lohith, K.	ORGN	400	Lopez, M.	CHED	179	Low, J.	COLL	272
Lohmann, D.	POLY	675	Lopez, M.	CHED	187	Low, J.	ORGN	687
Lohmann, R.	AEI	33	Lopez, M.	ENFL	124	Low, W.	COLL	434
Lohmann, R.	ENVR	275	Lopez, R.	I&EC	35	Lowden, G.	ANYL	140
Lohne, J.	AGRO	48	Lopez, S.	MEDI	250	Lowe, D.M.	CINF	9
Loianno, V.	PMSE	665	Lopez, S.A.	ENVR	318	Lowe, D.M.	CINF	13
Lokitz, B.S.	POLY	744	Lopez Garriga, J.	BIOL	150	Lowe, D.M.	CINF	17
Lo Leggio, L.	INOR	583	López Hernández, J.E.	CHED	277	Lowe, D.M.	CINF	90
Lolur, P.	ENFL	399	Lopez-Sanchez, J.A.	CATL	51	Lowe, D.M.	CINF	136
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Lomax, S.Q.	ANYL	256	Loraine, G.A.	ENVR	213	Lowenthal, M.	ANYL	439
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Lombardo, L.	MEDI	269	Lord, R.M.	INOR	575	Loy, D.A.	POLY	306
Lomin, S.N.	BIOL	97	Lord, R.M.	INOR	830	Loy, J.	MEDI	365
Lommel, B.	NUCL	48	Lord, R.M.	MEDI	283	Lozano, V.	ENVR	437
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Lomnicki, S.M.	CELL	4	Loredo-Carrillo, S.	ORGN	624	L Raveendran, N.	CATL	233
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Londergan, C.H.	PHYS	428	Loria, P.M.	MEDI	63	Lu, A.	INOR	757
London, C.	MEDI	225	Lorraine, S.	CATL	331	Lu, A.	CATL	302
London, D.	AGRO	141	Lorsch, J.R.	CHED	18	Lu, C.	COLL	366
Londregan, A.T.	ORGN	229	Lorthiois, E.	MEDI	46	Lu, C.	INOR	690
Long, I.	POLY	679	Lörtscher, E.	PHYS	13	Lu, C.	INOR	729
Long, D.A.	ENFL	224	Lorzding, G.R.	INOR	754	Lu, C.	INOR	816
Long, J.K.	AGRO	386	Lorzding, G.R.	INOR	149	Lu, C.	INOR	820
Long, J.R.	INOR	925	Loschiavo, T.	CHED	30	Lu, D.	ENVR	495
Long, J.	PHYS	580	Loso, M.R.	ORGN	472	Lu, D.	CATL	90
Long, J.M.	ENFL	197	Losovyj, Y.	COLL	231	Lu, F.	ENFL	318
Long, J.M.	ENFL	198	Losovyj, Y.	ENFL	295	Lu, G.	PMSE	653
Long, M.	INOR	904	Lott, J.	POLY	469	Lu, G.	POLY	303
Long, M.	ENVR	541	Lott, L.	ANYL	147	Lu, G.	ENFL	150
Long, M.	ENVR	558	Lotti, C.	AGFD	4	Lu, G.	CATL	62
Long, S.	AGRO	184	Lotz, S.	COMP	108	Lu, G.	CATL	114
Long, T.E.	PMSE	6	Lou, J.	PMSE	43	Lu, G.	CATL	336
Long, T.E.	PMSE	55	Lou, J.	PMSE	326	Lu, G.	CATL	403
Long, T.E.	PMSE	218	Lou, R.	CATL	54	Lu, G.	PHYS	400
Long, T.E.	PMSE	219	Lou, X.	ENFL	338	Lu, H.	COLL	171
Long, T.E.	PMSE	293	Lou, Y.	CATL	114	Lu, H.	PMSE	437
Long, T.E.	PMSE	435	Lou, Z.	MEDI	308	Lu, H.	POLY	125
Long, T.E.	PMSE	480	Loubeau, M.	MEDI	269	Lu, H.	PMSE	20
Long, T.E.	PMSE	579	Louda, J.	ANYL	79	Lu, J.	MEDI	323
Long, T.E.	PMSE	659	Loughney, D.A.	MPPG	17	Lu, J.	ORGN	9
Long, T.E.	POLY	54	Loughrin, J.H.	AGRO	89	Lu, J.	ENFL	231
Long, T.E.	POLY	175	Louie, S.M.	ENVR	493	Lu, J.	ENFL	234
Long, T.E.	POLY	315	Louie, S.G.	PHYS	23	Lu, J.	ENFL	330
Long, T.E.	POLY	365	Louie, S.G.	PHYS	72	Lu, J.	ENFL	479
Long, T.E.	POLY	433	Louis, J.	PHYS	288	Lu, J.	MEDI	89
Long, T.E.	POLY	442	Lounsbury, A.W.	ENVR	217	Lu, J.	MEDI	90

Lu, K.	INOR	368	Lumetta, G.J.	I&EC	7	Lutterman, D.A.	ENFL	173
Lu, L.	ANYL	103	Lumetta, G.J.	I&EC	8	Lutterman, D.A.	ENFL	179
Lu, M.	ORGN	184	Lun, S.	MEDI	41	Lutz, D.	CATL	250
Lu, P.	PHYS	188	Luna-Vital, D.	AGFD	219	Lutz, J.	POLY	421
Lu, Q.	PHYS	87	Lunchick, C.	AGRO	234	Luu, B.T.	BIOL	81
Lu, S.	NUCL	3	Lundberg, K.	ENFL	120	Luxenhofer, R.	COLL	314
Lu, W.	COMP	196	Lundberg, M.	INOR	87	Luxford, C.J.	CHED	72
Lu, W.	INOR	287	Lundegaard, L.F.	CATL	259	Luxton, T.	GEOC	17
Lu, W.	INOR	394	Lundgren, C.	INOR	245	Luzar, A.	PHYS	68
Lu, W.	ENVR	492	Lundgren, C.	INOR	473	Luzar, A.	PHYS	528
Lu, W.	AGFD	184	Lundgren, C.	PHYS	463	Luzi, N.	BIOL	74
Lu, W.	AGFD	227	Lundgren, E.	COLL	418	Luzinov, I.A.	PMSE	408
Lu, W.	MEDI	102	Lundgren, R.	ORGN	500	Luzinov, I.A.	PMSE	530
Lu, X.	PHYS	361	Lundgren, S.	BIOL	27	Luzinov, I.A.	POLY	450
Lu, X.	ORGN	48	Lundin, J.	COLL	141	Lv, H.	CATL	29
Lu, X.	PMSE	631	Lundin, J.	INOR	138	Lv, J.	ENVR	74
Lu, X.	AGFD	155	Lundin, J.	PMSE	405	Lv, L.	AGFD	115
Lu, X.	AGFD	158	Lundin, J.	POLY	459	Lv, L.	AGFD	116
Lu, X.	ORGN	508	Lundin, V.	ANYL	55	Lv, L.	AGFD	119
Lu, X.	CATL	1	Lundsteen, N.	CINF	52	Ly, J.T.	ORGN	223
Lu, X.	CATL	47	Luneau, M.	CATL	367	Ly, J.T.	POLY	734
Lu, X.	ORGN	313	Luning Prak, D.J.	ENFL	251	Ly, P.	PHYS	252
Lu, Y.	COLL	583	Lunn, D.	POLY	233	Lye, D.	PMSE	128
Lu, Y.	POLY	406	Luo, Y.	I&EC	29	Lyle, S.M.	CHED	204
Lu, Y.	AGFD	273	Luo, Y.	PMSE	592	Lynch, C.	BIOL	69
Lu, Y.	COLL	70	Luo, Y.	POLY	129	Lynch, D.	ENVR	308
Lu, Y.	INOR	363	Luo, Y.	POLY	435	Lynch, D.	ENVR	351
Lu, Y.	INOR	385	Luo, B.	ENVR	553	Lynch, D.	TOXI	9
Lu, Y.	ANYL	240	Luo, B.	ENVR	556	Lynch, D.	TOXI	10
Lu, Z.	POLY	378	Luo, C.	ANYL	296	Lynch, D.L.	PHYS	591
Lu, Z.	CATL	215	Luo, D.	COLL	425	Lynch, J.	ORGN	388
Lu, Z.	MEDI	169	Luo, D.	POLY	390	Lynch, K.	MEDI	200
Lu, Z.	ORGN	368	Luo, F.	ORGN	408	Lynch, K.R.	MEDI	201
Luan, X.	CATL	208	Luo, G.	ORGN	429	Lynch, M.	COLL	57
Luan, Y.	CATL	487	Luo, G.	YCC	3	Lynd, N.A.	PMSE	478
Lubner, C.	CATL	224	Luo, H.	CARB	99	Lynd, N.A.	POLY	101
Luc, W.	ENFL	289	Luo, H.	INOR	134	Lynd, N.A.	POLY	294
Lucas, E.	CHED	74	Luo, H.	INOR	901	Lynd, N.A.	POLY	602
Lucas, E.	ORGN	363	Luo, H.	I&EC	5	Lyne, P.	MEDI	23
Lucas, H.R.	INOR	142	Luo, H.	AGFD	262	Lynn, K.	AGRO	40
Lucas, H.R.	INOR	166	Luo, H.	AGFD	268	Lynn, K.	AGRO	133
Lucas, H.R.	INOR	417	Luo, J.	INOR	824	Lynn, K.	AGRO	194
Lucas, H.R.	INOR	794	Luo, J.	CATL	302	Lynn, K.	CINF	141
Lucas, H.R.	INOR	868	Luo, J.	INOR	655	Lynn, K.	ANYL	9
Lucasti, C.	ENFL	255	Luo, J.	INOR	837	Lyons, A.	ORGN	180
Lucci, F.R.	YCC	22	Luo, J.	CATL	244	Lyskawa, J.	PMSE	570
Luce, T.	GEOC	9	Luo, J.	ENFL	301	Lyte, M.	AGFD	17
Lucero, A.	ENFL	140	Luo, K.	ANYL	152	Lytle, T.K.	PMSE	536
Lucero, G.A.	COMP	211	Luo, L.	ENFL	84	Lyu, L.	ENVR	495
Luchko, T.	COMP	38	Luo, L.	ENFL	240	Lyu, X.	PMSE	535
Lucht, B.L.	COLL	55	Luo, L.	ENFL	390	Lyu, Y.	AEI	1
Lucht, B.L.	PHYS	186	Luo, L.	ENVR	74	Lyu, Y.	AEI	19
Lucio, J.C.	ENFL	256	Luo, M.	BIOL	61	Lyu, Y.	COLL	351
Lucio-Vega, J.	ENFL	248	Luo, N.	CATL	3	Lyu, Y.	COMP	345
Lucius, M.	POLY	187	Luo, Q.	ENFL	147	Lyu, Z.	ENFL	193
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Luebke, D.	PMSE	112	Luo, Y.	COMP	75	M. Kharrat, A.	ENFL	472
Lueckheide, M.J.	PMSE	263	Luo, Y.	COLL	192	M. R., D.S.	ORGN	686
Luedtke, R.	MEDI	313	Luo, Y.	ORGN	674	Ma, B.	ENVR	201
Luehmann, H.	POLY	324	Luo, Y.	AGRO	94	Ma, B.	TOXI	38
Luetzgen, J.M.	MEDI	308	Luo, Y.	AGRO	158	Ma, B.	TOXI	39
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Lukasik, B.D.	CHED	244	Luppino, S.	POLY	284	Ma, D.	CATL	128
Lukasik, B.D.	INOR	538	Luque, R.	CATL	50	Ma, D.	ENFL	12
Lukens, J.	INOR	284	Luscombe, C.K.	PMSE	617	Ma, H.	INOR	746
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Lukkanasiri, M.	COLL	246	Luteran, E.M.	INOR	941	Ma, H.	AGFD	149
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Lum, W.	COLL	36	Lutkenhaus, J.L.	ENFL	65	Ma, J.	AGRO	83
Lum, W.	COLL	42	Lutkenhaus, J.L.	PMSE	265	Ma, J.	CATL	114
Lum, W.	COLL	152	Lutkenhaus, J.L.	PMSE	595	Ma, J.	ENVR	380
Lum, W.	COLL	447	Lutkenhaus, J.L.	POLY	612	Ma, J.	CATL	471
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Ma, L.	AGFD	208	Mackerell, A.D.	COMP	290	Maguire, R.J.	ORGN	9
Ma, L.	PMSE	284	Mackerell, A.D.	COMP	292	Maguire, R.	ORGN	625
Ma, M.	ENVR	392	Mackerell, A.D.	COMP	312	Magurudeniya, H.D.	INOR	772
Ma, M.	ENVR	398	MacKerell, A.	ORGN	597	Magzoub, M.I.	COLL	197
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Ma, M.	AGRO	194	Mackey, A.	AGFD	213	Mahadevan, K.	COLL	616
Ma, Q.	AGRO	83	Mackie, C.	PHYS	4	Mahala, B.D.	COMP	204
Ma, Q.	AGRO	337	Mackie, C.	PHYS	105	Mahanta, N.	BIOL	121
Ma, Q.	COLL	460	Mackie, D.	ENFL	157	Mahanthappa, M.K.	COLL	20
Ma, R.S.	ORGN	575	Mackie, D.M.	ENVR	254	Mahara, A.	PMSE	564
Ma, R.	PMSE	530	Mackman, R.L.	MEDI	237	Mahato, R.	POLY	235
Ma, S.	I&E	12	Maclachlan, J.L.	ANYL	379	Maher, M.J.	POLY	375
Ma, S.	INOR	70	Maclachlan, J.L.	SCHB	7	Mahim, A.	INOR	152
Ma, S.	ENVR	377	Maclachlan, J.L.	SCHB	14	Mahjouri-Samani, M.	ENFL	361
Ma, S.	PHYS	235	Maclachlan, J.L.	SCHB	15	Mahmood, S.	ENFL	192
Ma, T.	ENVR	73	Maclean, J.	MEDI	131	Mahmood, S.	ENVR	474
Ma, W.	ORGN	575	Maclean, J.	MEDI	225	Mahmoud, M.	ENVR	255
Ma, X.	CATL	6	MacLeod, C.	MEDI	22	Mahon, C.S.	PMSE	242
Ma, X.	CATL	454	MacLeod, C.	MEDI	103	Mahon, M.	INOR	730
Ma, X.	ENFL	41	MacMahon, S.	AGFD	207	Mahoney, C.	POLY	394
Ma, X.	ENVR	168	MacMillan, D.W.	CATL	140	Mahroof-Tahir, M.	INOR	483
Ma, Y.	ENFL	38	MacMillan, D.W.	ORGN	240	Mahurin, S.M.	COLL	174
Ma, Y.	PHYS	552	MacMillan, D.W.	ORGN	366	Mahurin, S.M.	ENFL	45
Ma, Y.	CATL	43	MacMillan, D.W.	ORGN	636	Mahurin, S.M.	ENVR	494
Ma, Y.	AGFD	264	MacMillan, S.N.	CATL	139	Mahurin, S.M.	POLY	447
Ma, Y.	INOR	335	Macor, J.	MEDI	358	Mai, D.J.	PMSE	272
Ma, Z.	MEDI	33	Mac Sweeney, A.	MEDI	46	Mai, D.J.	PMSE	33
Ma, Z.	MEDI	352	Macwan, I.	COLL	253	Mai, J.	INOR	804
Ma, X.	MEDI	225	Macwan, I.G.	COMP	255	Mai, L.	ENFL	119
Maag, A.	ENVR	93	Madadlou, A.	COLL	159	Mai, L.	ENFL	483
Maan, A.	NUCL	8	Madariaga-Mazon, A.	CINF	80	Mai, X.	ENVR	149
Maaskant, R.	ORGN	84	Madden, J.	CINF	42	Maia de Oliveira, H.	ENVR	384
Mabanglo, M.F.	PHYS	43	Maddi, B.	CATL	455	Maibaum, J.K.	MEDI	46
Mabrouk, P.A.	CHED	12	Mader, E.A.	INOR	389	Maicaneanu, S.A.	ENVR	381
Mabry, J.M.	PMSE	608	Maderuelo Corral, S.	MEDI	282	Maier, G.	CHED	181
Mabry, J.M.	POLY	217	Madgula, K.	PMSE	477	Maier, J.	PHYS	352
Mabry, J.M.	POLY	521	Madhavara, C.	ANYL	187	Maier, R.	INOR	775
Macbeth, M.	CHED	162	Madhavara, C.	BIOL	125	Mailen, R.	POLY	727
MacCleoud, H.	CHED	396	Madhavi, K.	CHED	376	Maillard, R.A.	BIOL	180
MacCusprie, R.I.	ENVR	113	Madhavi, K.	PMSE	536	Maillard, R.A.	BIOL	184
MacDermaid, C.M.	PMSE	586	Madhaya, J.	CATL	367	Mailloux, B.J.	ENVR	284
Macdonald, J.	AEI	46	Madix, R.J.	COLL	416	Mailloux, B.J.	ENVR	285
Macdonald, J.	COLL	186	Madl, C.	PMSE	251	Mainardi, D.	CATL	117
Macdonald, J.	INOR	711	Madrahimov, S.	INOR	48	Mainz, V.V.	HIST	29
Macdonald, J.	INOR	842	Madrahimov, S.T.	INOR	148	Maiorana, A.	POLY	333
MacDonald, M.G.	ANYL	60	Madrid, P.	MEDI	197	Maiorana, A.	POLY	559
Macdougall, L.J.	PMSE	42	Madsen, J.	AGRO	160	Maire-Afeli, H.C.	CHED	63
Macdougall, L.J.	PMSE	400	Madsen, L.A.	COLL	406	Maire-Afeli, H.C.	CHED	395
Macdougall, L.J.	PMSE	640	Madsen, L.A.	POLY	664	Maison, W.	ORGN	464
MacEdo, J.L.	CATL	330	Madsen, L.A.	POLY	744	Maiti, A.	PMSE	332
MacEwan, S.	PMSE	516	Madson, M.A.	CARB	56	Maiti, D.	ENFL	28
Macfarlane, R.	COLL	17	Mady, N.H.	AGFD	100	Maiti, S.K.	ENVR	132
Macfarlane, R.	INOR	787	Madzhidov, T.I.	CINF	9	Maiti, M.	NUCL	48
MacFarlane, L.	POLY	342	Maeda, H.	POLY	569	Maity, A.	ORGN	668
Machado, C.	COLL	13	Maeda, M.	COLL	485	Maity, A.	INOR	397
Machado, C.	ENVR	189	Maejima, S.	ORGN	595	Maity, D.	CATL	385
Machan, C.W.	INOR	906	Maestro, A.	COLL	388	Maity, S.	ORGN	270
Machhi, J.	MEDI	353	Maeyer, J.	CHED	68	Majer, P.	MEDI	318
Machireddy, B.	COMP	351	Maffeo, C.	COMP	343	Majeste, C.	ORGN	52
Machonkin, T.E.	INOR	26	Mafi, A.	PMSE	37	Majeswski, M.	MEDI	101
Maciá, B.	ORGN	281	Mafra, L.	AGRO	240	Major, D.T.	ENFL	72
Macieja, A.	MEDI	317	Mafra Neto, A.	AGRO	240	Major, D.T.	PHYS	146
Macielag, M.J.	MEDI	37	Magaletta, R.L.	AGFD	213	Major, D.	ENVR	326
MacInnes, M.M.	INOR	172	Magano, J.	ORGN	143	Major, R.	CHED	104
Maciulis, N.	INOR	676	Magbitang, T.	PMSE	118	Majumdar, A.	BIOL	58
Maciulis, N.A.	INOR	344	Magee, T.V.	MEDI	258	Majumdar, A.	BIOL	94
Maciulis, N.A.	COLL	188	Mageid, A.	ENVR	2	Majumdar, L.	PHYS	104
Mack, J.	ORGN	112	Magenau, A.J.	PMSE	513	Majumdar, S.	PMSE	462
Mack, S.	POLY	393	Magenau, A.J.	POLY	9	Majumdar, S.	CHED	164
Mack, J.P.	MEDI	176	Magenau, A.J.	POLY	430	Majumdar, S.	CHED	165
MacKellar, J.	CHED	358	Magidson, L.	PHYS	236	Majumdar, S.	CHED	173
Mackerell, A.D.	CARB	88	Magistrato, A.	CATL	373	Majumdar, S.	CHED	201

Majumdar, S.	CHED	202	Manas-Zloczower, I.	PMSE	13	Manto, M.	ENVR	448
Majumder, P.	PMSE	401	Manas-Zloczower, I.	PMSE	156	Manzini, M.	ANYL	438
Mak, A.M.	CATL	486	Manas-Zloczower, I.	PMSE	324	Mao, Z.	PMSE	563
Mak, J.Y.	ORGN	212	Manas-Zloczower, I.	POLY	449	Mao, B.	ANYL	165
Makal, T.A.	INOR	887	Manas-Zloczower, I.	POLY	560	Mao, B.	ANYL	268
Makaroff, K.	POLY	187	Manas-Zloczower, I.	POLY	562	Mao, B.	ENFL	186
Makarov, D.E.	POLY	28	Manas-Zloczower, I.	POLY	563	Mao, D.	AGRO	257
Makarychev, K.	I&EC	35	Manca, G.	PHYS	362	Mao, H.	POLY	149
Makeneni, S.	CARB	79	Mance, D.	ENFL	446	Mao, J.	PMSE	592
Makepeace, J.	CATL	276	Manchanayakage, R.N.	ORGN	329	Mao, J.	PMSE	478
Makepeace, J.	ENFL	17	Manchineela, S.	MEDI	95	Mao, L.	COLL	144
Makepeace, J.	ENFL	18	Mancin, F.	COMP	143	Mao, L.	TOXI	90
Makins, C.	BIOL	96	Mancinelli, C.D.	PMSE	434	Mao, M.	AGRO	147
Makki, S.	ENVR	368	Mancuso, A.	PMSE	402	Mao, X.	INOR	269
Makler, G.	ENVR	498	Mandadapu, S.	MEDI	309	Mao, Y.	ENVR	174
Makowski, L.	PHYS	474	Mandadapu, S.	BIOL	114	Mao, Z.	CATL	25
Makriyannis, A.	MEDI	4	Mandal, D.	PHYS	109	Mapa, M.	BIOL	64
Mal, S.	INOR	524	Mandal, J.	POLY	557	Mapelli, C.	MEDI	269
Malaisamy, R.	CHAS	28	Mandal, S.K.	INOR	576	Mapes, K.B.	ORGN	137
Malakar, P.	COMP	119	Mandal, S.K.	INOR	579	Maragh, P.T.	CATL	331
Malakar, S.	INOR	202	Mandal, S.K.	INOR	580	Maragh, P.T.	INOR	150
Malalasekera, A.P.	COLL	147	Mandava, G.	CINF	60	Maragh, P.T.	INOR	966
Malalasekera, A.P.	INOR	836	Mandel, R.M.	COLL	285	Marangon, M.	AGFD	25
Malanoski, A.	ENVR	561	Mane, S.R.	POLY	420	Maraschky, A.	COLL	256
Malbrecht, B.	AEI	45	Manek, E.	AGRO	56	Marashi, N.H.	CHED	304
Malchione, N.	COLL	159	Manes, T.	CATL	270	Marassi, F.	PHYS	338
Malchow, T.	ANYL	441	Mangion, I.K.	ANYL	139	Marathe, P.	MEDI	30
Malcolmson, S.	ORGN	312	Mangold, M.	ANYL	9	Marathey, P.	ENFL	207
Maldarelli, C.	COLL	130	Mangubat, A.E.	ORGN	160	Maravelias, C.	ENVR	89
Maldarelli, C.	COLL	345	Manitchotipist, P.	CARB	50	Marbella, L.E.	COLL	185
Maldonado, P.M.	AGRO	263	Mankad, N.P.	INOR	380	Marbella, L.E.	COLL	213
Maldonado, S.	INOR	172	Manke, D.R.	INOR	50	Marbella, L.E.	COLL	557
Maldonado-Ortiz, J.	ENVR	538	Manke, D.R.	INOR	126	Marbella, L.E.	ENFL	428
Malecha, K.T.	ENVR	191	Manker, L.	CATL	7	March, J.	CHED	341
Malek, L.	CELL	11	Mankhand, T.R.	I&EC	61	Marchais-Oberwinkler, S.	MEDI	231
Malekani, K.	AGRO	337	Mankoci, S.	POLY	302	Marchionda, K.E.	ENVR	113
Maleki, H.	ANYL	20	Mann, E.	COLL	347	Marchione, A.A.	ANYL	163
Malen, J.	INOR	58	Mann, J.A.	POLY	743	Marchioretto, M.	ORGN	79
Maley, C.	CHED	258	Mann, J.	ENVR	256	Marciel, A.	PMSE	263
Malfatti, F.	ENVR	532	Mann, M.K.	CHED	143	Marciel, A.	POLY	346
Malfatti, M.A.	TOXI	108	Mann, S.J.	CATL	265	Marcinkeviciene, J.	MEDI	77
Malhotra, D.	ENFL	136	Mann, T.H.	COLL	20	Marcotte, A.R.	ANYL	21
Malhotra, D.	ENFL	137	Mann, Z.E.	ENFL	45	Marcotte, A.R.	ANYL	348
Malhotra, D.	ENFL	139	Manna, D.	INOR	742	Marcotte, N.	POLY	697
Malhotra, M.	COLL	34	Manna, S.	ANYL	184	Marcu, J.	AGRO	210
Malik, C.	TOXI	15	Manna, S.	ANYL	185	Marcu, J.	CHAS	9
Malik, G.	ORGN	274	Manners, I.	ANYL	212	Marcum, J.	ORGN	494
Malipatel, S.	ORGN	517	Manners, I.	POLY	342	Marder, S.R.	COLL	297
Malkin, E.	NUCL	9	Manners, I.	POLY	636	Marder, S.R.	PMSE	610
Malko, A.	INOR	480	Manning, J.R.	MEDI	267	Marek, I.	ORGN	115
Malkov, A.V.	ORGN	351	Manning, K.	PMSE	128	Marek, R.F.	ENVR	280
Mallagaray, A.	CARB	72	Manning, K.	POLY	567	Maresca, M.	POLY	310
Mallajosyula, S.S.	CARB	88	Manning, M.	AGRO	235	Margaretta, E.	PMSE	218
Mallam, G.	COLL	5	Manoharan, M.	COLL	433	Margraf, J.T.	AEI	25
Mallam, G.	COLL	597	Manoharan, V.	MEDI	17	Mariani, Z.	CHED	37
Malli, I.	MEDI	314	Manor, B.	I&EC	6	Maria Solano, M.	PHYS	335
Mallia, A.V.	COLL	408	Manor, B.	INOR	364	Marie, T.	CATL	444
Mallia, A.V.	PMSE	268	Manor, B.	INOR	398	Marimon Bolivar, W.	ENVR	122
Malliakas, C.	INOR	127	Manoury, E.	INOR	374	Marin, A.	PMSE	111
Malliakas, C.	INOR	918	Manoury, E.	POLY	412	Marin, A.	PMSE	169
Maimali, M.	ENFL	61	Manoury, E.	POLY	773	Marin, A.	PMSE	493
Malmstrom, E.E.	PMSE	41	Mansfield, E.	POLY	754	Marin, A.	PMSE	494
Malmstrom, E.E.	POLY	696	Mansfield, M.	PMSE	36	Marinas, B.J.	POLY	55
Malone-Povolny, M.	ANYL	149	Mansha, A.	PHYS	301	Marine, J.	POLY	536
Maloney, E.K.	MEDI	157	Mansley, T.	CINF	116	Marinescu, S.	INOR	279
Maloney, K.M.	INOR	948	Mansley, T.	MEDI	348	Marinescu, S.	INOR	405
Maloney, V.M.	CHED	76	Mansouri, K.	ANYL	435	Marinescu, S.	INOR	893
Malonzo, C.	INOR	820	Mansouri, K.	CINF	28	Marinopoulos, I.P.	COLL	387
Maltais, R.	MEDI	165	Mansouri, K.	CINF	101	Mark, M.	INOR	23
Maltby, L.	AGRO	407	Mansouri, K.	ENVR	546	Mark, M.	INOR	195
Maltsev, D.S.	INOR	639	Mansouri, K.	TOXI	100	Markey, K.	ENVR	355
Maltseva, E.	PHYS	4	Mantel, A.	PHYS	415	Markey, S.	ANYL	130
Malvoisin, M.	CHED	148	Mantell, M.	INOR	228	Markham, R.R.	INOR	158
Malyska, D.	INOR	694	Mantell, M.	INOR	853	Markley, J.L.	ORGN	659
Mamlouk, H.	INOR	48	Mantel, A.	ANYL	219	Markovic, B.	INOR	524
Man, T.	COLL	467	Manthey, J.A.	AGFD	90	Markovic, N.	CATL	29
Manandhar, A.	COMP	350	Manthiram, A.	ENFL	113	Markovic, N.	CATL	37
Manandhar, A.	PMSE	35	Manto, M.	CATL	286	Markovski, J.	ENVR	223
Manas, E.S.	MPPG	17	Manto, M.	ENVR	224	Markovski, J.	ENVR	247
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Marley, R.L.	INOR	724	Martin, S.	ENVR	164	Masson, E.	ORGN	703
Marlin, R.	CHED	64	Martin, T.	TOXI	36	Masson, J.	ANYL	400
Marmolejo-Valencia, A.F.	COMP	271	Martin, T.	MEDI	82	Massoud, T.	COLL	34
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Marmuse, L.	INOR	583	Martin, T.	TOXI	100	Mast, D.S.	NUCL	18
Marnett, L.J.	ANYL	18	Martin, T.	MEDI	34	Mastalerz, H.	MEDI	25
Marnett, L.J.	TOXI	7	Martin, T.	MEDI	35	Mastoridis, P.M.	MEDI	204
Marnett, L.J.	TOXI	38	Martin, T.B.	PMSE	151	Mastoridis, P.M.	ORGN	623
Marnett, L.J.	TOXI	73	Martin, W.	POLY	707	Mastracco, P.	PMSE	616
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Marohn, J.A.	ANYL	359	Martinez, A.	PMSE	169	Mastrocinque, F.	INOR	263
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Maroni, P.	POLY	207	Martinez, A.	ENVR	198	Masuko, A.	MEDI	125
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Marquardt, L.	PMSE	309	Martinez, J.S.	PMSE	306	Matasovic, B.	INOR	524
Marques, J.	POLY	623	Martinez, J.S.	PMSE	368	Matel, B.	COLL	408
Marques, M.S.	TOXI	81	Martinez, J.L.	INOR	262	Materese, C.K.	PHYS	543
Marques, M.S.	TOXI	101	Martinez, T.J.	POLY	214	Materna, K.	INOR	581
Marques, S.	PHYS	145	Martinez, Z.	INOR	136	Mates, J.E.	COLL	535
Marquez, M.D.	COLL	222	Martinez-Alsina, L.A.	ORGN	469	Matesic, D.	MEDI	305
Marquez, M.D.	COLL	223	Martinez Cuesta, S.	PHYS	89	Matheis, K.	AGFD	199
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Marquez-Miranda, V.	POLY	745	Martinez Mayorga, K.	CINF	80	Matherly, L.H.	MEDI	120
Marquez Valencia, R.	CATL	326	Martinez Mayorga, K.	COMP	271	Matherly, L.H.	MEDI	142
Marr, L.C.	ENVR	270	Martinez-Munoz, N.	ORGN	598	Matherly, L.H.	MEDI	150
Marrero, J.P.	BIOL	133	Martinez Ortega, B.A.	INOR	682	Mathers, R.T.	POLY	706
Marro, E.	INOR	801	Martinez Ortega, B.A.	INOR	683	Mathers, R.T.	POLY	768
Marro, E.	INOR	877	Martinez-Richa, A.	POLY	705	Mathes, M.	AGFD	5
Marro, M.	MEDI	77	Martinez-Richa, A.	ORGN	624	Mathes Lisabeth, E.	MEDI	61
Marsan, E.S.	INOR	160	Martinez-Tobon, D.I.	PHYS	466	Mathew, A.S.	POLY	145
Marschall, R.	INOR	524	Martin-Matute, B.	ORGN	260	Mathew, M.	BIOL	57
Marschilok, A.C.	AEI	53	Martino, P.A.	BIOL	45	Mathew, S.	POLY	307
Marschilok, A.C.	ENFL	165	Martinovic-Barrett, B.	AGRO	183	Mathews, S.	AGFD	242
Marschilok, A.C.	ENFL	166	Martins, A.F.	INOR	521	Mathis, J.	ANYL	285
Marschilok, A.C.	ENFL	482	Martins, I.L.	TOXI	101	Mathivanan, J.	ANYL	262
Marsden, S.	ORGN	362	Martins, J.C.	PMSE	356	Mathivathanan, L.	I&EC	21
Marsh, A.	ENVR	534	Martins, M.	I&EC	64	Mathivathanan, L.	NUCL	28
Marsh, E.G.	BIOL	83	Martinson, A.B.	INOR	68	Mathiyazhagan, U.	INOR	181
Marsh, E.G.	BIOL	96	Marton, A.	INOR	389	Mathonnat, M.	POLY	697
Marsh, K.	ENVR	426	Martos, P.	AGRO	50	Mathur, A.	MEDI	25
Marsh, M.L.	NUCL	52	Martyna, G.J.	PHYS	281	Mathur, A.	MEDI	269
Marsh, M.L.	NUCL	53	Marugan, J.J.	BIOL	20	Mathur, A.	MEDI	365
Marshall, A.G.	ENFL	267	Maruyama, B.	COLL	592	Mathuryia, A.	COMP	75
Marshall, C.	PHYS	594	Maruyama, R.	PMSE	403	Matich, E.	AGRO	345
Marshall, J.L.	HIST	21	Marx, O.	MEDI	328	Matioszek, D.	POLY	618
Marshall, M.D.	PHYS	249	Marzolf, D.	ENFL	354	Mato, J.	COMP	23
Marshall, M.D.	PHYS	484	Marzolf, D.	ENFL	356	Mato, Y.	POLY	473
Marshall, T.	COLL	247	Marzorati, M.	AGFD	49	Matolin, V.	CATL	161
Marshall, T.	INOR	271	Mas, E.	MEDI	274	Matranga, C.	CATL	11
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Marsico, R.M.	AGFD	73	Mascarenas, J.L.	ORGN	79	Matson, E.M.	INOR	702
Marsillo, A.E.	PMSE	402	Mascharak, P.	INOR	835	Matson, J.B.	PMSE	522
Martelo, L.	INOR	178	Mascharak, P.K.	INOR	834	Matson, J.B.	PMSE	603
Martin, B.	MEDI	61	Maschinot, C.	MEDI	65	Matson, J.B.	PMSE	638
Martin, B.D.	COLL	211	Masek, O.	ENVR	85	Matson, J.B.	POLY	161
Martin, C.R.	ANYL	343	Masel, R.	CATL	250	Matson, J.B.	POLY	763
Martin, C.R.	ANYL	370	Masellis, C.	PHYS	562	Matsubara, Y.	COMP	228
Martin, E.	ORGN	170	Maseras, F.	INOR	46	Matsuda, K.	AGRO	137
Martin, G.	ANYL	434	Mashuta, M.S.	INOR	894	Matsuda, Y.	ORGN	651
Martin, H.	PMSE	322	Masi, M.	AGRO	33	Matsui, J.K.	ORGN	47
Martin, J.D.	SCHB	18	Masiello, D.J.	COLL	381	Matsui, J.K.	ORGN	640
Martin, J.	CATL	318	Masingo, B.	INOR	223	Matsumoto, D.	BIOL	147
Martin, K.L.	POLY	729	Masitas, R.A.	ANYL	363	Matsumoto, H.	I&EC	30
Martin, K.	ORGN	628	Mason, C.F.	HIST	28	Matsumoto, M.	POLY	55
Martin, M.	INOR	961	Mason, C.	NUCL	77	Matsumoto, S.	ORGN	159
Martin, M.R.	AGRO	23	Mason, H.	PMSE	332	Matsumura, Y.	POLY	341
Martin, M.	ENVR	249	Mason, J.A.	INOR	705	Matsunaga, N.	COMP	194
Martin, N.	ENVR	97	Mason, K.	PHYS	367	Matsuoka, J.	ORGN	651
Martin, P.	PHYS	499	Mason, K.	PHYS	452	Matsuoka, S.	POLY	480
Martin, P.	COLL	145	Mason, T.G.	COLL	53	Matsuura, A.	COMP	201
Martin, R.W.	PHYS	380	Masood, A.M.	ANYL	181	Matsuzawa, K.	POLY	362
Martin, R.L.	INOR	523	Masoomi, A.	I&EC	62	Matta, L.	AGFD	276
Martin, R.	ANYL	93	Massari, A.M.	PHYS	476	Mattei, M.	CATL	322
Martin, S.E.	AEI	8	Masser, K.	PMSE	106	Mattei, M.	COLL	108

Mattei, M.	PHYS	323	May, J.W.	CINF	13	McClain, C.C.	POLY	748
Matter, A.	MEDI	17	May, J.W.	CINF	17	McClelland, B.	MEDI	111
Mattern, D.L.	ENVR	21	May, J.W.	CINF	18	McCloskey, B.D.	POLY	178
Mattern, D.L.	ENVR	70	May, J.W.	CINF	64	McClure, C.P.	PROF	5
Mattern, D.L.	ENVR	71	May, J.W.	CINF	90	McClure, J.P.	ENFL	85
Mattheisen, J.	CATL	448	May, W.E.	ANYL	301	McClure, J.P.	INOR	245
Mattheissen, R.A.	MEDI	162	May, W.E.	PROF	14	McClure, J.P.	INOR	473
Matthews, B.M.	ANYL	401	Mayama, H.	COLL	56	McClure, Z.D.	CATL	69
Matthews, F.J.	CHED	270	Mayer, B.	ENVR	212	Mc Clure, K.F.	MEDI	63
Matthews, M.	COMP	8	Mayer, J.M.	INOR	218	McCluskey, C.	ENVR	532
Matthiesen, J.	POLY	197	Mayer, J.M.	INOR	389	McCluskey, J.	ORGN	212
Mattivi, F.	AGFD	4	Mayer, J.M.	INOR	462	McCollom, S.	INOR	912
Mattivi, F.	AGFD	94	Mayer, J.M.	INOR	613	McConnell, K.D.	INOR	151
Mattson, R.J.	MEDI	358	Mayer, M.F.	ANYL	166	McConnell, L.L.	AGRO	14
Matula, A.	INOR	110	Mayner, T.S.	COLL	232	McConnell, L.L.	AGRO	218
Maturavongsadit, P.	COLL	196	Mayers, I.P.	ANYL	190	McConnell, L.L.	AGRO	357
Matus-Meza, A.	MEDI	346	Mayers, J.	INOR	822	McConnell, L.L.	IAC	6
Matuszczyck, H.	CINF	88	Mayers, J.	PHYS	465	McCoole, M.	AGRO	223
Matveeva, V.	ENFL	295	Mayes, M.L.	PHYS	448	McCord, J.	ENVR	46
Matviyuk, T.	CINF	29	Mayhall, N.	INOR	256	McCormick, A.	ENFL	61
Matyjaszewski, K.	COLL	52	Maynard, H.D.	PMSE	113	McCormick, A.	PMSE	222
Matyjaszewski, K.	COLL	425	Maynard, H.D.	PMSE	650	McCormick, B.	ANYL	284
Matyjaszewski, K.	PMSE	180	Maynard, H.D.	POLY	186	McCormick, C.L.	POLY	260
Matyjaszewski, K.	PMSE	491	Maynard, H.D.	POLY	278	McCormick, C.L.	POLY	429
Matyjaszewski, K.	POLY	1	Maynard, H.D.	WCC	3	McCormick, C.L.	POLY	469
Matyjaszewski, K.	POLY	5	Mayrhofer, K.	ENFL	350	McCormick, C.L.	POLY	689
Matyjaszewski, K.	POLY	184	Mays, J.W.	PMSE	322	McCormick, R.A.	CHED	81
Matyjaszewski, K.	POLY	378	Maza, W.A.	INOR	353	McCormick, R.A.	CHED	176
Matyjaszewski, K.	POLY	379	Maza, W.A.	INOR	749	McCormick, R.L.	ENFL	111
Matyjaszewski, K.	POLY	380	Maza, W.A.	INOR	802	McCorvy, J.D.	MEDI	143
Matyjaszewski, K.	POLY	381	Maza, W.	INOR	817	McCourt, M.	MEDI	340
Matyjaszewski, K.	POLY	382	Mazhab-Jafari, M.	PHYS	594	McCoy, A.B.	MPPG	24
Matyjaszewski, K.	POLY	383	Mazi, W.	ORGN	408	McCreary, A.	INOR	870
Matyjaszewski, K.	POLY	384	Mazumder, S.	CHED	263	McCrorry, C.C.	ENFL	435
Matyjaszewski, K.	POLY	385	Mazurek, S.	ANYL	253	McCrum, I.T.	PHYS	37
Matyjaszewski, K.	POLY	386	Mazzini, F.	PMSE	579	McCue, A.	COMP	14
Matyjaszewski, K.	POLY	387	Mazzini, F.	POLY	708	Mcculloch, W.D.	ENFL	241
Matyjaszewski, K.	POLY	388	Mazzocchi, T.	COLL	219	Mcculloch, W.D.	ENFL	432
Matyjaszewski, K.	POLY	389	Mazzola, E.P.	ANYL	130	Mc Cullough, A.	TOXI	93
Matyjaszewski, K.	POLY	390	Mazzone, G.	CHED	369	McCune, C.D.	ORGN	90
Matyjaszewski, K.	POLY	391	Mazzotta, M.G.	AEI	85	McCusker, J.K.	INOR	118
Matyjaszewski, K.	POLY	392	Mazzotta, M.G.	PMSE	404	McCusker, J.K.	ORGN	366
Matyjaszewski, K.	POLY	393	Mbaekwe, U.	CHED	189	McDaniel, R.	PMSE	513
Matyjaszewski, K.	POLY	394	Mbaekwe, U.	CHED	248	McDaniel, R.	POLY	430
Matyjaszewski, K.	POLY	395	Mboera, L.	AGRO	240	McDaniel, S.A.	INOR	914
Matyjaszewski, K.	POLY	431	McAfee, J.	ORGN	78	McDaniel, T.	INOR	10
Matyjaszewski, K.	POLY	465	McAlexander, H.	COMP	164	McDermott, K.J.	ENVR	203
Matyjaszewski, K.	POLY	492	McAllister, L.A.	MEDI	246	McDermott, M.T.	COLL	109
Matyjaszewski, K.	POLY	695	McAlpine, I.J.	ORGN	625	McDermott, M.	ANYL	180
Matyjaszewski, K.	POLY	766	McAnally, M.O.	COLL	51	McDermott, T.	PMSE	347
Matysiak-Brynda, E.	ANYL	48	McArthur, J.	MEDI	340	McDevitt, B.	GEOC	16
Mau, A.	POLY	773	McBrearty, J.	PRES	7	McDevitt, B.	GEOC	35
Mauck, J.R.	POLY	137	McBride, M.K.	PMSE	244	McDonagh, J.	COLL	21
Mauldin, S.K.	COMP	207	McBride, M.K.	POLY	652	McDonald, E.E.	PMSE	150
Mauldin, S.K.	TOXI	65	McCabe, E.E.	COLL	100	McDonald, L.	ORGN	88
Maulide, N.	ORGN	134	McCabe, P.	CINF	117	McDonald, L.	ORGN	89
Maulide, N.	ORGN	306	McCabe, S.R.	ORGN	255	McDonald, L.	ORGN	151
Maulide, N.	ORGN	568	McCaffrey, M.	POLY	606	McDonald, L.	ORGN	187
Maulide, N.	ORGN	652	McCamant, D.W.	INOR	23	McDonald, L.W.	NUCL	66
Maunz, C.	AEI	5	McCamant, D.W.	INOR	195	McDonald, L.W.	NUCL	68
Maurer, C.	MEDI	231	McCammon, J.	COMP	219	McDonald, L.W.	NUCL	70
Maurer, J.J.	AGRO	271	McCammon, J.	COMP	341	McDonald, L.W.	NUCL	79
Maurer, M.	ANYL	20	McCammon, J.	COMP	392	McDonald, T.	COLL	82
Maurer-Jones, M.A.	POLY	60	McCammon, J.	MEDI	84	McDonald, T.	COLL	145
Maust, M.	COLL	250	McCammon, J.A.	COMP	129	McDonald, W.	ENVR	212
Mauzeroll, J.	AEI	79	McCammon, J.	COMP	218	McDonnell, D.P.	MEDI	14
Maverakis, E.	PMSE	186	McCandless, G.T.	PMSE	342	McDonnell, M.P.	PHYS	454
Mavrandonakis, A.	INOR	68	McCardle, K.	INOR	674	McDonough, C.A.	AEI	33
Mavrodi, D.	POLY	707	McCarter, A.	ORGN	228	McDonough, C.A.	ENVR	275
Mavrodi, O.	POLY	707	McCarthy, B.D.	COLL	100	McDonough, M.	AGRO	360
Maxe, C.	AGFD	89	McCarthy, C.	SCHB	11	McEachern, D.	MEDI	156
Maximenko, N.	ENVR	429	McCarthy, C.	SCHB	15	McEachern, D.	MEDI	323
Máximo, G.	I&EC	64	McCarthy, P.A.	POLY	627	McEachran, A.D.	ANYL	21
Maxwell, G.M.	ANYL	190	McCarthy, P.	CARB	36	McEachran, A.D.	ANYL	347
Maxwell, R.S.	PMSE	332	McCarthy, P.C.	CARB	11	McEachran, A.D.	ANYL	348
May, A.	ORGN	657	McCarthy, T.J.	POLY	92	McEachran, A.D.	ANYL	435
May, A.W.	POLY	41	McCartney, S.	ENVR	357	McEachran, A.D.	CINF	28
May, E.R.	COMP	168	McCarty, G.	AGRO	78	McEachran, A.D.	CINF	93
May, J.	ORGN	499	McCaskill, A.	AGRO	291	McEachran, A.D.	CINF	121
May, J.W.	CHAS	35	McCauley, B.	ANYL	299	McEachran, A.D.	ENVR	206

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McEachran, A.D.	ENVR	548	McKnight, C.	COMP	288	Medintz, I.	AGFD	253
McElroy, N.R.	CHED	301	McLain, D.	NUCL	82	Medintz, I.	COLL	449
McElwee-White, L.	INOR	510	McLaughlin, A.	INOR	922	Medintz, I.	COLL	487
McElwee-White, L.	INOR	513	McLaughlin, E.C.	ORGN	155	Medintz, I.	COLL	562
McEnaney, J.M.	INOR	39	McLaughlin, E.C.	ORGN	635	Medlin, J.W.	ENFL	76
McEuen, P.	POLY	36	McLaughlin, M.	ENFL	251	Meegalla, S.K.	MEDI	34
McEwen, J.	CATL	21	McLaughlin, M.	ENVR	157	Meegalla, S.K.	MEDI	35
McEwen, J.	CATL	260	McLaughlin, S.P.	AGRO	337	Meehan, B.S.	ORGN	212
McEwen, J.	CATL	398	McLaughlin, S.P.	AGRO	360	Meek, G.A.	PHYS	598
McEwen, J.	ENFL	300	McLaurin, E.J.	COLL	158	Meek, K.	CATL	7
McFadden, A.	ENVR	314	McLaurin, E.J.	INOR	359	Meek, K.	POLY	292
McFadden, J.	AGRO	194	McLay, W.	CARB	44	Meenakshisundaram, V.	PMSE	55
McFarland, M.	AGFD	212	McLellan, R.	INOR	736	Meenakshisundaram, V.	PMSE	219
McFarland, M.	ANYL	176	McLendon, R.	ENFL	91	Meenakshisundaram, V.	POLY	175
McFarlane, T.	PMSE	606	McLeod, A.	PHYS	451	Meenakshisundaram, V.	POLY	315
McFarlane, T.	POLY	485	McLeod, D.	MPPG	15	Meenakshisundaram, V.	POLY	518
McGahee, E.	ANYL	102	McLeod, D.C.	POLY	261	Meenakshisundaram, V.	POLY	674
McGahee, E.	ANYL	175	McLucey, S.A.	PHYS	220	Meepagala, K.M.	AGRO	34
McGann, C.L.	PMSE	405	McMahen, R.L.	ENVR	46	Meerpoel, L.	MPPG	15
McGarry, K.A.	INOR	226	McMahen, R.L.	ENVR	206	Meese, M.J.	ORGN	558
McGarry, K.A.	ORGN	494	McMahon, J.B.	ORGN	26	Megaridis, C.	COLL	535
McGath, M.	POLY	446	McMaster, M.	POLY	333	Megaridis, C.	POLY	160
McGaughey, A.	INOR	58	McMaster, M.	POLY	512	Mehdad, A.	ENFL	169
McGaughey, K.	ENFL	270	McMaster, M.	POLY	701	Mehdi, L.	INOR	127
McGee, T.	COMP	265	McMaster, M.	POLY	700	Mehdizadegan Namin, L.	CATL	237
McGillicuddy, R.	ANYL	1	McMaster, S.	AGRO	120	Mehdizadegan Namin, L.	ENFL	209
McGillicuddy, R.	ANYL	144	McMasters, D.	MEDI	225	Mehendale, R.	SCHB	30
McGivney, E.	BIOL	162	McMillion, N.	INOR	940	Mehta, A.	CATL	379
McGlone, M.E.	CHED	184	McNab, D.C.	CHAL	13	Mehta, D.	AGFD	87
McGoldrick, L.K.	ANYL	70	McNair, F.	ENVR	492	Mehta, D.	CINF	43
McGoldrick, L.K.	ANYL	71	McNally, J.	PMSE	172	Mehta, P.	CATL	67
McGough, P.	COLL	4	Mcnamara, C.	BIOL	113	Mehta, P.	CATL	386
McGovern, M.	PMSE	317	McNamara, L.	ENFL	357	Mei, D.	CATL	245
McGovern, V.	CHED	23	McNamara, P.	ENVR	212	Mei, S.	POLY	552
McGowan, M.	INOR	156	McNamara, W.R.	CHED	237	Mei, S.	COLL	583
McGowan, P.	INOR	185	McNamara, W.R.	CHED	239	Mei, Z.	ANYL	323
McGowan, P.	INOR	830	McNamara, W.R.	CHED	240	Meidl, R.	CHAS	26
McGowan, P.	MEDI	283	McNamara, W.R.	INOR	17	Meier, D.E.	NUCL	67
McGrane, L.	CARB	13	McNamara, W.R.	INOR	273	Meier, F.	ANYL	156
McGrath, S.C.	ANYL	217	McNeil, A.J.	POLY	105	Meier, J.L.	BIOL	146
McGuffey, J.	ANYL	102	McNeill, C.R.	ENFL	94	Meier, J.L.	BIOL	178
McGuffey, J.	ANYL	175	McNeill, C.R.	POLY	734	Meier, J.L.	ORGN	35
McGuiggan, P.	POLY	446	McNeill, J.M.	ORGN	547	Meier, K.K.	INOR	799
McGuinness, F.	AGRO	293	McNeill, V.F.	ENVR	189	Meier, M.	POLY	628
McGuire, R.	ENFL	447	McPeak, K.	COLL	555	Meier, W.	COLL	314
McGuire, S.E.	CHED	329	McPhee, F.	MEDI	365	Meier, W.	POLY	428
McGurk, C.J.	PMSE	242	McQueen, T.	INOR	357	Meijer, E.W.	ORGN	504
McHugh, M.A.	ENFL	471	McQuilken, A.	INOR	422	Meijer, E.W.	ORGN	511
McInnes, Ph.D., C.	COMP	280	McTernan, C.T.	ORGN	534	Meijer, E.W.	PMSE	185
McInnis, D.	I&C	59	McTernan, C.T.	ORGN	538	Meira, L.	MEDI	274
McIntee, E.J.	CHED	319	McWherter, M.	MEDI	192	Meirer, F.	ENFL	446
McIntire, N.	CHED	262	McWilliams, J.C.	ORGN	9	Meisel, J.W.	AEI	9
McIntosh, C.	CATL	219	Meador, M.	POLY	316	Mejia Oneto, J.M.	MEDI	188
McIntyre, K.W.	MEDI	7	Meador, M.	POLY	520	Mekala, S.	POLY	333
Mckay, D.	COMP	106	Meador, M.	POLY	682	Mekala, S.	POLY	512
McKeague, M.	TOXI	49	Meador, M.A.	POLY	51	Mekala, S.	POLY	700
McKee, A.	CHED	390	Meagan Katie, S.	CHED	222	Mekala, S.	POLY	701
McKee, W.C.	PHYS	235	Mealli, C.	PHYS	362	Melaimi, M.	INOR	727
McKeithan, C.	INOR	822	Means, A.K.	PMSE	566	Melancon, K.	INOR	283
McKeithan, C.	PHYS	540	Means, N.	ENFL	127	Melancon, K.	PHYS	62
McKelvey, K.	ANYL	291	Meanwell, N.A.	MEDI	269	Melander, C.	ENVR	347
McKenna, A.M.	ENVR	121	Meanwell, N.A.	MEDI	365	Melander, C.	MEDI	331
McKenney, D.	MEDI	250	Meares, A.	ORGN	95	Melander, C.	ORGN	466
McKenzie, A.	MEDI	22	Meares, A.	PMSE	485	Melby, E.	COMP	346
McKenzie, B.E.	POLY	367	Mebel, A.M.	COMP	165	Melde, B.J.	COLL	211
McKenzie, E.R.	ENVR	498	Mebel, A.M.	I&C	21	Melde, B.J.	INOR	745
McKenzie, N.	AGRO	183	Mebi, C.A.	COMP	181	Meldrum, T.K.	ANYL	224
McKeown, B.A.	INOR	103	Mechelke, M.F.	CHED	262	Melendez, A.	BIOL	119
McKeown, B.A.	INOR	389	Meckes, B.	POLY	589	Melendez, J.	AGRO	79
McKeown, B.A.	INOR	737	Medders, G.R.	PHYS	277	Meleties, P.	CHED	212
McKeown, B.A.	INOR	849	Medhi, R.	INOR	664	Meleties, P.	CHED	213
McKerrall, S.	MEDI	76	Medhora, M.M.	COLL	98	Mellmer, M.	ENVR	87
McKerrall, S.	MEDI	252	Medina, J.	PMSE	650	Melman, A.	BIOL	152
McKibben, M.	PHYS	393	Medina, S.H.	PMSE	502	Melman, A.	ORGN	316
McKibben, M.	PHYS	500	Medina-Franco, J.L.	CINF	31	Meloni, G.	INOR	521
McKinley, G.H.	POLY	156	Medina-Franco, J.L.	CINF	137	Melton, O.	POLY	466
McKinney, K.A.	ENVR	192	Medina-Franco, J.L.	CINF	142	Melton, O.	POLY	732
McKinnon, M.E.	INOR	22	Medina-Franco, J.L.	COMP	176	Men, Y.	ENVR	515
McKinnon, M.E.	INOR	274	Medina Plaza, C.	AGFD	22	Menceloglu, Y.Z.	AGFD	132
McKinstry, K.	COLL	112	Medina Ramos, J.	CATL	383	Menceloglu, Y.Z.	POLY	57

Mencer, D.E.	CARB	46	Messick, K.	MEDI	103	Mihai, O.	CATL	397
Mencke, A.	CHED	300	Messier, C.	COMP	257	Mihaila, T.S.	BIOL	186
Mendelsohn, L.	INOR	261	Messina, M.	WCC	3	Mihaila, T.S.	CHED	172
Mendenhall, J.	COLL	193	Messinger, R.J.	ENFL	167	Mihailescu, E.	PHYS	578
Méndez, L.	ENVR	324	Messman, J.M.	POLY	516	Mihailescu, E.	PHYS	591
Méndez-Lucio, O.	CINF	142	Messmann, V.	PMSE	365	Mihaltan, D.	PMSE	514
Méndez-Sánchez, M.	ORGN	624	Metallo, S.J.	ORGN	323	Mihara, S.	MEDI	106
Mendoza-Cortez, J.L.	CATL	240	Metiu, H.	CATL	119	Mihara, Y.	MEDI	125
Mendoza-Garcia, A.	ENFL	206	Metiu, H.	PHYS	237	Mihovilovic, M.D.	MEDI	364
Mendoza-Mesa, J.A.	ENFL	444	Metwally, E.	COMP	266	Miju, J.	PMSE	406
Meng, J.	PMSE	582	Metwally, E.	MEDI	47	Mikael, P.	CARB	29
Meng, F.	INOR	369	Metzger, A.	POLY	153	Mikael, P.	PMSE	289
Meng, F.	PMSE	77	Metzger, A.	POLY	439	Mikan, E.	COLL	428
Meng, K.	ANYL	230	Metzger, E.	INOR	122	Mikhael, J.	BIOL	174
Meng, L.	ENFL	244	Metzger, E.D.	INOR	293	Mikhailov, S.N.	BIOL	97
Meng, L.	ENFL	480	Metzger, J.	MEDI	225	Mikhailov, S.N.	MEDI	186
Meng, L.	ENFL	485	Mews, A.	COLL	40	Miki, H.	COLL	466
Meng, P.	ENVR	509	Meyer, A.	PMSE	636	Mikochik, P.J.	ORGN	469
Meng, Q.	BIOL	139	Meyer, A.U.	COLL	608	Miksovskva, J.	BIOL	60
Meng, Q.	BIOL	140	Meyer, B.S.	TOXI	42	Milani, A.	ANYL	168
Meng, S.	CATL	431	Meyer, D.	I&EC	4	Milanovich, N.	PRES	3
Meng, X.	INOR	136	Meyer, F.	AEI	44	Milanovich, N.	SCHB	13
Meng, X.	INOR	159	Meyer, F.	AEI	51	Milanovich, N.	SCHB	15
Meng, X.	COMP	244	Meyer, F.	INOR	862	Miles, J.	AGFD	192
Meng, X.	POLY	331	Meyer, F.	INOR	962	Miletic, S.	ENVR	449
Meng, X.	PMSE	315	Meyer, J.L.	ORGN	137	Milgram, B.	MEDI	161
Meng, Y.	PMSE	545	Meyer, J.	MEDI	38	Miliani, C.	ANYL	259
Meng, Y.	INOR	918	Meyer, J.	MEDI	307	Milians, K.	AGRO	220
Meng, Z.	MEDI	358	Meyer, K.G.	AGRO	7	Milic, J.	ENVR	449
Mengel, S.	INOR	892	Meyer, K.G.	AGRO	135	Milikisiyants, S.	PHYS	383
Menges, S.	ANYL	373	Meyer, K.G.	AGRO	390	Millan, K.	PHYS	236
Menhaji-Klotz, E.	MEDI	63	Meyer, M.	HIST	9	Millan, K.	PHYS	532
Menot, B.	COMP	174	Meyer, P.	CATL	8	Millar, T.	PHYS	259
Mensitieri, G.	PMSE	665	Meyer, S.	POLY	606	Millard, C.B.	ANYL	131
Mente, S.	MEDI	246	Meyer, S.T.	AGRO	135	Miller, A.J.	CHAS	33
Mente, S.	MEDI	249	Meyer, S.E.	AGRO	33	Miller, A.J.	INOR	82
Menumerov, E.	INOR	684	Meyer, T.J.	INOR	181	Miller, A.J.	INOR	109
Menz, R.I.	AGFD	25	Meyers, C.L.	COLL	412	Miller, A.J.	INOR	214
Menzie, C.	AGRO	19	Meyers, C.L.	COLL	547	Miller, A.J.	INOR	215
Mequanint, K.	PMSE	166	Meyers, C.L.	ORGN	671	Miller, A.J.	INOR	217
Mera, A.E.	POLY	679	Meyers, D.	ORGN	671	Miller, A.J.	INOR	389
Mera, E.	CHED	147	Meyers, K.	POLY	770	Miller, A.J.	INOR	390
Mercado, B.Q.	INOR	110	Meyers, M.J.	MEDI	154	Miller, A.J.	INOR	396
Mercado, B.Q.	INOR	347	Meyet, C.	CHED	103	Miller, A.J.	INOR	423
Mercado, B.Q.	INOR	581	Meyet, C.	ORGN	360	Miller, A.J.	INOR	425
Mercado, B.Q.	INOR	679	Meza-Renken, Z.	CINF	24	Miller, A.J.	INOR	431
Mercado, B.Q.	INOR	680	Mezei, G.	INOR	491	Miller, A.J.	INOR	608
Mercado, R.	POLY	466	Mezei, G.	INOR	863	Miller, A.J.	INOR	609
Mercado, R.	POLY	732	Mezgebe, B.	ENVR	151	Miller, A.J.	INOR	612
Mercé, M.	COLL	390	Mezzenga, R.	PMSE	136	Miller, A.J.	INOR	928
Mercer, J.	POLY	214	Miao, S.	CHED	77	Miller, A.	INOR	156
Meredith, A.	AGRO	339	Miao, W.	TOXI	1	Miller, A.	INOR	861
Merenbloom, B.	MEDI	41	Miao, Y.	PHYS	385	Miller, A.	CHED	11
Meric, D.	ENVR	281	Miao, Z.	AGFD	176	Miller, A.F.	CATL	224
Merino, E.J.	TOXI	12	Michael, P.	PMSE	9	Miller, A.F.	PHYS	287
Merino, E.	MEDI	275	Michael, T.	ANYL	202	Miller, C.	CHED	88
Merino, G.	PHYS	11	Michalak, J.	POLY	695	Miller, C.	INOR	227
Merkler, D.J.	AGFD	58	Michalak, R.	I&EC	54	Miller, D.P.	PHYS	215
Merkler, D.J.	TOXI	42	Michalczyk, R.	PMSE	306	Miller, D.	CHED	136
Mermelstein, D.	COMP	128	Michaudel, Q.	PMSE	651	Miller, D.J.	AGRO	198
Merrill, L.	ENFL	69	Michaudel, Q.	POLY	759	Miller, D.R.	ANYL	263
Merte, L.R.	COLL	418	Micheau, C.	I&EC	14	Miller, D.	AGRO	370
Mertens, L.	ORGN	283	Michel, A.M.	AGRO	411	Miller, D.	CATL	104
Mertz, E.	PMSE	212	Michel, F.	ENVR	29	Miller, D.D.	MEDI	83
Merz, D.R.	COMP	246	Michel, F.	ENVR	476	Miller, E.	ENFL	259
Merz, K.M.	PHYS	263	Micheletti, R.	CHAL	15	Miller, E.	CHED	180
Merz, P.T.	COMP	384	Micheletti, R.	SCHB	6	Miller, E.	CHED	182
Mesaros, C.	TOXI	9	Micheletti, R.	SCHB	40	Miller, E.L.	ENVR	257
Mesaros, C.	TOXI	10	Michels, O.	ORGN	178	Miller, G.C.	AGRO	238
Mesaros, C.	TOXI	44	Michels, T.D.	ORGN	63	Miller, G.P.	TOXI	62
Mesaros, C.	TOXI	47	Michl, J.	PHYS	316	Miller, G.P.	TOXI	69
Mesaros, C.	TOXI	48	Micklistch, C.	PHYS	195	Miller, J.H.	ANYL	226
Mesaros, C.	TOXI	55	Middekadi, V.	MEDI	94	Miller, J.	INOR	122
Mesch, R.A.	POLY	362	Midtega, C.	AGRO	31	Miller, J.T.	CATL	210
Meschwitz, S.M.	AGFD	149	Midoux, P.	POLY	255	Miller, J.T.	CATL	243
Meshram, B.	MEDI	328	Miecznikowski, J.R.	CHED	235	Miller, J.T.	ENFL	73
Mesleh, M.	PHYS	593	Miecznikowski, J.R.	INOR	924	Miller, J.T.	ENFL	171
Messegee, Z.	ENFL	199	Miehl, M.	CHED	394	Miller, J.	COLL	299
Messenger, S.	PHYS	258	Mielnicki, L.	MEDI	340	Miller, J.R.	COLL	144
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Miller, J.	PMSE	255	Mirkin, C.A.	POLY	589	Mock, M.T.	INOR	233
Miller, K.	POLY	479	Miro, P.	CATL	414	Mock, M.T.	INOR	670
Miller, K.A.	CHAS	32	Mironenko, A.V.	CATL	442	Mocko, V.	NUCL	44
Miller, K.M.	PMSE	245	Misale, A.	ORGN	306	Moctezuma, E.	ENFL	124
Miller, K.M.	POLY	116	Miseo, S.	ENFL	31	Modan, M.M.	ORGN	441
Miller, M.	CHED	143	Miseo, S.	INOR	392	Modzelewski, T.	PMSE	170
Miller, M.L.	CHED	340	Mishra, S.	ENFL	201	Moeller, J.	PMSE	510
Miller, M.	MEDI	269	Mishra, S.	CATL	201	Moeller, K.D.	ORGN	332
Miller, M.L.	MEDI	157	Miskin, M.	POLY	36	Moeller, K.	INOR	131
Miller, M.	CINF	111	Mislankar, S.	AGRO	337	Moerner, W.E.	AEI	73
Miller, O.	COLL	603	Misra, T.K.	COLL	72	Moffet, R.C.	ENVR	550
Miller, R.	MEDI	358	Mistry, A.	COLL	286	Moglianetti, M.	COLL	107
Miller, R.D.	PMSE	45	Mistry, A.	NUCL	48	Moh, L.	ENFL	455
Miller, R.D.	PMSE	223	Mitchell, A.	ENVR	341	Moh, L.	POLY	44
Miller, S.A.	ANYL	136	Mitchell, A.E.	AGFD	156	Mohadjer Beromi, M.D.	INOR	852
Miller, S.J.	CATL	135	Mitchell, D.	PMSE	644	Mohamed, A.	INOR	621
Miller, S.E.	PMSE	254	Mitchell, D.A.	BIOL	121	Mohamed, A.	INOR	669
Miller, T.F.	COMP	199	Mitchell, H.	MEDI	192	Mohamed, A.	INOR	773
Miller, T.F.	COMP	232	Mitchell, N.	AGRO	401	Mohamed, A.	POLY	465
Miller, V.L.	CHED	54	Mitchell, S.B.	CHED	2	Mohamed, I.	INOR	773
Millet, M.	ENVR	242	Mitchell, S.B.	CHED	28	Mohamed, M.A.	PMSE	479
Milligan, K.	ANYL	147	Mitchell, V.D.	ENFL	54	Mohamed Ansar, M.	ANYL	183
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Millman, A.	AGFD	40	Mitlin, D.	ENFL	148	Mohammad, N.	CATL	117
Mills, B.	POLY	654	Mitlin, D.	ENFL	376	Mohammadi, E.	ORGN	59
Mills, C.L.	BIOL	182	Mitlin, D.	PHYS	233	Mohammed, O.F.	COLL	490
Mills, D.	ORGN	233	Mitra, J.	AEI	40	Mohammed, O.F.	COLL	600
Mills, J.	PMSE	216	Mitra, K.	MEDI	134	Mohanty, D.K.	ORGN	402
Mills, J.	BIOL	113	Mitra, K.	TOXI	102	Mohanty, S.K.	ENVR	27
Mills, M.R.	INOR	864	Mitra, P.	PHYS	431	Mohapatra, P.P.	ORGN	181
Millstone, J.	COLL	185	Mitrano, D.	BIOL	104	Mohapatra, P.P.	ORGN	182
Millstone, J.	COLL	195	Mitrofanov, A.	CINF	131	Moharamzadeh, K.	ENVR	97
Millstone, J.	COLL	213	Mitrofanov, A.	COMP	302	Mohd Aris, Z.	POLY	330
Millstone, J.	COLL	375	Mitsuhashi, R.	INOR	389	Mohebfifar, M.	COMP	308
Millstone, J.	COLL	401	Mittal, N.	INOR	376	Mohen, J.	COMP	243
Millstone, J.	COLL	557	Miura, R.	ANYL	319	Mohler, R.E.	ANYL	330
Milne, K.	CHED	222	Miura, Y.	ANYL	155	Mohr, S.	COMP	51
Milne, J.	MPPG	23	Miura, Y.	COLL	618	Mohtadi, R.	CATL	227
Milorey, B.	INOR	694	Miura, Y.	I&EC	30	Moini, S.H.	ANYL	190
Milosavljevic, B.H.	PHYS	493	Miyabayashi, K.	CATL	38	Mojica, E.E.	CHED	122
Milosavljevic, B.H.	PHYS	499	Miyagawa, M.	MEDI	265	Mok, M.	PMSE	277
Milsmann, C.	INOR	182	Miyagawa, T.	COLL	577	Mokry, C.	NUCL	48
Milsmann, C.	INOR	346	Miyajima, D.	POLY	573	Mokude, D.	PMSE	407
Milsmann, C.	INOR	556	Miyake, G.	POLY	46	Molander, G.A.	ORGN	47
Milsmann, C.	ORGN	424	Miyake, G.	POLY	691	Molander, G.A.	ORGN	325
Milstead, A.	AGFD	59	Miyake, H.	POLY	339	Molander, G.A.	ORGN	364
Mima, M.	MEDI	125	Miyake, M.	CATL	38	Molander, G.A.	ORGN	492
Min, B.	CELL	7	Miyamae, T.	POLY	441	Molander, G.A.	ORGN	637
Min, W.	PHYS	49	Miyamoto, N.	COLL	249	Molander, G.A.	ORGN	640
Min, W.	PHYS	576	Miyanji, E.	PMSE	482	Molander, G.A.	ORGN	641
Minard, C.	ORGN	53	Miyashita, K.	AGFD	218	Molander, G.A.	ORGN	643
Minasian, S.G.	INOR	519	Mizrahi, V.	MEDI	163	Molchanov, V.	COLL	26
Minasian, S.G.	INOR	523	Mizuno, A.	ORGN	164	Moldovan, G.	TOXI	97
Minasov, G.	MEDI	271	Mizuno, C.S.	AGFD	242	Molina, E.	POLY	697
Minatti, A.E.	ORGN	6	Mlambo, G.	COLL	65	Moliner, V.	PHYS	91
Mindaye, S.	ANYL	283	Mlynarski, S.	ORGN	548	Molino, P.	COLL	533
Minderlein, S.	ENVR	250	Mnaa, S.	AGFD	222	Mollahosseini, M.	COLL	156
Minelli, M.	PMSE	665	Mo, N.	ENVR	90	Mollahosseini, M.	COLL	304
Miner, P.	AGRO	337	Mo, X.	ORGN	106	Moller, J.	POLY	30
Mines, P.	ENVR	478	Mo, Y.	ENFL	163	Molloy, J.	ORGN	104
Minick, J.	ENVR	279	Mo, Y.	ENFL	304	Molloy, J.	ORGN	365
Minnaard, A.J.	ORGN	116	Mo, Y.	ENFL	307	Moloney, C.	AGRO	156
Minteer, S.D.	CATL	422	Mo, Y.	INOR	35	Moloney, C.	AGRO	284
Minto, R.E.	BIOL	128	Moad, G.	POLY	4	Moloy, K.	INOR	131
Mir, L.	ORGN	604	Moad, G.	POLY	190	Momeni, M.	CATL	391
Mirabal-Gallardo, Y.	AGFD	82	Moadi, M.	COLL	127	Momeni, M.	INOR	2
Mirabelli, S.	CATL	309	Moaseri, E.	COLL	389	Momeni, M.	PHYS	127
Miranda-Bermudez, E.	AGFD	28	Mobashery, S.	MEDI	227	Mon, H.	ENVR	341
Mircea, D.	INOR	122	Mobley, D.L.	WCC	5	Monaco, K.	ANYL	30
Mirheydari, M.S.	COLL	347	Mobley, J.	ENVR	71	Monai, M.	INOR	655
Mirica, K.	INOR	751	Mochizuki, S.	COLL	225	Monai, M.	INOR	837
Mirjafari, A.	I&EC	34	Mochizuki, S.	COLL	322	Monanu, M.O.	MEDI	281
Mirjafari, A.	I&EC	47	Mochizuki, S.	COLL	545	Moncho Escriva, S.	INOR	678
Mirkin, C.A.	ANYL	2	Mock, B.	MEDI	12	Mondal, J.	COMP	110
Mirkin, C.A.	COLL	19	Mock, J.	CATL	217	Mondal, J.	COLL	486
Mirkin, C.A.	COLL	31	Mock, M.T.	ENFL	59	Mondrik, C.	ORGN	403
Mirkin, C.A.	INOR	95	Mock, M.T.	ENFL	60	Mondschein, J.	ENFL	350

Mondschein, J.	INOR	40	Moore, C.	INOR	158	Morgan, B.	MEDI	251
Mondschein, R.J.	PMSE	6	Moore, C.	INOR	193	Morgan, B.S.	MEDI	68
Mondschein, R.J.	PMSE	435	Moore, C.	INOR	726	Morgan, D.	CATL	211
Mondschein, R.J.	PMSE	480	Moore, C.	INOR	727	Morgan, D.	ENFL	295
Mondschein, R.J.	POLY	510	Moore, C.	INOR	803	Morgan, D.C.	ORGN	623
Mondschein, R.J.	POLY	674	Moore, C.	INOR	935	Morgan, S.E.	PMSE	216
Mondschein, R.J.	POLY	774	Moore, C.	ORGN	49	Morgan, S.	CATL	466
Moneeb, A.M.	CATL	109	Moore, C.	ORGN	50	Morgan, T.D.	ORGN	106
Monenschein, H.	MEDI	257	Moore, C.	ORGN	361	Morgese, G.	COLL	468
Moneypenny, T.P.	ORGN	672	Moore, E.L.	MEDI	192	Morgese, G.	PMSE	288
Monfette, S.	ORGN	143	Moore, J.T.	INOR	690	Morgese, G.	PMSE	622
Mongin, C.	INOR	333	Moore, J.	AGFD	160	Mori, F.	POLY	441
Mongin, C.	INOR	336	Moore, J.	AGFD	213	Mori, R.	ENFL	70
Mongodin, E.	ENVR	537	Moore, J.S.	ANYL	233	Mori, T.	ANYL	239
Monje, V.	COMP	18	Moore, J.S.	ORGN	672	Moriarty, D.F.	CHED	59
Monje, V.	COMP	149	Moore, J.S.	PMSE	300	Moriceau, G.	POLY	426
Monnier, J.	CATL	441	Moore, J.S.	ENFL	431	Morimoto, H.	ORGN	326
Monroe, C.B.	CINF	55	Moore, J.S.	PMSE	631	Morimoto, M.	AGRO	35
Monroe, C.B.	INOR	157	Moore, M.H.	INOR	745	Morisawa, Y.	PHYS	392
Monroe, C.B.	SCHB	25	Moore, R.B.	PMSE	329	Morishita, H.	COLL	545
Monroe, E.B.	ANYL	223	Moore, R.B.	PMSE	330	Morken, J.P.	ORGN	103
Monroe, E.B.	ANYL	253	Moore, R.B.	PMSE	362	Morken, J.P.	ORGN	352
Monroe, E.B.	ANYL	258	Moore, R.B.	PMSE	410	Morken, J.P.	ORGN	570
Monroe, J.	COMP	16	Moore, R.B.	PMSE	659	Morley, S.	PHYS	446
Monson, T.C.	INOR	216	Moore, R.B.	POLY	365	Moroni, L.	PMSE	514
Montano, G.A.	CATL	427	Moore, R.B.	POLY	433	Moroz, P.	COLL	220
Montclare, J.	PMSE	314	Moore, R.B.	POLY	474	Moroz, P.	INOR	336
Montclare, J.K.	COMP	276	Moore, T.J.	ANYL	256	Moroz, P.	INOR	875
Montclare, J.K.	PMSE	194	Moore, A.H.	COLL	337	Moroz, Y.	CINF	29
Montclare, J.K.	PMSE	260	Mooring, S.R.	CHED	50	Moroz, Y.	CINF	139
Montclare, J.K.	PMSE	310	Moorthy, J.	ORGN	269	Moroz, Y.	MEDI	357
Montclare, J.K.	POLY	76	Moosa, B.	COLL	104	Moroz, Y.	MEDI	362
Montclare, J.K.	POLY	704	Moosa, B.	COLL	165	Morozov, A.N.	I&EC	21
Monteagudo, D.	ANYL	62	Mootoo, D.R.	ORGN	86	Morreale, B.D.	ENFL	127
Monteau, F.	AGRO	44	Mootoo, D.R.	ORGN	392	Morrall, T.	CINF	56
Monteil, V.	POLY	67	Moraca, F.	COMP	396	Morrill, L.	ORGN	108
Monteiro, M.J.	POLY	322	Moradi, M.	COMP	234	Morris, A.L.	COLL	230
Montero de Espinosa, L.	POLY	337	Moraes, H.	AGRO	313	Morris, A.J.	INOR	145
Montes, V.	ENFL	29	Moraes, R.M.	AGRO	316	Morris, A.J.	INOR	242
Montes Nino, A.M.	AGRO	46	Morales, A.	AGFD	178	Morris, A.J.	INOR	256
Montgomery, D.	ENVR	228	Morales, A.	INOR	890	Morris, A.J.	INOR	267
Montgomery, J.	CHED	55	Morales, F.J.	AGFD	117	Morris, A.J.	INOR	352
Montgomery, J.	ORGN	132	Morales, M.J.	CHED	182	Morris, A.J.	INOR	353
Montgomery, J.	WCC	8	Morales Cerrada, R.	INOR	880	Morris, A.J.	INOR	404
Montgomery, J.I.	MEDI	246	Morales Cerrada, R.	POLY	413	Morris, A.J.	INOR	406
Montgomery, K.	ANYL	28	Morales Lázaro, P.	MEDI	136	Morris, A.J.	INOR	535
Montgomery, T.P.	ORGN	496	Morales-Lozada, Y.	BIOL	70	Morris, A.J.	INOR	752
Montoro, A.R.	ANYL	307	Morales-Lozada, Y.	BIOL	110	Morris, A.J.	INOR	817
Montoro, A.R.	ENVR	117	Moran, K.D.	AGRO	94	Morris, A.J.	PHYS	141
Montoro, A.R.	ENVR	118	Moran, R.	ANYL	296	Morris, D.	BIOL	118
Montoro, A.R.	ENVR	161	Moraski, G.C.	INOR	466	Morris, D.	INOR	107
Montoto, E.C.	ANYL	233	Morazzani, E.	BIOL	20	Morris, H.S.	ENVR	530
Montoya, J.	CATL	86	Morbec, J.M.	ENFL	353	Morris, J.	PMSE	224
Montoya, J.	CATL	188	More, J.	ORGN	656	Morris, J.M.	ENVR	482
Montoya, J.	CINF	123	More, S.R.	CATL	469	Morris, J.Y.	CARB	32
Montoya, J.	ENVR	195	Moreau, J.	AGRO	175	Morris, J.R.	CATL	44
Moody, S.A.	ANYL	331	Moreau, J.	AGRO	312	Morris, J.R.	ENVR	292
Moody, S.A.	ANYL	415	Moreau, R.	ENFL	105	Morris, J.R.	INOR	3
Moody, S.A.	ANYL	437	Moreau, R.	ENFL	247	Morris, J.R.	INOR	66
Moody, S.A.	ANYL	236	Morehouse, K.M.	AGFD	81	Morris, J.R.	INOR	147
Moody, K.	NUCL	48	Moreira, W.	MEDI	277	Morris, J.R.	INOR	752
Mooers, C.	PMSE	284	Morelli, D.	COLL	180	Morris, L.S.	POLY	374
Moog, R.S.	CHED	373	Morelli, D.	INOR	62	Morris, M.J.	CARB	49
Mook, W.M.	CATL	427	Morelli, D.	INOR	277	Morris, M.J.	POLY	537
Mook, W.M.	PHYS	189	Morello, M.J.	AGFD	186	Morris, R.	ENVR	440
Moon, D.	ENVR	432	Morelos-Gomez, A.	COMP	371	Morris, R.	AGRO	41
Moon, D.	INOR	656	Moreno, I.	BIOL	75	Morris, R.	AGRO	359
Moon, D.	CELL	31	Moreno-Manzano, V.	COLL	371	Morris, T.	CATL	20
Moon, H.	BIOL	72	Moreton, J.C.	COLL	259	Morris, T.	COLL	188
Moon, M.H.	ORGN	394	Moreton, J.C.	COLL	272	Morris, T.	COLL	251
Moon, N.G.	POLY	674	Moretti, A.E.	COLL	369	Morris, T.	INOR	677
Moon, N.G.	PMSE	579	Moretoni, L.	ORGN	284	Morris, W.	ORGN	256
Moon, N.G.	POLY	708	Morey, A.M.	INOR	529	Morrison, A.	COMP	187
Moon, R.J.	PMSE	5	Morey, A.M.	POLY	517	Morrison, A.	PHYS	126
Moon, S.	INOR	755	Morgado, J.M.	PMSE	292	Morrison, J.	MEDI	335
Mooney, D.J.	COLL	548	Morgan, B.	POLY	382	Morrison, L.	ORGN	208
Moore, A.C.	PMSE	226	Morgan, B.	POLY	766	Morrissey, D.J.	NUCL	7
Moore, C.	CHED	280	Morgan, B.	BIOL	26	Morrissey, J.	ANYL	396
Moore, C.	COLL	5	Morgan, B.	BIOL	46	Morrissey, J.	COLL	446
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Morselli, M.	BIOL	160	Mpourmpakis, G.	CATL	189	Mullié, C.	MEDI	99
Mortley, D.	CELL	7	Mpourmpakis, G.	CATL	239	Mulligan, J.	I&EC	35
Mosa, J.	PMSE	549	Mrksich, M.	ANYL	2	Mulligan, S.	ENVR	97
Mosallaei, D.	WCC	3	Mrozek, R.	PMSE	106	Mullins, D.R.	CATL	79
Mosca, F.	PMSE	351	Mtei, R.	INOR	945	Mullins, D.R.	COLL	480
Moscarello, E.	ORGN	605	Mu, H.	TOXI	46	Mullins, E.	PMSE	238
Moseler, M.	CATL	92	Mu, J.	MEDI	245	Mulloy, B.	CARB	84
Moseley, C.	AGRO	375	Mu, S.	INOR	707	Mulvenna, R.A.	ENVR	216
Moser, B.	MEDI	9	Mu, T.	ENFL	253	Mulvenna, R.A.	PMSE	443
Moser, B.	PMSE	487	Mubayi, A.	MEDI	152	Mulvey, R.E.	INOR	736
Moser, H.	MEDI	250	Mucha, N.	INOR	124	Mulville, A.K.	INOR	644
Moses, C.	PMSE	561	Mucha Hirata, C.	AGRO	76	Mulzer, C.R.	POLY	293
Moses, P.	CATL	206	Muckelbauer, J.	MEDI	7	Mulzer, C.R.	POLY	740
Moshasha, S.	AGFD	9	Muckelbauer, J.	MEDI	25	Mulzer, C.R.	POLY	743
Mosher, M.D.	CHED	51	Muckerman, J.T.	INOR	891	Mummadi, S.	INOR	141
Mosher, M.D.	ORGN	191	Mudalige, T.	ANYL	183	Mummadi, S.	INOR	807
Mosher, M.D.	ORGN	632	Muddana, N.	MEDI	355	Mumme, J.	ENVR	85
Moskal, K.	AGFD	19	Muddiman, D.	ANYL	361	Mun, B.S.	COLL	415
Moskowitz, J.	PHYS	438	Mudigonda, K.	MEDI	354	Munday, J.	ENFL	55
Moskowitz, M.	ORGN	621	Mueanngern, Y.	CATL	157	Munday, J.	INOR	747
Mosley, S.L.	AGFD	129	Mueller, A.T.	MEDI	58	Mundy, C.J.	CATL	380
Moslin, R.	MEDI	7	Mueller, A.	POLY	688	Muniz, A.	COLL	14
Mosneanu, R.	INOR	546	Mueller, C.E.	MEDI	3	Munkanatta Godage, D.N.	BIOL	61
Mosquera-Giraldo, L.I.	COMP	244	Mueller, D.N.	COLL	590	Munoz, S.B.	AEI	56
Mosquin, P.	AGRO	255	Mueller, K.T.	CATL	230	Munoz, S.B.	CHED	227
Mosquin, P.	AGRO	285	Mueller, K.T.	CATL	311	Munoz, S.B.	ORGN	334
Moss, C.	CARB	84	Mueller, K.T.	CATL	381	Munoz, S.B.	ORGN	593
Moss, F.A.	AEI	8	Mueller, K.T.	CATL	225	Munoz, S.B.	INOR	106
Mosser, S.D.	MEDI	192	Mueller, K.T.	CATL	232	Munoz-Carpena, R.	AGRO	9
Mossoba, M.M.	AGFD	185	Mueller, L.J.	CARB	85	Munoz-Carpena, R.	AGRO	10
Mossoba, M.M.	AGFD	213	Mueller, M.	PMSE	97	Munoz-Carpena, R.	AGRO	14
Mossoba, M.M.	ANYL	200	Mueller, M.	POLY	436	Munoz-Carpena, R.	AGRO	15
Mossoba, M.M.	ANYL	202	Mueller, R.	MEDI	326	Munoz-Carpena, R.	AGRO	354
Mossoba, M.	AGFD	228	Mueller, T.	CATL	238	Munoz-Carpena, R.	AGRO	355
Mostrag, A.	CINF	34	Mueller-Buschbaum, P.	ENFL	53	Munoz-Garcia, J.	CARB	80
Mostrag, A.	CINF	42	Muhler, M.	INOR	459	Munro, C.J.	COLL	207
Mosurkal, R.	CELL	39	Muir, D.	ENVR	275	Munsell, E.	COLL	432
Motagamwala, A.	ENVR	89	Mujahid, A.	PMSE	656	Munshi, A.	COLL	488
Motobayashi, K.	INOR	365	Mukai, M.	COLL	218	Munson, T.	COMP	119
Motsinger-Reif, A.	ANYL	361	Mukai, M.	POLY	300	Munzarova, M.	PHYS	557
Motta, A.J.	MEDI	148	Mukamel, S.	CATL	277	Mura, U.	MEDI	151
Mottram, D.S.	AGFD	169	Mukarakate, C.	CATL	190	Murakami, T.	AGFD	135
Mottram, D.S.	AGFD	203	Mukarakate, C.	ENFL	397	Muralidharan, N.	ENFL	317
Mouamba, C.C.	MEDI	312	Mukerjee, S.	CATL	37	Muraoka, T.	ORGN	503
Mouamba, C.C.	MEDI	344	Mukherjee, A.	INOR	791	Murelli, R.P.	ORGN	208
Mouch, J.A.	TOXI	76	Mukherjee, A.	CATL	428	Murenzi, E.	AGRO	366
Mouchlis, V.D.	COMP	218	Mukherjee, A.	ENVR	480	Murillo, C.A.	INOR	132
Mouchlis, V.D.	COMP	219	Mukherjee, B.	COLL	4	Murillo, J.	POLY	272
Mouchlis, V.D.	COMP	341	Mukherjee, P.	MEDI	249	Murkli, S.L.	ORGN	510
Mouchlis, V.D.	COMP	392	Mukhopadhyay, I.	ENFL	191	Murnane, M.M.	PHYS	522
Mouchlis, V.D.	MEDI	84	Mukhopadhyay, I.	ENFL	207	Murnen, H.	ORGN	9
Moucka, F.	PHYS	528	Mukhopadhyay, I.	INOR	454	Murphy, B.M.	CATL	436
Moula, G.	PHYS	262	Mukhopadhyay, I.	INOR	616	Murphy, B.M.	CATL	470
Moulin, E.	AEI	63	Mukhopadhyay, I.	INOR	617	Murphy, C.	INOR	683
Moulin, E.	ANYL	245	Mukhopadhyay, I.	PHYS	429	Murphy, C.	ENVR	123
Moulton, H.	COLL	543	Mukhopadhyay, S.	COMP	258	Murphy, C.J.	ANYL	5
Moultrie, M.	ENFL	272	Mukinay, C.D.	CATL	348	Murphy, C.J.	COLL	105
Moura, C.	CARB	28	Mukundan, R.	CARB	20	Murphy, C.J.	COLL	216
Moura-Letts, G.	ORGN	602	Mulard, L.A.	CARB	20	Murphy, C.J.	COLL	327
Moura-Letts, G.	ORGN	603	Mulcahey, P.J.	PMSE	84	Murphy, C.J.	COLL	377
Moura-Letts, G.	ORGN	604	Mulcahey, P.J.	PMSE	114	Murphy, C.J.	COMP	346
Moura-Letts, G.	ORGN	605	Mulcahy, S.P.	ORGN	634	Murphy, C.J.	COMSCI	1
Moura-Letts, G.	ORGN	610	Mulchandani, A.	ENVR	266	Murphy, C.J.	INOR	97
Mousa, S.	MEDI	342	Mulder, D.W.	CATL	218	Murphy, C.J.	ANYL	142
Mousavi, A.	MEDI	135	Mulder, D.W.	CATL	219	Murphy, K.	ANYL	307
Moussodia, R.	PMSE	586	Mulder, D.W.	CATL	224	Murphy, K.	ENVR	117
Moustafa, D.	ORGN	153	Muldoon, J.A.	INOR	53	Murphy, K.	ENVR	118
Movafaghi, S.	I&EC	42	Muldoon, J.A.	INOR	803	Murphy, K.	PMSE	290
Movafaghi, S.	PMSE	481	Mulfort, K.L.	INOR	935	Murphy, K.	PMSE	471
Movafaghi, S.	POLY	153	Mulfort, K.L.	CATL	377	Murphy, K.	CHED	15
Movafaghi, S.	POLY	437	Mulfort, K.L.	INOR	402	Murphy, K.L.	CHED	71
Movafaghi, S.	POLY	439	Mulherin, J.	POLY	755	Murphy, K.L.	CHED	98
Mowdawalla, C.	ORGN	600	Mulholland, K.	PHYS	348	Murphy, K.L.	CHED	318
Moyer, B.A.	I&EC	19	Mull, E.	MEDI	269	Murphy, K.L.	CHED	408
Moyer, J.	MEDI	279	Mull, E.	MEDI	365	Murphy, K.L.	CHED	408
Moyer, M.M.	INOR	839	Mullane, K.C.	INOR	364	Murphy Shaw, A.	BIOL	113
			Mullens, P.	ORGN	256	Murphy Shaw, A.	ORGN	617

Murray, A.	INOR	362	Nachtegaal, M.	CATL	168	Nallani, G.C.	AGRO	333
Murray, A.C.	COLL	521	Naciri, J.	COLL	621	Nallani, M.	COLL	313
Murray, C.	INOR	704	Nacro, K.	MEDI	17	Nallani, M.	PMSE	475
Murray, C.B.	INOR	655	Naden Robinson, V.	PHYS	552	Nam, J.	ENVR	141
Murray, C.B.	INOR	837	Nadgorny, M.	PMSE	221	Nam, K.	ENFL	96
Murray, D.	COMP	7	Nadif, S.	INOR	75	Nam, K.	COMP	112
Murray, E.	ENVR	419	Nadraws, J.W.	CHED	276	Nam, K.	AGFD	265
Murray, J.	ENVR	513	Nag, O.K.	COLL	621	Nam, K.	CELL	42
Murray, J.K.	CHED	204	Nag, S.	ANYL	19	Nam, K.	ENVR	101
Murray, J.K.	CHED	265	Nagae, Y.	POLY	300	Nam, K.	ENVR	374
Murray, J.	TOXI	48	Nagame, Y.	NUCL	55	Nam, K.	ENVR	458
Murray, J.C.	ORGN	469	Nagame, Y.	NUCL	48	Nam, K.	GEOC	19
Murray, L.J.	INOR	381	Nagami, K.	BIOL	88	Nam, K.	INOR	290
Murray, L.J.	INOR	418	Nagan, M.C.	COMP	348	Nam, K.	INOR	738
Murray, P.	COLL	39	Nagano, Y.	BIOL	88	Nam, K.	INOR	896
Murrell, D.	ANYL	99	Nagao, M.	COLL	618	Nam, K.	TOXI	58
Mursalat, M.	ANYL	367	Nagaoka, Y.	COLL	265	Nam, K.	TOXI	59
Mursalat, M.	COLL	442	Nagaoka, Y.	INOR	476	Nam, S.	ENVR	154
Murugan, P.	TOXI	108	Nagarajan, A.V.	COLL	203	Nam, S.	CATL	389
Murugesan, S.	INOR	477	Nagarajan, R.	COLL	58	Nam, Y.	BIOL	175
Murugesan, S.	INOR	594	Nagarajan, R.	COLL	135	Nam, Y.	COLL	206
Murugesan, S.	INOR	595	Nagarajan, R.	COLL	316	Nam, Y.	COLL	321
Murugesan, S.	ANYL	385	Nagarajan, R.	COLL	431	Nam, Y.	ENFL	6
Murugesan, V.	CATL	225	Nagarajan, R.	CELL	39	Nam, Y.	PMSE	388
Murugesan, V.	CATL	230	Nagarajan, R.	POLY	330	Namde, R.	ANYL	257
Murugesan, V.	CATL	232	Nagarathnam, D.	MEDI	271	Nameer, S.	PMSE	175
Murugesan, V.	CATL	274	Nagasaki, Y.	COLL	598	Namirembe, S.	ORGN	352
Murugesan, V.	CATL	311	Nagel, M.L.	CHED	10	Namirembe, S.	ORGN	570
Murugesan, V.	CATL	431	Nagelberg, S.	COLL	471	Nance, P.J.	PMSE	453
Murumkar, P.R.	MEDI	353	Naggar, M.	INOR	773	Nandasiri, M.	CATL	232
Museth, K.	CHED	192	Nagle, T.S.	BIOL	150	Nandhikonda, P.	BIOL	129
Museth, K.	POLY	738	Nagler, C.	POLY	743	Nanduri, S.	MEDI	289
Musgrave, C.	POLY	372	Nagorny, P.	ORGN	551	Nanduri, S.	MEDI	293
Mushnoori, S.	COLL	260	Naguib, M.	ENFL	143	Nandwana, V.	COLL	101
Mushnoori, S.	COMP	197	Naguib, M.	POLY	308	Nandwana, V.	COLL	103
Mushnoori, S.	COMP	411	Nagy, K.	AGFD	12	Nandy, L.	PHYS	122
Musil, M.	PHYS	145	Naha, P.C.	COLL	484	Nanescu, S.	PMSE	84
Musselman, I.H.	PMSE	578	Nahar, L.	INOR	786	Nangia, S.	BIOL	167
Musselman, I.H.	PMSE	661	Nahas, R.	INOR	813	Nangia, S.	COMP	209
Mustafa, F.	AGFD	274	Nahid, M.	POLY	734	Nangreave, R.C.	CHED	205
Mustakis, J.	ORGN	9	Naik, R.R.	COLL	446	Nanita, S.C.	IAC	3
Mustard, T.J.	COMP	337	Naik, R.R.	PMSE	311	Nanna, A.R.	MEDI	228
Musteata, M.	ANYL	134	Naik, S.	INOR	614	Nannini, M.	MEDI	22
Muster, W.	MEDI	256	Naik, V.	POLY	540	Nannini, M.	MEDI	103
Mutas, M.	COLL	40	Nail, L.	PMSE	239	Nano, A.	AEI	48
Mutlib, A.	AGRO	332	Naiman, D.O.	AGRO	121	Nano, A.	INOR	963
Mutlib, A.	AGRO	333	Naiman, J.S.	AGRO	121	Napack, D.	ORGN	656
Mutsuga, M.	AGFD	106	Nair, D.P.	POLY	544	Napolitano, D.C.	ENVR	242
Muy, S.	ANYL	260	Nair, J.R.	CELL	9	Napolitano, M.	CATL	457
Muzyka, J.L.	CHED	76	Nair, L.S.	PMSE	48	Naqi, H.A.	ANYL	354
Muzzio, M.	ENFL	202	Nair, L.S.	PMSE	168	Nararak, J.	AGRO	310
Muzzio, M.	ENFL	203	Nair, R.N.	TOXI	85	Nararak, J.	AGRO	395
Muzzio, M.	ENFL	206	Nair, S.	PMSE	75	Narayan, A.R.	ORGN	285
M V, S.	PHYS	435	Nair, S.	POLY	40	Narayan, A.R.	PHYS	194
Mwangi, P.	GEOC	8	Najera, D.	POLY	272	Narayan, A.R.	PHYS	197
Myers, C.	POLY	536	Najita, J.	PHYS	256	Narayanan, B.	CATL	186
Myers, D.	AGRO	260	Najmi, A.	MEDI	160	Narayanan, B.	CATL	192
Myers, D.R.	PHYS	299	Najmi, A.	MEDI	303	Narayanan, B.	COLL	298
Myers, J.D.	POLY	748	Najmr, S.	CHED	68	Narayanan, B.	COMP	19
Myers, J.T.	ORGN	148	Najm, S.	INOR	704	Narayanan, T.	COLL	92
Myers, J.T.	ORGN	152	Nakagawara, T.A.	INOR	661	Narberes, J.	MEDI	306
Myers, J.E.	MEDI	308	Nakagawara, T.A.	INOR	779	Nargund, R.P.	MEDI	245
Myers, W.H.	ORGN	148	Nakagawara, T.A.	COLL	77	Narkevicute, I.	INOR	143
Myerson, A.S.	AEI	23	Nakahira, K.	AGRO	308	Narsimhan, G.	AEI	1
Myerson, A.S.	COLL	9	Nakai, K.	COLL	370	Narsimhan, G.	AEI	19
Mykhailiuk, P.	MEDI	359	Nakamura, I.	PMSE	203	Narsimhan, G.	COLL	54
Mykhailiuk, P.	MEDI	360	Nakamura, R.	MEDI	175	Narsimhan, G.	COLL	351
Mykhailiuk, P.	MEDI	361	Nakamura, T.	MEDI	106	Narsimhan, G.	COMP	345
Mykhailiuk, P.	ORGN	322	Nakamura, Y.	POLY	67	Narukulla, R.	MEDI	103
Mykhaylyk, O.	POLY	671	Nakamura, Y.	COLL	56	Narukulla, R.	MEDI	22
Myles, L.	AGRO	348	Nakamura, Y.	ENVR	60	Nascimento, D.	COMP	156
Myneni, S.C.	ENVR	148	Nakamura, Y.	PMSE	412	Naseem, Z.	ENFL	42
Myres, G.J.	ORGN	178	Nakanishi, H.	CATL	148	Nash, C.	CATL	362
Myung, J.	ANYL	184	Nakanishi, T.	INOR	60	Nash, C.	CATL	106
Myung, K.	AGRO	7	Nakano, A.	COMP	53	Nash, M.	AGRO	158
Myung, K.	AGRO	135	Nakano, A.	PHYS	275	Nasir, S.	ENFL	42
Myung, K.	AGRO	390	Nakatsuka, N.	COLL	179	Nason, S.L.	ENVR	257
Na, C.	INOR	654	Nakayama, H.	ORGN	683	Nasr, M.	PHYS	588
Na, H.	INOR	397	Nakayama, T.	COLL	95	Nasr, M.	CINF	110
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Natalizio, B.J.	CHED	46	Nelson, A.	PMSE	59	Neveu, P.	BIOL	53
Natarajan, B.	ENVR	158	Nelson, A.	POLY	590	Neville, S.	ORGN	520
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Natesakhawat, S.	CATL	11	Nelson, A.M.	POLY	776	Nevins, N.	MEDI	261
Natesakhawat, S.	ENFL	127	Nelson, B.C.	ANYL	290	Nevzorov, A.	PHYS	383
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Nathan, T.	CARB	57	Nelson, B.C.	ENVR	118	Newitt, J.	MEDI	269
Natoli, T.	CHED	128	Nelson, B.C.	ENVR	161	Newkome, G.R.	POLY	82
Nauen, R.	AGRO	171	Nelson, B.C.	INOR	775	Newkome, G.R.	POLY	86
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Nava, M.	INOR	304	Nelson, D.	CHED	400	Newman, J.D.	ANYL	353
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Navarrete Vazquez, G.	MEDI	151	Nelson, E.	CHED	138	Newmister, S.A.	BIOL	1
Navarro, D.	ENVR	157	Nelson, H.	PMSE	372	Newton, S.	ANYL	347
Navarro, M.	AGFD	117	Nelson, J.	AGFD	209	Newton, S.	ANYL	348
Navarro, M.	BIOL	157	Nelson, K.G.	ORGN	382	Newton, S.	CINF	28
Navarro Pardo, F.	ENFL	48	Nelson, M.	MEDI	88	Newton, S.	ENVR	46
Navea, J.G.	PHYS	568	Nelson, R.	ENVR	512	Newton, S.	ENVR	206
Navizaga, C.	ENVR	208	Nelson, T.L.	ORGN	529	Newton, S.	ENVR	548
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Nawaz, A.	PMSE	656	Nemeria, N.S.	BIOL	58	Neyman, K.	CATL	93
Nawrocki, G.	COMP	79	Nemeria, N.S.	BIOL	68	Neyman, K.	CATL	144
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Nazarenko, S.I.	POLY	770	Nemes, P.	ANYL	236	Ng, A.	PMSE	86
Nazari, N.	ENVR	369	Nemes, P.	ANYL	331	Ng, T.	CATL	203
Nazari, R.	ENVR	328	Nemes, P.	ANYL	415	Ngan, C.	GEOC	2
Nazarova, A.	ORGN	237	Nemes, P.	ANYL	437	Nganga, J.	INOR	910
Nazeeruddin, M.	ENFL	10	Nemes, P.	ANYL	438	Nghiem, A.A.	ENVR	284
Nazeeruddin, M.	INOR	763	Nemes, P.	TOXI	105	Nghiem, A.A.	ENVR	285
Nazemi, M.	ENVR	143	Nemeth, R.	PHYS	145	Ngo, K.	INOR	278
Nazemi, Z.	CATL	219	Nemsak, S.	CATL	161	Ngo, K.	INOR	891
Nazli, Z.	ORGN	364	Nemsak, S.	COLL	590	Ngo, K.T.	INOR	22
Nchinda, A.	MEDI	326	Nemykin, V.	POLY	205	Ngo, K.T.	INOR	274
Ndi, C.N.	ORGN	659	Nenes, A.	ENVR	335	Ngu, L.	PHYS	474
Ndi, C.N.	ORGN	688	Neoh, K.	I&EC	41	Nguele Meke, F.G.	ORGN	634
Ndip, E.N.	CHED	343	Neoh, K.	PMSE	285	Ngunjiri, J.	PMSE	369
Ndombera, F.	MEDI	166	Neoh, K.	POLY	192	Nguon, H.	PMSE	599
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Neale, N.R.	CATL	127	Nepomuceno, D.	MEDI	211	Nguyen, T.	AGRO	271
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Nealey, P.F.	PMSE	637	Nereng, L.	CATL	250	Nguyen, A.	MEDI	103
Neary, W.J.	PMSE	568	Neretina, S.	COLL	247	Nguyen, A.	ENVR	419
Neaton, J.	PHYS	71	Neretina, S.	COLL	549	Nguyen, A.	CHED	281
Neaton, J.	PHYS	72	Neretina, S.	INOR	684	Nguyen, A.I.	INOR	421
Nebel, L.M.	ANYL	373	Nersesian, S.	ORGN	207	Nguyen, A.H.	ANYL	363
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Nedwed, K.	CINF	3	Neta, P.	CINF	128	Nguyen, B.	POLY	520
Neely, S.	CHED	156	Netherton, M.	MEDI	328	Nguyen, B.	POLY	682
Neethirajan, S.	AGFD	254	Neto, C.C.	AGFD	57	Nguyen, B.	I&EC	35
Nefedov, A.	COLL	140	Neto, C.C.	AGFD	59	Nguyen, C.	POLY	574
Nefedov, A.	COLL	139	Nettles, K.	MEDI	82	Nguyen, C.	MEDI	249
Negahban-Azar, M.	ENVR	260	Netzband, D.	AGRO	268	Nguyen, C.N.	COMP	38
Negatu, A.	CHED	212	Netzband, D.	AGRO	273	Nguyen, C.N.	COMP	39
Negley, T.L.	AGRO	41	Netzer, F.	COLL	133	Nguyen, C.N.	COMP	220
Negley, T.L.	AGRO	380	Neu, D.T.	CHAS	45	Nguyen, D.	CINF	60
Negrete, O.	COLL	14	Neubig, R.	MEDI	61	Nguyen, D.	COMP	358
Negri, N.	PMSE	616	Neugebauer, A.	AGFD	199	Nguyen, D.N.	MEDI	192
Negrilo, M.	COLL	122	Neuhaus, J.D.	ORGN	568	Nguyen, D.	CATL	224
Negró, B.	COLL	51	Neuhauser, D.	PHYS	74	Nguyen, D.	PMSE	661
Nehasil, V.	CATL	112	Neuhauser, D.	PHYS	175	Nguyen, G.	ENVR	368
Nehasil, V.	CATL	299	Neuhauser, D.	PHYS	536	Nguyen, H.	POLY	466
Nehme, A.S.	INOR	846	Neuman, K.	COLL	154	Nguyen, H.	POLY	732
Neidig, M.L.	AEI	56	Neumann, C.	POLY	140	Nguyen, H.	PMSE	214
Neidig, M.L.	INOR	84	Neumann, L.	POLY	207	Nguyen, H.M.	CARB	71
Neidig, M.L.	INOR	106	Neupane, S.	ENFL	451	Nguyen, H.Q.	POLY	736
Neidig, M.L.	INOR	170	Neurock, M.	CATL	31	Nguyen, H.	ANYL	359
Neidig, M.L.	INOR	171	Neuscamman, E.	PHYS	178	Nguyen, H.	INOR	561
Neidig, M.L.	INOR	174	Neuscamman, E.	PHYS	232	Nguyen, H.	PHYS	253
Neidig, M.L.	INOR	760	Neuscamman, E.	PHYS	425	Nguyen, K.	PHYS	474
Neil, R.	COMP	262	Neuscamman, E.	PHYS	427	Nguyen, K.T.	CINF	85
Neiles, K.Y.	CHED	92	Neuscamman, E.	PHYS	443	Nguyen, M.T.	PHYS	265
Neiles, K.Y.	CHED	93	Neuscamman, E.	PHYS	449	Nguyen, M.	COLL	133
Neimark, A.V.	ANYL	298	Neuscamman, E.	PHYS	450	Nguyen, M.	POLY	451

Nguyen, M.	CATL	174	Nieuwendaal, R.	COLL	273	Noble, B.B.	POLY	417
Nguyen, M.	ENVR	94	Nigra, M.	ENFL	342	Noble, G.	CINF	110
Nguyen, M.	ENVR	405	Nikitin, D.	INOR	622	Noble, S.M.	MEDI	80
Nguyen, M.T.	ORGN	243	Nikitina, A.A.	CINF	109	Nobori, T.	ANYL	239
Nguyen, N.K.	ORGN	597	Nikkhah, M.	PMSE	565	Nocadello, S.	MEDI	271
Nguyen, N.	INOR	163	Niklasson, A.M.	COMP	72	Nocera, D.G.	INOR	16
Nguyen, P.	MEDI	328	Nikolakis, A.	AGRO	223	Nocera, D.G.	INOR	315
Nguyen, Q.L.	PHYS	522	Nikolayevskiy, H.	ORGN	401	Nocera, D.G.	INOR	728
Nguyen, T.H.	INOR	500	Nikolla, E.	CATL	56	Nochetto, C.	ANYL	195
Nguyen, T.P.	PMSE	81	Nikolla, E.	ENFL	76	Noé, F.	PHYS	525
Nguyen, T.	AGRO	193	Nikon, C.	PMSE	408	Noerpel, M.	GEOC	17
Nguyen, T.	MEDI	76	Nikoubashman, A.	PMSE	90	Noffke, B.W.	COLL	267
Nguyen, T.V.	ORGN	283	Nilaweera, T.	BIOL	106	Nofi, C.	ORGN	102
Nguyen, T.	ENFL	448	Niles, J.C.	BIOL	155	Noguchi, G.	AGRO	382
Nguyen, T.	MEDI	328	Nilewski, C.	ORGN	63	Noguchi, M.	CELL	25
Nguyen, T.	COLL	143	Nilsson, A.R.	COLL	542	Noguchi, M.	ENVR	60
Nguyen, V.Q.	POLY	748	Nilsson, M.	I&EC	2	Noguchi, M.	ENVR	96
Nguyen, V.	MEDI	331	Nimir, H.I.	INOR	554	Noguchi, T.	COMP	371
Nguyen, M.	COLL	488	Nimlos, M.R.	CATL	190	Noirez, L.	COLL	341
NguyenPho, A.	ANYL	180	Nimlos, M.R.	ENFL	112	Nokoya, N.	PMSE	409
Ni, B.	ORGN	129	Nimlos, M.R.	ENFL	397	Nolan, M.	CATL	70
Ni, C.K.	CARB	100	Nimlos, M.R.	POLY	604	Nolen, B.J.	COMP	247
Ni, Q.	PHYS	342	Nimmagadda, A.	ORGN	166	Nolin, K.A.	CHED	70
Ni, Y.	CATL	453	Nimmagadda, A.	PMSE	366	Noll, N.	ORGN	451
Ni, Y.	AGFD	48	Nimmo, Z.	CHED	169	Nollet, M.	COLL	390
Ni, Z.	MEDI	255	Ning, C.	PMSE	488	Nomizu, M.	PMSE	377
Nian, Q.	COLL	261	Ning, P.	I&EC	9	Nomura, H.	PHYS	259
Nianxi, Z.	COLL	99	Ninomiya, K.	CELL	19	Nomura, W.	BIOL	147
Nicastri, M.	ORGN	210	Ninomiya, K.	CELL	23	Nomura, Y.	MEDI	343
Nicely, A.L.	WCC	13	Ninomiya, K.	CELL	25	Nonkumwong, J.	COLL	210
Nicharat, A.	POLY	723	Niogret, J.	AGRO	69	Noolvi, M.	MEDI	190
Nichman, L.	ENVR	555	Niogret, J.	AGRO	72	Noonan, G.O.	AGFD	14
Nicholas, A.D.	INOR	373	Nippe, M.	INOR	14	Noonan, K.J.	POLY	588
Nicholas, A.D.	ORGN	435	Nippe, M.	INOR	516	Noor, B.	CHED	281
Nicholas, K.M.	INOR	911	Niri, V.	ANYL	74	Noor, N.	PMSE	27
Nichols, B.R.	INOR	264	Nirogi, V.	MEDI	94	Noore, J.	PMSE	505
Nichols, B.L.	POLY	331	Nirogi, V.	MEDI	95	Norcross, S.	BIOL	55
Nichols, E.K.	INOR	431	Nirogi, V.	MEDI	354	Norman, M.W.	ORGN	635
Nichols, J.	ENVR	388	Nirogi, V.	MEDI	355	Normil, N.	CHED	257
Nichols, J.W.	COLL	121	Niroula, D.	MEDI	121	Noro, J.	POLY	268
Nichols, S.	CINF	53	Nischang, I.	POLY	232	Norquay, L.	MEDI	37
Nicholson, J.C.	I&EC	56	Nishibori, M.	COLL	218	Norret, M.	COLL	488
Nickel, A.L.	CHED	369	Nishibori, M.	COLL	240	Norret, M.	PMSE	561
Nicklaus, M.C.	CINF	61	Nishibori, M.	COLL	241	Norris, D.J.	COLL	555
Nicklaus, M.C.	CINF	126	Nishibori, M.	COLL	248	Norris, D.	MEDI	335
Nicklaus, M.C.	CINF	134	Nishibori, M.	POLY	300	Norris, E.	AGRO	202
Nicklaus, M.C.	ORGN	26	Nishiguchi, J.	CHED	80	Norris, E.	AGRO	303
Nico, P.S.	MPPG	5	Nishihara, H.	INOR	732	Norris, E.	AGRO	397
Nicolaescu, A.R.	ANYL	73	Nishikawa, J.	MEDI	269	Norris, J.D.	MEDI	14
Nicolaescu, A.R.	I&EC	58	Nishikawa, T.	MEDI	175	Norskov, J.K.	INOR	39
Nicolas, J.	POLY	183	Nishimori, K.	POLY	402	Norsworthy, J.K.	AGRO	181
Nicolas, J.	POLY	310	Nishitani, S.	COLL	189	North, M.A.	AEI	85
Nicolas, J.	POLY	427	Nishitani, Y.	MEDI	175	North, M.A.	PMSE	404
Nicolas, N.	COLL	471	Nishiyama, H.	POLY	341	Nortier, F.M.	NUCL	1
Nicolay, R.	PMSE	512	Nishiyama, H.	POLY	354	Norton, A.E.	CHAS	39
Nicolay, R.	POLY	321	Nishizaki, Y.	AGFD	35	Norton, A.E.	CHAS	45
Nie, H.	MEDI	111	Nistler, M.A.	ORGN	586	Norton, A.E.	INOR	348
Nie, Y.	CATL	404	Nite, C.	INOR	672	Norton, A.E.	NUCL	38
Nie, Z.	COLL	2	Nitin, N.	AGFD	8	Norton, J.R.	AEI	41
Nie, Z.	COLL	33	Nitzan, A.	INOR	57	Norwood, R.A.	POLY	106
Nie, Z.	COLL	80	Nitzan, A.	PHYS	85	Norwood, R.A.	POLY	419
Nie, Z.	COLL	148	Nitzan, A.	PHYS	198	Norwood, R.A.	POLY	693
Nie, Z.	COLL	233	Niu, B.	ANYL	173	Noshadi, I.	CHED	194
Nie, Z.	COLL	271	Niu, S.	INOR	699	Noshadi, I.	CHED	195
Nie, Z.	COLL	296	Niu, X.	PHYS	144	Noshadi, I.	CHED	222
Nie, Z.	COLL	423	Niwayama, S.	ORGN	176	Noshadi, I.	CHED	223
Nie, Z.	COLL	429	Nixon, C.	PHYS	548	Noshadi, I.	CHED	231
Nie, Z.	COLL	581	Nixon, C.	PHYS	551	Noshadi, I.	I&EC	62
Niebuur, B.	POLY	455	Niyibizi, A.	CHED	33	Noshita, M.	ORGN	326
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Nielsen, R.M.	CATL	484	Nizkorodov, S.A.	ENVR	194	Nourain, F.	CHAS	39
Nielsen, R.J.	CATL	196	Nizkorodov, S.A.	ENVR	195	Noureddine, A.	COLL	27
Nielsen, R.J.	INOR	15	Njaria, P.M.	MEDI	326	Noureddine, A.	COLL	14
Niemira, B.A.	AGFD	189	Nji, E.	PHYS	245	Nourian, G.	I&EC	46
Nien, C.	PMSE	626	Njie, M.	CHED	181	Nouvel, E.	POLY	773
Nierode, G.	CARB	58	Njoki, P.N.	COLL	76	Novak, B.M.	POLY	471
Niesen, M.	COMP	232	Njoroge, M.	MEDI	326	Novak, C.M.	PHYS	468
Nieter Burgmayer, S.J.	INOR	163	Nkechi, I.	PHYS	508	Novak, M.	INOR	140
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Novick, S.E.	PHYS	587	O'Connor, T.C.	PMSE	335	Odom, T.W.	COLL	328
Novikov, A.A.	COMP	18	O'Donnell, R.M.	INOR	686	Odom, T.W.	COLL	438
Novotny, Z.	COLL	133	O'Donovan, K.	BIOL	113	Odom, T.W.	INOR	96
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Nozaki, K.	INOR	732	O'Keefe, B.R.	ORGN	26	Officer, K.	CHAL	3
Nsekpang, T.B.	INOR	682	O'Keefe, M.M.	AGRO	167	Offiong, N.O.	CHED	210
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Nugent, B.M.	ORGN	472	O'Keeffe, M.	INOR	127	Ogawa, R.	PMSE	412
Nugmanov, R.	CINF	9	O'Leary, D.J.	AEI	67	Ogawa, T.	ENVR	371
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Numoto, N.	POLY	74	O'Malley, M.	ENFL	354	Ogilvie, K.	ORGN	469
Nune, S.K.	ANYL	431	O'Neal, J.	PMSE	595	Ogitsu, T.	COMP	52
Nunez, G.	PMSE	331	O'Neal, S.	AGRO	101	Ogitsu, T.	PHYS	116
Nunez, G.	PMSE	447	O'Neal, S.	AGRO	294	Ogozaly, S.	ENVR	465
Nunez, P.	INOR	573	O'Neil, S.V.	MEDI	246	Ogtong, A.A.	ORGN	586
Nunna, B.	AEI	16	O'Neill, B.	AGRO	62	Ogueri, K.S.	PMSE	48
Nunna, B.	CATL	415	O'Neill, J.	AGRO	192	Ogueri, K.S.	PMSE	168
Nurkiewicz, T.	ANYL	23	O'Reilly, E.	ORGN	281	Ogura, T.	ENVR	386
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Nuss, A.	AGRO	368	O'Sullivan, B.	CHED	180	Oh, D.	POLY	401
Nussinov, R.	COMP	81	O'Sullivan, B.	CHED	182	Oh, E.	COLL	449
Nussinov, R.	PHYS	578	O'Sullivan, B.	CHED	186	Oh, E.	COLL	487
Nusz, J.	AGRO	290	O'Sullivan, G.	AGRO	247	Oh, E.	COLL	562
Nuyen, N.	MEDI	16	O'Sullivan, M.	TOXI	94	Oh, J.	CATL	105
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Nuzzo, R.G.	ENFL	188	Obaleye, J.A.	INOR	929	Oh, J.	POLY	476
Nuzzo, R.G.	ENFL	230	Obaleye, P.O.	INOR	929	Oh, J.K.	POLY	326
Nuzzo, R.G.	ENFL	285	Oballa, R.	MEDI	253	Oh, M.	POLY	242
Nwaichi, E.O.	MEDI	281	Obare, S.O.	AEI	13	Oh, S.	INOR	362
Nwaiwu, V.	ANYL	118	Obare, S.O.	AEI	31	Oh, S.	ENVR	19
Nwamba, C.	INOR	448	Obare, S.O.	ENVR	356	Oh, S.	INOR	550
Nwankwoala, C.	CATL	485	Obare, S.O.	ENVR	358	Oh, T.	ENFL	344
Nwigwe, C.	CHED	304	Obare, S.O.	ENVR	454	Oh, T.	COLL	618
Nwoke, I.B.	CHED	210	Obenchain, D.A.	PHYS	587	Oh, Y.	ENVR	140
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Nwokike, C.	ENVR	497	Ober, C.K.	PMSE	116	Ohiri, U.	COLL	311
Nwokogu, G.C.	CHED	343	Ober, C.K.	POLY	495	Ohlendorf, P.	POLY	495
Nyakubaya, V.	ANYL	358	Ober, C.K.	POLY	609	Ohlson, D.	INOR	724
Nydam, A.	CHED	123	Ober, M.	INOR	439	Ohman, D.E.	PMSE	489
Nydam, A.	CHED	125	Ober, M.	ORGN	472	Ohman, M.	ENFL	23
Nydam, A.	CHED	126	Oberholster, A.	AGFD	22	Ohman, M.	ENFL	24
Nye, N.	COLL	299	Oberman, T.	CHED	143	Ohman, M.	ENFL	25
Nye, R.	CHED	224	Obermeyer, A.	PMSE	145	Ohnishi, S.	MEDI	106
Nye, R.A.	CATL	311	Oberneier, M.	MEDI	25	Ohno, H.	MEDI	53
Nyguen, S.T.	ORGN	696	Oberrauch, S.	AGRO	295	Ohno, H.	ORGN	651
Nyholm, P.	CARB	91	Obianom, O.N.	MEDI	127	Ohno, K.	POLY	694
Nykaza, J.	POLY	292	Obrien, E.	INOR	942	Ohnsorg, M.	COLL	287
Nykypanchuk, D.	COMP	139	Obzrut, J.	ANYL	28	Ohnsorg, M.L.	COLL	288
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Nylén, U.	CATL	397	Ochoa, M.A.	INOR	57	Ohshima, T.	ORGN	326
Nyman, G.	PHYS	306	Ochoa-Acuna, H.	AGRO	284	Ohshita, J.	POLY	584
Nyman, M.D.	CATL	18	Ochs, A.	COLL	180	Ohta, T.	INOR	32
Nystrom, A.M.	PMSE	41	Ochs, A.	INOR	62	Ohtake, N.	MEDI	125
O'Boyle, N.	CINF	18	Ochs, A.	INOR	277	Ohto, T.	INOR	732
O'Boyle, N.	CINF	112	Oconnor, P.	ENFL	44	Oishi, S.	MEDI	53
O'Brien, E.	INOR	58	Oconnor, P.	ENFL	142	Oishi, S.	ORGN	651
O'Brien, R.E.	ENVR	550	Oconnor, P.	ENFL	155	Ojeda, I.	MEDI	271
O'Brien, S.	CHED	25	O Connor, J.M.	INOR	726	Ojeda, J.J.	ENVR	97
O'Bryan, C.S.	PMSE	544	O Connor, J.M.	INOR	727	Ojima, I.	COMP	260
O'Carroll, D.	PMSE	432	O Connor, J.M.	INOR	828	Ojima, I.	MEDI	107
O'Carroll, D.	PMSE	620	O Connor, J.M.	ORGN	49	Ojima, I.	MEDI	172
O'Carroll, D.	ENVR	326	O Connor, J.M.	ORGN	50	Ok, K.	INOR	550
O'Connell, C.E.	INOR	500	O Connor, J.M.	ORGN	361	Oka, T.	PHYS	353
O'Connell, C.E.	MEDI	120	Oda, M.	POLY	74	Okada, M.	ENVR	429
O'Connell, A.R.	INOR	501	Odebode, T.	INOR	576	Okajima, M.	POLY	508
O'Connell, A.R.	INOR	613	Odegard, A.P.	COLL	259	Okawa, T.	PMSE	377
O'Connor, C.	MEDI	119	Odenkirchen, E.	AGRO	356	Okeke, U.	CATL	320
O'Connor, C.	MEDI	142	Odenkirchen, E.	AGRO	405	Okeowo, M.K.	INOR	47
O'Connor, C.	MEDI	150	Odle, R.	POLY	522	Okesanjo, O.	POLY	750
O'Connor, N.	PMSE	331	Odum, A.L.	INOR	10	Okochi, M.	MEDI	36
O'Connor, N.	PMSE	447	Odom, A.R.	BIOL	154	Okoromoba, O.E.	ORGN	138
O'Connor, P.B.	ORGN	42	Odom, A.R.	MEDI	154	Oksel, C.	CINF	97

Oktem, B.	ANYL	180	Onasch, T.B.	ENVR	193	Orlov, N.	ORGN	351
Oktem, B.	ANYL	251	Onasch, T.B.	ENVR	550	Orme, C.	PMSE	172
Okumura, H.	MEDI	125	Onasch, T.B.	ENVR	555	Ormsbee, L.	ENVR	282
Okungbowa, O.	ENVR	411	Ondok, R.	ENFL	101	Ormsbee, L.	ENVR	283
Okur, H.I.	COLL	348	Ondra, B.R.	PMSE	667	Orna, M.	HIST	8
Okure, I.	CHED	210	Ondrechen, M.J.	BIOL	182	Orna, M.	HIST	21
Okyere, B.	PMSE	603	Ondrechen, M.J.	CMA	4	Orna, M.	HIST	24
Oladimeji, O.	CHED	288	Ondrechen, M.J.	COMP	240	Orner, B.	PMSE	256
Olajire, A.	ENVR	47	Ondrechen, M.J.	TOXI	16	Ornstein, P.L.	MEDI	206
Olarte, M.V.	CATL	8	Ondrechen, M.	ENVR	319	Orozco, E.	AGRO	354
Olarte, M.V.	ENFL	268	Ondrechen, M.	PHYS	474	Orr, S.	INOR	736
Olatunji, O.S.	ANYL	81	Ondrusek, B.	POLY	641	Orr, T.	AGRO	252
Olatunji, S.N.	MEDI	287	Ondrusek, B.	ORGN	493	Orrick, G.	AGRO	220
Olberding, J.	ORGN	360	Oneill, B.T.	ORGN	469	Orrick, G.	AGRO	289
Oldham, M.	INOR	479	Ong, E.	MEDI	17	Orsino, C.	PMSE	410
Oleksyuk, M.	ORGN	404	Ong, P.	ENFL	19	Orski, S.V.	ANYL	295
Oleksyuk, M.	CHED	249	Ong, S.	MEDI	17	Orski, S.V.	PMSE	101
Olesik, J.	ANYL	306	Ong, W.	INOR	58	Orski, S.V.	PROF	10
Oliff, A.	ORGN	59	Onishi, N.	PHYS	312	Orta, A.	CINF	24
Oliva, M.L.	COLL	175	Onjiko, R.	ANYL	437	Ortega, E.	ANYL	105
Oliva, M.L.	COLL	609	Onjiko, R.M.	ANYL	415	Ortega, E.	ORGN	284
Olivares Corichi, I.	COLL	268	Onjiko, R.M.	TOXI	105	Ortega Doménech, M.	MEDI	282
Oliveira, E.	ENVR	189	Onn, T.	CATL	456	Orth, D.L.	SCHB	20
Oliveira, F.C.	POLY	238	Onnis-Hayden, A.	ENVR	120	Orth, P.	MPPG	18
Oliver, C.M.	INOR	226	Onnis-Hayden, A.	ENVR	442	Ortiz, J.V.	PHYS	559
Oliver, M.P.	ORGN	472	Onoda, M.	POLY	25	Ortiz, M.C.	BIOL	70
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Olsson, L.	CATL	397	Oppong, A.A.	ORGN	135	Osolodkin, D.I.	CINF	32
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Patwardhan, S.	CHED	381	Pedersen, J.A.	COMP	346	Peng, W.	POLY	436
Patwardhan, S.	ENFL	461	Pedersen, J.A.	ENVR	257	Peng, X.	COMP	80
Pauchard, V.	COLL	130	Pedzisa, L.	MEDI	228	Peng, X.	TOXI	30
Paul, B.	INOR	444	Peebles, R.A.	PHYS	377	Peng, X.	TOXI	54
Paul, D.K.	ANYL	160	Peebles, S.A.	PHYS	377	Peng, X.	COLL	204
Paul, G.	ORGN	428	Peek, N.	CATL	10	Peng, Y.	COLL	204
Paul, I.	INOR	376	Peer, A.	COLL	290	Peng, Y.	AGFD	55
Paul, I.	POLY	142	Peerless, B.	INOR	858	Peng, Y.	ORGN	627
Paul, K.	AGRO	377	Peganova, T.A.	INOR	229	Peng, Y.	COMP	60
Paul, M.	ENVR	260	Pehrsson, P.	AGFD	255	Peng, Y.	PHYS	235
Paul, S.	ORGN	32	Pehrsson, P.	AGFD	256	Peng, Z.	PMSE	482
Paul, S.	ORGN	33	Pehrsson, P.	COLL	141	Peng, X.	PMSE	590
Paul, S.	ORGN	675	Pehrsson, P.	INOR	138	Peng, Z.	COLL	324
Paulechka, E.	CINF	106	Pei, A.	POLY	296	Pengo, T.	CATL	310
Paulino, J.	PHYS	385	Pei, Y.	CHED	259	Pengpanich, S.	CATL	376
Paulmurugan, R.	COLL	34	Peiravi, M.	ENVR	45	Penhallurick, R.	INOR	820
Paulsen, A.	ENVR	93	Peirce, S.M.	POLY	145	Penn, R.	PROF	15
Paulson, E.R.	ORGN	154	Peishoff, C.	MPPG	14	Penn, R.	ENVR	332
Paulson, S.	CHED	58	Pekkanen, A.	PMSE	55	Pennell, K.G.	TOXI	72
Paulson, S.	ENVR	338	Pekkanen, A.	PMSE	480	Penney, R.B.	MEDI	193
Paulson, S.	ENVR	490	Pekkanen, A.	PMSE	579	Penning, T.M.	TOXI	6
Paulusse, J.M.	COLL	436	Pekkanen, A.	POLY	54	Penning, T.M.	TOXI	48
Paulusse, J.M.	COLL	614	Pekkanen, A.	POLY	175	Penning, T.M.	TOXI	55
Paulusse, J.M.	POLY	189	Pekkanen, A.	POLY	510	Pennington, A.M.	CATL	194
Paven, M.	COLL	56	Pekkanen, A.	POLY	708	Pennington, A.M.	INOR	203
Paviet, P.	ENVR	234	Pelaz, B.	COLL	620	Pennington, A.M.	INOR	330
Pavlinov, I.	ORGN	404	Pelaz, B.	COLL	622	Pentzer, E.	COLL	16
Pavlovic, M.	COLL	7	Pelissari, J.H.	ANYL	132	Pentzer, E.	ENFL	147
Pavlovic, N.M.	AGRO	190	Pella, B.	INOR	564	Pentzer, E.	POLY	162
Pavosevic, F.	COMP	70	Pellegrinelli, C.	COLL	538	Pepi, M.	PMSE	454
Pavosevic, F.	PHYS	225	Pellegrini, K.L.	NUCL	67	Peralta, A.	BIOL	48
Pawar, M.	PMSE	668	Pellegrini, M.	BIOL	160	Peranginangin, N.	AGRO	42
Pawar, R.	ANYL	198	Pellegrini, T.	ORGN	116	Peranginangin, N.	AGRO	153
Pawar, V.D.	MEDI	343	Pellegrini, T.	ORGN	305	Peranginangin, N.	AGRO	275
Paydary, P.	ENVR	116	Peller, J.R.	ENVR	252	Perara, E.	INOR	220
Paydary, P.	ENVR	442	Pellerite, M.J.	CATL	250	Percebom, A.	COLL	94
Paydary, P.	GEOC	3	Pelletier, J.C.	MEDI	254	Percec, V.	ORGN	506
Payer, S.	CATL	184	Pelletier, M.	POLY	330	Percec, V.	PMSE	586
Payne, A.	BIOL	41	Pellizzeri, S.L.	CATL	414	Percy, J.	ORGN	228
Payne, A.	ENFL	456	Pellizzeri, S.L.	INOR	68	Perdew, J.P.	CATL	131
Payne, A.	AGFD	213	Peloquin, A.	POLY	638	Pereira, K.	ENVR	554
Payne, E.	ENVR	440	Peloquin, D.M.	GEOC	17	Pereira, S.A.	TOXI	81
Pazicni, S.	CHED	59	Pelphrey, P.M.	CHED	269	Perelman, M.	ANYL	335
Pazicni, S.	CHED	94	Pelphrey, P.M.	CHED	286	Perera, A.	COMP	68
Pazicni, S.	CHED	95	Peltier, E.F.	ENVR	258	Perera, A.	COMP	133
Pazos, I.	I&E	31	Peltier, E.F.	ENVR	369	Perera, A.S.	INOR	748
Peach, M.L.	CINF	61	Peltier, E.F.	GEOC	11	Perera, D.	COMP	188
Peach, M.L.	CINF	126	Pelton, M.	COLL	503	Perera, K.	CARB	98
Peach, M.L.	ORGN	26	Pelton, M.	COLL	599	Perera, L.	PHYS	533
Peacock, B.	PHYS	403	Pelton, R.H.	COLL	11	Perera, P.N.	GEOC	7
Peacock, D.	INOR	210	Pena, A.	MEDI	269	Perera, T.A.	AEI	68
Peacock, D.M.	INOR	209	Peña, A.G.	AGFD	38	Perez, C.	CINF	133
Peak, D.	ENVR	120	Pence, L.E.	YCC	21	Perez, D.	COMP	94
Peak, D.	ENVR	217	Penchoff, D.A.	INOR	814	Perez, H.L.	MEDI	147
Peale, R.	ENFL	451	Pendharkar, V.	MEDI	17	Perez, J.J.	AGRO	90
Pearce, C.J.	INOR	65	Pendleton, I.M.	CATL	340	Perez, L.J.	MEDI	174
Pearce, C.J.	INOR	216	Pendurthi, A.	I&E	42	Perez, L.J.	ORGN	215
Pearce, T.R.	COLL	324	Peneau, V.	ENFL	351	Perez, L.	INOR	506
Pearcy, A.C.	PHYS	367	Peneau, V.	ENFL	400	Perez, R.	AGRO	27
Pearcy, A.C.	PHYS	452	Penev, K.I.	PMSE	166	Perez, R.	AGRO	27
Pearlstein, R.A.	COMP	106	Peng, B.	ORGN	548	Perez, S.	AGRO	27
Pearson, A.	CHAL	14	Peng, B.	BIOL	102	Perez, S.	MEDI	258
Pearson, R.A.	PMSE	281	Peng, C.	POLY	302	Pérez, V.	ORGN	494
Pearson, W.	AGFD	3	Peng, C.	POLY	376	Perez-Gonzalez, M.	ANYL	193
Pease, A.	AGRO	182	Peng, C.	POLY	772	Perez-Mercader, J.	POLY	749
Peaslee, G.F.	NUCL	7	Peng, C.	POLY	772	Pérez-Oquendo, M.	BIOL	70
Peck, C.	AGRO	144	Peng, C.	POLY	125	Perez-Ovilla, O.	AGRO	9
Peck, C.	AGRO	146	Peng, C.	POLY	70	Perez-Ovilla, O.	AGRO	14
Peck, C.	AGRO	220	Peng, C.	COMP	70	Perez Perez, M.	PMSE	23
Peck, C.	AGRO	286	Peng, C.	PHYS	225	Perez-Rathke, A.	BIOL	169
Peck, C.	AGRO	289	Peng, C.	PHYS	529	Perez Ruiz, A.	COLL	268
Peck, C.	AGRO	382	Peng, D.	CATL	302	Pérez Treviño, P.I.	MEDI	170
Peck, T.C.	AGRO	350	Peng, F.	POLY	718	Perez-Vazquez, M.	INOR	29
Pecyna, J.G.	CATL	350	Peng, F.	INOR	394	Perine, J.W.	AGRO	178
Peczuh, M.W.	CHED	243	Peng, F.	INOR	948	Perine, J.W.	AGRO	253
Peddiahgari, V.	ORGN	36	Peng, H.	ENVR	391	Perkins, C.K.	INOR	898
Peden, C.H.	ORGN	309	Peng, J.	INOR	389	Perkins, D.	AGRO	77
Peden, C.H.	CATL	245	Peng, L.	ENVR	219	Perkins, D.	AGRO	156
Peden, C.H.	CATL	347	Peng, R.	AGFD	84	Perkins, D.	AGRO	384
			Peng, S.	ORGN	359			

Perkins, H.	CHED	321	Petersen, P.B.	INOR	12	Pham, C.	INOR	769
Perkins, K.M.	POLY	710	Peterson, A.	ENVR	161	Pham, D.H.	INOR	803
Perkins, R.J.	ORGN	227	Peterson, A.A.	ANYL	34	Pham, D.	AGFD	27
Perkins, R.J.	ORGN	332	Peterson, A.A.	CHED	353	Pham, H.	COMP	310
Perkins, R.	ENVR	288	Peterson, A.M.	PMSE	535	Pham, H.	PHYS	228
Perkins, T.	PHYS	290	Peterson, A.	CATL	74	Pham, K.	ORGN	601
Perkins, D.	ORGN	548	Peterson, B.	ORGN	523	Pham, S.T.	INOR	732
Perminova, I.V.	CINF	32	Peterson, C.C.	INOR	814	Pham, T.T.	I&EC	16
Perraud, V.	ENVR	195	Peterson, D.	BIOL	74	Pham, V.H.	AEI	22
Perraud, V.	ENVR	340	Peterson, D.G.	AGFD	202	Phan, H.	INOR	372
Perrault, M.	MEDI	165	Peterson, G.W.	INOR	5	Phan, H.T.	COLL	50
Perreard, S.	POLY	246	Peterson, G.W.	INOR	757	Phan, S.	ANYL	38
Perreault, F.	ENVR	165	Peterson, G.	COLL	71	Phanse, Y.	AGRO	205
Perri, M.	CHED	86	Peterson, G.	COLL	141	Pharr, C.R.	CHED	60
Perri, M.	CHED	113	Peterson, G.	INOR	755	Pharr, C.R.	CHED	264
Perri, M.J.	CHED	111	Peterson, J.J.	COLL	497	Phearman, A.S.	INOR	599
Perrier, S.	PMSE	511	Peterson, J.J.	PHYS	248	Phelan, F.R.	CINF	124
Perrier, S.	PMSE	644	Peterson, K.A.	NUCL	45	Phelan, F.R.	COLL	63
Perrier, S.	POLY	318	Peterson, L.A.	TOXI	94	Phelan, F.R.	PMSE	205
Perrier, S.	POLY	426	Peterson, P.W.	ORGN	27	Phelan, F.R.	PMSE	208
Perrier, S.	POLY	553	Peterson, M.	COLL	100	Phelan, J.	ORGN	125
Perrone, T.	INOR	956	Pettersson, E.	BIOL	173	Phelps, M.A.	MEDI	295
Perry, C.M.	INOR	201	Pettersson, E.	BIOL	186	Phifer, R.W.	SCHB	17
Perry, L.N.	PMSE	657	Pettersson, E.	CHED	172	Philipp, C.C.	ANYL	72
Perry, L.N.	PMSE	669	Pettersson, E.	ORGN	158	Philipp, M.	MEDI	349
Perry, M.D.	CHED	377	Petigara Harp, B.	AGFD	28	Philippaerts, A.	POLY	295
Perry, S.	AEI	79	Petigara Harp, B.	AGFD	30	Philippova, O.	COLL	26
Perry, S.L.	PMSE	266	Petigara Harp, B.	AGFD	210	Phillip, W.A.	ENVR	216
Perry, S.L.	PMSE	315	Petigara Harp, B.	ANYL	193	Phillip, W.A.	PMSE	443
Perry, S.L.	PMSE	536	Petit, C.	CARB	19	Phillips, D.	POLY	271
Perryman, A.L.	BIOL	158	Petit-Homme, J.	CHED	195	Phillips, G.N.	PHYS	416
Perryman, A.L.	MEDI	330	Petitte, J.	ANYL	361	Phillips, H.	POLY	199
Persad, V.	MEDI	297	Petkov, G.	BIOL	132	Phillips, J.	COMP	98
Persch, E.	MEDI	108	Petkov, V.	CATL	302	Phillips, J.A.	CHED	85
Pershina, V.	NUCL	48	Petrey, D.	COMP	7	Phillips, J.A.	PHYS	344
Personne, E.	AGRO	348	Petridis, L.	BIOL	90	Phillips, K.	AEI	20
Persson, K.	CATL	86	Petridis, L.	POLY	713	Phillips, K.	ANYL	347
Persson, K.	CATL	188	Petrignani, A.	PHYS	4	Phillips, K.	COLL	8
Persson, K.	CATL	225	Petrignani, A.	PHYS	6	Phillips, K.S.	ENVR	302
Persson, K.	CATL	280	Petrignani, A.	PHYS	475	Phillips, K.S.	ENVR	348
Persson, K.	CATL	384	Petrilli, W.	MEDI	225	Phillips, L.	COLL	544
Persson, K.	CINF	123	Petrochenko, P.	ANYL	184	Phillips, M.M.	AGFD	260
Persson, P.	ENVR	78	Petrochenko, P.	ANYL	185	Phillips, R.	CHED	195
Persson, P.	INOR	19	Petrone, A.	COMP	144	Phillips, R.	INOR	830
Persson, P.	PHYS	137	Petrone, A.	COMP	159	Phillips, S.T.	POLY	362
Pertmer, G.	ENVR	346	Petronico, A.	ENFL	230	Phimphachanh, A.	POLY	697
Perumal, K.	ORGN	540	Petrov, A.	ANYL	436	Phinney, K.	ANYL	439
Peruzzini, M.	PHYS	362	Petrov, P.N.	AEI	73	Phung, L.	MEDI	328
Peryea, T.A.	CINF	44	Petrov, V.	NUCL	17	Phyo, Z.	MEDI	12
Peryshkov, D.V.	INOR	427	Petrovic, D.	PHYS	149	Piacenti-Silva, M.	ENVR	422
Peryshkov, D.V.	INOR	768	Petrovic, Z.S.	POLY	502	Piacenti-Silva, M.	ENVR	423
Peshne, A.	COMP	5	Petrukhina, M.A.	INOR	626	Pias-Peleiteiro, J.	COLL	622
Petdum, A.	ORGN	561	Petrukhina, M.A.	INOR	733	Piburn, G.W.	INOR	785
Peter, S.	TOXI	99	Petruncio, G.	MEDI	80	Picard, Q.	PMSE	331
Peter, T.	ENVR	553	Petryayeva, E.	COLL	487	Picard, Q.	PMSE	549
Peter, T.	ENVR	556	Petters, M.	ENVR	534	Pickard, F.C.	COMP	311
Peterca, M.	ORGN	506	Petters, S.	ENVR	534	Pickard, F.C.	COMP	315
Peterman, K.E.	CHED	6	Pettersson, F.	ORGN	639	Pickel, J.M.	CHAS	44
Peterman, K.E.	ENVR	183	Pettersson, L.	MEDI	32	Pickel, J.M.	CINF	58
Peters, B.	CATL	472	Pettibone, J.M.	ENVR	523	Pickett, H.M.	PHYS	587
Peters, B.	PHYS	324	Pettis, J.	AGRO	99	Pickett, J.A.	AGRO	31
Peters, B.	I&EC	56	Petty, A.	I&EC	56	Pickett, J.A.	AGRO	109
Peters, E.A.	ANYL	363	Pevzner, Y.	CINF	61	Pickett, J.A.	AGRO	143
Peters, J.	CATL	219	Pevzner, Y.	CINF	134	Pickett, P.D.	POLY	429
Peters, J.	CATL	224	Peyghambarian, N.	PMSE	613	Pickett, P.D.	POLY	469
Peters, J.C.	INOR	310	Pezzato, C.	ORGN	243	Piecuch, P.	PHYS	222
Peters, J.	MEDI	38	Pfaendtner, J.	PMSE	37	Piecuch, P.	PHYS	595
Peters, J.	MEDI	307	Pfaffe, T.	ANYL	156	Piehowski, P.	ANYL	19
Peters, K.	POLY	333	Pfau, M.	PMSE	239	Pienko, T.	COMP	382
Peters, K.	POLY	700	Pfefferkorn, J.A.	MEDI	258	Pienkos, P.T.	ENFL	110
Peters, K.	POLY	701	Pfeiffer, A.	ENVR	85	Pieper, F.	PMSE	577
Peters, K.C.	POLY	512	Pfeiffer, S.	AGFD	244	Pieper, K.	ENVR	325
Peters, M.	INOR	926	Pfitzner, A.	COLL	608	Pierce, B.S.	INOR	700
Peters, M.	MEDI	266	Pfleeger, T.	AGRO	281	Pierce, C.	ORGN	276
Peters, T.	CARB	72	Pflegger, J.	PMSE	40	Pierce, E.	BIOL	33
Peters, W.K.	PHYS	522	Pfukwa, R.	POLY	550	Pierce, E.M.	PRES	25
Petersen, D.	MEDI	63	Phalipon, A.	CARB	20	Pierce, J.	BIOL	113
Petersen, E.	ENVR	10	Pham, A.	ENVR	62	Pierce, J.G.	ORGN	96
Petersen, E.	ENVR	161	Pham, B.	ANYL	369	Pierce, J.G.	ORGN	692
Petersen, J.L.	INOR	264	Pham, B.	ANYL	372	Pierce, K.M.	ANYL	82

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Pierce, K.M.	CHED	300	Pizzagalli, M.	BIOL	56	Poler, J.C.	COLL	201
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Pierre, V.C.	I&EC	24	Place, B.J.	ANYL	112	Polezhaev, A.V.	CATL	20
Pierson, N.	ANYL	139	Place, B.J.	ENVR	513	Polezhaev, A.V.	COLL	188
Pieters, R.J.	CARB	3	Place, L.W.	COLL	522	Polezhaev, A.V.	INOR	345
Pietrangelo, A.	POLY	285	Placencia, D.	COLL	563	Polezhaev, A.V.	INOR	424
Pietrasik, J.	POLY	695	Plagge, A.	COLL	39	Polezhaev, A.V.	INOR	485
Pietratti-Bedzrah, M.	CHED	220	Plamont, M.	BIOL	53	Polezhaev, A.V.	INOR	676
Piggott, A.	BIOL	165	Plana-Junior, P.E.	ENVR	422	Polezhaev, A.V.	INOR	677
Pigza, J.A.	ORGN	238	Plana-Junior, P.E.	ENVR	423	Poli, A.L.	COLL	524
Pihl, J.	CATL	348	Planas, A.	ORGN	36	Poli, M.	ANYL	337
Pike, R.D.	INOR	341	Plank, T.N.	ORGN	505	Poli, R.	INOR	229
Pike, R.D.	INOR	565	Plant, G.	PMSE	309	Poli, R.	INOR	374
Pike, V.W.	NUCL	3	Plasencia Gallofré, G.	ANYL	105	Poli, R.	INOR	880
Pikramenou, Z.	INOR	9	Plasencia Gallofré, G.	ORGN	284	Poli, R.	POLY	5
Pilarski, L.T.	ORGN	607	Plass, K.	INOR	547	Poli, R.	POLY	388
Pilicer, S.L.	ORGN	449	Platero Prats, A.	INOR	292	Poli, R.	POLY	410
Piligian, B.	CARB	57	Platonov, M.	CINF	139	Poli, R.	POLY	411
Pilkington, E.	COMP	11	Platonov, M.	MEDI	357	Poli, R.	POLY	412
Pilla, S.	POLY	633	Platt, S.	PHYS	367	Poli, R.	POLY	413
Pillai, K.	AGFD	78	Platt, S.	PHYS	452	Poli, R.	POLY	773
Pillai, X.	CHAL	1	Platz, K.	AGRO	259	Policar, C.	INOR	689
Pille, J.	POLY	281	Plavnik, M.	CHED	50	Polizzi, E.	PHYS	278
Pillow, T.	ORGN	5	Player, M.R.	MEDI	34	Polizzi, E.	INOR	113
Pimentel, L.	CHED	256	Player, M.R.	MEDI	35	Pollard, J.	POLY	185
Pimviriyakul, P.	CATL	217	Plazaola, F.	INOR	708	Pollard, J.	POLY	201
Pinard, E.	MEDI	256	Plesa Chicanas, R.	ENVR	381	Pollard, J.	POLY	557
Pinaud, J.	POLY	697	Plesniak, M.	ORGN	233	Pollastri, M.P.	BIOL	157
Pine, D.	COLL	476	Pletneva, V.	COLL	26	Pollegioni, L.	AEI	79
Pineda Flores, S.	PHYS	450	Pletscher, J.	CHED	194	Pollet, P.	ORGN	495
Pineda-Galvan, Y.	INOR	353	Pletz, J.	CATL	184	Polli, J.	ENVR	95
Pinero-Santiago, L.E.	CHED	279	Plieger, P.G.	INOR	930	Polly, R.	ENVR	230
Pinero-Santiago, L.E.	CHED	282	Plimpton, S.	COMP	6	Polo Garzon, F.	CATL	14
Pines, A.	PHYS	329	Plimpton, S.	COMP	97	Polo Garzon, F.	CATL	125
Pinhas, A.R.	ORGN	137	Plocher, M.	AGRO	281	Polovov, I.B.	INOR	525
Pinho, S.P.	I&EC	64	Ploecher, H.	BIOL	52	Polovov, I.B.	INOR	622
Pink, M.	COLL	231	Ploegh, H.	MEDI	195	Polovov, I.B.	INOR	639
Pink, M.	INOR	262	Plonka, A.	INOR	3	Polson, M.	INOR	484
Pink, M.	INOR	344	Plonka, A.M.	INOR	147	Polubesova, T.	ENVR	121
Pink, M.	INOR	345	Ploskonka, A.	INOR	5	Polyansky, D.E.	INOR	891
Pink, M.	INOR	485	Ploskonka, A.	INOR	756	Polymeros, A.	CHED	399
Pink, M.	INOR	489	Plückthun, A.	PHYS	588	Polzin, S.M.	INOR	645
Pink, M.	INOR	676	Plummer, R.E.	AGRO	218	Pomerenk, O.	ORGN	542
Pinkerton, A.A.	INOR	519	Plummer Oxley, S.	ANYL	33	Pomes, R.	PHYS	384
Pint, C.	ENFL	317	Plummer Oxley, S.	CHED	216	Pomin, V.H.	CARB	96
Pintacuda, G.	PHYS	342	Plunkett, C.	POLY	743	Pommier, Y.	BIOL	9
Pintauer, T.	INOR	135	Pluntke, K.	AGRO	39	Pompano, R.R.	ANYL	101
Pintauer, T.	INOR	140	Pluntke, K.	AGRO	151	Pompano, R.R.	ANYL	123
Pintauer, T.	ORGN	150	Pluntke, K.	AGRO	155	Pompano, R.R.	ANYL	391
Pintauer, T.	POLY	434	Pluth, M.D.	INOR	939	Pompano, R.R.	POLY	145
Pinter, B.	CATL	191	Pluth, M.D.	ORGN	87	Pompano, R.R.	POLY	525
Pinto, D.	MEDI	308	Pluth, M.D.	ORGN	697	Ponangi, R.	AGFD	22
Pinto Vilar, R.	CATL	452	Plymale, N.T.	ENVR	15	Ponce, F.	AGFD	82
Piontek, S.	PHYS	236	Plymale, N.T.	INOR	920	Ponce, V.H.	COMP	403
Piontek, S.	PHYS	532	Pocai, A.	MEDI	34	Ponce-Gonzalez, J.	PMSE	445
Piotrowski, D.W.	MEDI	63	Pocai, A.	MEDI	35	Ponder, J.W.	COMP	311
Piotrowski, J.	BIOL	114	Pociecha, D.	ORGN	681	Ponder, J.W.	ORGN	83
Pipik, B.	MEDI	245	Podjarny, A.	CINF	126	Ponder, M.	ENVR	54
Piringer, O.	AGFD	105	Podkolzin, S.G.	CATL	465	Ponnurangam, S.	CATL	253
Piro, J.R.	MEDI	246	Podlaha-Murphy, S.	ANYL	206	Ponsart, K.	AEI	62
Pirogovsky, P.	PMSE	38	Poe, M.M.	MEDI	97	Ponte, J.F.	MEDI	157
Pirro, V.	CHED	77	Poffenberger, C.A.	AGRO	51	Ponte, M.A.	AGRO	130
Piscotta, F.	BIOL	161	Pogodin, P.	CINF	83	Ponte, M.A.	AGRO	134
Pissarnitski, D.A.	MEDI	245	Poh, Z.	MEDI	17	Ponte, M.A.	AGRO	361
Pitakjakpipop, P.	ENFL	249	Pohl, C.A.	POLY	625	Pontes, P.	I&EC	64
Pitchaimani, A.	COLL	143	Pohl, H.	ENVR	419	Pontes-Briz, L.	POLY	190
Pitchford, A.	AGRO	158	Poineau, F.	INOR	916	Pontoppidan, K.M.	PHYS	260
Pitkanen, L.	ANYL	154	Poineau, F.	NUCL	18	Pontrelli, S.	BIOL	160
Pitkanen, L.	ANYL	294	Pointer, C.	COLL	169	Pookpanratana, S.	COLL	587
Pitman, C.L.	CHAS	33	Poirier, D.	MEDI	165	Pookpanratana, S.	ORGN	542
Pitman, C.L.	INOR	109	Poirier, M.	MEDI	269	Pool, E.H.	CHED	166
Pitman, C.L.	INOR	214	Poirot, R.	I&EC	4	Poolman, B.	ORGN	502
Pitman, C.L.	INOR	390	Pokhrel, L.	COLL	194	Popat, K.	PMSE	481
Pitman, C.L.	INOR	396	Pokorski, J.K.	COLL	505	Popat, S.	ENVR	18
Pitsawong, W.	PHYS	287	Polakoff, B.M.	AGRO	184	Pope, M.T.	INOR	189
Pitto-Barry, A.	POLY	768	Polanco, T.	ENVR	481	Pope, S.	INOR	377
Pitto-Barry, A.	INOR	575	Polapally, M.	INOR	537	Pope, S.	INOR	378
Piunova, V.A.	PMSE	45	Polasky, D.	PHYS	319	Poplawski, T.	MEDI	317
Piunova, V.A.	PMSE	468	Polcari, D.	AEI	79	Poplawsky, J.	CATL	430
Piunova, V.A.	PMSE	641	Poler, J.C.	COLL	153	Popolan-Vaida, D.M.	PHYS	511

Popoola, A.	CHED	288	Power, P.P.	AEI	50	Prezhdo, O.V.	PHYS	75
Popov, A.V.	MEDI	292	Power, P.P.	INOR	731	Priambodo, R.	ENVR	364
Popova, V.	POLY	686	Powers, D.	INOR	295	Pribyl, J.	I&EC	20
Popovic, J.	INOR	524	Powers, D.	INOR	762	Price, D.	MEDI	63
Popovich, J.	ENFL	395	Powers, D.	ORGN	668	Price, D.	MEDI	258
Popovs, I.	I&EC	18	Powers, G.	ENFL	368	Price, E.	POLY	236
Popovska-Gorevski, M.	MEDI	63	Powers, S.J.	AGFD	203	Price, H.L.	CHED	90
Popp, B.V.	INOR	108	Poyton, M.F.	COLL	348	Price, M.	POLY	604
Popp, B.V.	INOR	238	Pozdneev, A.	COMP	77	Price, N.	TOXI	28
Popp, B.V.	INOR	264	Pozenel, M.	CINF	71	Price, N.E.	TOXI	66
Popp, B.V.	INOR	956	Prabhakaran, V.	CATL	467	Price, N.P.	AGRO	315
Popp, B.V.	ORGN	424	Prabhu, V.	PMSE	105	Price, N.P.	CARB	50
Popp, B.V.	ORGN	463	Prabhu, V.	PMSE	262	Price, N.P.	CARB	51
Poptani, H.	COLL	39	Prabhu, V.M.	PMSE	45	Price, P.	COLL	236
Porch, A.	ENFL	21	Pradeep, T.	PHYS	267	Price, T.W.	CHED	221
Poree, D.E.	POLY	172	Pradeep Singh, N.D.	ORGN	190	Prieto, A.L.	ENVR	362
Poroikov, V.	CINF	83	Pradhan, A.A.	COLL	203	Prieto, L.	AGFD	175
Poroikov, V.	CINF	134	Pradhan, E.	PHYS	526	Prieto-Martínez, F.D.	COMP	176
Poroikov, V.	COMP	291	Pradhan, P.	ORGN	128	Prigjobbe, V.	ENVR	414
Poroyko, V.	PMSE	478	Pradhan, D.	ANYL	14	Prigjobbe, V.	ENVR	416
Porsch, C.	PMSE	41	Prado, J.R.	CHED	341	Prigjobbe, V.	ENVR	418
Porter, C.	ENFL	312	Prakash, A.	COMP	333	Prihandoko, R.	MEDI	8
Porter, K.	COMP	249	Prakash, B.	ENVR	386	Priimagi, A.	POLY	342
Porter, K.	COMP	269	Prakash, G.S.	CHED	227	Prikhodko, V.Y.	CATL	348
Porter, S.E.	CHED	152	Prakash, G.S.	ORGN	334	Prill, R.	PMSE	641
Porter, W.	AGFD	110	Prakash, G.S.	ORGN	593	Prince, C.	CHED	400
Porterfield, D.R.	NUCL	85	Pramanik, A.	MEDI	167	Prince, J.	ENFL	61
Porterfield, D.R.	NUCL	88	Pramanik, A.	AGFD	271	Prince, N.	ANYL	16
Portero, E.	ANYL	415	Pramanik, A.	ENVR	72	Prince, N.	TOXI	76
Portero, E.	ANYL	437	Pramanik, S.	INOR	579	Prins, K.C.	TOXI	42
Portillo, R.I.	INOR	672	Pramanik, S.	INOR	580	Prior, R.	AGFD	232
Portius, P.	INOR	858	Pramanik, S.	COLL	66	Prisco, A.	I&EC	49
Portnoy, M.	ORGN	121	Pramanik, S.	INOR	376	Prisinzano, T.E.	MEDI	280
Portnoy, M.	ORGN	333	Prama Putri, S.	BIOL	160	Pritchard, B.	COMP	30
Portnoy, M.	ORGN	579	Pramudya, I.	POLY	34	Pritchard, B.	COMP	175
Portnoy, M.	ORGN	573	Prasad, A.	CARB	34	Procter, D.	ORGN	233
Pöschl, U.	ENVR	550	Prasad, P.N.	PMSE	479	Proetto, M.	INOR	828
Posillico, A.	INOR	634	Prasad, P.N.	PMSE	612	Proietti, R.	PHYS	140
Pospech, J.	ORGN	546	Prasassarakich, P.	ENFL	7	Prokop, Z.	PHYS	145
Pospech, J.	WCC	7	Prasifka, J.	AGRO	74	Prokopchuk, D.	ENFL	60
Poss, M.	MEDI	269	Prather, K.A.	ENVR	532	Prommer, H.	ENVR	284
Postek, M.	ANYL	28	Pratt, D.A.	TOXI	18	Prommer, H.	ENVR	285
Postek, M.	ENVR	346	Pratt, J.K.	AEI	50	Pronphol, W.	AGRO	395
Poster, D.	ANYL	28	Pratt, J.K.	INOR	731	Pros, G.J.	POLY	434
Poster, D.	ENVR	346	Pratt, J.K.	ORGN	525	Proserpio, D.M.	PHYS	360
Poster, D.	I&EC	31	Pratt, L.R.	PHYS	119	Proskurin, G.V.	MEDI	319
Postlethwaite, A.	MEDI	83	Pratt, M.	BIOL	13	Prosser, S.	PHYS	589
Pote, A.	ORGN	36	Pravitasari, A.	COLL	122	Prossner, K.	ENVR	399
Pothoof, J.	ENVR	368	Preciado, J.	ENVR	367	Protasiewicz, J.D.	INOR	482
Pothupitiya, J.	CATL	321	Prediger, M.S.	TOXI	76	Protasiewicz, J.D.	INOR	884
Pothupitiya, J.	POLY	515	Prediger, M.S.	TOXI	77	Protasiewicz, J.D.	POLY	355
Potocny, A.M.	INOR	961	Preinfalk, A.	ORGN	306	Protti, S.	ORGN	179
Potteiger, C.M.	MEDI	192	Preininger, M.K.	BIOL	170	Proudfoot, A.	MEDI	10
Potter, D.	AGRO	106	Preis, J.	POLY	675	Proust, V.	INOR	539
Potter, S.	CHED	33	Premadasa, U.I.	COLL	463	Provder, T.	PMSE	126
Potter, T.L.	AGRO	177	Premadasa, U.I.	COLL	518	Prucker, O.	PMSE	344
Potter, W.	NUCL	22	Prendergast, D.	CATL	273	Prucker, O.	POLY	610
Potty, A.	ENFL	418	Prendergast, D.	PHYS	190	Pruden, A.	ENVR	54
Poudel, A.	ANYL	3	Prendergast, R.	PHYS	394	Pruden, A.	ENVR	341
Poudel, A.	ANYL	38	Prentis, L.	COMP	274	Pruitt, E.	ENVR	169
Poudel, A.	ANYL	209	Presa Soto, A.	PMSE	108	Pryor, E.M.	SCHB	41
Poulikakos, D.	COLL	555	Presa-Soto, D.	PMSE	108	Prywes, N.	ENFL	141
Poulsen, A.	MEDI	17	Prescher, J.A.	BIOL	12	Przybranowski, S.	MEDI	156
Poulsen, A.	MEDI	277	Prescher, J.A.	BIOL	67	Przywara, J.	ENFL	158
Poulsen, J.	INOR	583	Prescher, J.A.	CHED	74	Ptaszek, M.	ORGN	95
Poulson, S.R.	ENVR	24	Prescher, J.A.	COLL	453	Ptaszek, M.	ORGN	377
Pourtaheri, P.	AGFD	9	Prescher, J.A.	COMSCI	5	Ptaszek, M.	ORGN	633
Poutsma, J.C.	INOR	341	Prescher, J.A.	ORGN	320	Ptaszek, M.	PMSE	485
Povirk, A.W.	MEDI	120	Press, E.	INOR	801	Pu, J.	CATL	293
Powderly, K.M.	INOR	918	Press, E.	INOR	877	Pu, J.	COLL	142
Powell, B.	CHED	32	Presser, V.	ENFL	378	Pu, M.	MEDI	267
Powell, B.	CHED	31	Presser, V.	ENFL	484	Pu, T.	CATL	351
Powell, B.V.	TOXI	57	Pressman, J.G.	AEI	32	Pu, T.	ENVR	224
Powell, B.A.	ENVR	228	Prestegard, J.H.	CARB	76	Pu, T.	ENVR	448
Powell, B.A.	NUCL	40	Preston, J.	CATL	422	Pugh, M.	MEDI	89
Powell, C.	PMSE	603	Preston, S.S.	HIST	26	Pugh, M.	MEDI	90
Powell, D.R.	INOR	697	Preston, T.	ENVR	552	Pugliese, D.	CELL	9
Powell, M.	ANYL	134	Preville, C.	MEDI	211	Puhl, M.	AGRO	387
Powell, S.	PMSE	316	Prevost, S.	COLL	93	Pujari, S.	TOXI	60
Powells, G.	AGRO	317	Preza, S.	ENVR	300	Pulay, P.	COMP	20

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Puleo, T.	ORGN	569	Qin, D.	COLL	183	Raabe, H.	ANYL	22
Pulicharla, N.	MEDI	365	Qin, D.	COLL	373	Raabe, H.	ENVR	544
Pulkkinen, A.	POLY	681	Qin, D.	COLL	396	Rabani, E.	PHYS	74
Pullanchery, S.	ANYL	10	Qin, H.	ENVR	507	Rabani, E.	PHYS	155
Pullanchery, S.	COLL	89	Qin, J.	ORGN	321	Rabani, E.	PHYS	175
Pulukkody, R.	POLY	603	Qin, J.	AGFD	213	Rabbani, M.	ENFL	90
Pun, A.	ORGN	679	Qin, J.	MEDI	169	Rabbani, R.	ORGN	540
Punia, K.	PMSE	402	Qin, J.	INOR	144	Rabbani, R.	ORGN	703
Purandare, A.V.	MEDI	25	Qin, K.	AGRO	82	Rabin, R.	ANYL	283
Purchel, A.	POLY	199	Qin, L.	ENFL	454	Rabinovich, A.	ENVR	210
Purdy, A.P.	INOR	55	Qin, P.	INOR	726	Rabinovich, D.	HIST	3
Purdy, J.R.	AGRO	59	Qin, P.	INOR	727	Rabinovich, D.	INOR	486
Purdy, J.R.	AGRO	60	Qin, P.	ORGN	361	Rabinovich, D.	INOR	931
Puretzky, A.	ENFL	361	Qin, S.	COLL	214	Raccio, S.	POLY	185
Purkait, T.K.	INOR	801	Qin, S.	POLY	770	Raccio, S.	POLY	201
Purkey, H.E.	MEDI	22	Qin, Y.	POLY	658	Race, N.A.	CHED	237
Purkey, H.E.	MEDI	103	Qin, Y.	AGRO	341	Race, N.A.	CHED	239
Purser, L.	CHED	294	Qin, Y.	CATL	33	Race, N.A.	INOR	273
Purucker, T.	AGRO	102	Qin, Y.	CATL	158	Racicot, K.	AGFD	36
Purvis, R.	AGRO	10	Qin, Y.	CATL	216	Racicot, K.	AGFD	50
Pushkar, Y.	INOR	353	Qin, Y.	CATL	418	Raciti, D.	CATL	133
Putnam, A.A.	AEI	85	Qin, Z.	COLL	460	Raciti, D.	PHYS	86
Putnam, A.A.	PMSE	404	Qin, Z.	AGRO	126	Rack, J.	NUCL	44
Puype, F.	ANYL	91	Qin, M.	AEI	34	Racke, K.D.	AGRO	120
Puzzarini, C.	PHYS	55	Qin, M.	ENVR	207	Rackers, J.	COMP	311
Puzzarini, C.	PHYS	103	Qing, Z.	PMSE	616	Rackov, C.	CHED	75
Puzzarini, C.	PHYS	513	Qing, Z.	POLY	735	Rackov, C.	ENVR	384
Puzzarini, C.	PHYS	520	Qiu, C.	AGFD	194	Racow, E.	PHYS	370
Pyatkovskyy, T.	AGFD	163	Qiu, C.	ANYL	280	Racz, M.	I&EC	35
Pye, H.	ENVR	189	Qiu, F.	COLL	497	Radchenko, T.	ANYL	105
Pyle, E.	CHED	58	Qiu, H.	PMSE	616	Radchenko, T.	ORGN	284
Pyle, J.R.	COLL	172	Qiu, L.	COMP	334	Radchenko, V.	NUCL	1
Pyun, J.	POLY	106	Qiu, L.	PMSE	167	Rader, C.	MEDI	228
Pyun, J.	POLY	273	Qiu, M.	CINF	54	Radi, L.	PMSE	506
Pyun, J.	POLY	419	Qiu, S.	PMSE	414	Radi, L.	POLY	703
Pyun, J.	POLY	594	Qiu, X.	COMP	200	Radicella, C.	MEDI	297
Pyun, J.	POLY	693	Qiu, Y.	MEDI	277	Radiom, M.	POLY	207
Qadri, S.B.	I&EC	50	Qiu, S.	ENVR	150	Radivojevic, I.	ENVR	232
Qi, F.	ENVR	106	Qu, C.	ANYL	404	Radjabian, M.	PMSE	27
Qi, G.	CELL	15	Qu, C.	ENFL	221	Radjabian, M.	PMSE	636
Qi, G.	CATL	247	Qu, G.	CATL	296	Radke, W.	POLY	675
Qi, J.	ENVR	401	Qu, L.	ANYL	404	Radney, J.	ENVR	487
Qi, J.	ENVR	439	Qu, Q.	MEDI	157	Radosevich, A.T.	INOR	356
Qi, L.	PHYS	88	Quach, Q.	ENFL	199	Radousky, H.	NUCL	64
Qi, L.	MEDI	88	Quach, R.	AEI	69	Radovic, M.	COLL	534
Qi, R.	COMP	102	Quan, D.N.	BIOL	159	Radtke, D.	ORGN	622
Qi, S.	PMSE	283	Quan, L.	COLL	600	Radu, D.R.	COLL	532
Qi, S.	ANYL	87	Quan, M.	PMSE	457	Radzinski, S.	POLY	161
Qi, X.	ENFL	485	Quan, W.	ENFL	401	Raeder, S.	NUCL	49
Qi, X.	COLL	578	Quan, X.	ENVR	153	Raeisi, M.	ORGN	540
Qi, Y.	PHYS	326	Quan, X.	ENVR	179	Raeisi, M.	PMSE	453
Qi, Z.	INOR	41	Quan, X.	ENVR	462	Rafaj, Z.	CATL	299
Qian, E.W.	ENFL	448	Quan, Z.	COLL	550	Raff, J.D.	ENVR	291
Qian, E.A.	WCC	3	Quang, J.	ANYL	55	Raffan, S.	AGFD	205
Qian, J.	ENFL	328	Quang, L.	CATL	341	Rafferty, J.	ANYL	411
Qian, J.	ENVR	198	Quartner, E.	BIOL	112	Rafferty, J.	ORGN	660
Qian, J.	PMSE	413	Quasdorf, K.	ORGN	273	Rafferty, R.	ORGN	693
Qian, J.	ENVR	418	Quasney, C.	CHED	189	Rafferty, R.	ORGN	694
Qian, M.C.	AGFD	6	Quasney, C.	CHED	248	Rafiei, A.	COLL	276
Qian, M.C.	AGFD	92	Que, E.L.	INOR	522	Rafikova, S.	PHYS	299
Qian, M.C.	AGFD	195	Que, E.L.	INOR	572	Rafiq, R.	COLL	605
Qian, W.	ANYL	146	Quedado, K.D.	ANYL	66	Rafique, H.	ORGN	45
Qian, X.	POLY	81	Queen, W.L.	ENVR	219	Rafique, H.	ORGN	689
Qian, X.	POLY	526	Queiroz, I.N.	CARB	96	Ragains, J.R.	CARB	66
Qian, Y.	ENVR	382	Queiroz, S.C.	AGRO	316	Ragauskas, A.J.	CATL	94
Qian, Y.	ENVR	511	Quérel, D.	POLY	158	Rager, J.	ENVR	548
Qian, Y.L.	AGFD	195	Quinlan, R.	BIOL	104	Raggon, J.W.	ORGN	9
Qian, Y.	PMSE	522	Quinn, D.	ORGN	605	Raghavachari, K.	COLL	267
Qian, Y.	PMSE	638	Quinn, J.E.	ORGN	157	Raghavachari, K.	COMP	47
Qian, Z.	PMSE	283	Quiñones Díaz, B.	CHED	277	Raghavachari, K.	COMP	366
Qiao, B.	INOR	808	Quintana, R.	INOR	107	Raghavachari, K.	I&EC	23
Qiao, G.G.	PMSE	76	Quintana, R.	POLY	720	Raghavachari, K.	ORGN	264
Qiao, G.G.	PMSE	223	Quintanar, L.	INOR	29	Raghavan, N.	MEDI	25
Qiao, G.G.	POLY	233	Quintanar, L.	INOR	320	Raghavan, S.R.	COLL	364
Qiao, H.	CATL	208	Quiroz, M.	CATL	267	Raghavan, S.R.	COLL	407
Qiao, L.	MEDI	26	Quiroz, M.	INOR	159	Raghavan, S.R.	POLY	574
Qiao, R.	COLL	406	Quist, D.A.	INOR	790	Raghavan, S.R.	POLY	646
Qiao, Y.	INOR	398	Quist, D.A.	INOR	792	Raghavan, S.R.	POLY	650
Qin, C.	MEDI	336	Quitevis, E.L.	ANYL	166	Raghavan, S.	WCC	6
Qin, D.	COLL	116	Raabe, A.	AGRO	20	Raghavendra, H.	ENFL	222

Raghibi Boroujeni, M.	ENFL	20	Ramamoorthy, A.	PHYS	341	Rao, L.	I&EC	18
Raghibi Boroujeni, M.	INOR	897	Ramamurthy, P.C.	ORGN	428	Rao, R.G.	CATL	116
Raghunathan, R.	ORGN	188	Raman, V.	PHYS	334	Rao, R.	CATL	83
Raghunathan, R.	POLY	761	Ramanan, R.	PHYS	109	Rao, R.	ENFL	389
Ragland, T.	ANYL	341	Ramanarayanan, T.S.	AGRO	288	Rao, S.	MEDI	89
Ragsdale, S.W.	BIOL	33	Ramanathan, A.	ENVR	132	Rao, S.	MEDI	90
Ragsdale, S.W.	CATL	217	Ramanathan, S.	COMP	338	Rao, V.	BIOL	117
Raguzina, E.V.	INOR	639	Ramasamy, K.K.	CATL	99	Rao, Z.	I&EC	57
Rahaman, S.	POLY	5	Ramasamy, K.K.	CATL	431	Rapf, R.	ENVR	288
Rahatgaonkar, A.M.	ENFL	154	Ramasamy, K.K.	CATL	455	Raphemot, R.	BIOL	156
Rahatgaonkar, A.M.	SCHB	35	Ramelot, T.	POLY	751	Rappe, A.M.	AEI	27
Raheem, I.T.	ORGN	60	Ramesh, R.	MPPG	5	Rappe, A.M.	INOR	672
Rahman, A.	ANYL	143	Ramesha, C.	MEDI	122	Rappe, K.G.	INOR	272
Rahman, A.	ANYL	402	Ramiah Rajasekaran, P.	BIOL	159	Rappoport, D.	COMP	121
Rahman, A.	ANYL	403	Ramirez, B.L.	INOR	816	Raptis, R.G.	I&EC	21
Rahman, A.	ANYL	406	Ramirez, J.	COMP	198	Raptis, R.	NUCL	28
Rahman, A.	CARB	62	Ramirez, J.	PMSE	155	Raquez, J.	POLY	328
Rahman, A.	SCHB	7	Ramirez, J.	PMSE	294	Rasaiah, J.C.	COMP	188
Rahman, A.	ANYL	403	Ramirez, J.	INOR	827	Rasaiah, J.C.	PHYS	67
Rahman, A.K.	ANYL	143	Ramirez, M.	ENFL	457	Raschka, S.	COMP	104
Rahman, A.K.	ANYL	402	Ramirez, M.	ENVR	202	Rasco, B.	AGFD	158
Rahman, A.K.	ANYL	406	Ramirez, M.	ANYL	30	Rasheed, M.	MEDI	94
Rahman, F.	INOR	836	Ramirez, M.	ANYL	31	Rasheed, M.	MEDI	95
Rahman, M.	POLY	285	Ramirez, S.M.	PMSE	608	Rasheed, M.	MEDI	354
Rahman, M.	INOR	768	Ramirez, A.A.	ENVR	455	Rasheed, M.	MEDI	355
Rahman, M.	ANYL	234	Ramirez, J.	BIOL	81	Rashidian, M.	BIOL	52
Rahman, M.	CATL	207	Ramirez-Cuesta, A.	BIOL	90	Rashidian, M.	MEDI	195
Rahman, S.	CHED	236	Ramirez-Cuesta, A.	INOR	753	Rashtchian, C.	I&EC	35
Rahman, S.	ENVR	330	Ramirez-Cuesta, A.	PHYS	437	Raskin, I.	AGFD	19
Rahman, S.	PHYS	89	Ramirez-López, P.	ORGN	355	Rasmussen, S.C.	HIST	1
Rahman, T.	CHED	208	Ramjee, B.	COLL	258	Raso, S.	TOXI	41
Rai, R.	CATL	155	Ramjee, B.	COLL	616	Rasool, N.	ORGN	364
Rai, R.	PHYS	578	Ramlogan, M.V.	ENVR	451	Rasouli, S.	BIOL	87
Raigoza, A.F.	CHED	327	Ramos, A.	ENFL	28	Rasouli, S.	BIOL	92
Raigoza, A.F.	COLL	138	Ramos, I.	BIOL	119	Rasoulpour, R.	AGRO	40
Railing, M.E.	CHED	225	Ramos, R.	COMP	198	Rasoulpour, R.	AGRO	194
Railing, M.E.	CHED	226	Ramos, S.	AGFD	117	Rasoulpour, R.	CINF	141
Railing, M.E.	CHED	393	Ramos-Garces, M.	INOR	143	Rasper, D.	MEDI	250
Rainey, J.K.	PHYS	592	Ramos-Hunter, S.J.	ORGN	389	Rasschaert, G.	AGRO	87
Rais, R.	MEDI	318	Rampasek, L.	COMP	90	Rastede, E.E.	ORGN	415
Raisigel, J.	ENVR	517	Ramprasad, R.	POLY	608	Rastegary, J.	INOR	255
Raj, W.	POLY	695	Rampulla, R.	MEDI	25	Rastogi, S.	CINF	70
Raja, K.	PMSE	402	Rampulla, R.	MEDI	365	Rastrelli, F.	COMP	143
Rajabi, M.	MEDI	342	Ramsbeck, D.	MEDI	181	Ratchford, D.	POLY	459
Rajabzadeh, A.R.	AGFD	122	Ramsby, S.	COMP	220	Ratcliff, L.E.	COMP	51
Rajagopal, V.	PHYS	219	Ramsey, S.	COMP	229	Rath, T.	POLY	747
Rajale, T.	PMSE	306	Ramsey, S.	COMP	267	Rathi, R.	CHED	258
Rajalekshmi Devi, S.	MEDI	82	Rana, A.	ORGN	265	Rathjen, K.	AGRO	184
Rajamani, R.	MEDI	365	Rana, P.H.	CATL	159	Rathjen, K.	AGRO	293
Rajan, R.	ENVR	521	Ranasingha, O.K.	COLL	261	Rathjens, H.	AGRO	81
Rajan, N.	AGFD	266	Ranasinghe, D.S.	AEI	25	Rathjens, H.	AGRO	274
Rajanbabu, T.	ORGN	231	Ranasinghe, D.S.	COMP	68	Rathman, J.	CINF	34
Rajapandian, V.	PHYS	148	Ranasinghe, D.S.	COMP	133	Rathman, J.	CINF	42
Rajasekaran, P.	ENVR	300	Ranasinghe, J.C.	ANYL	288	Ratner, M.A.	PHYS	359
Rajee, A.O.	INOR	929	Ranaweera, C.	ENFL	201	Ratni, H.	MEDI	256
Rajendrakumar, R.	CATL	233	Ranaweera, C.	ENFL	242	Rattanavaraha, W.	ENVR	189
Rajendrakumar, R.	CATL	385	Randell, C.	ANYL	177	Ratzloff, M.	CATL	218
Rajendrakumar, R.	CATL	434	Randl, S.	MEDI	46	Ratzloff, M.	CATL	219
Rajesh Raja, P.	PMSE	173	Randtke, S.J.	ENVR	258	Raub, A.G.	ORGN	50
Rajeshwar, K.	CATL	108	Randtke, S.J.	GEOC	11	Rauchfuss, T.B.	AEI	40
Rajic, L.	ENVR	328	Ranganathan, J.	CINF	104	Rauchfuss, T.B.	AEI	54
Rajput, N.	CATL	225	Rangari, V.K.	CELL	7	Rauchfuss, T.B.	CATL	269
Rajput, N.	CATL	384	Rangel-Rivera, G.	MEDI	69	Rauchfuss, T.B.	INOR	769
Rajput, S.	COLL	109	Rangsunvigit, P.	COLL	282	Raugei, S.	CATL	217
Raju, A.	CATL	355	Rangwala, N.	PHYS	205	Raugei, S.	CATL	223
Raju, A.	CATL	474	Ranjith, K.S.	PMSE	21	Raugei, S.	ENFL	58
Rajyaguru, S.	MEDI	353	Ranjith Kumar, D.	CATL	434	Raugei, S.	INOR	233
Rak, A.	COMP	63	Rankin, M.	MEDI	37	Rauh, D.	MEDI	15
Raker, J.R.	CHED	71	Rankl, N.	AGRO	387	Rauniyar, V.	ORGN	118
Raker, J.R.	CHED	408	Rannard, S.	COLL	65	Raushel, F.M.	PHYS	43
Rakhmatullin, A.I.	INOR	525	Rannard, S.	COLL	145	Ravel, B.	GEOC	17
Ralston, M.	CHED	287	Rannard, S.	COLL	412	Ravenscroft, N.	CARB	74
Ralston-Hooper, K.	AGRO	282	Rannard, S.	COLL	547	Ravetz, B.	ORGN	230
Ralston-Hooper, K.	AGRO	406	Rannard, S.	PMSE	624	Ravi, N.	PMSE	103
Ralte, L.	INOR	651	Rannard, S.	ORGN	671	Ravindra, M.P.	MEDI	70
Ramachandran, S.	POLY	540	Rao, A.	MEDI	365	Ravindra, M.P.	MEDI	142
Ramaiyan, K.	CATL	348	Rao, G.	MEDI	197	Ravitz, O.	CINF	22
Ramakrishna, S.	PMSE	622	Rao, G.	INOR	222	Raw, S.	ORGN	362
Ramakrishnan, G.	ENVR	409	Rao, K.	ENVR	392	Rawal, S.	PHYS	235
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Rawi, R.	COMP	293	Regad, L.	CINF	138	Ren, D.	PHYS	578
Rawlings, C.	COLL	297	Regalbuto, J.R.	CATL	202	Ren, H.	ORGN	324
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Ray, A.	PHYS	470	Regalbuto, J.R.	CATL	399	Ren, H.	ENFL	409
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Ray, K.K.	ENVR	530	Regalbuto, J.R.	CATL	441	Ren, J.	PMSE	119
Ray, K.K.	ENVR	557	Regassa, L.	CINF	50	Ren, J.M.	POLY	233
Ray, N.	MEDI	266	Regen, S.L.	BIOL	73	Ren, J.	MEDI	271
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Ray, P.C.	ENVR	72	Reggio, P.	PHYS	591	Ren, L.	ENVR	131
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Raya, B.	ORGN	584	Reguera, J.	COLL	571	Ren, S.	ENFL	476
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R de la Rosa, V.	POLY	754	Reichenbach, T.	CATL	92	Renderos, G.	CHED	350
Rea, S.	ENFL	92	Reichle, L.	ENVR	314	Renderos, T.	CATL	438
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Realff, M.J.	POLY	709	Reid, B.	PMSE	284	Renggli, K.	POLY	201
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Reams, J.	POLY	217	Reid, C.X.	AGRO	339	Renjie, C.	ENFL	328
Reams, J.	POLY	521	Reid, E.E.	MEDI	157	Renlan, L.	ENVR	176
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Reballi, V.	MEDI	354	Reid, P.C.	MEDI	269	Rentzepis, P.J.	CHED	34
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Reber, C.	MEDI	137	Reidl, C.	CHED	315	Renzi, P.	ORGN	356
Reber, C.	MEDI	139	Reidmiller, D.	ENVR	182	Renzi, P.	ORGN	483
Reboul, J.	POLY	697	Reifsteck, J.	COLL	36	Repo, T.	ORGN	486
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Reddy, B.	ENFL	373	Reiner, B.R.	INOR	450	Reuter, K.U.	COMP	13
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Reddy, D.	ENFL	272	Reiner, J.	ANYL	151	Reveles, U.	PHYS	268
Reddy, G.K.	CATL	350	Reinert, Z.	ORGN	320	Rey, F.E.	BIOL	35
Reddy, J.	MEDI	87	Reipa, V.	ENVR	10	Reyes, A.	MEDI	63
Reddy, J.	MEDI	88	Reipa, V.	ENVR	161	Reyes, D.	ENVR	249
Reddy, S.	MEDI	365	Reisch, B.I.	AGFD	68	Reyes, E.A.	ENFL	408
Redeker, N.	COLL	604	Reisman, S.E.	ORGN	195	Reyes, J.	ANYL	377
Redfern, L.	ENVR	536	Reisman, S.E.	ORGN	247	Reyes, M.	ENVR	249
Redfern, P.	CATL	278	Reisner, B.A.	CHED	58	Reyes, S.	ENFL	31
Redhwi, H.H.	PMSE	423	Reisner, B.A.	CHED	94	Reynaud, E.	PMSE	510
Redhwi, H.H.	PMSE	424	Reisner, B.A.	CHED	95	Reynaud, E.	POLY	634
Redjel, Y.K.	POLY	410	Reisner, B.A.	INOR	547	Reynders, G.	CHED	117
Reed, D.	ENFL	164	Reisner, B.A.	INOR	548	Reynders, G.	CHED	412
Reed, D.T.	ENVR	226	Reisner, B.A.	INOR	890	Reynolds, D.	AGRO	339
Reed, D.T.	ENVR	415	Reisner, E.	CATL	228	Reynolds, J.R.	PMSE	5
Reed, D.T.	NUCL	17	Reisner, E.	INOR	937	Reynolds, J.R.	PMSE	552
Reed, E.	COMP	92	Reiss, R.	AGRO	148	Reynolds, M.M.	INOR	500
Reed, E.	ENFL	312	Reitano, M.	CHED	305	Reza, M.	ENFL	270
Reed, J.J.	CHED	71	Reith, D.	COMP	315	Reza, M.	ENVR	24
Reed, J.J.	CHED	408	Reitz, A.B.	MEDI	254	Reza, M.	ENVR	85
Reed, N.W.	POLY	479	Renaud, G.	AGFD	193	Rezaei, F.	ENFL	182
Reed, R.	ANYL	156	Rembert, K.B.	COLL	348	Rezayee, N.M.	INOR	605
Reeder, J.T.	POLY	117	Remeur, C.	ORGN	643	Rezayee, N.M.	INOR	951
Reeder, R.J.	ENVR	77	Remsing, R.	COMP	37	Rhee, G.	AGRO	338
Reeder, W.S.	ENVR	219	Remsing, R.	PHYS	169	Rheingold, A.L.	INOR	53
Reed Harris, A.	ENVR	288	Remsing, R.	PHYS	236	Rheingold, A.L.	INOR	100
Rees, J.	NUCL	54	Remsing, R.	PHYS	530	Rheingold, A.L.	INOR	158
Reese, D.	INOR	904	Remsing, R.	PHYS	532	Rheingold, A.L.	INOR	193
Reese, M.	ENFL	61	Remsing, R.C.	ENFL	416	Rheingold, A.L.	INOR	261
Reeves, K.	ENVR	182	Ren, B.	ANYL	268	Rheingold, A.L.	INOR	373
Reeves, M.S.	CHED	86	Ren, B.	PHYS	399	Rheingold, A.L.	INOR	482
Reeves, T.E.	ENVR	296	Ren, B.	PHYS	445	Rheingold, A.L.	INOR	724

Rheingold, A.L.	INOR	726	Riegel, S.	I&EC	43	Rizwan, K.	ORGN	364
Rheingold, A.L.	INOR	727	Rieger, J.	ENVR	278	Rizzardo, E.	POLY	190
Rheingold, A.L.	INOR	803	Rieger, J.	POLY	255	Rizzo, C.	TOXI	15
Rheingold, A.L.	INOR	884	Riehl, P.S.	ORGN	257	Rizzo, C.	TOXI	93
Rheingold, A.L.	INOR	934	Riel, H.	PHYS	13	Rizzo, R.C.	COMP	260
Rheingold, A.L.	INOR	935	Rieman, D.	ORGN	59	Rizzo, R.C.	COMP	261
Rheingold, A.L.	ORGN	49	Rieth, A.J.	INOR	355	Rizzo, R.C.	COMP	265
Rheingold, A.L.	ORGN	50	Rifaat, D.	CARB	33	Rizzo, R.C.	COMP	268
Rheingold, A.L.	ORGN	361	Rifaie-Graham, O.	POLY	91	Rizzo, R.C.	COMP	274
Rheingold, A.L.	WCC	3	Rifaie-Graham, O.	POLY	185	Rizzo, R.C.	COMP	319
Rhodes, D.	INOR	870	Riffe, E.	PHYS	378	Rizzo, T.R.	PHYS	562
Rhodes, J.M.	INOR	711	Riffet, V.	PHYS	213	Ro, I.	ANYL	389
Riabtseva, A.	POLY	305	Rigaud, N.	CHED	298	Ro, K.	ENVR	209
Riaz, L.	ENVR	474	Riggelman, R.	PHYS	200	Robb, M.J.	POLY	212
Ribas, X.	INOR	495	Riggleman, R.	PHYS	203	Robbins, D.	ORGN	548
Ribbe, A.	PMSE	465	Riggs, J.R.	MEDI	20	Robbins, K.	MEDI	269
Ribeiro, A.	CHED	326	Rikukawa, M.	ENFL	184	Robbins, M.O.	PMSE	153
Ribeiro, A.J.	PHYS	89	Rikukawa, M.	ENFL	189	Robbins, M.O.	PMSE	206
Ribeiro, A.J.	PHYS	447	Rikukawa, M.	PMSE	378	Robbins, M.O.	PMSE	209
Ribeiro, F.	CATL	243	Rikukawa, M.	PMSE	433	Robbins, M.O.	PMSE	335
Ribeiro, F.	ENFL	73	Riley, J.	ANYL	120	Roberge, A.	INOR	361
Ribeiro, F.	ENFL	171	Riley, J.	ENFL	135	Roberson, L.B.	YCC	1
Ribeiro, I.	ENVR	189	Riley, K.C.	PHYS	393	Roberson, L.B.	YCC	12
Ribeiro, J.L.	COMP	165	Riley, K.C.	PHYS	500	Roberson, M.G.	PHYS	403
Ribelli, T.	POLY	5	Riley, S.J.	COLL	349	Roberto, J.	NUCL	58
Ribelli, T.	POLY	379	Riley, S.J.	ENFL	229	Roberts, C.A.	CATL	350
Ribelli, T.	POLY	388	Riley, S.J.	INOR	456	Roberts, D.	NUCL	69
Ribitsch, D.	POLY	72	Rillema, D.P.	INOR	561	Roberts, D.	AGFD	213
Riccardi, D.	CINF	145	Rim, J.	NUCL	88	Roberts, E.	INOR	548
Riccardi, L.	COMP	143	Rimando, A.M.	AGFD	242	Roberts, J.	ENVR	482
Riccardi, L.	COMP	340	Rimmer, C.	AGFD	260	Roberts, M.	ENFL	254
Rice, C.P.	AGRO	78	Rimmer, C.	ANYL	112	Roberts, R.	PMSE	484
Rice, D.D.	AGRO	261	Rimmer, K.	CHED	156	Roberts, S.	PHYS	375
Rice, F.	AGRO	116	Rinaldi, R.	CATL	48	Roberts, C.A.	ORGN	548
Rice, J.E.	COMP	28	Rinaldo, D.	ANYL	132	Robertson, E.	ENFL	199
Rice, K.C.	MEDI	155	Rincon, G.J.	ENVR	459	Robertson, G.	MEDI	326
Rice, K.C.	ORGN	627	Rinderspacher, C.B.	PHYS	27	Robertson, J.D.	NUCL	7
Rice, P.	AGRO	14	Rinehart, N.I.	INOR	52	Robertson, J.D.	NUCL	77
Rice, P.J.	AGRO	357	Rinehart, N.I.	INOR	629	Robertson, J.W.	ANYL	151
Rich, C.C.	AEI	80	Ringe, E.	COLL	221	Robertson, J.W.	ANYL	371
Rich, C.C.	COLL	529	Ringgold, M.A.	INOR	811	Robertson, M.	AGRO	91
Richard, A.	GEOC	27	Ringstrand, B.S.	INOR	772	Robertson, M.A.	AGRO	124
Richard, A.	CINF	121	Riniker, S.	COMP	307	Robertson, M.L.	POLY	631
Richard, A.	ENVR	548	Riniker, S.	COMP	357	Robertson, M.L.	POLY	632
Richard, J.	POLY	697	Rio, E.	COLL	388	Robertson, S.	INOR	736
Richard, M.	COLL	401	Rioja, A.	CATL	255	Robeson, L.M.	PMSE	336
Richard, M.	MEDI	131	Riordan, C.M.	ANYL	360	Robichaud, D.	CATL	190
Richard, R.	AEI	81	Rios, L.	PHYS	100	Robichaud, D.	ENFL	397
Richard, R.	COMP	175	Rioux, R.M.	COLL	400	Robinette, L.	MEDI	253
Richard, R.	COMP	367	Rioux, R.M.	PHYS	88	Robins, E.G.	CATL	486
Richards, R.M.	CATL	55	Rippmann, F.	COMP	283	Robins, L.I.	INOR	620
Richards, R.M.	CATL	101	Rishton, G.M.	MEDI	255	Robins, R.J.	AGFD	193
Richardson, H.H.	COLL	276	Risterucci, C.	MEDI	256	Robinson, B.	PMSE	658
Richardson, K.E.	BIOL	71	Ristic, R.	AGFD	27	Robinson, D.	ORGN	443
Richardson, S.L.	MEDI	96	Ritter, A.M.	AGRO	9	Robinson, D.A.	AEI	4
Richardson-Solorzano, S.	INOR	227	Ritter, A.M.	AGRO	154	Robinson, D.A.	COLL	61
Richert, L.	ORGN	594	Ritter, A.M.	AGRO	352	Robinson, E.	MEDI	177
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Richeson, D.S.	INOR	222	Ritter, A.M.	AGRO	355	Robinson, J.T.	INOR	706
Richey, K.	POLY	525	Ritter, A.M.	AGRO	381	Robinson, J.T.	ORGN	673
Richey, N.	INOR	510	Rittmann, B.E.	ENVR	18	Robinson, J.R.	INOR	813
Richter, A.	NUCL	2	Rittmann, B.E.	ENVR	255	Robinson, J.	MEDI	225
Richter, C.A.	COLL	587	Rittmann, B.E.	ENVR	538	Robinson, J.	ENFL	145
Richter, D.	ORGN	625	Rittmann, B.E.	ENVR	558	Robinson, N.	ANYL	118
Richter, L.J.	POLY	223	Rittwegger, S.	CHED	222	Robinson, P.R.	ENFL	104
Richter, M.	COLL	541	Ritz, K.	INOR	341	Robinson, R.P.	MEDI	86
Richter, S.	COMP	262	Riva, M.	ENVR	189	Robinson, R.	COLL	559
Richter-Addo, G.B.	INOR	697	Rivas, T.E.	ORGN	310	Robinson, S.M.	ANYL	107
Richter-Egger, D.L.	CHED	11	Rivas-Pardo, J.	BIOL	181	Roble, C.	BIOL	84
Ricket, J.P.	ORGN	646	Rivera, G.	ORGN	396	Rocchia, W.	COMP	385
Rickey, D.	CHED	49	Rivera, M.	AGRO	140	Rocha, J.R.	COMP	166
Rickey, D.	CHED	53	Rivera, M.	CELL	34	Rocha, J.R.	ENVR	220
Ricks, K.	ANYL	337	Rivera, N.	ORGN	664	Roche, J.	PHYS	288
Ricote, S.	COLL	538	Rivera-Ortiz, J.M.	ORGN	532	Roche, P.	COLL	154
Ricotti, L.	COLL	219	Rivera-Oven, A.	BIOL	47	Rochel, N.	MEDI	83
Riddick, N.	CINF	50	Rivera Torres, S.M.	CHED	279	Rochford, J.J.	INOR	22
Ridenour, J.A.	INOR	633	Rivero-Crespo, M.A.	CATL	41	Rochford, J.J.	INOR	192
Rider, C.V.	TOXI	24	Rivilla, V.	PHYS	108	Rochford, J.J.	INOR	274
Ridge, C.	ANYL	130	Rivilla, V.	PHYS	207	Rochford, J.J.	INOR	278
Ridgeway, M.	PHYS	321	Rizvi, Z.	POLY	632	Rochford, J.J.	ORGN	217

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Rockcliffe, D.A.	INOR	130	Rogers, R.E.	ENVR	220	Rosenthal, J.	ENFL	179
Rockcliffe, D.A.	INOR	132	Rogers, R.	ORGN	472	Rosenthal, J.	INOR	300
Rocke, A.J.	HIST	5	Rogers, R.D.	POLY	504	Rosenthal, J.	INOR	452
Rocus, S.	POLY	489	Rogers, S.	PHYS	500	Rosenthal, J.	INOR	961
Rodde, S.	COMP	294	Rogers-Evans, M.	MEDI	256	Rosenthal, S.	INOR	842
Rodea-Palomares, I.	AGRO	355	Roghani, M.	ENVR	332	Rosenzweig, A.C.	INOR	437
Rodea-Palomares, I.	AGRO	9	Rogler, P.J.	INOR	723	Rosenzweig, Z.	ANYL	356
Rodenburg, L.A.	ENVR	205	Rogstad, S.M.	ANYL	282	Rosenzweig, Z.	CHED	218
Roderick, K.D.	CHED	135	Rohani, A.	ANYL	321	Rosenzweig, Z.	COLL	66
Rodgers, D.	PHYS	287	Rohde, B.J.	POLY	632	Rosenzweig, Z.	COLL	355
Rodgers, J.M.	PHYS	284	Rohde, K.	MEDI	328	Rosenzweig, Z.	COLL	585
Rodgers, J.M.	PHYS	396	Rohm, K.	COLL	523	Rosero Valencia, D.	MEDI	282
Rodgers, M.T.	PHYS	564	Rohm, K.	PMSE	324	Rosi, N.L.	COLL	73
Rodgers, R.P.	ENFL	267	Rohner, P.	COLL	555	Rosnow, J.	BIOL	129
Rodgers, R.P.	ENFL	404	Rohrbaugh, T.N.	INOR	959	Ross, A.E.	ANYL	391
Rodier, B.	COLL	16	Rohs, R.	COMP	33	Ross, B.	CHED	241
Rodier, B.	ENFL	147	Roitberg, A.E.	COMP	93	Ross, B.	CHED	242
Rodig, M.J.	ENFL	92	Roitberg, A.E.	COMP	314	Ross, C.A.	COLL	486
Rodionov, V.O.	COLL	570	Roitberg, A.E.	COMP	388	Ross, J.	AGRO	233
Rodney, S.	AGRO	59	Roizen, J.L.	ORGN	367	Ross, J.	AGRO	237
Rodney, S.	AGRO	60	Rojas Ramirez, C.	INOR	341	Ross, J.H.	AGRO	236
Rodrigo, I.	INOR	708	Rojtman, A.	MEDI	176	Ross, R.	ORGN	523
Rodrigo, S.	ENVR	483	Roke, G.D.	ORGN	433	Ross, T.M.	MEDI	279
Rodrigues, C.	ORGN	134	Roke, G.D.	ORGN	535	Rosseinsky, M.	COLL	39
Rodrigues, C.A.	PMSE	292	Roland, C.D.	INOR	75	Rossi, K.A.	MEDI	308
Rodrigues, D.	MEDI	30	Roland, F.M.	COLL	404	Rossi, R.D.	CHED	76
Rodrigues, V.	BIOL	53	Rolland, J.	PMSE	53	Rossin, J.	COLL	71
Rodriguez, A.	ORGN	399	Roller, A.	INOR	952	Rossini, A.J.	ENVR	87
Rodriguez, A.	MEDI	154	Roman, B.	COLL	399	Rossjohn, J.	ORGN	212
Rodriguez, C.	POLY	602	Roman, F.R.	ENVR	390	Rossman, P.	AEI	32
Rodriguez, D.	COLL	222	Roman, K.	CELL	8	Rossmeisl, C.	AGRO	382
Rodriguez, D.	COLL	224	Román-Meléndez, G.D.	BIOL	96	Rossmeisl, J.	CATL	206
Rodriguez, E.E.	ENFL	225	Romano, M.	CARB	23	Rossner, C.	POLY	436
Rodriguez, E.E.	ENFL	250	Romano, M.	COLL	580	Rossol, M.	CHAS	2
Rodriguez, J.	CATL	58	Romanov, G.A.	BIOL	97	Rostom, S.	PMSE	322
Rodriguez, J.	CATL	77	Romero, A.	ENFL	315	Rostron, P.	ENVR	346
Rodriguez, J.	CATL	160	Romero, E.	ORGN	53	Rosu, C.	AEI	87
Rodriguez, J.	COLL	417	Romero-Rivera, A.	PHYS	286	Rosu, C.	PMSE	524
Rodriguez, J.	COLL	419	Ronagli, N.	ANYL	20	Rotello, V.M.	ANYL	36
Rodriguez, J.A.	ORGN	399	Roner, M.	PMSE	352	Rotello, V.M.	COMSCI	3
Rodriguez, J.B.	MEDI	294	Roner, M.	PMSE	351	Rotello, V.M.	POLY	19
Rodriguez, O.	COLL	623	Rong, J.	ENFL	240	Rotgeri, A.	MEDI	266
Rodriguez, O.	INOR	472	Rongli, F.	PMSE	256	Roth, B.L.	MEDI	143
Rodriguez, R.	CATL	338	Ronkainen, N.J.	CHED	310	Roth, S.	ENFL	53
Rodriguez, V.	ENVR	437	Ronning, D.R.	CARB	19	Rothenberger, O.S.	CINF	62
Rodríguez-Calero, G.G.	INOR	475	Ronning, D.R.	CARB	41	Rother, D.	PHYS	196
Rodriguez-Granillo, A.	PHYS	147	Roopchand, D.	AGFD	19	Rothfuss, N.	ENVR	534
Rodriguez-Granillo, A.	ANYL	139	Roozemond, P.	POLY	295	Rothman, G.	AGRO	144
Rodriguez Lopez, J.	ANYL	233	Roozen, E.	POLY	167	Rothman, G.	AGRO	151
Rodriguez Martinez, S.	CINF	55	Roper, T.M.	INOR	343	Rothman, G.	AGRO	155
Rodriguez-Perez, M.	COLL	622	Rorrer, N.A.	CATL	7	Rothman, G.	AGRO	146
Rodriguez-Saona, L.	AGFD	179	Ros, A.	ORGN	355	Rotondaro, S.L.	AGRO	131
Roeder, R.	COLL	404	Rosa, L.	AGRO	313	Rotstein, S.H.	CINF	19
Roeffaers, M.	CATL	366	Rosa, L.	AGRO	314	Röttger, M.	PMSE	512
Roeffaers, M.	CATL	429	Rosa, L.	AGRO	316	Rottmann, M.	MEDI	72
Roeffaers, M.	COLL	110	Rosa, N.	INOR	60	Rouff, A.	ENVR	210
Roelfes, G.	ORGN	84	Rosano, R.	CARB	54	Rouff, A.	ENVR	451
Roelfes, G.	ORGN	502	Rosario, A.	CHED	292	Rouge, J.L.	COLL	435
Roerdink, A.R.	AGRO	80	Rosario, A.	ORGN	192	Rouillard, K.	ANYL	157
Roesch, N.	CATL	107	Rosas, R.	MEDI	101	Rouleau, C.	CATL	430
Roesing, M.	COLL	517	Rose, A.F.	AGRO	193	Rouleau, C.	ENFL	361
Roesing, M.	COLL	519	Rose, B.D.	POLY	734	Rouleau, S.	ORGN	127
Roeterdink, W.	PHYS	6	Rose, K.	TOXI	87	Roush, W.R.	MEDI	228
Roeterdink, W.	PHYS	475	Rose, M.J.	CATL	270	Roush, W.R.	ORGN	354
Roffi, K.	CATL	469	Rose, M.J.	INOR	154	Rousseau, R.	CATL	174
Rogachev, A.Y.	INOR	626	Rose, M.J.	INOR	162	Rousseau, R.	CATL	425
Rogachev, A.Y.	INOR	733	Rose, M.J.	INOR	164	Rousseau, R.	COLL	133
Rogachev, A.Y.	ORGN	263	Rose, M.J.	INOR	414	Rousseau, R.	ENFL	136
Rogachev, A.Y.	PHYS	58	Rose, M.J.	INOR	619	Rousseau, R.	ENFL	137
Rogachev, A.Y.	PHYS	361	Rose, O.	ANYL	291	Rousseau, R.	ENFL	139
Rogala, D.V.	PMSE	125	Rose, T.	NUCL	64	Rousseau, R.	ENVR	94
Rogel, O.	MEDI	46	Rosei, F.	CATL	128	Rousseau, R.	PHYS	265
Rogelj, S.	MEDI	121	Rosei, F.	ENFL	48	Rousseau, R.	POLY	451
Rogers, A.	I&EC	37	Roseli, R.	PHYS	524	Rouster, P.	COLL	7
Rogers, B.A.	COLL	348	Rosen, T.	INOR	905	Routh, P.K.	AEI	21
Rogers, B.	COLL	212	Rosenbach, M.	MEDI	225	Rovelli, G.	ENVR	554
Rogers, B.N.	MEDI	246	Rosenberg, R.	ENFL	9	Rovira Virgili, C.	CATL	374
Rogers, D.M.	COMP	123	Rosenbloom, S.I.	PMSE	171	Rovis, T.	ORGN	230

Rowan, K.	AGRO	246	Rugg, G.	CATL	107	Rüttiger, C.	POLY	531
Rowan, S.J.	POLY	449	Ruggeri, R.B.	MEDI	63	Ruwona, T.	ENVR	547
Rowan, S.J.	PMSE	62	Rühe, J.	PMSE	344	Ruzicka, J.	ANYL	420
Rowan, S.J.	PMSE	241	Rühe, J.	POLY	440	Ruzsinszky, A.	PHYS	28
Rowan, S.J.	PMSE	324	Rühe, J.	POLY	610	Ruzsinszky, A.	PHYS	29
Rowan, S.J.	POLY	314	Ruhl, K.E.	ORGN	230	Ryan, D.K.	CATL	410
Rowe, J.	INOR	535	Ruhman, M.	AGRO	152	Ryan, J.	ORGN	281
Rowland, C.A.	INOR	250	Ruhman, M.	AGRO	289	Ryan, K.M.	CHED	297
Rowland, C.E.	COLL	492	Rui, N.	ENFL	4	Ryan, K.M.	CHED	366
Rowland, M.M.	BIOL	41	Ruiz, A.	CHED	140	Ryan, K.M.	COLL	177
Rowland, S.	ENFL	267	Ruiz-Colon, E.	PMSE	23	Ryan, K.M.	COLL	528
Rowland, S.	ENFL	404	Ruiz-Cuilty, K.	ENVR	373	Ryberg, E.	ENVR	268
Rowley, C.N.	COMP	308	Rukes, S.C.	CHED	4	Rybkin, V.	PHYS	81
Rowley, C.N.	COMP	378	Rukes, S.C.	CHED	123	Ryland, E.	INOR	692
Rownaghi, A.	ENFL	182	Rukes, S.C.	CHED	124	Ryoo, S.	COLL	101
Roxbury, D.	COLL	514	Rukes, S.C.	CHED	125	Ryu, D.	ORGN	120
Roy, A.K.	ENFL	411	Rukes, S.C.	CHED	126	Ryu, D.	ORGN	357
Roy, B.C.	INOR	444	Rukes, S.C.	CHED	129	Ryu, H.	ORGN	410
Roy, D.	PMSE	633	Rukes, S.C.	CHED	130	Ryu, J.	AGFD	60
Roy, J.	MEDI	165	Rullán-Lind, C.	BIOL	70	Ryu, J.	AGRO	334
Roy, J.K.	COMP	406	Rumbero Sánchez, Á.	MEDI	282	Ryu, J.	AGRO	338
Roy, K.	PMSE	415	Rumsey, W.	MEDI	111	Ryu, J.	AGRO	365
Roy, K.	CATL	168	Runge, F.	BIOL	151	Ryu, K.	ENVR	19
Roy, K.	CATL	323	Runke, J.	NUCL	48	Ryvkin, F.	COMP	257
Roy, P.	CATL	355	Running, L.	COLL	242	Ryzhuk, V.	PMSE	284
Roy, P.	CATL	474	Runstadler, J.	PMSE	420	S.Rao, A.	CHED	339
Roy, S.	CATL	480	Ruochong, F.	PMSE	566	Saad, L.S.	MEDI	81
Roy, S.	COMP	138	Ruokolainen, J.	PMSE	79	Saad, A.	ENVR	282
Roy, S.	COLL	313	Ruotolo, B.T.	PHYS	319	Saal, T.H.	INOR	806
Roy, S.	PHYS	544	Rupnow, B.	MEDI	25	Saalau, S.	MEDI	31
Roy, X.	INOR	58	Ruppender, N.	CHED	59	Saangonyo, D.S.	CELL	6
Roy, X.	INOR	512	Rupprecht, A.J.	INOR	135	Saatori, S.	CARB	37
Roy, X.	INOR	873	Rury, M.	ANYL	278	Saatori, S.	CARB	95
Roy, X.	INOR	874	Rusakov, A.	PHYS	30	Saavedra, S.S.	COLL	360
Roy, X.	POLY	204	Rusakov, A.	PHYS	82	Saba, A.	ENFL	270
Royappa, A.T.	INOR	373	Rusakov, A.	PHYS	481	Sabadini, E.	COLL	67
Royappa, A.T.	WCC	3	Rusakova, I.	ENVR	34	Sabadini, E.	COLL	94
Roychoudhury, S.	CATL	354	Rusch, S.M.	POLY	185	Sabat, M.	INOR	571
Royer, K.	ORGN	360	Rush, M.	CINF	110	Sabat, M.	ORGN	152
Roy Macarthur, A.H.	INOR	440	Rush, M.	CATL	427	Sabat, M.	ORGN	439
Roy Macarthur, A.H.	ORGN	77	Rushing, B.R.	ENVR	95	Sabat, M.	ORGN	148
Rozzen, M.	MEDI	188	Rushing, B.R.	ENVR	393	Sabatelli, A.D.	CHAL	14
Rozovsky, S.	PHYS	244	Rushing, B.R.	ENVR	396	Sabba, F.	ENVR	543
Ruaud, M.	PHYS	541	Rusling, J.	ANYL	393	Sabba, F.	ENVR	562
Rubashkin, S.B.	INOR	197	Russ, M.	ORGN	605	Saber, S.M.	COLL	592
Rubashkin, S.B.	INOR	325	Russelburg, K.E.	CHED	285	Saberi Moghaddam, R.	ORGN	479
Rubashkin, S.B.	INOR	591	Russell, A.J.	POLY	184	Sabol, J.	AGFD	43
Rubenstein, B.	PHYS	433	Russell, A.J.	POLY	386	Sabol, J.E.	SCHB	7
Rubenstein, B.M.	PHYS	76	Russell, F.	PMSE	352	Sabrina, S.	COLL	312
Rubin, N.	COMP	324	Russell, J.	ORGN	59	Sacci, R.	PHYS	327
Rubino, M.	AGFD	130	Russell, J.	ORGN	360	Saccoman, S.	ORGN	360
Rubinstein, M.	PMSE	207	Russell, K.	CHED	70	Sacks, G.L.	AGFD	68
Rubinstein, M.	POLY	666	Russell, K.	ORGN	127	Sacks, G.L.	AGFD	96
Rubio-Magnieto, J.	ANYL	245	Russell, S.	ORGN	275	Sacks, G.L.	AGFD	171
Rubloff, G.	ANYL	291	Russell, S.	BIOL	81	Sacks, G.L.	CHED	28
Rubloff, G.	ENFL	283	Russell, S.T.	PMSE	120	Sacoman Torquato da Silva, B.H.	POLY	467
Rubloff, G.	ENFL	306	Russell, T.P.	COLL	469	Sadakbayeva, Z.	PMSE	40
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Rudd, A.K.	COLL	359	Russo, P.	BIOL	24	Sadatmousavi, P.	ANYL	332
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Ruder, S.M.	CHED	116	Russo, P.S.	ANYL	293	Sader, C.A.	COMP	162
Ruder, S.M.	CHED	117	Russo, P.S.	PMSE	524	Sader, S.	PHYS	590
Ruder, S.M.	CHED	412	Russo, R.	MEDI	330	Sadler, J.	POLY	13
Rudich, Y.	ENVR	337	Rustenbeck, B.A.	PMSE	501	Sadler, N.	TOXI	85
Rudik, A.	CINF	83	Ruston, L.	MEDI	23	Sadler-Mcknight, N.	CHED	14
Rudik, A.	COMP	291	Ruszczak, C.	TOXI	38	Sadokhina, N.	CATL	397
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Rüdisser, S.	MEDI	46	Rutan, S.C.	ANYL	110	Sadtler, B.	INOR	42
Rudolph, D.	NUCL	48	Rutan, S.C.	ANYL	383	Sadtler, B.	INOR	869
Ruedenberg, K.	PHYS	160	Rutan, S.C.	ANYL	412	Sadula, S.	ENFL	273
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Ruedenberg, K.	PHYS	227	Ruth Maria, G.	ORGN	220	Saeed, M.A.	COMP	277
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Ruff, A.	INOR	501	Rutkoski, R.M.	MEDI	203	Saenjum, C.	CHED	348
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Ruffner, T.	CHED	371	Rutledge, G.C.	PMSE	154	Safari, H.	COLL	410
Ruger, G.W.	SCHB	7	Rüttiger, C.	PMSE	419	Saffari Ghandehari, S.	ENVR	469
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Sagendorf, J.M.	COMP	33	Salama, F.	PHYS	469	Sanchez, J.	INOR	143
Sagle, L.	ANYL	100	Salama, H.	MEDI	216	Sanchez, L.	CHED	37
Sagle, L.	ANYL	398	Salamon, M.M.	PMSE	417	Sanchez, L.	CHED	38
Sagle, L.	COLL	36	Salas-De la Cruz, D.	CELL	11	Sanchez, L.	ORGN	170
Sagle, L.	COLL	42	Salaski, E.J.	ORGN	569	Sanchez, L.	ORGN	594
Sagle, L.	COLL	152	Salatan, F.	ANYL	141	Sanchez, L.	ORGN	654
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Saha, D.K.	POLY	499	Salehi, A.	PMSE	264	Sanchez-Ruiz, J.	PHYS	285
Saha, D.K.	POLY	500	Salem, F.	MEDI	327	Sandahl, M.	ANYL	171
Saha, M.	ORGN	446	Salerno, K.	PMSE	96	Sandberg, K.	ENVR	274
Saha, P.	PMSE	606	Salgado, V.L.	AGRO	141	Sander, L.	ENVR	10
Saha, P.	POLY	485	Salimatipour, A.	TOXI	9	Sanders, A.	PHYS	290
Saha, S.	POLY	142	Salin, C.	CHED	269	Sanders, B.A.	COMP	5
Saha, S.	ENFL	159	Salituro, G.	MEDI	225	Sanders, B.C.	INOR	800
Saha, S.	ENFL	257	Saller, H.	CINF	24	Sanders, C.R.	COMP	12
Sahadeo, E.	ANYL	291	Saller, H.	COMP	283	Sanders, D.P.	PMSE	84
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Sahasrabudhe, G.	ENFL	245	Salomon, R.C.	COMP	220	Sanders, S.	POLY	290
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Sahle-Demessie, E.	ENVR	250	Saltzman, M.D.	HIST	13	Sandre, O.	PMSE	516
Sahle-Demessie, E.	ENVR	411	Saltzman, M.D.	HIST	14	Sanford, A.R.	CINF	79
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Saido, K.	ANYL	80	Salvemini, D.	MEDI	45	Sanford, M.S.	INOR	228
Saido, K.	ENVR	429	Salyk, C.	PHYS	260	Sanford, M.S.	INOR	386
Saidykhan, A.	INOR	575	Salzer, R.	IAC	2	Sanford, M.S.	INOR	605
Saiki, S.	I&E	10	Samad, M.	PMSE	140	Sanford, M.S.	INOR	606
Saint-Louis, C.	CATL	485	Samad, T.	MEDI	246	Sanford, M.S.	INOR	853
Saito, R.	POLY	753	Samakumara, L.	CARB	31	Sanford, M.S.	INOR	951
Saito, T.	AEI	83	Samangain, S.	CATL	310	Sanford, M.S.	ORGN	200
Saito, T.	PMSE	12	Samankumara, L.	ORGN	417	Sanford, M.S.	ORGN	516
Saito, T.	PMSE	322	Samanta, S.K.	ORGN	448	Sanford, M.S.	ORGN	544
Saito, T.	PMSE	598	Samanta, S.K.	ORGN	508	Sanford, M.S.	ORGN	626
Saito, T.	POLY	447	Samanta, S.K.	ORGN	556	Sang, P.	ORGN	626
Saito, Y.	ORGN	650	Samanta, S.K.	MEDI	225	Sang, L.	ENFL	285
Saito, Y.	ORGN	387	Samarasinghe, C.	AGFD	163	Sang, S.	AGFD	115
Sajadi, F.	COMP	378	Samarasinghe, K.	BIOL	61	Sang, S.	AGFD	119
Sakaguchi, N.	COLL	249	Samaritoni, J.G.	AGRO	385	Sang, S.	AGFD	143
Sakai, H.	COLL	25	Samaritoni, J.G.	AGRO	388	Sang, S.	AGFD	146
Sakai, H.	BIOL	77	Samarjeet, F.	COMP	152	Sang, S.	AGFD	148
Sakai, H.	COLL	352	Sambasivan, S.	CHED	305	Sang, X.	CATL	430
Sakai, K.	COLL	25	Sambasivan, S.	CHED	344	Sang, X.	MEDI	25
Sakai, R.	POLY	473	Samblanet, D.	INOR	104	Sanghani, L.	AGRO	264
Sakai, T.	PMSE	100	Samblanet, D.	INOR	606	Sanghani, L.	BMGT	5
Sakai, Y.	PHYS	183	Sambrone, A.N.	MEDI	253	Sanghani, L.	BMGT	7
Sakar, A.	PMSE	527	Samec, J.S.	ORGN	261	Sanghani, P.	INOR	505
Sakata, T.	COLL	189	Samec, J.S.	ORGN	486	Sanghavi, B.	ANYL	321
Sakbodin, M.	CATL	153	Samide, M.J.	ANYL	57	Sanghera, J.S.	COLL	526
Sakhaei, Z.	INOR	716	Samide, M.J.	ANYL	89	Sanghera, J.S.	POLY	748
Sakharov, A.	AGRO	227	Samide, M.J.	ANYL	109	Sanghvi, N.	MEDI	269
Sakhno, T.	ENVR	400	Samide, M.J.	ANYL	222	Sangster, J.	AGRO	362
Sakhno, T.	PHYS	415	Samide, M.J.	ORGN	631	Sangtani, A.	COLL	487
Sakimoto, K.K.	CATL	256	Samide, M.J.	ORGN	631	Sangthongpitag, K.	MEDI	17
Sakimoto, K.K.	INOR	16	Sammalkorpi, M.	PMSE	202	Sangthongpitag, K.	MEDI	277
Sakiyama, M.	CHED	33	Sammalkorpi, M.	PMSE	265	Sankaran, G.	AGRO	233
Sakizadeh, J.	PMSE	222	Sammalkorpi, M.	PMSE	533	Sankaranarayanan, P.	PHYS	435
Sakkos, J.	ENVR	367	Samoshin, A.	INOR	226	Sankaranarayanan, S.	CATL	186
Saktrakulkla, P.	ENVR	280	Samoshin, V.V.	MEDI	334	Sankaranarayanan, S.	COLL	298
Sakurai, K.	COLL	91	Sampaio Cabral, J.	CARB	28	Sankaranarayanan, S.	COMP	19
			Sampara, C.S.	INOR	272	Sankaranarayanan, S.	COMP	122

Sankhala, K.	PMSE	27	Sarre, P.J.	PHYS	498	Sawamoto, M.	PMSE	650
Sano, M.	MEDI	175	Sartucci, J.L.	PMSE	418	Sawamoto, M.	POLY	401
Sanschagrín, P.	CINF	117	Sartucci, J.L.	PMSE	422	Sawamoto, M.	POLY	402
Santa, C.F.	POLY	257	Sasaki, D.Y.	COLL	14	Sawamoto, M.	POLY	403
Santala, M.	CATL	69	Sasaki, T.	MEDI	196	Sawant, D.M.	ORGN	518
Santana, J.S.	COLL	582	Sasaki, K.	ENFL	34	Sawvel, A.M.	PMSE	332
Santander, M.	ENVR	532	Saslow, S.	ENVR	231	Sawyer, S.	ORGN	226
Santaus, T.M.	PHYS	519	Sassoubre, L.	AGRO	88	Sawyer, W.G.	PMSE	544
Santhanakrishnan, S.	MEDI	277	Sastry, G.	CINF	83	Saxena, R.E.	MEDI	225
Santhanam, S.	PMSE	103	Sastry, K.R.	MEDI	354	Saxin, M.	MEDI	8
Santhapuram, H.K.	MEDI	87	Sastry, S.	AGFD	163	Sayed, M.	GEOC	9
Santhapuram, H.K.	MEDI	88	Satalkar, V.B.	COMP	361	Sayfutyarova, E.	COMP	137
Santhapuram, H.K.	MEDI	89	Satalkar, V.B.	ORGN	183	Sayle, R.A.	CHAS	35
Santhapuram, H.K.	MEDI	90	Sathe, A.	COLL	400	Sayle, R.A.	CINF	13
Santiago, I.	AGRO	313	Sather, N.	PMSE	83	Sayle, R.A.	CINF	17
Santiago, K.M.	CHED	277	Sathoud, O.	AEI	5	Sayle, R.A.	CINF	90
Santiago-Berrios, M.B.	CHED	361	Sathoud, O.	ANYL	322	Sayle, R.A.	CINF	112
Santiana, J.	COLL	200	Satjaritanun, P.	ENFL	158	Saylor, D.	PMSE	472
Santini, C.	ORGN	279	Sato, H.	COLL	577	Saylor, R.M.	MEDI	280
Santore, M.M.	COLL	128	Sato, J.	MEDI	175	Sayre, H.	INOR	685
Santos, G.C.	ORGN	613	Sato, K.	ENVR	371	Sayre, H.J.	INOR	889
Santos, G.C.	ORGN	614	Sato, K.	AGFD	29	Sazio, P.J.	INOR	914
Santos, G.C.	POLY	467	Sato, K.	AGFD	35	Scaglione, B.	ENFL	324
Santos, I.C.	AGFD	194	Sato, K.	AGFD	106	Scaglione, B.	ENFL	325
Santos, I.C.	ENVR	249	Sato, M.	POLY	481	Scaltriti, M.	COLL	320
Santos, J.	CHED	248	Sato, T.	MEDI	175	Scanlan, L.	ENVR	161
Santos, L.M.	ANYL	190	Sato, T.K.	NUCL	51	Scarano, L.	ENVR	305
Santos, R.M.	I&EC	40	Sato, T.	POLY	38	Scarano, L.	ENVR	309
Santos, W.	MEDI	201	Sato, T.	NUCL	48	Scarlet, L.	INOR	150
Santos, W.	ORGN	105	Satoh, K.	POLY	63	Scepaniak, J.J.	AEI	51
Santos, W.	ORGN	574	Satoh, K.	POLY	404	Scepaniak, J.J.	INOR	962
Santos, W.L.	BIOL	48	Satoh, K.	POLY	405	Scerba, M.T.	ORGN	401
Santos, W.L.	MEDI	200	Satoh, T.	POLY	473	Schaak, R.E.	ENFL	33
Santosa, D.	CATL	8	Satraitis, A.	ORGN	95	Schaak, R.E.	ENFL	350
Santosa, D.	CATL	53	Sattarov, B.	CINF	9	Schaak, R.E.	INOR	40
Santosa, D.	ENFL	268	Sattarov, B.	CINF	35	Schaak, R.E.	INOR	540
Santos-Cancel, M.	ANYL	422	Sattarov, B.	COMP	302	Schaak, R.E.	INOR	703
Santra, S.	PMSE	343	Sattarov, B.	TOXI	56	Schaber, C.	ORGN	82
Sanyal, K.	INOR	927	Sattelberger, A.P.	INOR	916	Schacher, F.H.	POLY	258
Sanz, E.	COMP	198	Sattelberger, A.P.	NUCL	18	Schachter, D.	BIOL	89
Sanz-Marco, A.	ORGN	260	Sattelle, D.	AGRO	137	Schäedel, M.	NUCL	48
Sanzone, J.R.	ORGN	109	Sattelle, D.	AGRO	140	Schaefer, A.	COLL	418
Sapati, S.	ORGN	658	Satyavolu, N.	COLL	70	Schaefer, A.W.	INOR	722
Sapienza, N.S.	CATL	44	Saucedo, L.	INOR	668	Schaefer, J.L.	ENFL	69
Sapkota, J.	POLY	723	Sauer, J.	CATL	78	Schaefer, T.	PHYS	486
Sappington, K.	AGRO	66	Saul, J.	PMSE	456	Schaetzer, J.H.	AGRO	411
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Sappy, I.	MEDI	351	Saunders, M.	COLL	488	Schafer, L.	ORGN	236
Saraci, E.	CATL	443	Saunders, T.M.	ENVR	27	Schaidle, J.	CATL	362
Saraf, S.	MEDI	354	Saurabh, S.	AEI	73	Schalenbach, M.	ENFL	350
Sarang, R.	CATL	217	Sauri, J.	ANYL	139	Schaller, C.P.	CHED	107
Sarapajevaite, G.	ENVR	208	Sautaux, J.	POLY	337	Schaller, L.	ORGN	441
Sarapas, J.M.	PMSE	44	Sautet, P.	CATL	235	Schaller, R.D.	COLL	492
Saraswathy, M.	POLY	544	Sauvageau, D.	PHYS	466	Schaller, R.D.	INOR	297
Sarathy, J.	MEDI	277	Sauvageau, D.	POLY	503	Schanze, K.S.	INOR	337
Saravanan, K.	COMP	182	Sauve, G.	POLY	657	Schanze, K.S.	INOR	647
Sardar, R.	ANYL	397	Sava Gallis, D.F.	INOR	4	Schanze, K.S.	INOR	886
Sardar, S.	INOR	700	Sava Gallis, D.F.	INOR	65	Schanze, K.S.	INOR	887
Sargent, E.	COLL	600	Savagatrup, S.	COLL	472	Schanze, K.S.	ORGN	543
Sargent, E.	COLL	601	Savage, A.M.	POLY	83	Schanze, K.S.	PHYS	412
Sarhan, N.	ANYL	351	Savage, A.M.	POLY	642	Schanze, K.S.	POLY	462
Šarić, M.	CATL	206	Savage, A.C.	COLL	65	Schanze, K.S.	POLY	463
Sarisky, C.A.	CHED	73	Savage, P.E.	ENVR	90	Schanze, K.S.	POLY	535
Sarisky, C.A.	CHED	316	Savara, A.	CATL	390	Schanze, K.S.	POLY	617
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Sarkar, A.	COLL	460	Savara, A.	ENFL	173	Scharer, O.	TOXI	67
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Sarkar, I.	I&EC	38	Savarala, S.	AGFD	259	Scharrer, P.	NUCL	48
Sarkar, S.	PMSE	204	Savard, G.	NUCL	62	Schatschneider, B.	PHYS	250
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Sarkes, D.A.	COLL	354	Savchak, M.	PMSE	530	Schatz, G.C.	CATL	322
Sarkes, D.A.	PHYS	332	Saveleva, E.M.	BIOL	97	Schatz, G.C.	CHED	381
Sarkes, D.A.	PHYS	527	Savelski, M.J.	I&EC	62	Schatz, G.C.	COLL	48
Sarlah, D.	ORGN	546	Savic, M.M.	MEDI	364	Schatz, G.C.	COLL	51
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Scheef, G.	AGRO	290	Schmidt, S.	COLL	350	Schoepf, J.	ENVR	40
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Schelter, E.J.	I&EC	6	Schmitt, D.	BIOL	51	Scholl, P.F.	AGFD	210
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Schilling, S.	MEDI	181	Schneekloth, Jr.	BIOL	29	Schroeder, M.J.	CHED	99
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Schindler, C.	ORGN	344	Schneider, C.M.	COLL	590	Schubert, M.	CARB	78
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Schlossman, M.L.	I&EC	15	Schneider, W.F.	CATL	243	Schubert, U.S.	POLY	527
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Schlotthauer, T.	POLY	203	Schneider, W.F.	CATL	386	Schuck, P.	COLL	609
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Schmehl, D.	AGRO	186	Schnur, J.	BIOL	24	Schug, K.	ENVR	249
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Schmidt, D.F.	PMSE	510	Schoenau, E.A.	AGRO	24	Schulte, L.A.	AGRO	358
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Schmidt, F.	ENFL	24	Schoene, K.A.	ENFL	325	Schultheiss, N.	ENFL	420
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Schmidt, J.G.	ORGN	27	Schoenfish, M.H.	ANYL	149	Schultz, K.	CHED	253
Schmidt, J.G.	PMSE	306	Schoenfish, M.H.	ANYL	157	Schultz, L.D.	CHED	155
Schmidt, K.	ENVR	304	Schoenfish, M.H.	ANYL	229	Schultz, V.	ORGN	649
Schmidt, K.	PMSE	118	Schoenfish, M.H.	PMSE	340	Schultz, V.L.	CARB	69

Schultz, Z.D.	ANYL	363	Scott, S.L.	PHYS	324	Selim, M.I.	ENVR	393
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Schut, G.J.	CATL	224	Scuseria, G.E.	COMP	310	Sellers, D.L.	AEI	64
Schutt, L.	MEDI	22	Scuseria, G.E.	PHYS	180	Sellers, D.L.	ORGN	100
Schuttlefield Christus, J.D.	CINF	103	Scuseria, G.E.	PHYS	224	Sellers, W.R.	MEDI	306
Schutyser, W.	CATL	438	Scuseria, G.E.	PHYS	228	Selling, G.W.	CELL	14
Schuurman, J.	ANYL	51	Scutelnic, V.	PHYS	562	Selopal, G.	ENFL	48
Schwab, C.	CINF	34	Scutt, J.	AGRO	410	Selover, B.	ORGN	604
Schwab, C.	CINF	42	Sczepanski, J.	BIOL	135	Sels, B.F.	CATL	438
Schwalbe, J.	INOR	39	Sczepanski, J.T.	TOXI	50	Sels, B.F.	CELL	5
Schwaninger, A.	COMP	307	Sczepanski, J.	BIOL	131	Selvaggio, G.	COMP	106
Schwantes, J.M.	NUCL	87	Seabloom, D.	TOXI	94	Semancik, S.	ANYL	107
Schwartz, B.J.	PHYS	536	Seager, M.	MEDI	358	Semenov, A.P.	COMP	18
Schwartz, J.	COLL	467	Seaman, S.	POLY	145	Seminario, J.M.	COMP	403
Schwartz, J.	PMSE	436	Sears, J.	INOR	171	Semrad, H.	PHYS	557
Schwartz, M.	CHED	66	Sears, J.M.	INOR	343	Sen, A.	COLL	306
Schwartz, M.	CHED	371	Sears, R.M.	COMP	280	Sen, A.	COLL	309
Schwartz, N.	CATL	196	Sebald, K.	AGFD	172	Sen, S.	COLL	449
Schwartz, N.	INOR	15	Sedaghat, S.	CARB	35	Senanayake, C.H.	ORGN	302
Schwartz, T.J.	ENVR	135	Sedai, B.R.	POLY	219	Senanayake, S.D.	COLL	417
Schwartz, T.J.	POLY	133	Sedlacek, A.	ENVR	193	Senanayake, S.D.	COLL	419
Schwartz-Hinds, S.	CHAS	43	Sedova, A.A.	BIOL	90	Senanayake, S.D.	INOR	147
Schwarz, A.M.	CATL	232	Sedova, A.A.	PHYS	437	Senbil, N.	COLL	126
Schwarz, F.	PHYS	13	See, K.A.	CATL	384	Senda, S.	CELL	24
Schwarz, J.	BMGT	4	Seeberger, P.H.	CARB	89	Sendecki, A.	ANYL	11
Schwarz, K.	CATL	337	Seefeldt, T.M.	BIOL	69	Sendecki, A.	COLL	269
Schwarz, W.	PHYS	111	Seel, A.	INOR	865	Sendek, A.	ENFL	312
Schwarzwalder, G.M.	ORGN	311	Seeley, J.P.	PMSE	360	Sendzik, M.	MEDI	267
Schweiger, M.	ENVR	231	Seelig, G.	I&EC	35	Seneviratne, U.I.	MEDI	249
Schweigert, I.	COMP	376	Seeman, J.	ORGN	194	Sengupta, A.	COMP	366
Schweigkofler, W.	AGRO	6	Seeman, J.	PHYS	12	Sengupta, A.	I&EC	23
Schweikert, E.A.	PMSE	121	Seeram, N.P.	AGFD	149	Sengupta, A.	ORGN	264
Schweitzer, G.K.	INOR	814	Seethamraju, S.	ANYL	387	Sengupta, N.	PHYS	29
Schweitzer-Stenner, R.	COLL	413	Seethamraju, S.	PMSE	529	Sengupta, S.K.	COLL	395
Schweitzer-Stenner, R.	INOR	694	Seetho, K.	POLY	324	Sengupta, S.	ENFL	403
Schweizer, K.S.	PHYS	201	Seferos, D.S.	POLY	583	Senkum, H.	POLY	478
Schwenke, D.	PHYS	54	Segala, E.	COMP	85	Senra, M.	ENVR	357
Schwerdt, I.	NUCL	70	Segall, M.	COMP	364	Sensenig, J.	PHYS	29
Schwertz, G.	MEDI	72	Segall, M.	MEDI	348	Senter, P.D.	TOXI	35
Schwieger, W.	ENFL	392	Segall, M.D.	CINF	116	Seo, B.	ORGN	567
Schwieters, C.D.	PHYS	293	Segal-Peretz, T.	PMSE	119	Seo, D.	ENFL	394
Schyman, P.	CINF	120	Segal-Peretz, T.	PMSE	637	Seo, D.	ENFL	395
Schymanski, E.	CINF	93	Seiger, S.	PMSE	68	Seo, D.	PHYS	558
Scoble, J.	POLY	190	Segler, M.	CINF	10	Seo, D.	AGFD	79
Scola, P.M.	MEDI	269	Segura, S.	ENVR	65	Seo, D.	AGFD	80
Scola, P.M.	MEDI	365	Sehrioglu, A.	ENFL	147	Seo, J.	PMSE	619
Scoppola, E.	I&EC	16	Sehl, T.	PHYS	196	Seo, J.	CARB	52
Scott, A.	ENVR	537	Seiber, J.N.	AGRO	238	Seo, J.	ENVR	436
Scott, B.L.	NUCL	44	Seiça Neves, C.	I&EC	33	Seo, J.	INOR	21
Scott, C.N.	POLY	711	Seidman, M.	TOXI	29	Seo, J.	CATL	270
Scott, G.E.	CHED	260	Seifert, K.	CHED	281	Seo, S.	BIOL	95
Scott, J.G.	AGRO	173	Seifert, K.	COLL	22	Seo, Y.	ENVR	19
Scott, J.G.	AGRO	367	Seifert, S.	CATL	46	Seok, D.	AGRO	363
Scott, J.	AGRO	394	Seiffert, D.A.	MEDI	308	Sepehrpour, H.	ORGN	446
Scott, J.A.	ENVR	338	Seifpanahi, P.	COMP	242	Seraj, S.	INOR	782
Scott, J.A.	ENVR	490	Seifried, B.	PMSE	195	Serda, R.	COLL	14
Scott, K.C.	ANYL	257	Seifried, B.	PMSE	420	Serda, R.E.	COLL	30
Scott, K.C.	ENVR	160	Seiler, C.	BIOL	124	Serebryany, E.	INOR	29
Scott, P.J.	PMSE	55	Seiler, L.	POLY	618	Serianni, A.S.	CARB	94
Scott, P.J.	PMSE	219	Seilor, L.	PRES	12	Serkova, E.S.	ENFL	295
Scott, P.J.	POLY	442	Seipp, C.	I&EC	25	Serpe, M.	POLY	649
Scott, P.J.	POLY	746	Seitz, T.	AGRO	413	Serra, A.	POLY	623
Scott, S.M.	NUCL	42	Sekhar, S.	POLY	315	Serra, B.	ANYL	105
Scott, S.L.	CATL	10	Sekharan, M.	CHED	193	Serra, B.	ORGN	284
Scott, S.L.	CATL	103	Sekizkardes, A.	ENFL	40	Serrano-Hervás, E.	PHYS	444
Scott, S.L.	CATL	123	Seko, N.	I&EC	10	Servis, M.	I&EC	3
Scott, S.L.	CATL	124	Selby, M.	MEDI	269	Seshadri, S.	CATL	467
Scott, S.L.	CATL	260	Seldon, R.	MEDI	326	Sethuraman, V.	MEDI	250
Scott, S.L.	CATL	472	Selen-Alpergin, E.	AGFD	110	Setthakarn, K.	ORGN	499
Scott, S.L.	ENFL	74	Seley-Radtke, K.L.	MEDI	132	Settle, A.	CATL	55
Scott, S.L.	INOR	326	Seley-Radtke, K.L.	MEDI	173	Settle, A.	CATL	101
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Setyawati, M.I.	COLL	513	Shan, C.	BIOL	142	Shatruk, M.	INOR	372
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Sevcikova, K.	CATL	299	Shan, F.	PMSE	627	Shaughnessy, D.A.	NUCL	48
Severin, G.	NUCL	7	Shan, H.	ENFL	38	Shaver, M.P.	POLY	8
Severn, J.	POLY	295	Shan, X.	CATL	482	Shaver, M.P.	POLY	198
Sevigny, M.	PHYS	440	Shan, X.	ENFL	468	Shavnya, A.	MEDI	258
Sevov, C.	ORGN	544	Shan, X.	AGFD	236	Shaw, B.F.	BIOL	87
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Sewell, T.	ENVR	130	Shankar, M.	POLY	543	Shaw, E.	AGRO	57
Sexton, M.	ORGN	589	Shankar, S.	CHED	170	Shaw, M.	ORGN	636
Seybert, D.W.	MEDI	70	Shankin, E.	ORGN	360	Shaw, M.J.	INOR	697
Se-Yeon, K.	AGRO	365	Shanks, B.H.	ENVR	87	Shaw, P.B.	CHAS	45
Seyfferth, A.	ENVR	256	Shanks, B.H.	ENVR	128	Shaw, S.A.	MEDI	73
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Sfeir, M.	PHYS	84	Shanmugam, S.	POLY	418	Shaytan, A.	COMP	103
Sfeir, M.	PHYS	132	Shanmugasundaram, V.	MPPG	17	Shchetinsky, A.V.	INOR	639
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Sha, S.	AGFD	197	Shao, H.	POLY	303	Shea, J.E.	PHYS	237
Shaaban, H.	CHED	347	Shao, J.	ENFL	301	Shea, P.T.	ENFL	71
Shabana, A.	COLL	486	Shao, Y.	CATL	49	Sheahan, T.	ENVR	281
Shaban Tameh, M.	CATL	395	Shao, Y.	COMP	131	Sheardy, R.D.	CHED	397
Shada, A.	INOR	200	Shao, Y.	COMP	237	Shearer, M.	INOR	369
Shadish, J.A.	PMSE	58	Shao, Y.	COMP	361	Shears, K.	AGRO	327
Shadman, S.	I&EC	42	Shao, Y.	ORGN	183	Shee, A.	COMP	136
Shafer, C.M.	MEDI	267	Shao, Y.	PHYS	391	Shee, A.	PHYS	402
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Shafer-Peltier, K.	GEOC	11	Shao, Y.	PMSE	581	Sheehan, C.J.	INOR	772
Shaffer, D.W.	INOR	899	Shao, Y.	POLY	366	Sheehan, P.	INOR	706
Shaffer, D.W.	INOR	900	Shao, Y.	ENFL	84	Sheehan, P.E.	ORGN	673
Shaffer, D.L.	POLY	56	Shao, Y.	ENFL	327	Sheen, D.A.	CINF	78
Shafirovich, V.	TOXI	95	Shao, Y.	ENFL	390	Sheesley, R.J.	ENVR	491
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Shah, I.	ENVR	2	Shao-Horn, Y.	ANYL	260	Shegiwal, A.	POLY	126
Shah, J.	COLL	514	Shao-Horn, Y.	CATL	83	Shehadi, I.A.	INOR	773
Shah, K.	ENFL	222	Shao-Horn, Y.	ENFL	389	Shehata, M.	ORGN	367
Shah, K.S.	MEDI	70	Shao-Horn, Y.	ORGN	272	Shehee, T.C.	I&EC	20
Shah, M.	COMP	154	Shapiro, E.M.	INOR	474	Sheikh, B.N.	MEDI	16
Shah, N.K.	INOR	454	Shapiro, M.	ANYL	49	Sheikh, R.	PMSE	416
Shah, R.	AGFD	32	Shapiro, T.	COLL	65	Sheiko, S.	PMSE	162
Shah, S.	ORGN	663	Shapley, J.R.	INOR	859	Sheiko, S.	POLY	29
Shah, S.	COLL	534	Sharabati, J.	POLY	57	Sheiko, S.	POLY	382
Shahbazi, M.	AGRO	240	Sharifzadeh, S.	PHYS	27	Sheiko, S.	POLY	384
Shahi, N.	CELL	7	Sharir-Ivry, A.	PHYS	148	Sheiko, S.	POLY	665
Shahidi, F.	AGFD	215	Sharks, K.	INOR	294	Sheiko, S.	POLY	766
Shahni, R.	POLY	496	Sharkey, J.	COLL	39	Sheils, T.	CINF	60
Shahsavari, S.	ORGN	206	Sharma, A.	INOR	753	Shek, F.	INOR	183
Shahu, M.	CHED	386	Sharma, A.	CATL	302	Shekhar, R.	PMSE	567
Shaik, S.S.	PHYS	109	Sharma, A.K.	CHED	367	Shekhawat, D.	CATL	104
Shaikh, A.	MEDI	190	Sharma, C.	BIOL	187	Shekhawat, D.	ENFL	252
Shaikh, A.	MEDI	191	Sharma, G.	COLL	98	Shelat, S.	AGRO	144
Shaikh, A.	MEDI	288	Sharma, G.	COLL	113	Shelby, A.	AGRO	220
Shaikh, S.	INOR	256	Sharma, H.	COLL	303	Shelby, A.	AGRO	289
Shaikh, Z.	INOR	483	Sharma, H.	COMP	190	Sheldon, M.T.	COLL	122
Shakeel, A.	AGFD	9	Sharma, K.	ORGN	34	Sheldon, M.T.	COLL	399
Shaker, E.	AGFD	222	Sharma, L.	CATL	279	Sheldon, M.T.	COLL	500
Shakhashiri, B.Z.	CHED	17	Sharma, P.	INOR	816	Sheldon, M.T.	COLL	551
Shakhashiri, B.Z.	ENVR	186	Sharma, R.S.	POLY	330	Shell, M.	COMP	16
Shakhashiri, B.Z.	PHYS	266	Sharma, S.	INOR	720	Shelton, J.	MEDI	211
Shakib, F.A.	COMP	328	Sharma, S.	INOR	723	Shelton, K.L.	MEDI	290
Shakib, F.A.	ENFL	15	Sharma, S.K.	COLL	160	Sheludko, B.	INOR	203
Shakiba, S.	ENVR	493	Sharma, S.	ORGN	518	Sheludko, B.	INOR	330
Shakleya, D.	ANYL	188	Sharma, S.	AEI	22	Sheludko, B.	INOR	596
Shakleya, D.	ANYL	189	Sharma, S.	CELL	22	Shen, B.	ENFL	445
Shakya, R.	CHED	197	Sharma, S.	MEDI	75	Shen, B.	INOR	665
Shalae, E.	ORGN	31	Sharma, V.	ANYL	133	Shen, C.	ENFL	237
Shaley, K.	CHED	190	Sharma, V.	COLL	125	Shen, C.	ENFL	240
Shamay, Y.	COLL	320	Sharma, V.	COLL	605	Shen, C.	ORGN	184
Shamay, Y.	COLL	514	Sharninghausen, L.S.	INOR	679	Shen, C.	COMP	293
Shamberger, P.	PMSE	386	Sharninghausen, L.S.	INOR	680	Shen, D.	PMSE	5
Shamblen, R.	AGRO	151	Sharp, C.H.	INOR	3	Shen, F.	CELL	32
Shamblen, R.	AGRO	155	Sharp, C.H.	INOR	66	Shen, H.	ORGN	548
Shamim, M.T.	AGRO	79	Sharp, C.H.	INOR	147	Shen, J.	COMP	127
Shamim, M.T.	AGRO	146	Sharp, I.	CATL	382	Shen, J.	COMP	223
Shamim, M.T.	AGRO	258	Sharp, N.	ANYL	307	Shen, J.	COMP	270
Shamirian, A.	ANYL	292	Sharp, N.	ENVR	118	Shen, J.	COMP	383
Shamp, A.	PHYS	215	Sharpe, P.L.	AGRO	409	Shen, J.	COMP	389
Shams, M.	ENVR	263	Sharpes, S.	CHED	281	Shen, J.	PHYS	245
Shamshina, J.L.	POLY	504	Sharyan, A.	CARB	36	Shen, J.	PHYS	222
Shan, W.	I&EC	52	Shatruk, M.	INOR	367	Shen, J.	PHYS	595

Shen, K.	INOR	190	Shi, W.	ORGN	403	Shiozaki, T.	COMP	45
Shen, L.	CATL	447	Shi, W.	ORGN	657	Shipilin, M.	COLL	418
Shen, L.	AGRO	280	Shi, Y.	ORGN	167	Shipley, H.J.	CATL	106
Shen, L.	AGRO	332	Shi, Y.	ANYL	380	Shipley, H.J.	ENVR	296
Shen, L.	AGRO	333	Shi, Y.	BIOL	92	Shipman, M.	ORGN	44
Shen, Q.	BIOL	30	Shi, Z.	COMP	410	Shipman, S.T.	PHYS	378
Shen, S.	MEDI	320	Shi, Z.	POLY	41	Shipp, D.A.	COLL	615
Shen, S.	AGFD	53	Shiao, M.	COLL	434	Shipp, D.A.	PMSE	509
Shen, W.	PMSE	126	Shiau, B.J.	ENFL	218	Shipp, D.A.	POLY	128
Shen, X.	ENVR	43	Shiau, L.	I&EC	44	Shipp, D.A.	POLY	432
Shen, X.	MEDI	250	Shibaev, A.	COLL	26	Shiraiwa, M.	ENVR	550
Shen, Y.	ENFL	275	Shibahara, O.	MEDI	196	Shiraiwa, M.	ENVR	551
Shen, Y.	AEI	52	Shibayama, M.	PMSE	100	Shirazi, E.	ENVR	332
Shen, Y.	COLL	564	Shida, N.	POLY	354	Shireman, B.T.	MEDI	211
Shen, Y.	PMSE	214	Shidore, M.	MEDI	353	Shirke, A.	POLY	75
Shen, Z.	CATL	297	Shields, E.	MEDI	335	Shirley, D.J.	BIOL	103
Shen, Z.	MEDI	33	Shields, G.C.	PHYS	347	Shirman, E.	COLL	8
Shen, Z.	ANYL	107	Shields, G.C.	PHYS	375	Shirman, T.	CATL	214
Shen, Z.	MEDI	352	Shields, J.D.	ORGN	103	Shirman, T.	CATL	367
Sheng, G.	ENVR	510	Shields, C.W.	COLL	311	Shirman, T.	COLL	8
Sheng, H.	ANYL	139	Shifrina, Z.	ENFL	295	Shirman, T.	COLL	87
Sheng, H.	ANYL	434	Shih, A.	CATL	243	Shirole, A.	POLY	723
Sheng, H.	INOR	948	Shih, W.	INOR	430	Shiroyama, T.	AGRO	281
Sheng, L.	AGRO	25	Shih, Y.	ENVR	23	Shirtliff, M.E.	ENVR	294
Sheng, T.	MEDI	253	Shih, Y.	ENVR	364	Shirtliff, M.E.	ENVR	537
Sheng, Y.	ENVR	494	Shih, Y.	ENVR	376	Shirts, M.R.	COMP	304
Sheng, Z.	AGFD	118	Shih, Y.	ENVR	377	Shirts, M.R.	COMP	335
Shenogin, S.	ENFL	411	Shih, Y.	ENVR	445	Shirts, M.R.	COMP	384
Shensky, W.	INOR	686	Shih, Y.	ENVR	446	Shirts, M.R.	MPPG	26
Shensky, W.	ORGN	678	Shih, Y.	ENVR	452	Shirts, M.R.	PHYS	462
Shepard, M.R.	AGRO	319	Shih, Y.	ENVR	457	Shirts, M.R.	PMSE	354
Shepard, M.R.	AGRO	320	Shih, A.	ENFL	73	Shirts, M.R.	WCC	5
Shepard, S.	INOR	73	Shikinaka, K.	CELL	25	Shishi, M.	ANYL	47
Shepard, S.	INOR	672	Shillingstad, K.B.	ORGN	360	Shishido, A.	PMSE	341
Shepard, S.	INOR	691	Shiloni, Y.	ORGN	121	Shishido, A.	PMSE	380
Sherborne, B.	MPPG	16	Shim, H.	TOXI	73	Shishido, A.	PMSE	588
Sherborne, B.	MPPG	17	Shim, J.	MEDI	305	Shishido, T.	MEDI	265
Sherbrook, E.	AEI	61	Shim, S.	ORGN	357	Shivnaraine, R.V.	MEDI	240
Sherer, E.C.	MEDI	39	Shim, Y.M.	MEDI	80	Shizuma, M.	AGFD	135
Sherer, E.C.	ORGN	23	Shim, T.	COLL	18	Shklyae, O.E.	COLL	309
Sherer, E.C.	ORGN	259	Shimabuku, K.K.	ENVR	67	Shkrob, I.A.	ENFL	303
Sherer, S.	AGRO	210	Shimada, M.	INOR	732	Shkrob, M.	CINF	84
Sheridan, R.J.	PMSE	101	Shimada, Y.	CELL	23	Shmorhun, M.	CATL	469
Sheriff, S.	MEDI	308	Shimamoto, H.	POLY	481	Shoab, T.	PMSE	214
Sherman, D.H.	BIOL	1	Shimazu, H.	ENVR	394	Shockley, S.E.	WCC	9
Sherman, D.H.	ORGN	132	Shimizu, L.S.	ORGN	451	Shoffler, C.	ORGN	310
Sherrill, C.D.	COMP	175	Shimizu, L.S.	ORGN	454	Shoffler, C.	ORGN	592
Sherrill, C.D.	COMP	318	Shimizu, S.	ANYL	373	Shoichet, B.	COMP	39
Sherry, B.	ANYL	434	Shimizu, Y.	ORGN	326	Shoji, T.	ENVR	60
Sherry, D.	INOR	521	Shimoni, J.	ANYL	55	Sholl, D.	COMP	372
Sherwood, A.M.	MEDI	280	Shimpalee, S.	ENFL	158	Shon, H.	ENVR	145
Shestopalov, A.	POLY	719	Shimura, H.	ENVR	371	Shoop, W.	AGRO	386
Shevchenko, V.	COLL	428	Shin, J.	CINF	146	Shoop, D.Y.	INOR	679
Shevchuk, O.	POLY	635	Shin, J.	INOR	800	Shoop, D.Y.	INOR	680
Shevchuk, O.	PMSE	174	Shin, J.	POLY	242	Shores, M.P.	INOR	78
Shevlin, M.	MEDI	256	Shin, J.H.	CHED	153	Shores, M.P.	INOR	672
Shewchuk, L.	MPPG	18	Shin, J.H.	CHED	272	Shores, M.P.	INOR	691
Shi, L.	ENVR	370	Shin, K.	COLL	226	Shou, D.	COLL	278
Shi, A.	MEDI	328	Shin, K.	PHYS	592	Showalter, T.N.	PMSE	579
Shi, C.	POLY	495	Shin, M.	CHED	154	Shpasser, D.	CATL	213
Shi, F.	COLL	606	Shin, M.	CELL	32	Shrestha, K.	COLL	276
Shi, F.	GEOC	20	Shin, M.	ENVR	434	Shrestha, A.	ORGN	516
Shi, F.	ENFL	38	Shin, T.	ENVR	433	Shrestha, M.	ENVR	532
Shi, G.	ANYL	325	Shin, Y.	CATL	280	Shrestha, R.G.	COLL	95
Shi, H.	POLY	271	Shin, H.	NUCL	27	Shrestha, S.	CELL	13
Shi, H.	CATL	447	Shinde, A.K.	MEDI	94	Shreve, M.	AEI	35
Shi, H.	ENVR	37	Shinde, A.K.	MEDI	95	Shreve, M.	ENVR	204
Shi, H.	ENVR	39	Shinde, A.K.	MEDI	354	Shrivastava, S.	MEDI	129
Shi, H.	ANYL	179	Shinde, A.K.	MEDI	355	Shriver, L.	ORGN	88
Shi, J.	INOR	686	Shinde, P.	ENFL	357	Shu, D.	ENFL	382
Shi, J.	ORGN	678	Shinde, S.D.	PMSE	418	Shu, Y.	MEDI	64
Shi, J.	BIOL	30	Shinde, S.D.	PMSE	422	Shu, Y.	MEDI	127
Shi, J.	PMSE	193	Shine, J.M.	ENVR	281	Shuai, D.	ANYL	287
Shi, L.	I&EC	41	Shing, V.	AGRO	321	Shuford, K.L.	COLL	385
Shi, R.	TOXI	2	Shinn, C.	CHED	140	Shuh, D.K.	INOR	523
Shi, S.	INOR	339	Shinn, P.	COMP	288	Shukla, D.	COMP	208
Shi, S.	INOR	730	Shinnar, A.E.	CHED	354	Shukla, M.K.	COMP	164
Shi, T.	ANYL	19	Shinokubo, H.	ORGN	676	Shukla, N.	COLL	203
Shi, W.	BIOL	120	Shinya, R.	BIOL	16	Shulaev, V.	AGFD	94
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Shuller-Nickles, L.C.	NUCL	74	Silva, J.	MEDI	34	Singh, A.	PMSE	479
Shultz, D.A.	INOR	33	Silva, J.	MEDI	35	Singh, A.K.	COLL	164
Shultz, D.A.	INOR	115	Silva, N.F.	ENVR	110	Singh, A.K.	ENVR	479
Shultz, D.A.	INOR	923	Silva, R.	AGRO	240	Singh, A.	ENFL	403
Shultz, M.D.	MEDI	267	Silva, U.	CATL	457	Singh, A.	CATL	86
Shum, H.	COLL	309	Silva, W.	CATL	457	Singh, B.	ORGN	422
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Shumlas, S.L.	ENVR	77	Silva-Hughes, A.F.	AGRO	316	Singh, G.	CATL	327
Shurki, A.	PHYS	148	Silver, J.E.	MEDI	137	Singh, K.	ORGN	372
Shurmer, B.	AGRO	49	Silver, J.E.	MEDI	139	Singh, K.	ORGN	376
Shurtleff, V.W.	ORGN	636	Silver, M.	NUCL	17	Singh, N.P.	ORGN	663
Shusterman, J.	ENVR	227	Silver, P.A.	INOR	16	Singh, N.	POLY	704
Shustova, N.B.	INOR	120	Silverglade, B.	AGFD	109	Singh, N.	ORGN	452
Shuto, S.	ORGN	164	Silverman, S.M.	ORGN	380	Singh, P.	INOR	467
Shuto, T.	COLL	466	Silvers, R.	PHYS	342	Singh, R.	AGRO	61
Shutthanandan, V.	CATL	232	Silvestre, V.	AGFD	193	Singh, S.	COMP	41
Shutthanandan, V.	NUCL	37	Silvestri, R.	CHED	137	Singh, S.	PMSE	31
Shwan, S.	CATL	259	Silwal, S.	COMP	255	Singh, S.	CELL	1
Siam, K.S.	ENFL	242	Sim, S.	BIOL	98	Singh, S.	CELL	2
Siangsai, A.	COLL	282	Simaan, M.	ORGN	115	Singh, S.	CELL	30
Sibali, D.	I&EC	23	Simakova, A.	POLY	381	Singh, S.	AGRO	240
Sibi, M.P.	POLY	509	Simakova, A.	POLY	386	Singh, S.	COLL	253
Sibi, M.P.	POLY	761	Simakova, A.	POLY	492	Singh, S.	COMP	255
Sibley, C.	MEDI	201	Simcik, M.F.	I&EC	59	Singha Hazari, A.	INOR	196
Sibug, S.M.	ANYL	141	Simhadri, J.J.	PMSE	426	Singharoy, A.	COMP	343
Sibug, S.M.	ANYL	167	Simic, O.	MEDI	46	Singhasemanon, N.	AGRO	159
Siccardi, M.	COLL	82	Simithy, J.	MEDI	329	Singleton, C.D.	COMP	261
Siccardi, M.	COLL	145	Simmerling, C.L.	COMP	31	Singleton, E.	MEDI	330
Siccardi, M.	ORGN	671	Simmerling, C.L.	COMP	111	Singleton, S.M.	CHED	86
Sicily, T.B.	PMSE	604	Simmermacher-Mayer, J.	MEDI	335	Sing-Long, C.A.	COMP	92
Siddiq, M.A.	PHYS	480	Simonett, A.C.	COMP	311	Sinha, S.	INOR	679
Siddique, M.B.	ENVR	474	Simmons, B.	CELL	2	Sinha, S.	INOR	680
Siddiquei, F.	PHYS	348	Simmons, B.	CELL	30	Sinha, S.	MEDI	365
Siddiqui, A.	COMP	391	Simmons, B.A.	CELL	1	Sinniah, R.S.	ORGN	394
Siddiqui, M.N.	ENFL	405	Simmons, E.	ORGN	4	Sinopalnikova, I.S.	INOR	229
Siddiqui, M.N.	PMSE	423	Simmons, E.	I&EC	37	Sintim, H.O.	ANYL	107
Siddiqui, M.N.	PMSE	424	Simmons, R.	MEDI	250	Sinutko, O.R.	ENVR	214
Sidhu, I.	PMSE	228	Simmons, T.	INOR	583	Sinz, M.	MEDI	335
Sidler, D.	COMP	307	Simmons, T.J.	PMSE	434	Siochi, E.J.	POLY	50
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Siegenfeld, A.P.	ORGN	325	Simon, Y.C.	POLY	213	Siraj, N.	ANYL	285
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Sieghart, W.	MEDI	364	Simonetti, A.	NUCL	75	Siriwardane, D.	POLY	471
Siegler, M.	INOR	717	Simonetti, A.	NUCL	76	Sirk, T.	PMSE	106
Siegler, M.	INOR	801	Simons, B.	COMP	5	Sirkoch, C.	PHYS	482
Siekhaus, W.	NUCL	64	Simpkins, B.	INOR	55	Sirockin, F.	MEDI	306
Siepmann, J.I.	ANYL	411	Simpkins, N.	ORGN	482	Sirois, L.	ORGN	40
Siepmann, J.I.	COMP	154	Simpson, C.P.	POLY	398	Sirrine, J.	PMSE	55
Siepmann, J.I.	COMP	184	Simpson, C.P.	POLY	399	Sirrine, J.	PMSE	219
Siepmann, J.I.	COMP	193	Simpson, H.M.	ORGN	144	Sirrine, J.	POLY	498
Siepmann, J.I.	COMP	369	Simpson, J.	COMP	146	Sirrine, J.	POLY	674
Siepmann, T.	CHAL	12	Simpson, J.	INOR	870	Siscan, O.	POLY	680
Siepmann, T.	SCHB	7	Simpson, J.	INOR	871	Sisk, N.	AGRO	398
Sierra-Sastre, Y.	ANYL	304	Simpson, J.	CHED	301	Sita, L.R.	INOR	671
Siewny, M.	PHYS	290	Simpson, J.	INOR	775	Sita, L.R.	INOR	770
Sigel, E.A.	CINF	30	Sims, C.M.	INOR	775	Sita, L.R.	INOR	885
Sigel, E.A.	MEDI	104	Sims, M.B.	POLY	62	Sita, L.R.	PMSE	395
Sigman, M.S.	ORGN	25	Sindt, A.	ORGN	454	Sita, L.R.	PMSE	600
Sigmann, S.B.	CHAS	19	Sing, C.E.	PMSE	266	Sita, L.R.	PMSE	600
Sigmann, S.B.	CHED	45	Sing, C.E.	PMSE	536	Sitaula, S.	MEDI	146
Sigmann, S.B.	CINF	73	Sing, M.K.	PMSE	115	Sitkoff, D.	COMP	318
Sikes, H.D.	POLY	357	Sing, M.K.	PMSE	294	Sittig, M.	INOR	186
Silab, S.D.	POLY	380	Singamaneni, S.	ANYL	396	Sivaguru, J.	ORGN	188
Silbaugh, T.	INOR	607	Singamaneni, S.	COLL	446	Sivaguru, J.	ORGN	189
Silberhorn, E.	AGRO	407	Singaram, S.	PHYS	15	Sivaguru, J.	ORGN	219
Silberstein, M.	POLY	87	Singathi, R.	POLY	509	Sivaguru, J.	POLY	509
Silcox, B.	ENFL	303	Singathi, R.	POLY	761	Sivaguru, J.	POLY	761
Siliciano, J.M.	ORGN	671	Singer, A.	AGRO	51	Sivignon, A.	CARB	16
Siliciano, R.F.	MEDI	233	Singer, K.D.	POLY	333	Siw, Z.	ANYL	342
Siliciano, R.F.	ORGN	671	Singer, K.D.	POLY	512	Siyoum, T.	AGRO	130
Silky, C.	MEDI	255	Singer, K.D.	POLY	700	Sizikova, E.	COMP	262
Sillence, K.	POLY	754	Singer, K.D.	POLY	701	Sizochenko, N.	AEI	26
Sillitoe, I.	PHYS	89	Singer, S.J.	COLL	3	Sizochenko, N.	CINF	132
Silva, A.M.	I&EC	33	Singer, S.J.	PHYS	523	Sjolander, T.	PHYS	329
Silva, C.	POLY	268	Singh, A.	INOR	480	Skaanderup, P.	MEDI	306
Silva, C.J.	AGFD	224	Singh, B.	CARB	34	Skaja, A.	PMSE	124
			Singh, A.	INOR	39	Skanchy, D.J.	I&EC	54

Skara, G.	CATL	191	Smith, A.	PMSE	605	Smith, T.	POLY	426
Skeete, Z.	CATL	302	Smith, A.	PMSE	599	Smith, W.E.	TOXI	94
Skekel, E.	CHED	217	Smith, A.	COLL	213	Smith, W.L.	PMSE	122
Skinner, G.E.	AGFD	253	Smith, A.	COLL	375	Smith, D.	PMSE	470
Skinner, M.	POLY	257	Smith, A.A.	CHED	163	Smithmyer, M.	PMSE	486
Skipper, N.	INOR	865	Smith, A.	COLL	308	Smith-Roe, S.	TOXI	24
Skogerson, K.J.	ANYL	93	Smith, B.D.	COLL	404	Smitley, D.	AGRO	106
Skoglund, N.	ENFL	23	Smith, B.	POLY	742	Smoll, K.	INOR	199
Skoglund, N.	ENFL	24	Smith, C.A.	COMP	160	Smolyaninova, V.	INOR	659
Skoglund, N.	ENFL	25	Smith, C.	ENVR	292	Smriti, S.	MEDI	328
Skoglundh, M.	CATL	259	Smith, C.	INOR	3	Smtih, A.	GEOC	18
Skoko, Z.	INOR	524	Smith, C.	AGRO	144	Smtih, A.	GEOC	30
Skolnik, S.	COMP	294	Smith, C.M.	COLL	360	Smuts, J.	AGFD	194
Skomski, D.	CATL	118	Smith, D.	COLL	145	Smyth, R.	AGRO	276
Skory, C.D.	AGFD	263	Smith, D.	PHYS	403	Snaider, J.	BIOL	55
Skory, C.D.	CARB	51	Smith, D.	POLY	220	Snead, R.	ORGN	105
Skrabalak, S.E.	COLL	111	Smith, E.D.	ENVR	164	Snee, P.T.	ANYL	292
Skrabalak, S.E.	COLL	333	Smith, G.R.	MEDI	254	Snee, P.T.	COLL	489
Skrabalak, S.E.	COLL	582	Smith, G.D.	ANYL	89	Snee, P.T.	COLL	560
Skrabalak, S.E.	COMSCI	6	Smith, G.D.	ANYL	222	Snee, P.T.	INOR	297
Skrabalak, S.E.	ENFL	36	Smith, G.D.	ANYL	227	Snider, H.	CHED	191
Skripov, A.	ENFL	71	Smith, G.D.	ORGN	631	Snijder, A.	MEDI	8
Skromne, I.	PMSE	482	Smith, G.J.	COLL	274	Snow, A.	ENFL	92
Skrydstrup, T.	CATL	179	Smith, H.	BIOL	114	Snurr, R.	CATL	414
Skrypai, V.	AEI	71	Smith, H.	ENVR	471	Snurr, R.	CATL	416
Skrypai, V.	ORGN	126	Smith, H.	ANYL	288	Snyder, A.	ORGN	617
Skrypai, V.	ORGN	130	Smith, I.	COLL	13	Snyder, C.R.	PMSE	151
Slack, C.	PHYS	329	Smith, J.B.	INOR	82	Snyder, E.K.	COMP	166
Slade, D.	MEDI	275	Smith, J.B.	INOR	423	Snyder, N.J.	AGRO	19
Slade, J.H.	ENVR	550	Smith, J.	ENVR	191	Snyder, N.J.	AGRO	76
Sladitschek, H.L.	BIOL	53	Smith, J.	AGFD	64	Snyder, R.	PMSE	246
Slater, C.	I&EC	62	Smith, J.	CINF	121	Snyder, S.W.	ENFL	156
Slater, J.	ANYL	283	Smith, J.	ENVR	2	So, C.	PMSE	141
Slavicek, P.	PHYS	177	Smith, J.	ENVR	387	So, C.	PMSE	312
Slavicek, P.	PHYS	599	Smith, J.	TOXI	91	Soares, J.	AGFD	50
Slawek, P.	PMSE	351	Smith, J.	BIOL	90	Soares, J.W.	AGFD	36
Slazar, A.	INOR	855	Smith, J.	POLY	713	Soares, P.A.	CARB	96
Slebodnick, C.	ORGN	105	Smith, J.M.	AEI	56	Soares, R.R.	CATL	457
Sleck, M.	INOR	603	Smith, J.M.	INOR	262	Soars, M.	MEDI	269
Sleck, M.	INOR	724	Smith, J.M.	INOR	623	Sobel, S.G.	PHYS	299
Sleczska, B.	MEDI	25	Smith, J.	ANYL	19	Sobieray, D.M.	ORGN	390
Slegeris, R.	POLY	34	Smith, J.	TOXI	85	Sobkowicz, M.J.	POLY	58
Slenter, D.	CINF	66	Smith, J.T.	POLY	592	Sobol, N.	POLY	236
Sletten, E.M.	COLL	473	Smith, J.	COMP	93	Sobral, P.R.	CATL	330
Slipchenko, L.V.	COMP	244	Smith, J.S.	COMP	314	Sobrinho, T.	COLL	622
Sliz, P.	AEI	8	Smith, K.	POLY	722	Sobus, J.R.	ANYL	21
Sliz, P.	ORGN	28	Smith, L.M.	MEDI	308	Sobus, J.R.	ANYL	248
Sloan, D.	ANYL	377	Smith, L.	AGRO	367	Sobus, J.R.	ENVR	306
Sloan, G.	PHYS	2	Smith, L.	AGRO	394	Sobus, J.R.	ANYL	347
Slochower, D.	COMP	100	Smith, L.	ORGN	644	Sobus, J.R.	CINF	28
Slocombe, D.	PHYS	357	Smith, M.B.	POLY	638	Sobus, J.R.	ENVR	548
Slocum, D.W.	ORGN	620	Smith, M.D.	INOR	120	Sockwell, K.	NUCL	13
Slocum, K.	MEDI	267	Smith, M.D.	ORGN	454	Sode, O.	PHYS	432
Slominski, A.	MEDI	83	Smith, M.W.	CATL	104	Sodeoka, M.	ORGN	287
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Slowing, I.I.	CATL	115	Smith, M.W.	ENFL	252	Soderberg, B.	ORGN	547
Slowing, I.I.	CATL	120	Smith, M.	PHYS	594	Soderberg, B.	ORGN	648
Slusher, B.	MEDI	318	Smith, M.J.	BMGT	9	Soderstrom, E.M.	INOR	535
Smaldone, R.	PMSE	51	Smith, M.	ENVR	443	Sodhi, V.	ENVR	261
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Smaldone, R.	PMSE	574	Smith, M.	ANYL	68	Soh, L.	ENVR	357
Smaldone, R.A.	PMSE	240	Smith, M.D.	BIOL	90	Sohail, M.	ENFL	10
Small, M.C.	PHYS	527	Smith, M.D.	POLY	713	Sohail, M.	ORGN	488
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Smallheer, J.M.	MEDI	73	Smith, P.B.	POLY	702	Sohn, B.	PMSE	384
Smallridge, M.J.	POLY	424	Smith, P.	AEI	53	Sohn, Y.S.	PMSE	110
Smallwood, Z.	INOR	858	Smith, P.	AGFD	24	Sohodski, E.	ORGN	9
Smarsly, B.	INOR	524	Smith, P.	ENFL	482	Sojo, L.	MEDI	253
Smedler, G.	CATL	397	Smith, R.A.	MEDI	269	Sok, A.	MEDI	225
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Smiles, D.E.	INOR	523	Smith, R.	ENFL	449	Sokolov, A.P.	AEI	83
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Soljadic, M.	COLL	603	Song, Y.	POLY	371	Sparks, T.C.	ORGN	472
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Solomon, E.I.	INOR	722	Songkiatisak, P.	ANYL	38	Speer, K.	AGFD	182
Solomon, E.I.	INOR	799	Songkiatisak, P.	ANYL	209	Spence, L.	AGFD	20
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Solouki Bonab, V.	PMSE	13	Sonnet, P.	COMP	224	Spencer, K.	AGRO	240
Solouki Bonab, V.	POLY	563	Sonnet, P.	MEDI	62	Speranza, J.	CHAS	46
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Soltys, J.	INOR	952	Sood, P.	COMP	408	Spieß, H.W.	ORGN	506
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Somasundaran, P.	CATL	253	Soong, Y.	GEOC	20	Spinelle, R.	ORGN	192
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Sommers, E.M.	CHAL	12	Soper, S.A.	ANYL	206	Spisak, S.N.	INOR	626
Somoza, V.	AGFD	244	Soper-Hopper, M.T.	ANYL	436	Spitaleri, A.	COMP	385
Somoza, V.	AGFD	245	Soper-Hopper, M.T.	CHED	390	Spitler, M.	COLL	336
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Son, H.	PMSE	583	Sorensen-Unruh, C.	CHED	402	Spokoyny, A.M.	MPPG	26
Son, J.	INOR	544	Sorensen-Unruh, C.	CHED	405	Spokoyny, A.M.	WCC	3
Song, Z.	ENVR	174	Sorenson, S.A.	PHYS	510	Sponsler, D.	AGRO	64
Song, Z.	I&EC	26	Soreo, J.	CATL	470	Sponsler, D.	AGRO	301
Song, B.	ORGN	461	Soreo, J.	CATL	436	Sponza Mata, A.D.	ORGN	436
Song, B.	POLY	81	Sorgo, R.	MEDI	137	Spoon, T.	COLL	486
Song, C.	POLY	524	Sorgo, R.	MEDI	139	Sprague, M.K.	PHYS	397
Song, C.	CATL	358	Sorial, G.	ENVR	42	Sprague-Klein, E.	COLL	51
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Song, D.	INOR	541	Soto, C.M.	ANYL	30	Spuling, E.	PMSE	26
Song, D.	INOR	543	Soto, C.M.	ANYL	31	Sreerama, L.	ANYL	351
Song, D.	MEDI	43	Soto, D.	POLY	521	Sremaniak, L.S.	WCC	10
Song, D.	COMP	56	Soto, F.A.	CATL	274	Sresht, V.	COLL	471
Song, H.	POLY	549	Soto, F.A.	ENFL	164	Sridhar, A.	CATL	207
Song, H.	PMSE	452	Soto Salcido, L.A.	ENVR	373	Srifa, P.	ORGN	261
Song, H.	NUCL	6	Sottos, N.R.	ENFL	120	Srigley, C.	ANYL	200
Song, H.	ENFL	32	Sottos, N.R.	PMSE	631	Srigley, C.	ANYL	220
Song, J.	ENFL	306	Sotuyo, A.	ORGN	46	Srinivasan, R.	CHED	155
Song, J.	POLY	407	Sotzing, G.	POLY	608	Srinivasan, S.	MEDI	82
Song, J.	CATL	245	Soudackov, A.	INOR	469	Srinivasan, S.	CHED	15
Song, J.	ORGN	571	Soudant, P.	ENVR	482	Srinivasan, S.	CHED	71
Song, J.	ORGN	168	Soulie, C.	PMSE	589	Srinivasan, S.	CHED	408
Song, J.	POLY	542	Soumeillant, M.C.	ORGN	521	Srinoi, P.	INOR	663
Song, J.	ENFL	164	Sousa, A.A.	COLL	175	Srisombat, L.	COLL	210
Song, K.	MEDI	63	Sousa, A.A.	COLL	609	Srivastava, R.	MEDI	129
Song, K.	MEDI	22	Sousa, A.	COLL	244	Srivastava, S.	PMSE	320
Song, K.	MEDI	103	Sousa, A.	COLL	536	Srivastava, V.	COLL	561
Song, L.	ENFL	480	Souter, H.	MEDI	8	Srnec, M.	INOR	86
Song, L.	ENFL	53	Southall, N.	CINF	60	St.Jeor, V.	AGFD	187
Song, M.	AGFD	92	Southall, N.	COMP	358	Staben, S.T.	MEDI	22
Song, M.	MEDI	92	Southerland, M.	MEDI	290	Staben, S.T.	MEDI	103
Song, Q.	ORGN	562	Southgate, E.H.	WCC	7	Stacey, G.	ANYL	430
Song, S.	ENFL	332	Souza, B.	PMSE	197	Stach, E.	CATL	231
Song, W.	ENVR	105	Sova, S.	ORGN	216	Stach, E.	CATL	303
Song, W.	ENVR	380	Sowan, N.	PMSE	127	Stach, E.	COLL	592
Song, W.	BIOL	95	Sowan, N.	POLY	549	Stach, E.	ENFL	180
Song, X.	ANYL	173	Sowers, K.L.	COLL	497	Stachowski, J.L.	CHED	55
Song, Y.	CATL	451	Sowley, H.	BIOL	98	Stachowski, J.L.	ORGN	132
Song, Y.	POLY	385	Spada, L.	PHYS	55	Stack, M.	PMSE	394
Song, Y.	ENVR	446	Spadafora, C.	MEDI	138	Stack, T.D.	INOR	435
Song, Y.	ENVR	457	Spano, T.L.	NUCL	75	Stadie, N.P.	ENFL	243
Song, Y.	COLL	214	Spano, T.L.	NUCL	76	Stadie, N.P.	ENFL	478
Song, Y.	PMSE	316	Sparks, D.L.	AGFD	236	Stadler, A.	CHED	380
Song, Y.	PMSE	427	Sparks, D.L.	AGRO	339	Stadler, P.	CINF	14
Song, Y.	POLY	770	Sparks, J.	PMSE	7	Stadler, R.	PHYS	13

Stafford, C.M.	POLY	56	Stein, B.W.	INOR	945	Stimpson, A.	PMSE	463
Stafford, G.R.	POLY	56	Stein, B.W.	NUCL	44	Stimpson, A.	PMSE	567
Stagge, S.	I&EC	67	Stein, B.W.	NUCL	47	Stine, R.	ORGN	673
Stahl, L.	ORGN	128	Stein, R.	COMP	39	Stingel, A.M.	INOR	12
Stahl, R.S.	ANYL	90	Stein, S.	CINF	128	Stirling, S.	CHED	173
Staimer, N.	ENVR	334	Steinbacher, J.L.	COLL	176	Stiteler, W.	AGRO	380
Stains, C.I.	ORGN	293	Steinbeck, C.	CINF	59	Stock, I.A.	MEDI	63
Stair, P.C.	CATL	204	Steinbeck, C.	CINF	66	Stockdale, D.P.	ORGN	407
Stallings, D.	CINF	51	Steinberg, D.J.	CINF	55	Stockdale, V.	AGFD	27
Stam, L.	AGRO	141	Steinberg, L.I.	POLY	54	Stockdill, J.L.	ORGN	341
Stamenkovic, V.	CATL	29	Steinberg, P.	TOXI	49	Stockler, K.	CHED	84
Stamenkovic, V.	CATL	37	Steiner, E.	ORGN	654	Stockley, C.	AGFD	91
Stan, G.	COMP	303	Steiner, J.	NUCL	48	Stocksdale, M.G.	CHED	274
Stan, G.	COMP	386	Steinhart, R.C.	MEDI	9	Stoco, M.A.	ENVR	422
Stanek, C.M.	INOR	488	Steinhart, R.C.	PMSE	487	Stoco, M.A.	ENVR	423
Stanford, C.L.	CHED	114	Steinhart, M.	PMSE	40	Stoddard, E.	TOXI	85
Stanford, C.L.	CHED	116	Steinhauff, D.	PMSE	144	Stoddard, J.F.	ORGN	243
Stanford, C.L.	CHED	117	Steinkellner, G.	POLY	72	Stoeber, J.	CHED	251
Stanford, C.L.	CHED	412	Steinmann, K.	AGRO	91	Stoekel, J.	ENVR	46
Stang, E.M.	MEDI	147	Steinmann, K.	AGRO	124	Stoekle, A.	ENVR	310
Stang, P.J.	ORGN	446	Steinmetz, M.G.	ORGN	218	Stoeger, V.	AGFD	245
Stangl, C.	ENVR	339	Steinmeyer, A.	MEDI	266	Stojakovic, J.	AEI	23
Stank, A.	COMP	262	Steinsaltz, F.	CHED	382	Stojakovic, J.	COLL	9
Stanley, D.L.	PMSE	669	Stellacci, M.	COLL	573	Stokes, C.	PHYS	219
Stanley, H.E.	PHYS	22	Stelmach, K.	PHYS	441	Stokes, S.	ORGN	548
Stanley, L.M.	ORGN	345	Stenger-Smith, J.D.	POLY	720	Stolar, M.	POLY	655
Stansbury, J.W.	POLY	456	Stepanek, P.	POLY	305	Stoll, S.L.	COLL	623
Stanton, A.	POLY	479	Stepanov, I.	TOXI	38	Stoll, S.L.	INOR	60
Stanton, I.N.	INOR	246	Stepanov, I.	TOXI	39	Stoll, S.L.	INOR	472
Stanton, J.	CELL	11	Stephan, A.M.	CELL	9	Stoll, S.L.	INOR	712
Stanzione, F.	PMSE	519	Stephan, C.	ENVR	37	Stoltz, B.M.	ORGN	202
Stanzione, J.F.	I&EC	62	Stephans, A.	MEDI	101	Stoltz, B.M.	WCC	9
Stanzione, J.F.	POLY	13	Stephan, M.R.	MEDI	364	Stone, A.T.	INOR	465
Stanzione, J.F.	POLY	137	Stephens, B.	COLL	445	Stone, B.	CATL	459
Stanzione, J.F.	POLY	564	Stephens, D.	ORGN	406	Stone, I.	PMSE	22
Staples, O.	INOR	343	Stephens, R.	PHYS	203	Stone, M.P.	TOXI	15
Stapleton, J.D.	PMSE	348	Stephenson, M.E.	ANYL	62	Stone, M.P.	TOXI	68
Star, A.	ENFL	144	Stephenson, N.S.	CHED	14	Stone, M.P.	TOXI	93
Starckenburg, D.J.	ORGN	696	Stepniowski, W.	CATL	255	Stoneburner, K.	ANYL	223
Starkov, P.	ORGN	353	Sterk, S.	AGRO	84	Stopinski, J.	COMP	174
Starovoytova, L.	POLY	455	Sterling, M.D.	INOR	934	Stopka, S.	ANYL	430
Starr, D.E.	COLL	537	Sterling, M.D.	ORGN	94	Storey, J.	AGRO	48
Starr, J.	ORGN	619	Sterling, M.D.	ORGN	382	Storey, R.F.	POLY	497
Stashko, M.	MEDI	123	Sternberg, P.W.	BIOL	16	Storey, R.F.	POLY	600
Stasse, M.	COLL	405	Steuerwald, A.J.	ANYL	309	Stornetta, A.	TOXI	51
Stasse, M.	PMSE	634	Steuwe, C.	COLL	110	Story, S.	COLL	461
Stauber, J.	INOR	728	Stevens, C.	ENVR	546	Stošek, J.	PHYS	557
Staveley, J.	AGRO	83	Stevens, D.	COLL	180	Stourac, J.	PHYS	145
Staveley, J.	AGRO	184	Stevens, D.	INOR	62	Stowers, C.	INOR	505
Staveley, J.	AGRO	290	Stevens, D.	INOR	277	Stowers, R.	PMSE	326
Stavila, V.	CATL	413	Stevens, L.	ANYL	253	Stoykovich, M.P.	POLY	372
Stavila, V.	ENFL	71	Stevens, L.	INOR	735	Stranick, S.	ANYL	387
Stawiasz, K.	POLY	759	Stevens, L.	INOR	545	Stranick, S.	ENVR	470
Stead, D.	ORGN	482	Stevens, L.M.	CHED	280	Stranick, S.	PMSE	529
Steager, E.	COLL	305	Stevens, M.	CINF	100	Stranick, S.	ENVR	158
Stebbins, N.B.	AGFD	232	Stevens, P.A.	INOR	392	Strano, M.	AGFD	252
Stebbins, N.D.	POLY	513	Stevens, T.E.	INOR	216	Strano, M.	ANYL	39
Stebe, K.J.	COLL	127	Stevenson, K.J.	CATL	84	Strano, M.	ANYL	125
Stebe, K.J.	COLL	129	Stevenson, M.	INOR	579	Strano, M.	ANYL	364
Stebe, K.J.	COLL	305	Stevenson, T.M.	AGRO	409	Strano, M.	ANYL	373
Stec, J.	MEDI	41	Stevenson, T.M.	AGRO	412	Strano, M.	ORGN	669
Steeffel, C.	GEOC	33	Stewart, D.	INOR	686	Strano, M.	PHYS	507
Steeger, T.	AGRO	299	Stewart, J.M.	AGRO	400	Strano, M.	PMSE	355
Steeves, A.H.	COMP	141	Stewart, J.L.	CHED	413	Strasser, C.	MPPG	25
Stefan, M.C.	POLY	237	Stewart, J.L.	INOR	547	Strathmann, T.J.	INOR	859
Stefan, M.C.	POLY	736	Stewart, K.	I&EC	35	Stratis-Cullum, D.N.	COLL	308
Stefanini, M.	AGFD	94	Stewart, L.	ENVR	492	Stratis-Cullum, D.N.	COLL	354
Steffensmeier, E.M.	INOR	911	Stewart, M.	COLL	563	Stratis-Cullum, D.N.	PHYS	332
Stefik, M.	ENFL	102	Stewart, M.H.	COLL	449	Stratis-Cullum, D.N.	PHYS	527
Stefik, M.	PMSE	527	Stewart, P.L.	MEDI	28	Stratis-Cullum, D.N.	BIOL	43
Steger, B.	AEI	60	Stewart, C.	ORGN	548	Stratton, L.M.	INOR	221
Steger, E.	ORGN	360	Stewart-Sloan, C.	PMSE	115	Stratz, S.	NUCL	84
Steggall, J.	AGRO	98	Steyaert, I.	PMSE	652	Strauss, C.E.	ORGN	27
Stehle, T.	CARB	77	St Fort, E.	PMSE	352	Strauss, C.E.	PMSE	306
Stehr, J.	INOR	666	Stieber, C.	ENFL	45	Strauss, E.	MEDI	163
Steiert, E.	POLY	703	Stiegman, A.E.	CATL	10	Strauss, K.	I&EC	35
Stein, A.	COMP	184	Stiegman, A.E.	ENFL	252	Strauss, S.H.	ORGN	428
Stein, A.	INOR	820	Stihler, C.	IAC	4	Strawser, C.J.	TOXI	10
Stein, B.	COLL	231	Stillinger, F.	PHYS	66	Streckfuss, E.	INOR	387
Stein, B.W.	INOR	115	Stiltoner, R.	AGRO	51	Street, L.	MEDI	326

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Streeter, M.	TOXI	87	Su, J.	NUCL	19	Sukhishvili, S.A.	PMSE	538
Strelcov, E.	COLL	590	Su, J.	NUCL	28	Sukhishvili, S.A.	PMSE	548
Streletzky, K.A.	COLL	256	Su, J.	PMSE	429	Sukhishvili, S.A.	PMSE	664
Strelow, C.	COLL	40	Su, J.	POLY	71	Sukhishvili, S.A.	POLY	673
Stretz, H.A.	ANYL	211	Su, L.	AGRO	346	Sukkanon, C.	AGRO	393
Stretz, H.A.	I&EC	51	Su, L.	PMSE	25	Suleiman, D.	PMSE	23
Stretz, H.A.	PMSE	428	Su, L.	POLY	324	Suliman, M.H.	PMSE	424
Stretz, H.A.	POLY	494	Su, L.	POLY	371	Sullen, C.	MEDI	304
Stribling, S.	MEDI	225	Su, M.	ORGN	166	Sullivan, A.	INOR	82
Strickland, K.	CATL	485	Su, M.	CARB	30	Sullivan, D.A.	AGRO	145
Strickland, M.	INOR	632	Su, M.	CELL	26	Sullivan, E.	CATL	270
Strickland, M.	AGFD	42	Su, Q.	MEDI	23	Sullivan, K.	CHED	185
Strickman, D.	AGRO	239	Su, X.	INOR	859	Sullivan, K.	ENVR	395
Striegel, A.M.	ANYL	154	Su, X.	POLY	620	Sullivan, K.P.	CATL	314
Striegel, A.M.	ANYL	294	Su, Y.	ENVR	475	Sullivan, M.R.	ORGN	459
Striegel, A.M.	CARB	49	Su, Y.	PHYS	342	Sullivan, M.	COLL	293
Striegel, A.M.	POLY	537	Su, Y.	ORGN	497	Sullivan, M.B.	CATL	486
Striepe, L.	POLY	655	Su, Y.	TOXI	17	Sullivan, M.B.	ENVR	171
Stripp, S.T.	CATL	220	Suami, H.	COLL	30	Sullivan, M.O.	COLL	432
Strmcnik, D.	CATL	29	Suarez, G.	TOXI	42	Sullivan, M.O.	POLY	283
Strmcnik, D.	CATL	37	Suarez, L.	POLY	245	Sullivan, R.D.	AGRO	145
Strnad, J.	MEDI	7	Suazo, K.F.	BIOL	145	Sulman, E.	ENFL	295
Strobel, S.A.	AGFD	8	Suazo, K.F.	ORGN	82	Sultan, N.	PMSE	274
Strobel, T.A.	PMSE	350	Subbiah, J.	ENFL	54	Sultana, M.	POLY	616
Strobel, T.A.	PMSE	375	Subedi, B.	ENVR	391	Sultana, T.	ENFL	255
Strodel, B.	PHYS	149	Subedi, B.	ENVR	395	Sum, J.	AGFD	44
Strollo, C.M.	ANYL	34	Subir, M.	PHYS	247	Suman, P.	MEDI	174
Strollo, C.M.	CHED	353	Subjalearndee, N.	PMSE	87	Suman, P.	MEDI	203
Strong, J.	ORGN	580	Subotnik, J.E.	PHYS	151	Suman, P.	MEDI	204
Strong, R.	NUCL	54	Subotnik, J.E.	PHYS	277	Suman, P.	ORGN	623
Strongin, D.R.	CATL	131	Subra, W.	ENVR	325	Sumbalova, L.	PHYS	145
Strongin, D.R.	ENFL	416	Subramani, S.	ORGN	599	Sumerlin, B.S.	INOR	75
Strongin, D.R.	ENVR	77	Subramaniam, B.	CATL	360	Sumerlin, B.S.	PMSE	64
Strongin, D.R.	INOR	61	Subramaniam, B.	ENVR	132	Sumerlin, B.S.	PMSE	132
Stroud, R.	COLL	71	Subramanian, K.	COLL	471	Sumerlin, B.S.	PMSE	544
Stroud, R.	COLL	563	Subramanian, R.	MEDI	94	Sumerlin, B.S.	POLY	62
Strouse, G.F.	COLL	502	Subramanian, R.	MEDI	355	Sumerlin, B.S.	POLY	418
Strouse, G.F.	INOR	59	Subramanian, R.	INOR	771	Summers, M.	CHED	189
Strouse, G.F.	INOR	668	Subramanian, Y.	ENFL	397	Summers, M.F.	BIOL	47
Strozier, J.L.	INOR	549	Sucheck, S.J.	CARB	19	Summers, M.F.	CHED	248
Strozyk, M.S.	COLL	571	Sucheck, S.J.	CARB	22	Summers, R.S.	ENVR	67
Strubbe, D.A.	PHYS	131	Sucheck, S.J.	CARB	41	Sumner, I.	PHYS	345
Struthers, M.	MEDI	225	Sucheck, S.J.	MEDI	327	Sumner, I.	PHYS	405
Strutzenberg, T.	BIOL	163	Sucheck, S.J.	ORGN	414	Sumner, L.	CINF	110
Struwe, W.B.	CARB	89	Sucheck, S.J.	INOR	524	Sumner, M.	ENVR	311
Strycharz-Glaven, S.M.	ENVR	301	Suchomski, C.	ANYL	157	Sumner, R.	CHED	255
Strycharz-Glaven, S.M.	ENVR	561	Suchyta, D.J.	MEDI	227	Sumpter, B.	ENFL	361
Stryker, J.	AGRO	42	Suckow, M.	COLL	248	Sumpter, B.	POLY	111
Stryker, J.	AGRO	274	Suematsu, K.	ORGN	51	Sumulong, S.	AGRO	328
Strynar, M.	ENVR	46	Suero, M.G.	ORGN	638	Sun, S.	COMP	192
Strynar, M.	ENVR	206	Sugii, T.	BIOL	147	Sun, S.	COLL	534
Strynar, M.	ENVR	548	Sugimoto, H.	MEDI	175	Sun, W.	INOR	527
Stryutsky, A.	COLL	428	Sugimoto, N.	AGFD	35	Sun, Y.	ENVR	152
Stuart, A.	PHYS	524	Sugita, Y.	COMP	79	Sun, Y.	ENVR	542
Stuart, R.	CHAS	8	Sugita, Y.	PHYS	442	Sun, Y.	ENVR	563
Stuart, R.	CHAS	24	Sugiyama, F.	POLY	239	Sun, B.	POLY	659
Stuart, R.	CHED	45	Sugiyama, H.	MEDI	125	Sun, B.	PMSE	321
Stubelius, A.	COLL	264	Suh, M.	ENVR	264	Sun, C.	ENVR	275
Stubelius, A.	PMSE	507	Suh, M.	INOR	270	Sun, C.	ENFL	452
Stucke, V.M.	MEDI	306	Sui, J.	ENFL	481	Sun, C.	COLL	594
Stuckhardt, C.	ORGN	535	Sui, R.	ENVR	214	Sun, C.	POLY	36
Studer, K.E.	ENVR	3	Sui, X.	ANYL	432	Sun, C.	MEDI	322
Stuert, M.	AGFD	141	Suib, S.L.	CATL	417	Sun, C.	CATL	226
Stupp, S.I.	PMSE	83	Suib, S.L.	CHED	259	Sun, C.	ENVR	495
Šturcová, A.	PMSE	40	Suib, S.L.	COLL	554	Sun, C.	INOR	403
Sturdivant, J.M.	ORGN	90	Suk, W.A.	ENVR	276	Sun, C.	TOXI	107
Sturla, S.J.	TOXI	49	Sukharev, M.	PHYS	198	Sun, D.	MEDI	169
Sturla, S.J.	TOXI	51	Sukharevsky, A.P.	CINF	81	Sun, D.T.	ENVR	219
Stutts, D.	CHED	132	Sukhishvili, S.A.	PMSE	111	Sun, D.	COMP	264
Stutz, S.	MEDI	278	Sukhishvili, S.A.	PMSE	261	Sun, D.	PMSE	97
Stwodah, R.	PMSE	639	Sukhishvili, S.A.	PMSE	371	Sun, D.	INOR	38
Su, M.	COLL	443	Sukhishvili, S.A.	PMSE	372	Sun, D.	MEDI	156
Su, B.	ENFL	53	Sukhishvili, S.A.	PMSE	386	Sun, G.	AGRO	335
Su, H.	PHYS	399	Sukhishvili, S.A.	PMSE	394	Sun, G.	PMSE	121
Su, H.	ENVR	550	Sukhishvili, S.A.	PMSE	421	Sun, G.	POLY	324
Su, H.	MEDI	192	Sukhishvili, S.A.	PMSE	441	Sun, H.	AGRO	173
Su, J.	ENVR	403	Sukhishvili, S.A.	PMSE	442	Sun, H.	PMSE	64
Su, J.	AGFD	46	Sukhishvili, S.A.	PMSE	459	Sun, H.	PMSE	132
Su, J.	AGFD	47	Sukhishvili, S.A.	PMSE	494	Sun, H.	ENFL	474
Su, J.	AGFD	85	Sukhishvili, S.A.	PMSE	520	Sun, H.	TOXI	82

Sun, H.	MEDI	7	Sur, R.	AGRO	223	Swanson, J.M.	COMP	377
Sun, H.	CINF	124	Surampudi, S.	INOR	877	Swanson, J.P.	POLY	454
Sun, H.	PMSE	430	Surapureddi, S.	ENVR	305	Swanson, K.S.	COLL	515
Sun, J.	CELL	1	Surapureddi, S.	ENVR	309	Swanson, K.	CHED	318
Sun, J.	AGFD	161	Surapureddi, S.	ENVR	549	Swartz, B.	CARB	57
Sun, J.	MEDI	128	Surbella, R.	NUCL	26	Swartz, J.E.	CHED	325
Sun, J.	PMSE	528	Surbey, W.	PMSE	218	Swartzel, J.	AEI	12
Sun, J.	ENVR	174	Sureka, H.	PMSE	115	Swartzentruber, B.	PHYS	189
Sun, J.	ENVR	284	Sureka, H.	PMSE	248	Swathi, R.	COLL	379
Sun, J.	ENVR	285	Surendranath, Y.	ENFL	288	Swedberg, J.	MEDI	63
Sun, J.	I&EC	26	Surendranath, Y.	INOR	362	Sweeney, J.	COMP	260
Sun, J.	PMSE	79	Surendranath, Y.	INOR	365	Sweeney, Z.K.	MEDI	105
Sun, J.	ANYL	290	Suresh, R.	INOR	477	Sweet, C.	ORGN	153
Sun, J.	COLL	263	Surette, V.	INOR	156	Sweet, L.	NUCL	67
Sun, J.	PMSE	490	Surin, M.	ANYL	245	Sweimeh, K.K.	CHED	105
Sun, K.	ANYL	377	Suriyaphadilok, U.	COLL	246	Sweitzer, T.	MEDI	111
Sun, L.	MEDI	269	Suriyaphadilok, U.	ENFL	204	Swenson, R.E.	INOR	632
Sun, L.	MEDI	365	Suriyaphadilok, U.	ENFL	218	Swienty Busch, J.	CINF	25
Sun, L.	PMSE	599	Surratt, J.	ENVR	189	Swift, J.A.	ANYL	162
Sun, L.	PMSE	605	Surratt, J.	ENVR	555	Swift, J.A.	ANYL	213
Sun, M.	POLY	241	Suryanarayana, P.	COMP	74	Swilley, S.	POLY	707
Sun, M.	COMP	407	Sushko, P.V.	ENFL	19	Swinney, D.C.	MEDI	122
Sun, R.	COMP	377	Suski, K.	ENVR	532	Swita, M.	CATL	171
Sun, R.	PHYS	432	Susmitha, V.	MEDI	17	Switzer, F.L.	CINF	44
Sun, R.	POLY	292	Susumu, K.	COLL	449	Swope, W.C.	COLL	21
Sun, S.S.	POLY	733	Susumu, K.	COLL	487	Swyka, R.A.	ORGN	274
Sun, S.	MEDI	76	Susumu, K.	COLL	562	Sydlik, S.A.	ORGN	478
Sun, S.	MEDI	252	Sutherland, V.	PRES	5	Sydlik, S.A.	PMSE	236
Sun, S.	MEDI	253	Sutherland, D.	MEDI	252	Syed, Z.H.	INOR	197
Sun, S.	CATL	27	Sutherland, D.P.	MEDI	76	Syed, Z.H.	INOR	325
Sun, S.	ENFL	202	Sutherland, D.P.	MEDI	105	Syed, Z.H.	INOR	591
Sun, S.	ENFL	206	Sutherland, D.P.	MEDI	253	Sykes, E.H.	CATL	21
Sun, S.	ENFL	334	Sutko, K.	CELL	38	Sykes, E.H.	CATL	398
Sun, S.	INOR	665	Suto, M.	MEDI	102	Sykora, M.	INOR	480
Sun, S.	CATL	128	Sutton, A.	COLL	87	Sy Piecco, K.	COLL	184
Sun, S.	ENFL	129	Sutton, J.E.	CATL	390	Szabados, A.	COMP	69
Sun, W.	INOR	240	Sutyak, K.	ORGN	557	Szabó, Á.	POLY	551
Sun, W.	PMSE	591	Suuberg, E.M.	ENVR	333	Szadkowska-Stanczyk, I.	ENVR	419
Sun, W.	ENVR	262	Suzuki, T.	COLL	25	Szajnman, S.H.	MEDI	294
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Sun, X.	BIOL	120	Sveshnikov, N.	COMP	180	Szantai-Kis, D.	ORGN	158
Sun, X.	COMP	143	Sveshnikov, N.	INOR	189	Szanyi, J.	CATL	260
Sun, X.	COLL	183	Svoboda, S.	ANYL	59	Szanyi, J.	CATL	262
Sun, X.	COLL	373	Svoronos, P.D.	CHED	132	Szarka, A.Z.	AGRO	288
Sun, X.	INOR	518	Svoronos, P.D.	CHED	133	Szarka, A.Z.	AGRO	322
Sun, X.	INOR	839	Svoronos, P.D.	CHED	145	Szarka, G.	POLY	551
Sun, Y.	MEDI	172	Svoronos, P.D.	CHED	146	Szarka, M.	YCC	4
Sun, Y.	INOR	904	Svoronos, P.D.	CHED	147	Szczepankiewicz, S.H.	COLL	275
Sun, Y.	CATL	226	Svoronos, P.D.	CHED	212	Szczepanski, N.M.	CHED	131
Sun, Y.	COLL	332	Svoronos, P.D.	CHED	213	Szczerba, T.	ANYL	140
Sun, Y.	COLL	338	Svoronos, S.	CHED	145	Szczytko, J.	ORGN	681
Sun, Y.	ENFL	160	Svoronos, S.	CHED	146	Szekerczes, T.	INOR	659
Sun, Y.	INOR	123	Swaan, P.	PMSE	485	Szeto, K.C.	CATL	124
Sun, Y.	COLL	64	Swager, T.M.	COLL	10	Szilagyi, I.	COLL	7
Sun, Z.	MEDI	169	Swager, T.M.	COLL	252	Szilagyi, R.K.	INOR	31
Sun, Z.	ORGN	565	Swager, T.M.	COLL	471	Szilasi, S.	YCC	4
Sun, Z.	PHYS	588	Swager, T.M.	COLL	472	Szleifer, I.	PHYS	121
Sun, Z.	COMP	249	Swager, T.M.	ENFL	455	Szostak, M.	ORGN	204
Sun, Z.	COMP	269	Swager, T.M.	PMSE	60	Szychowski, B.	INOR	784
Sundaram, D.V.	INOR	382	Swager, T.M.	POLY	44	Szymaniak, A.	ORGN	570
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Takeuchi, I.	COLL	538	Tang, C.	CHED	296	Tarakanova, V.	ORGN	82
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Takeuchi, K.	COMP	371	Tang, C.	ENVR	405	Tardif, M.	CHED	142
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Takeuchi, K.J.	ENFL	165	Tang, C.	POLY	132	Tardy, A.	POLY	427
Takeuchi, K.J.	ENFL	166	Tang, C.	POLY	253	Tariq, I.	CHED	16
Takeuchi, K.J.	ENFL	482	Tang, C.	POLY	277	Tariq, I.	CHED	196
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Thomas, S.W.	PMSE	364	Tian, Y.	COLL	445	Tiwari, A.	ORGN	684
Thomas, S.W.	POLY	289	Tian, Y.	ENVR	357	Tiwary, P.	COMP	66
Thomas, S.J.	MEDI	85	Tian, Y.	ENVR	218	Tizzard, G.J.	MEDI	141
Thomas, S.	ORGN	223	Tian, Y.	PHYS	319	Tjandra, M.	MEDI	250
Thomas, S.	POLY	737	Tian, Z.	POLY	606	Tjandra, N.	INOR	632
Thomas, T.	CHED	64	Tian, Z.	PMSE	376	Tjandra, N.	PHYS	243
Thomas, T.S.	PMSE	600	Tian, Z.	ANYL	165	Tkachenko, V.	CINF	9
Thomas, T.	MEDI	16	Tian, Z.	ANYL	268	Tkachenko, V.	CINF	20
Thomas, T.	SCHB	3	Tian, Z.	ENFL	186	Tkachenko, V.	CINF	35
Thommes, M.	ENFL	396	Tian, Z.	PHYS	413	Tkachenko, V.	CINF	66
Thompson, A.	ENFL	447	Tianhao, W.	ENFL	244	Tkachenko, V.	CINF	101
Thompson, A.P.	COMP	6	Tianhao, W.	ENFL	480	Tkachenko, V.	CINF	122
Thompson, A.P.	COMP	97	Tibabuzo, A.M.	AEI	89	Tkachenko, V.	CINF	131
Thompson, C.	PMSE	342	Tibabuzo, A.M.	PMSE	431	Tkachenko, V.	COMP	302
Thompson, C.	PMSE	574	Tibbetts, C.A.	PHYS	393	Tkachenko, V.	TOXI	56
Thompson, J.	INOR	478	Tibbetts, J.R.	ENFL	90	Tkachenko, V.	TOXI	100
Thompson, J.E.	INOR	724	Tibbetts, K.M.	PHYS	567	Tkacik, E.	BIOL	47
Thompson, K.	COLL	409	Tice, D.B.	INOR	565	Tobias, A.K.	COLL	501
Thompson, K.	PMSE	348	Tichnell, C.	INOR	115	Tobiason, J.E.	ENVR	149
Thompson, K.	COLL	22	Ticknor, B.W.	YCC	8	Tobisu, M.	ORGN	38
Thompson, L.	ENFL	303	Tidgewell, K.J.	MEDI	138	Toborek, M.	ENVR	41
Thompson, L.T.	ENFL	170	Tidwell, M.W.	ENVR	296	Todorov, T.	AGFD	210
Thompson, L.T.	INOR	206	Tiede, D.M.	CATL	377	Todorov, T.I.	ANYL	218
Thompson, L.T.	INOR	389	Tiedemann, N.	CATL	61	Todorov, T.	AGFD	30
Thompson, L.T.	INOR	391	Tielens, A.	PHYS	157	Toenjes, S.	MEDI	40
Thompson, L.T.	INOR	499	Tielens, A.	PHYS	158	Tofail, S.A.	COLL	512
Thompson, L.T.	INOR	607	Tielens, F.	CATL	197	Tofoleanu, F.	COMP	380
Thompson, L.K.	PHYS	240	Tielens, X.	PHYS	4	Toimil Molares, M.	PMSE	419
Thompson, M.E.	INOR	339	Tielens, X.	PHYS	156	Tojo, M.C.	CHED	158
Thompson, M.E.	INOR	687	Tiemsin, P.I.	COLL	150	Tokarski, C.	ANYL	225
Thompson, M.E.	INOR	730	Tierno, A.F.	ORGN	608	Tokarski, J.S.	MEDI	7
Thompson, M.E.	ORGN	686	Tietjen, I.	ORGN	386	Tokarski, J.S.	MEDI	25
Thompson, M.K.	INOR	942	Tillack, A.F.	PMSE	658	Tokarz, P.	CHED	243
Thompson, M.N.	AGRO	181	Tillekeratne, L.	MEDI	321	Tokmic, K.	INOR	855
Thompson, M.C.	PHYS	489	Tilley, T.D.	INOR	308	Tokmina-Lukaszewska, M.	CATL	224
Thompson, M.C.	PHYS	563	Tilley, T.D.	INOR	421	Tokuriki, N.	PHYS	90
Thompson, P.A.	ORGN	63	Tillman, K.R.	PMSE	509	Tolbert, S.H.	INOR	64
Thompson, R.	PRES	20	Tilton, R.D.	COLL	52	Toledo, R.T.	AGFD	216
Thompson, R.R.	INOR	885	Tilton, R.D.	POLY	383	Tollefsen, E.	ORGN	363
Thompson, S.T.	CATL	34	Timachova, K.	POLY	297	Tolman, W.B.	CATL	391
Thompson, S.	ENVR	258	Timko, M.T.	ENVR	92	Tolman, W.B.	INOR	436
Thomson, N.	ORGN	143	Timko, M.T.	ENVR	93	Tolokh, I.S.	COMP	222
Thongsahuan, S.	AGRO	395	Timko, M.T.	ENVR	129	Tom, J.	COLL	450
Thonhauser, T.	PHYS	185	Timmerman, J.	PMSE	417	Toma, F.	CATL	382
Thorat, N.	COLL	512	Timonen, J.	COLL	87	Tomaine, A.J.	ORGN	578
Thörle-Pospiech, P.	NUCL	48	Timoshenko, J.	CATL	90	Tomandl, D.	CINF	141
Thorn, D.	INOR	499	Timoshenko, J.	ENFL	348	Tomas, A.	POLY	623
Thornell, T.L.	PMSE	547	Timsina, R.	COMP	200	Tomasino, A.	AGFD	198
Thornton, G.	CATL	22	Timsina, Y.	ORGN	133	Tomasino, E.	AGFD	92
Thornton, J.M.	PHYS	89	Timsina, Y.	PMSE	586	Tomasino, E.	AGFD	198
Thornton, J.M.	PHYS	447	Ting, A.	BIOL	5	Tomasula, P.M.	POLY	755
Thornton, J.A.	ENVR	189	Ting, Y.S.	PHYS	295	Tomita, I.	POLY	341
Thornton, S.	ENVR	97	Ting, Y.	AGFD	52	Tomita, I.	POLY	354
Thorpe, C.	BIOL	67	Ting, Y.	AGFD	53	Tomonaga, A.	COMP	201
Thorpe, C.	BIOL	177	Ting, Y.	AGFD	70	Tomson, N.C.	INOR	867
Thorpe, C.	BIOL	179	Ting, Y.	AGFD	71	Tomson, N.C.	INOR	912
Thorsell, A.	MEDI	51	Ting, Y.	AGFD	84	Tondreau, A.M.	INOR	468
Thota, S.	CATL	327	Ting, Y.	COLL	170	Tong, C.	PMSE	170
Thouron, F.	CARB	20	Tinoco, A.	COLL	149	Tong, L.	INOR	903
Thrasher, C.	POLY	221	Tinoco, A.D.	CHED	199	Tong, L.	PMSE	616
Threlfall, R.	CINF	22	Tirrell, M.V.	AEI	82	Tong, M.T.	AGRO	389
Throner, S.	MEDI	23	Tirrell, M.V.	COLL	12	Tong, N.	MEDI	120
Thuma, B.	MEDI	258	Tirrell, M.V.	PMSE	188	Tong, R.	POLY	301
Thummel, R.P.	INOR	903	Tirrell, M.V.	PMSE	192	Tong, R.	POLY	487
Thunberg, L.	ORGN	548	Tirrell, M.V.	PMSE	263	Tong, S.	AGRO	228
Thurman, N.	AGRO	151	Tirrell, M.V.	PMSE	320	Tong, W.	COLL	552
Thurman, N.	AGRO	155	Tirrell, M.V.	PMSE	478	Tong, X.	CARB	53
Thurman, N.	AGRO	220	Tirrell, M.V.	POLY	346	Tong, X.	ENFL	48
Thurman, N.	AGRO	289	Tirrell, M.V.	POLY	358	Tong, Y.	CATL	177
Thursch, L.	COLL	413	Tirumuru, N.	BIOL	50	Tong, Y.	CATL	319
Thyne, G.	GEOC	8	Tirunagari, S.	BIOL	165	Tong, Y.	CATL	376
Tian, F.	PMSE	371	Tiruvalam, R.R.	CATL	259	Tong, Y.	CATL	387
Tian, H.	ENFL	135	Tischler, J.	COLL	563	Tong, Y.	CATL	461
Tian, H.	CATL	313	Tisko, E.	CHED	11	Tong, Y.	PHYS	537
Tian, L.	ANYL	396	Titirici, M.	ENVR	85	Tonge, P.J.	COMP	62
Tian, M.	ENFL	361	Titz, A.	CARB	2	Tonge, P.J.	COMP	111
Tian, S.	INOR	385	Tivanski, A.V.	ENVR	529	Tonkin, C.	PMSE	606
Tian, S.	ENFL	89	Tivanski, A.V.	ENVR	530	Tonks, I.	CHAS	33
Tian, X.	PMSE	500	Tivanski, A.V.	ENVR	557	Tonks, I.	ORGN	198
Tian, Y.	CARB	47	Tiwari, A.	ORGN	408	Toops, T.	CATL	399

Toops, T.	CATL	402	Tran, L.	COMP	44	Truhlar, D.G.	INOR	294
Toops, T.	ENFL	297	Tran, L.	COMP	136	Truhlar, D.G.	PHYS	600
Toose, L.	ENWR	350	Tran, L.	PHYS	32	Trujillo, C.A.	ENFL	444
Topham, B.	CHED	289	Tran, L.	PHYS	82	Trujillo, V.	CHED	131
Topol, I.A.	CINF	126	Tran, L.	PHYS	402	Trull, K.J.	BIOL	55
Topping, D.	ENWR	554	Tran, L.	PHYS	472	Trullinger, T.K.	AGRO	385
Torabifard, H.	PHYS	44	Tran, L.	PHYS	481	Trulove, P.C.	ANYL	287
Torkelson, J.M.	PMSE	1	Tran, N.	COMP	184	Trulove, P.C.	ENFL	251
Torkelson, J.M.	PMSE	3	Tran, N.T.	POLY	171	Trump, B.A.	INOR	149
Torkelson, J.M.	PMSE	24	Tran, N.	PHYS	580	Trump, B.A.	INOR	754
Torkelson, J.M.	PMSE	277	Tran, U.P.	ORGN	283	Truong, P.	MEDI	74
Torkelson, J.M.	PMSE	296	Tran, V.H.	ENVR	145	Truong, S.	ORGN	86
Torkelson, J.M.	PMSE	299	Tran Ba, K.	AEI	6	Trylska, J.	COMP	226
Torkelson, J.M.	PMSE	662	Tran Ba, K.	PMSE	217	Trylska, J.	COMP	382
Torkelson, J.M.	POLY	317	Trasue, W.	INOR	304	Tsai, A.	MEDI	258
Tornero-Velez, R.	ENVR	388	Trantakis, I.A.	TOXI	49	Tsai, C.	COMP	127
Törnroos, K.VV.	INOR	651	Trask, J.	AGRO	13	Tsai, C.	COMP	270
Torquato, R.J.	COLL	175	Trask, J.	AGRO	76	Tsai, C.	COMP	389
Torquato, R.J.	COLL	609	Trask, J.	AGRO	77	Tsai, D.	COLL	527
Torrens, K.	ENVR	378	Trate, J.M.	CHED	98	Tsai, D.	COLL	595
Torrents, A.	AGRO	115	Trautmann, C.	PMSE	419	Tsai, F.	I&EC	45
Torrents, A.	AGRO	218	Trautmann, N.	NUCL	49	Tsai, K.	INOR	6
Torrents, A.	AGRO	347	Trautmann, N.	NUCL	48	Tsai, M.	ENVR	452
Torrents, A.	ENVR	202	Traverse, J.F.	ORGN	549	Tsai, Y.	ENVR	500
Torres, C.	ENVR	18	Trefonas, P.	PMSE	121	Tsang, T.	MEDI	306
Torres, C.	ENVR	255	Treich, G.M.	POLY	608	Tsao, Y.T.	POLY	134
Torres, C.	ENVR	538	Treich, N.R.	INOR	49	Tsao, Y.	INOR	44
Torres, E.	INOR	177	Treitler, D.	I&EC	37	Tsapatsis, M.	ENVR	131
Torrón, S.	PMSE	175	Trendell, W.C.	PHYS	377	Tsarevsky, N.V.	HIST	2
Torto, B.	AGRO	71	Trentle, M.C.	POLY	523	Tsarevsky, N.V.	PMSE	68
Tortorici, C.	AGRO	16	Tress, M.	POLY	95	Tsarevsky, N.V.	PMSE	540
Tortosa, M.	ORGN	140	Tretiak, S.	PHYS	271	Tsarevsky, N.V.	POLY	261
Tosaka, K.	ANYL	239	Tretyakova, N.Y.	BIOL	124	Tsarevsky, N.V.	POLY	373
Tosh, D.	MEDI	45	Tretyakova, N.Y.	BIOL	127	Tsau, J.	ENVR	369
Tosh, D.K.	MEDI	1	Tretyakova, N.Y.	TOXI	60	Tse, C.	CATL	35
Tosh, D.K.	MEDI	2	Tretyakova, N.Y.	TOXI	67	Tse, E.	AEI	54
Toshniwal, P.	COLL	488	Trewyn, B.G.	INOR	839	Tse, E.	INOR	419
Toste, D.	ORGN	118	Trewyn, B.G.	INOR	872	Tse, J.	PHYS	426
Tostmann, H.	CHAL	10	Trewyn, B.G.	INOR	876	Tseng, H.	ENFL	171
Tóth, Z.	COMP	69	Trexler, M.	PMSE	284	Tsianou, M.	COLL	5
Totrov, M.	AGRO	111	Tribe, L.	CHED	109	Tsianou, M.	COLL	597
Totrov, M.	MEDI	275	Tribe, L.	COMP	163	Tsikolia, M.	AGRO	309
Totsingan, F.	POLY	78	Tribe, L.	COMP	185	Tsinas, Z.	I&EC	31
Totsingan, F.	POLY	266	Trice, S.L.	ORGN	335	Tsitsilianis, C.	PMSE	319
Totzke, J.	BIOL	156	Trifanov, A.M.	ANYL	190	Tsodie, R.L.	ENVR	321
Tour, J.M.	ENFL	146	Trikalitis, V.D.	COLL	576	Tsourkas, A.	ANYL	56
Tour, J.M.	ENFL	475	Trimble, V.L.	HIST	20	Tsubasa, S.	PMSE	433
Tour, J.M.	PMSE	550	Trimboli, J.A.	ANYL	353	Tsuboi, K.	MEDI	343
Tovar, J.D.	POLY	287	Trimmel, G.	POLY	747	Tsuchimochi, T.	PHYS	179
Tovborg, M.	INOR	583	Trinh, W.	ORGN	376	Tsuchitani, S.	COLL	466
Towers, M.	MEDI	34	Tripathi, A.K.	COLL	65	Tsuchiya, K.	POLY	267
Towers, M.	MEDI	35	Tripoli, A.	CATL	287	Tsuda, K.	POLY	473
Town, A.	COLL	82	Trippier, P.C.	BIOL	31	Tsuge, M.	PHYS	309
Townsend, C.A.	BIOL	2	Trippier, P.C.	MEDI	193	Tsuge, Y.	CELL	25
Townsend, S.D.	CARB	5	Trischman, J.A.	CHED	140	Tsui, K.	PHYS	312
Townsend, S.D.	CARB	59	Trivedi, D.J.	PHYS	492	Tsuji, K.	MEDI	117
Townsend, S.D.	ORGN	110	Trivedi, R.	MEDI	365	Tsuji, M.	MEDI	175
Townsend, T.M.	INOR	501	Troast, D.M.	MEDI	8	Tsuji, Y.	PHYS	409
Townsend, T.M.	INOR	613	Trofimova, D.	ORGN	207	Tsukada, K.	NUCL	48
Townzen, J.	AGRO	209	Trogadas, P.	INOR	748	Tsukegi, T.	CELL	24
Toy, P.H.	ORGN	327	Troiani, M.	CHAS	13	Tsukruk, V.V.	ANYL	365
Toyoshima, A.	NUCL	55	Trojniak, A.	COLL	287	Tsukruk, V.V.	COLL	428
Toyota, T.	COLL	243	Trojniak, A.	COLL	288	Tsukruk, V.V.	COMP	155
Traaseth, N.	PHYS	382	Trojniak, A.	INOR	129	Tsukruk, V.V.	PMSE	86
Tracey, J.	PMSE	432	Tropsha, A.	CINF	95	Tsukruk, V.V.	PMSE	319
Tracey, J.	PMSE	620	Tropsha, A.	CINF	113	Tsukruk, V.V.	PMSE	491
Trachsel, L.	PMSE	622	Trott, C.	COMP	6	Tsukruk, V.V.	PMSE	530
Tracy, B.	ENFL	322	Trotta, J.T.	POLY	759	Tsung, C.	INOR	291
Tracy, B.	ENFL	325	Trotter, B.	MEDI	131	Tsuper, I.	COLL	256
Trahey, L.	CATL	226	Trottier, B.	ENVR	276	Tu, C.	INOR	666
Trail, P.	TOXI	32	Trout, B.L.	AEI	23	Tu, M.	CATL	437
Trammell, R.	INOR	586	Trout, B.L.	COLL	9	Tu, M.	MEDI	63
Tran, A.A.	INOR	341	Troutman, J.M.	CARB	38	Tu, M.	MEDI	258
Tran, C.D.	ANYL	289	Troya, D.	INOR	3	Tu, P.	ENVR	339
Tran, C.	ORGN	63	Troya, D.	INOR	147	Tu, R.S.	POLY	704
Tran, D.T.	ENFL	85	Troyer, D.L.	COLL	147	Tu, T.	AGFD	262
Tran, J.L.	PMSE	227	Truchan, M.G.	ANYL	190	Tu, T.	AGFD	268
Tran, J.C.	INOR	499	Trueman, B.	ENVR	84	Tu, X.	INOR	382
Tran, K.	AGRO	43	Truhlar, D.G.	COMP	375	Tu, Z.	ENFL	284
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Tucker, B.S.	POLY	418	Tyufekchiev, M.V.	ENVR	92	Urata, C.	POLY	38
Tucker, L.J.	CHED	59	Tyzack, J.D.	PHYS	89	Urbach, J.	PMSE	529
Tucker, M.J.	PHYS	403	Tzeng, J.T.	ANYL	208	Urban, D.A.	POLY	207
Tucker, M.J.	PHYS	471	Tzeng, J.	ENVR	501	Urban, J.R.	ANYL	219
Tucker, M.J.	PHYS	483	Tzeng, P.	PMSE	316	Urban, J.J.	CHED	410
Tucker, M.J.	PHYS	577	Uchiyama, M.	POLY	405	Urban, M.W.	PMSE	71
Tucker, M.J.	PHYS	467	Udangawa, R.	PMSE	289	Urban, M.W.	PMSE	278
Tuckey, R.	MEDI	83	Udangawa, R.N.	PMSE	434	Urban, M.	NUCL	60
Tuckman, M.	MEDI	330	Uddin, J.	ANYL	143	Urban, V.S.	POLY	113
Tuczek, F.	INOR	88	Uddin, J.	ANYL	403	Urbanowicz, B.	CELL	16
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Tuladhar, A.	CATL	380	Uddin, M.J.	ENFL	49	Urgiles, J.	INOR	960
Tuladhar, A.	PHYS	236	Udell, N.A.	ANYL	224	Urgun-Demirtas, M.	ENFL	275
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Tulley-Cordova, C.L.	CMA	2	Ueda, A.	ORGN	119	Ushio, Y.	COLL	248
Tully, E.	ENVR	453	Ueda, A.	ORGN	124	Ushiyama, F.	MEDI	125
Tumbelty, L.	ORGN	605	Ueda, A.	ORGN	156	Usov, P.	INOR	404
Umbrink, H.	MEDI	15	Ueda, A.	ORGN	159	Usov, P.	INOR	752
Tuna, F.	INOR	583	Ueda, K.	COMP	228	Usov, P.	INOR	817
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Tung, E.	MEDI	225	Uffelman, E.S.	ANYL	62	Uusitalo, J.	NUCL	48
Tung, H.	ENVR	366	Uhelkar, M.H.	PHYS	380	Uyar, T.	PMSE	21
Tung, S.	ENFL	303	Uhrich, K.	POLY	536	Uyar, T.	PMSE	666
Tunick, M.H.	POLY	755	Uhrich, K.E.	COLL	369	Uyeda, C.	ORGN	342
Tunisi, R.F.	CHED	139	Uhrich, K.E.	POLY	130	Uzair, U.	ANYL	208
Turbitt, J.	AGFD	57	Uhrich, K.E.	POLY	513	Uzdavinys, P.	PHYS	245
Turchanin, A.	POLY	140	Uhrin, D.	CARB	84	Uzelac, M.	INOR	736
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Turner, D.	ANYL	33	Ulrich, E.M.	ENVR	548	Vaghjiani, G.L.	PHYS	511
Turner, D.	CHED	216	Ultsch, M.	MEDI	22	Vahabi, H.	POLY	437
Turner, N.	MEDI	250	Ultsch, M.	MEDI	103	Vahabi, H.	POLY	438
Turner, N.	ORGN	43	Um, M.	PMSE	602	Vaida, V.	ENVR	288
Turner, N.	PHYS	192	Um, W.	ENVR	231	Vaida, V.	ENVR	489
Turner, S.R.	PMSE	6	Umeda, S.	POLY	473	Vaidya, N.	ENVR	359
Turner, S.R.	PMSE	655	Umemura, S.	MEDI	343	Vaidya, N.A.	ENVR	359
Turner, S.R.	POLY	776	Umeno, T.	ORGN	124	Vaidya, N.A.	SCHB	7
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Turnipseed, S.	ANYL	196	Umuhire-Juru, A.	MEDI	67	Vaish, A.	PMSE	68
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Turri, S.	PMSE	546	Unal, H.	COLL	245	Vajda, S.	COMP	249
Turro, C.	INOR	7	Unal, S.	AGFD	132	Vajda, S.	COMP	256
Turro, C.	INOR	399	Unal, S.	POLY	57	Vajda, S.	COMP	269
Turro, C.	INOR	681	Underwood, R.	AGRO	222	Vajda, S.	CATL	46
Turro, C.	INOR	685	Underwood, S.J.	ENVR	38	Vakil, P.	COLL	502
Turro, C.	INOR	688	Unger, M.	ENVR	278	Valandro, S.	COLL	524
Turro, C.	INOR	889	Unger, M.	ENVR	399	Valdez, C.	INOR	389
Turro, C.	INOR	959	Unlu, I.	PHYS	270	Valdiviezo, J.	COMP	183
Turteltaub, K.	TOXI	108	Unnikrishnan, S.	COLL	575	Valeev, E.F.	COMP	70
Tuteja, A.	POLY	39	Uno, A.	COLL	531	Valeev, E.F.	PHYS	225
Tutusaus, O.	CATL	227	Uno, B.	ORGN	174	Valeev, E.F.	PHYS	529
Twohig, M.	POLY	453	Uno, B.	ORGN	585	Valeev, E.F.	PHYS	534
Twomey, M.	NUCL	28	Unocic, R.	CATL	430	Valencia-Gallegos, J.A.	POLY	745
Tworowska, I.	CARB	60	Unruh, D.	INOR	807	Valente, C.	PMSE	369
Tyagi, P.	INOR	371	Unser, S.	ANYL	100	Valente, M.N.	MEDI	73
Tyagi, P.	INOR	470	Unser, S.	ANYL	398	Valentin-Blasini, L.	ANYL	174
Tyagi, R.	MEDI	183	Önver, H.	CATL	325	Valentine, A.	INOR	61
Tye, C.	MEDI	335	Upadhyay, B.	PMSE	216	Valentine, A.	INOR	695
Tyler, D.R.	INOR	52	Upadhyay, V.	PMSE	177	Valentine, K.A.	PMSE	218
Tyler, D.R.	INOR	629	Upadhyaya, P.	TOXI	39	Valentine, K.A.	PMSE	435
Tyler, D.R.	POLY	566	Upadhyaya, P.	TOXI	40	Valentine, K.A.	PMSE	659
Tyler, T.	COLL	311	Upadhyaya, P.	TOXI	45	Valentine, K.A.	POLY	776
Tyminska, N.	COMP	372	Upadhyaya, P.	TOXI	52	Valentine, S.J.	ANYL	20
Tyo, E.	CATL	46	Upadhyaya, P.	TOXI	94	Valentino, L.	POLY	55

Valenzano, L.	COMP	172	van Hoek, M.L.	BIOL	24	Vasudevan, A.	MEDI	322
Valenzano, L.	COMP	370	van Hoek, M.L.	ENVR	297	Vasylchenko, O.	CINF	139
Valeriani, C.	COMP	198	Van Horn, W.D.	PHYS	289	Vasylchenko, O.	MEDI	357
Valero-Vidal, C.	PHYS	190	Van Kampen, M.D.	ANYL	51	Vasyunin, A.	PHYS	108
Valiev, M.	CELL	2	VanKeuren, E.	COLL	273	Vatankhah Varnoosfaderani, M.	PMSE	162
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Vallee, F.	COMP	63	van Koppen, C.	MEDI	221	Vattipalli, V.	ENVR	131
Vallurupalli, P.	COMP	110	van Koppen, C.	MEDI	225	Vaughn, J.F.	MEDI	88
Valverde, P.	AGRO	282	van Koppen, C.	MEDI	231	Vaughn, J.F.	MEDI	90
Valverde, P.	AGRO	406	Van Loon, J.	CATL	429	Vaughn, J.T.	ENFL	470
Vamshi, R.	AGRO	128	Vannette, R.	AGRO	68	Vavra, O.	PHYS	145
Vana, P.	POLY	436	Vannozi, L.	COLL	219	Vazquez, L.	CHED	361
Vanagas, N.A.	INOR	810	van Oers, M.	POLY	256	Vázquez, R.	PHYS	143
VanAlstine-Parris, M.A.	CHED	374	van Opstal, M.T.	CHED	335	Vázquez-Romero, A.	ORGN	260
Vanarasi, S.R.	POLY	414	Van Patten, P.G.	COLL	230	Vazquez-Vazquez, L.	COLL	622
van Bavel, S.	CATL	198	Van Patten, P.G.	PHYS	251	Veal, M.	AGRO	273
Van Beeman, R.	COMP	157	van Ravensteijn, B.	POLY	233	Veber, B.	ENVR	388
Vanbenthem, R.A.	PMSE	123	Van Sice, K.	GEOC	13	Vebsrosky, E.	AGRO	283
van Bochove, M.A.	ORGN	222	Van Sice, K.	GEOC	14	Vebsrosky, E.	AGRO	325
van Bokhoven, J.	CATL	152	Van Sice, K.	GEOC	16	Veccharelli, K.M.	ORGN	49
van Bokhoven, J.	CATL	168	Van Sluyter, S.C.	AGFD	25	Veccharelli, K.M.	ORGN	50
Van Bokhoven, J.A.	CATL	209	van Spronsen, M.	COLL	416	Veder, J.	COLL	488
Van Bokhoven, J.A.	CATL	323	Van Tassel, P.R.	PMSE	202	Vedernikov, A.N.	INOR	101
Van Breemen, R.B.	TOXI	21	Van Voorhis, T.A.	AEI	77	Vedernikov, A.N.	INOR	426
Vanbriesen, J.M.	BIOL	162	Van Voorhis, T.A.	PHYS	128	Vedernikov, A.N.	INOR	954
Vance, E.	NUCL	20	Van Voorhis, T.A.	PHYS	136	Vega, C.	COMP	198
Vancoillie, G.	PMSE	652	Van Voorhis, T.A.	PHYS	185	Vega, J.O.	ANYL	252
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Vancso, G.	POLY	70	Van Wynsberghe, A.W.	PHYS	573	Veige, A.S.	INOR	75
Vancso, G.	POLY	637	Van Zee, N.	PMSE	185	Veige, A.S.	INOR	647
Vancso, G.	POLY	643	Van Zee, N.J.	ORGN	511	Veige, A.S.	INOR	886
Van de Krol, R.	COLL	537	Vanzo, D.	PHYS	528	Veige, A.S.	INOR	887
Van den Bosch, S.	CATL	438	Varadharajan, C.	MPPG	5	Veith, G.	CATL	430
Vandenbrande, J.	PMSE	436	Varanasi, K.K.	POLY	156	Veith, G.	PHYS	327
van den Broek, F.	CINF	26	Varcoe, J.R.	PMSE	445	Veith, G.M.	ENFL	179
Van den Meersche, T.	AGRO	87	Vardon, D.	CATL	55	Velasco, A.	ORGN	396
Van Der Donk, W.A.	BIOL	4	Vardon, D.	CATL	101	Velasco-Velazquez, M.	MEDI	346
Van Der Donk, W.A.	BIOL	121	Vardon, D.	CATL	210	Velev, O.D.	COLL	310
Van Der Goetz, B.	PHYS	427	Varga, A.	CATL	108	Velev, O.D.	COLL	311
Vander Griend, D.	ANYL	242	Varga, B.	INOR	53	Velev, O.D.	COLL	391
Vander Griend, D.A.	CINF	39	Vargas, F.	AGFD	38	Velian, A.	INOR	304
Vander Griend, D.A.	CINF	140	Vargas, D.	INOR	139	Velicky, M.	PHYS	234
Vander Griend, D.A.	INOR	917	Vargas-Lara, F.	PMSE	36	Velikogne, S.	CATL	184
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van der Lubbe, S.C.	PHYS	165	Varghese, S.	COLL	536	Velthuisen, E.	ORGN	65
Van Der Schaaf, P.	PMSE	220	Varjosaari, S.	AEI	71	Veltri, L.	ANYL	65
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van der Vegt, N.	PMSE	149	Varjosaari, S.	ORGN	130	Velu, S.E.	COLL	596
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Vanderwal, C.D.	ORGN	339	Varma, S.	COMP	391	Venable, R.M.	COMP	315
van der Weegen, R.	PMSE	512	Varma-Nelson, P.	CHED	339	Venditto, V.	INOR	905
van der Zwan, J.	ENFL	446	Varnek, A.	CINF	9	Vendola, A.J.	ORGN	623
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Van Duyne, R.P.	PHYS	323	Vasbinder, M.	MEDI	23	Venkateshwaran, V.	PHYS	172
Van Duyne, R.P.	PHYS	492	Vashisth, H.	COMP	233	Venkatramani, C.	AGRO	191
Van Dyk, A.	COLL	525	Vashisth, H.	COMP	353	Venna, S.	PMSE	172
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Van Gerven, T.	I&EC	40	Vasu, S.	ENFL	451	Verble, B.D.	INOR	289
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Van Heek, M.	MEDI	245	Vasu, V.	POLY	398	Vereshchagina, Y.A.	ORGN	173
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Vikesland, P.J.	ENVR	270	Vogt, B.D.	PMSE	165	Wachsman, E.D.	CATL	153
Vikesland, P.J.	ENVR	426	Vogt, B.D.	PMSE	215	Wachsman, E.D.	COLL	538
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Vilcakova, J.	POLY	485	Vogt, B.D.	PMSE	660	Wachsman, E.D.	POLY	613
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Villalta, P.W.	TOXI	88	Voit, W.	PMSE	573	Waddell, M.K.	CHED	343
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Villarreal, P.	MEDI	366	Volarath, P.	CINF	43	Wade, J.	ANYL	399
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Vilone, G.	AGRO	121	Volkovich, V.A.	INOR	622	Wagenknecht, H.	ORGN	533
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Wagner, G.	PHYS	342	Walsh, J.	INOR	358	Wang, C.	CATL	315
Wagner, G.	PHYS	588	Walsh, J.	WCC	1	Wang, C.	INOR	351
Wagner, K.	ANYL	13	Walsh, K.D.	TOXI	74	Wang, C.	INOR	552
Wagner, K.	COMP	162	Walsh, M.P.	ORGN	15	Wang, C.	MEDI	192
Wagner, R.	ENFL	111	Walsh, T.R.	COLL	207	Wang, C.	ORGN	526
Wagner, W.R.	PMSE	282	Walsworth, R.L.	AEI	73	Wang, C.	COLL	299
Wahid, K.	PHYS	203	Walter, E.D.	CATL	245	Wang, C.	INOR	762
Wahida, F.	COLL	131	Walter, E.D.	CELL	30	Wang, C.	PMSE	75
Wahl, K.J.	PMSE	141	Walter, E.D.	NUCL	36	Wang, C.	PMSE	489
Wahlender, M.	POLY	696	Walter, E.D.	NUCL	37	Wang, C.	ENFL	413
Wahman, D.	AEI	32	Walter, J.C.	TOXI	26	Wang, C.	ORGN	677
Waibel, B.	BIOL	109	Walter, M.	CATL	92	Wang, C.	ANYL	426
Waite, D.	ENVR	123	Walter, R.	PMSE	586	Wang, C.	CATL	431
Waite, T.	ENVR	56	Walters, C.R.	ORGN	158	Wang, C.	ENFL	84
Waite, T.	ENVR	81	Walters, J.C.	ORGN	608	Wang, C.	ENFL	164
Wakefield, A.	COMP	256	Walters, K.	MEDI	12	Wang, C.	ENFL	240
Wakefield, D.	COLL	594	Walton, K.	PMSE	567	Wang, C.	ENFL	390
Wakelam, V.	PHYS	541	Walton, K.S.	INOR	461	Wang, C.	ENVR	76
Walczak, M.A.	ORGN	175	Walton, P.	INOR	384	Wang, C.	ENFL	161
Waldbrook, M.	MEDI	253	Walton, P.	INOR	583	Wang, C.	INOR	739
Walde, P.	COLL	362	Walton, S.	INOR	706	Wang, C.	INOR	655
Waldeck, D.H.	COLL	498	Waluyo, I.	COLL	417	Wang, C.	INOR	837
Walden, A.G.	INOR	215	Waluyo, I.	COLL	478	Wang, C.	ANYL	396
Walden, A.G.	INOR	389	Waluyo, I.	COLL	481	Wang, C.	COLL	446
Walden, A.G.	INOR	609	Wambaugh, J.	ENVR	388	Wang, D.	AGRO	159
Walden, A.G.	INOR	852	Wambaugh, J.	ENVR	548	Wang, D.	ENFL	409
Waldiya, M.	ENFL	191	Wan, C.	CATL	230	Wang, D.	ORGN	419
Waldiya, M.	INOR	616	Wan, H.	MEDI	25	Wang, D.	POLY	733
Waldiya, M.	INOR	617	Wan, H.	ENVR	282	Wang, D.	INOR	426
Waldman, M.	CINF	130	Wan, H.	ENVR	283	Wang, D.	ORGN	276
Waldman, M.	COMP	359	Wan, M.	COLL	187	Wang, D.	ORGN	584
Walhout, P.K.	CHED	293	Wan, M.	COMP	230	Wang, D.	CATL	406
Walhout, P.K.	CHED	299	Wan, Q.	CARB	67	Wang, D.	INOR	740
Walhout, P.K.	INOR	289	Wan, Q.	PHYS	501	Wang, D.	CATL	246
Walji, A.M.	ORGN	8	Wan, S.	INOR	287	Wang, D.	PMSE	457
Walker, A.M.	COLL	607	Wan, W.	POLY	22	Wang, D.	ENFL	282
Walker, A.V.	PHYS	269	Wan, W.	POLY	529	Wang, D.	ENFL	88
Walker, A.Y.	PMSE	164	Wan, W.	POLY	532	Wang, E.	PMSE	561
Walker, D.	COLL	123	Wan, X.	POLY	502	Wang, E.	CHED	207
Walker, D.	ENFL	235	Wancura, M.	PMSE	541	Wang, E.	ANYL	270
Walker, E.	CATL	65	Wang, G.	ENFL	210	Wang, F.	COMP	224
Walker, G.C.	COLL	465	Wang, H.	ENFL	477	Wang, F.	ENVR	444
Walker, J.	AGFD	244	Wang, J.	ENVR	179	Wang, F.	INOR	541
Walker, J.M.	ANYL	257	Wang, J.	INOR	780	Wang, F.	INOR	542
Walker, J.K.	MEDI	146	Wang, P.	CARB	40	Wang, F.	INOR	543
Walker, L.	COLL	342	Wang, P.	MEDI	145	Wang, F.	ORGN	439
Walker, R.	CARB	91	Wang, S.	PMSE	438	Wang, F.	POLY	145
Walker, R.	COMP	220	Wang, T.	PMSE	439	Wang, F.	ANYL	420
Walker, R.C.	COMP	128	Wang, T.	ENVR	174	Wang, F.	PMSE	455
Walker, S.L.	COLL	461	Wang, W.	I&EC	26	Wang, F.	ORGN	625
Walker, S.	AEI	8	Wang, W.	CATL	100	Wang, F.	CATL	3
Walker, S.	ORGN	28	Wang, A.	CATL	347	Wang, F.	COMP	398
Wall, E.	AGRO	343	Wang, A.	CATL	279	Wang, F.	INOR	509
Wall, J.	AGRO	318	Wang, B.	CATL	471	Wang, F.	INOR	740
Wall, K.A.	CARB	22	Wang, B.	INOR	746	Wang, F.	PHYS	189
Wall, M.	CHED	206	Wang, B.	PMSE	508	Wang, F.	POLY	275
Wallace, T.	ENFL	449	Wang, B.	ENFL	343	Wang, F.	POLY	125
Wallace, G.	COLL	533	Wang, B.	ENVR	127	Wang, F.	ANYL	426
Wallace, I.S.	PHYS	403	Wang, B.	ORGN	122	Wang, F.	PMSE	420
Wallace, I.S.	PHYS	467	Wang, B.	POLY	627	Wang, G.	ENFL	236
Wallace, M.	INOR	671	Wang, B.	ENFL	483	Wang, G.	INOR	261
Wallace-Povirk, A.	MEDI	119	Wang, B.	ENFL	76	Wang, G.	ENFL	485
Wallace-Povirk, A.	MEDI	142	Wang, B.	COMP	11	Wang, G.	INOR	3
Wallace-Povirk, A.	MEDI	150	Wang, C.	BIOL	73	Wang, G.	CARB	31
Wallach, I.	CINF	85	Wang, C.	COMP	102	Wang, G.	CARB	32
Wallach, I.	COMP	90	Wang, C.	CATL	30	Wang, G.	ORGN	417
Wallach, I.	COMP	91	Wang, C.	CATL	133	Wang, G.	ORGN	419
Waller, A.	CHED	189	Wang, C.	CATL	172	Wang, G.	CATL	234
Waller, M.	CINF	10	Wang, C.	CATL	286	Wang, G.	ENVR	231
Waller, M.	COMP	362	Wang, C.	CATL	351	Wang, G.	BIOL	39
Waller, S.E.	PHYS	370	Wang, C.	ENVR	224	Wang, G.	COLL	485
Waller, A.	CHED	248	Wang, C.	ENVR	407	Wang, H.	POLY	371
Walley, S.E.	PMSE	274	Wang, C.	ENVR	448	Wang, H.	CATL	282
Wallqvist, A.	CINF	120	Wang, C.	PHYS	86	Wang, H.	CATL	32
Wallraff, G.M.	PMSE	641	Wang, C.	PMSE	165	Wang, H.	CATL	249
Walseng, E.	MEDI	228	Wang, C.	PMSE	379	Wang, H.	ENFL	35
Walsh, C.	ENVR	471	Wang, C.	POLY	376	Wang, H.	ENFL	329
Walsh, C.	PHYS	254	Wang, C.	CATL	62	Wang, H.	ORGN	548
Walsh, C.	PHYS	259	Wang, C.	CATL	403	Wang, H.	ANYL	371

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Wang, H.	ENVR	430	Wang, L.	ORGN	699	Wang, S.	MEDI	303
Wang, H.	INOR	965	Wang, L.	POLY	81	Wang, S.	MEDI	159
Wang, H.	POLY	646	Wang, L.	ENVR	401	Wang, S.	CATL	368
Wang, H.	COLL	350	Wang, L.	ENVR	439	Wang, S.	ENFL	153
Wang, H.	CATL	251	Wang, L.	PMSE	445	Wang, S.	CATL	6
Wang, H.	ENFL	178	Wang, L.	ORGN	324	Wang, S.	ENFL	41
Wang, H.	ENFL	366	Wang, L.	POLY	38	Wang, S.	PHYS	384
Wang, H.	ENFL	440	Wang, L.	COLL	525	Wang, S.	CATL	110
Wang, H.	AGRO	40	Wang, L.	POLY	672	Wang, S.	AGFD	229
Wang, H.	ORGN	560	Wang, L.	ANYL	116	Wang, S.	AGRO	350
Wang, H.	POLY	81	Wang, L.	PHYS	117	Wang, S.	CATL	187
Wang, H.	POLY	526	Wang, L.	POLY	431	Wang, S.	CATL	334
Wang, H.	POLY	528	Wang, L.	INOR	80	Wang, S.	MEDI	334
Wang, H.	ORGN	683	Wang, L.	INOR	739	Wang, S.	PMSE	355
Wang, H.	COLL	147	Wang, M.	CATL	418	Wang, T.	ENVR	25
Wang, H.	INOR	836	Wang, M.	ORGN	386	Wang, T.	ENFL	335
Wang, H.	CATL	454	Wang, M.	CATL	118	Wang, T.	COMP	333
Wang, H.	PMSE	190	Wang, M.	COLL	251	Wang, T.	CATL	200
Wang, H.	CATL	8	Wang, M.	MEDI	38	Wang, T.	TOXI	87
Wang, H.	CATL	53	Wang, M.	MEDI	54	Wang, T.	ORGN	374
Wang, H.	ENFL	268	Wang, M.	MEDI	307	Wang, T.	ENVR	76
Wang, H.	INOR	393	Wang, M.	AGFD	114	Wang, T.	CATL	408
Wang, H.	COLL	49	Wang, M.	PHYS	401	Wang, T.	ENFL	95
Wang, H.	ORGN	212	Wang, M.	PHYS	436	Wang, T.	ENFL	99
Wang, H.	POLY	343	Wang, M.	CARB	47	Wang, T.	ORGN	85
Wang, I.A.	ENVR	109	Wang, M.	TOXI	78	Wang, W.	POLY	362
Wang, J.	ENVR	326	Wang, N.	BIOL	167	Wang, W.	AGFD	33
Wang, J.	ANYL	384	Wang, N.	AGRO	7	Wang, W.	ANYL	265
Wang, J.	COLL	24	Wang, N.	AGRO	135	Wang, W.	CATL	62
Wang, J.	PHYS	357	Wang, N.	ORGN	472	Wang, W.	CATL	114
Wang, J.	AGFD	1	Wang, P.	PMSE	60	Wang, W.	CATL	403
Wang, J.	AGRO	229	Wang, P.	POLY	669	Wang, W.	CATL	488
Wang, J.	ENVR	550	Wang, P.	AGFD	115	Wang, W.	COLL	494
Wang, J.	ORGN	442	Wang, P.	AGFD	119	Wang, W.	COLL	596
Wang, J.	ORGN	408	Wang, P.	AGFD	143	Wang, W.	ENFL	372
Wang, J.	ANYL	188	Wang, P.	AGFD	146	Wang, W.	ENFL	421
Wang, J.	ANYL	189	Wang, P.	ENVR	370	Wang, W.	ENFL	431
Wang, J.	MEDI	128	Wang, P.	ORGN	184	Wang, W.	I&EC	42
Wang, J.	ENVR	508	Wang, P.	TOXI	13	Wang, W.	INOR	471
Wang, J.	AGFD	251	Wang, P.	TOXI	53	Wang, W.	PMSE	458
Wang, J.	PHYS	235	Wang, P.	INOR	904	Wang, W.	PMSE	481
Wang, J.	BIOL	111	Wang, P.	POLY	506	Wang, W.	PMSE	508
Wang, J.	INOR	337	Wang, P.	COMP	79	Wang, W.	POLY	37
Wang, J.	ANYL	83	Wang, P.	PHYS	442	Wang, W.	POLY	153
Wang, J.	I&EC	48	Wang, P.	COLL	53	Wang, W.	POLY	437
Wang, J.	WCC	3	Wang, P.	CHED	259	Wang, W.	POLY	439
Wang, J.	I&EC	54	Wang, Q.	INOR	3	Wang, W.	CATL	406
Wang, J.	ANYL	93	Wang, Q.	INOR	147	Wang, W.	ANYL	165
Wang, J.	INOR	460	Wang, Q.	INOR	649	Wang, W.	PMSE	590
Wang, J.	PMSE	543	Wang, Q.	MEDI	30	Wang, W.	AGFD	85
Wang, J.	PMSE	643	Wang, Q.	COLL	196	Wang, W.	AGFD	67
Wang, J.	ANYL	114	Wang, Q.	COLL	508	Wang, W.	AGFD	69
Wang, J.	ENVR	39	Wang, Q.	POLY	506	Wang, W.	PMSE	237
Wang, J.	ORGN	151	Wang, Q.	POLY	507	Wang, W.	ENFL	3
Wang, J.	BIOL	68	Wang, Q.	ANYL	116	Wang, W.	ENFL	7
Wang, J.	COMP	125	Wang, Q.	PMSE	505	Wang, W.	ORGN	317
Wang, K.	ENFL	361	Wang, Q.	PMSE	437	Wang, W.	I&EC	29
Wang, K.	ORGN	429	Wang, Q.	TOXI	9	Wang, W.	POLY	189
Wang, K.	YCC	3	Wang, Q.	TOXI	10	Wang, X.	PHYS	445
Wang, K.	PHYS	249	Wang, Q.	TOXI	44	Wang, X.S.	CINF	135
Wang, K.Y.	MEDI	87	Wang, Q.	INOR	190	Wang, X.A.	MEDI	365
Wang, K.Y.	MEDI	88	Wang, Q.	INOR	496	Wang, X.	CATL	248
Wang, K.Y.	MEDI	91	Wang, Q.	ORGN	68	Wang, X.	ENFL	46
Wang, K.	ENFL	53	Wang, Q.	PHYS	386	Wang, X.	BIOL	50
Wang, K.K.	ORGN	424	Wang, Q.	PHYS	407	Wang, X.	INOR	948
Wang, K.K.	ORGN	463	Wang, R.	AGFD	70	Wang, X.	PMSE	490
Wang, K.	AGFD	48	Wang, R.	CATL	273	Wang, X.	ENFL	335
Wang, L.	PHYS	218	Wang, R.	CATL	29	Wang, X.	PHYS	506
Wang, L.	PHYS	221	Wang, R.	PMSE	115	Wang, X.	ENVR	124
Wang, L.	PHYS	421	Wang, R.	ORGN	384	Wang, X.	GEOC	6
Wang, L.	PHYS	586	Wang, R.	MEDI	324	Wang, X.	AGRO	316
Wang, L.	CARB	53	Wang, R.	ORGN	649	Wang, X.	COLL	520
Wang, L.	CATL	443	Wang, R.	PHYS	236	Wang, X.	POLY	672
Wang, L.	ANYL	102	Wang, R.	PHYS	532	Wang, X.	ANYL	282
Wang, L.	ANYL	175	Wang, R.	POLY	743	Wang, X.	BIOL	85
Wang, L.	CATL	30	Wang, S.	CARB	47	Wang, X.	ENFL	3
Wang, L.	CATL	40	Wang, S.	MEDI	156	Wang, X.	ENFL	88
Wang, L.	CATL	247	Wang, S.	MEDI	323	Wang, X.	BIOL	167
Wang, L.	ORGN	457	Wang, S.	MEDI	336	Wang, X.	CATL	472
Wang, L.	ORGN	662	Wang, S.	MEDI	160	Wang, X.	ENVR	43

Wang, X.	NUCL	23	Wang, Y.	CATL	6	Warner, L.	ENFL	192
Wang, X.C.	COMP	402	Wang, Y.	CATL	454	Warner, M.	HIST	10
Wang, X.	BIOL	158	Wang, Y.	ENFL	41	Warner, N.	GEOC	13
Wang, X.	ENFL	212	Wang, Y.	COLL	139	Warner, N.	GEOC	14
Wang, X.	ENFL	216	Wang, Y.	COLL	140	Warner, N.	GEOC	16
Wang, X.	ENVR	461	Wang, Y.	INOR	459	Warner, N.	GEOC	36
Wang, X.	ENFL	319	Wang, Y.	MEDI	308	Warner, T.	INOR	325
Wang, X.	ENFL	453	Wang, Y.	PMSE	441	Warner Clement, J.	CHED	184
Wang, X.	INOR	534	Wang, Y.	PMSE	442	Warnick, J.	AGRO	30
Wang, X.	CARB	83	Wang, Y.	PMSE	538	Warnick, E.	MEDI	45
Wang, X.	MEDI	163	Wang, Y.	BIOL	49	Warnmark, K.	INOR	19
Wang, X.	MEDI	184	Wang, Y.	PHYS	504	Warren, N.J.	POLY	424
Wang, X.	COLL	202	Wang, Y.	PHYS	514	Warren, R.L.	AGRO	337
Wang, X.	AGFD	164	Wang, Y.	AGFD	253	Warren, S.C.	INOR	478
Wang, X.	CELL	2	Wang, Y.	ANYL	124	Warren, T.H.	ENFL	20
Wang, X.	ANYL	238	Wang, Y.	AGFD	48	Warren, T.H.	INOR	165
Wang, Y.	INOR	211	Wang, Y.	ENFL	153	Warren, T.H.	INOR	492
Wang, Y.	ANYL	185	Wang, Y.	ENVR	354	Warren, T.H.	INOR	584
Wang, Y.	PMSE	440	Wang, Z.	ORGN	51	Warren, T.H.	INOR	588
Wang, Y.	WCC	1	Wang, Z.	ORGN	359	Warren, T.H.	INOR	589
Wang, Y.	PHYS	552	Wang, Z.	ORGN	638	Warren, T.H.	INOR	716
Wang, Y.	CATL	174	Wang, Z.	PMSE	599	Warren, T.H.	INOR	718
Wang, Y.	CATL	425	Wang, Z.	POLY	261	Warren, T.H.	INOR	895
Wang, Y.	ENVR	94	Wang, Z.	ANYL	426	Warren, T.H.	INOR	897
Wang, Y.	PHYS	265	Wang, Z.	ORGN	581	Warren, T.H.	ORGN	138
Wang, Y.	PMSE	12	Wang, Z.	POLY	380	Warren, T.H.	ORGN	667
Wang, Y.	CINF	36	Wang, Z.	POLY	431	Warren, W.S.	INOR	190
Wang, Y.	CATL	49	Wang, Z.	MEDI	310	Warth, B.	TOXI	106
Wang, Y.	CATL	177	Wang, Z.	INOR	249	Waryah, C.	PMSE	561
Wang, Y.	PHYS	537	Wang, Z.	POLY	496	Warzecha, E.	INOR	641
Wang, Y.	PMSE	260	Wang, Z.M.	ENFL	48	Washburn, N.	POLY	710
Wang, Y.	AGFD	147	Wang, Z.	POLY	256	Washington, A.L.	I&EC	56
Wang, Y.	ENVR	500	Wang, Z.	AGFD	128	Washington, K.E.	POLY	237
Wang, Y.	ENVR	302	Wang, Z.	ENVR	152	Washington, K.E.	POLY	736
Wang, Y.	ENVR	348	Wang, Z.	ENVR	542	Washton, N.M.	CATL	245
Wang, Y.	INOR	545	Wang, Z.	ENVR	560	Washton, N.M.	NUCL	36
Wang, Y.	INOR	735	Wang, Z.	ENVR	563	Washton, N.M.	NUCL	37
Wang, Y.	POLY	381	Wang, Z.	POLY	539	Washton, N.M.	PHYS	88
Wang, Y.	POLY	387	Wang, Z.	COLL	235	Wasilewski, E.	MEDI	71
Wang, Y.	POLY	392	Wang, Z.	INOR	476	Wasinger, E.C.	INOR	435
Wang, Y.	TOXI	108	Wang, Z.	ENVR	398	Wassermann, A.M.	CINF	82
Wang, Y.	TOXI	30	Wang, Z.	COLL	425	Watal, G.	MEDI	152
Wang, Y.	ENFL	211	Wang, Z.	POLY	378	Watanabe, C.	MEDI	328
Wang, Y.	COLL	298	Wang, Z.	POLY	390	Watanabe, C.	BIOL	21
Wang, Y.	CATL	245	Wang, Z.	POLY	394	Watanabe, M.	MEDI	196
Wang, Y.	PMSE	448	Wang, Z.	POLY	492	Watanabe, M.	ORGN	164
Wang, Y.	ANYL	231	Wang, Z.	PMSE	614	Watanabe, Y.	COLL	162
Wang, Y.	COLL	187	Wang, Z.	MEDI	33	Waterhouse, A.L.	AGFD	21
Wang, Y.	COLL	406	Wang, F.	PMSE	521	Waterhouse, A.L.	AGFD	208
Wang, Y.	ENFL	211	Wang, Q.	PMSE	98	Waters, E.J.	AGFD	25
Wang, Y.	MEDI	322	Wang, S.	CELL	18	Waters, J.	ENFL	357
Wang, Y.	MEDI	269	Wang, H.	CATL	300	Waters, M.L.	ORGN	456
Wang, Y.	MEDI	365	Wang, H.	PMSE	394	Watford, S.	TOXI	91
Wang, Y.	PHYS	375	Wanichacheva, N.	ORGN	561	Watile, R.A.	ORGN	261
Wang, Y.	TOXI	1	Wanjura, J.	AGRO	115	Watile, R.A.	ORGN	486
Wang, Y.	TOXI	13	Ward, C.	ANYL	310	Watkins, D.L.	ORGN	696
Wang, Y.	TOXI	20	Ward, G.W.	ORGN	381	Watkins, L.	PROF	6
Wang, Y.	TOXI	28	Ward, J.W.	ORGN	537	Watkins, P.B.	TOXI	92
Wang, Y.	TOXI	53	Ward, J.S.	CHED	26	Watkins, P.	PHYS	410
Wang, Y.	TOXI	66	Ward, M.D.	PMSE	350	Watrelot, A.A.	AGFD	21
Wang, Y.	ENVR	106	Ward, M.D.	PMSE	375	Watson, A.J.	ORGN	104
Wang, Y.	CELL	27	Ward, T.R.	PHYS	264	Watson, A.J.	ORGN	365
Wang, Y.	PMSE	376	Ward, T.	AGRO	117	Watson, C.	MEDI	308
Wang, Y.	CATL	121	Ward, A.	NUCL	48	Watson, C.	POLY	484
Wang, Y.	CATL	245	Wardell, S.E.	MEDI	14	Watson, C.	ANYL	174
Wang, Y.	ENFL	77	Ware, R.	ENFL	267	Watson, D.A.	ORGN	107
Wang, Y.	INOR	393	Ware, T.	POLY	540	Watson, D.A.	ORGN	113
Wang, Y.	PMSE	357	Ware, T.	POLY	541	Watson, D.A.	ORGN	690
Wang, Y.	PMSE	525	Ware, T.	POLY	543	Watson, G.	ORGN	472
Wang, Y.	CELL	36	Ware, T.	POLY	576	Watson, K.	CHED	21
Wang, Y.	COLL	520	Ware, T.	POLY	764	Watson, K.	AGRO	215
Wang, Y.	CATL	472	Warhausen, A.	CHED	241	Watson, K.	AGRO	265
Wang, Y.	PHYS	324	Warhausen, A.	CHED	242	Watson, K.	BMGT	6
Wang, Y.	AGFD	113	Warne, M.	AGRO	407	Watson, L.A.	INOR	547
Wang, Y.	AGFD	262	Warner, P.	MPPG	19	Watson, M.P.	ORGN	310
Wang, Y.	AGFD	268	Warner, D.	CATL	485	Watson, M.P.	ORGN	592
Wang, Y.	PHYS	430	Warner, D.	MEDI	326	Watson, M.	BMGT	2
Wang, Y.	MEDI	35	Warner, I.M.	ANYL	285	Watson, N.	CHAS	43
Wang, Y.	INOR	870	Warner, I.M.	CHED	329	Watson, S.J.	PMSE	657
Wang, Y.	ENVR	370	Warner, I.M.	ENFL	245	Watt, D.	CINF	68

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Wattanatorn, N.	COLL	238	Wei, D.	AGFD	269	Welborn, S.	CELL	8
Watts, D.B.	INOR	426	Wei, D.	AGFD	123	Welch, J.T.	PMSE	360
Watts, T.A.	ANYL	162	Wei, D.D.	MEDI	147	Welch, L.A.	CHED	352
Wauchope, O.R.	TOXI	73	Wei, G.	PMSE	45	Welch, L.A.	ENVR	465
Wauchope, O.R.	TOXI	38	Wei, G.	PMSE	105	Weldeab, A.	ORGN	696
Wauchope, O.R.	TOXI	87	Wei, G.	COMP	124	Welden, A.R.	COMP	44
Waugaman, A.	BIOL	41	Wei, G.	COMP	317	Welden, A.R.	COMP	326
Wayland, H.A.	INOR	280	Wei, H.	PHYS	449	Welden, A.R.	PHYS	479
Waymouth, R.M.	ORGN	266	Wei, H.	AEI	36	Welder, C.	CHED	76
Waymouth, R.M.	POLY	174	Wei, H.	ENVR	270	Weliky, D.P.	PHYS	340
Waymouth, R.M.	POLY	595	Wei, L.	POLY	450	Welin, E.	ORGN	366
Wear, M.	CARB	75	Wei, L.	MEDI	172	Wellen, B.A.	ENVR	528
Weaver, C.	MEDI	75	Wei, L.	PHYS	576	Weller, D.	COLL	180
Weaver, C.M.	AGFD	20	Wei, M.	AGFD	269	Weller, D.	INOR	62
Weaver, J.L.	ENVR	233	Wei, M.	AGFD	123	Weller, D.	INOR	277
Weaver, J.F.	CATL	155	Wei, P.	ENFL	147	Weller, T.	ENFL	94
Weaver, J.D.	ORGN	372	Wei, Q.	ENFL	129	Weller, T.	INOR	524
Weaver, J.D.	ORGN	373	Wei, Q.	PMSE	437	Wells, D.	POLY	431
Weaver, J.D.	ORGN	375	Wei, S.	ANYL	7	Wells, M.J.	ANYL	211
Weaver, J.D.	ORGN	376	Wei, S.	ORGN	687	Welsh, R.	CATL	459
Weaver, J.D.	ORGN	378	Wei, T.	NUCL	20	Weltje, L.	AGRO	407
Webb, D.	MEDI	246	Wei, T.	POLY	359	Welton, E.R.	ANYL	159
Webb, J.A.	CHED	100	Wei, T.	PMSE	662	Welz, R.	ANYL	156
Webb, J.A.	CHED	101	Wei, T.	COLL	372	Wen, B.	ENVR	50
Webb, J.	INOR	571	Wei, W.	ORGN	128	Wen, B.	MEDI	156
Webb, L.S.	BIOL	104	Wei, W.	ANYL	428	Wen, C.	COMP	230
Webb, T.	MEDI	273	Wei, W.	ENVR	507	Wen, H.	GEOC	15
Webber, D.	ORGN	161	Wei, X.	ENFL	303	Wen, H.	GEOC	24
Webber, M.E.	MPPG	3	Wei, X.	ENFL	431	Wen, J.	MEDI	98
Webber, T.	INOR	820	Wei, Z.	INOR	626	Wen, J.	I&E	9
Webbly, P.	I&E	28	Wei, Z.	PMSE	231	Wen, W.	INOR	206
Webby, R.	MEDI	273	Weichbrodt, B.M.	CHED	230	Wen, W.	INOR	391
Weber, B.	BIOL	162	Weichbrodt, B.M.	CHED	247	Wen, W.	INOR	499
Weber, E.	AGRO	57	Weick, J.	COLL	613	Wen, X.	PHYS	8
Weber, J.M.	PHYS	489	Weick, J.	INOR	919	Wen, X.	AGFD	48
Weber, J.M.	PHYS	563	Weidman, J.L.	ENVR	216	Wen, X.	PMSE	489
Weber, L.	CINF	87	Weidman, J.L.	PMSE	443	Wen, Z.	CATL	176
Weber, R.	ENVR	94	Weidman, J.	PMSE	444	Wen, Z.	ENFL	133
Weber, R.S.	CATL	479	Weidman, J.	PMSE	663	Wen, D.	POLY	235
Weber, R.S.	PHYS	265	Weidman, J.	POLY	243	Wenbei, S.	AGFD	54
Weber, R.	ENVR	335	Weidner, J.	ENFL	158	Wendeborn, S.V.	AGRO	411
Weber, R.	ENVR	336	Weight, C.J.	TOXI	108	Wendel, C.	AGRO	292
Weber, V.	COMP	77	Weinberg, D.R.	INOR	724	Wendelburg, B.M.	AGRO	131
Weberg, A.	INOR	912	Weinberg, H.	ENVR	3	Wendelin, M.	AGFD	245
Webster, C.E.	INOR	904	Weinberg, H.	ENVR	203	Wendell, D.	ENVR	151
Webster, D.C.	CELL	38	Weinberg, H.	ENVR	453	Wendling, K.S.	CHED	148
Webster, D.C.	PMSE	176	Weinberg, H.	ENVR	514	Wendling, K.S.	CHED	151
Webster, D.C.	POLY	509	Weinstein, D.S.	MEDI	7	Wendling, K.S.	CHED	370
Webster, D.C.	POLY	761	Weinstein, H.	COMP	10	Wendt, K.	NUCL	49
Webster, K.R.	ORGN	63	Weise, N.	POLY	679	Weng, D.	CATL	247
Webster-Gardiner, M.S.	INOR	849	Weisel, M.D.	INOR	948	Weng, L.	TOXI	9
Weck, M.	COLL	430	Weisel, M.D.	MEDI	134	Weng, L.	TOXI	44
Weck, M.	PMSE	128	Weiss, P.S.	ANYL	203	Weng, L.	TOXI	47
Weck, M.	POLY	567	Weiss, P.S.	ANYL	246	Weng, T.	INOR	87
Weckhuysen, B.M.	ENFL	446	Weiss, P.S.	COLL	179	Weng, X.	AGFD	254
Weder, C.	POLY	151	Weiss, P.S.	COLL	238	Weng, Y.	MEDI	258
Weder, C.	POLY	207	Weiss, P.S.	COLL	467	Weng, J.	ANYL	104
Weder, C.	POLY	211	Weiss, P.S.	INOR	98	Wengryniuk, S.	ORGN	608
Weder, C.	POLY	327	Weiss, P.S.	MPPG	10	Wenjun, N.	CATL	87
Weder, C.	POLY	337	Weiss, P.S.	MPPG	24	Wente, S.	AGRO	39
Weder, C.	POLY	723	Weiss, P.S.	PHYS	95	Wente, S.	AGRO	356
Wedge, D.	AGRO	313	Weiss, R.G.	ANYL	255	Wenz, G.	POLY	538
Wedge, D.E.	AGRO	316	Weiss, R.G.	ORGN	269	Wenzel, T.J.	CINF	67
Wee, J.	CHED	208	Weiss, R.G.	PMSE	268	Weon, S.	ENVR	175
Weed, R.	ANYL	83	Weiss, R.A.	PMSE	455	Wepplö, P.	CHED	362
Weeks, E.R.	ENVR	342	Weissleder, R.	MEDI	27	Wepy, J.A.	TOXI	87
Weeks, J.D.	PHYS	118	Weiss-Shtofman, M.	ORGN	333	Werber, J.	ENVR	146
Weeks, R.	COLL	369	Weisz, A.	ANYL	130	Werber, J.R.	AEI	37
Weerapana, E.	BIOL	56	Weisz, A.	ANYL	138	Werber, J.R.	ENVR	271
Weerasinghe, D.K.	AGFD	112	Weisz, D.	NUCL	64	Werner, D.	COLL	232
Weerasiri, K.	INOR	332	Weitz, A.	INOR	700	Werner, E.J.	INOR	644
Weerawardhana, E.A.	INOR	488	Weitz, D.A.	POLY	651	Werner, E.J.	INOR	645
Weese, C.	ORGN	693	Weitz, E.	CATL	204	Werner, E.J.	INOR	809
Wegener, E.	CATL	210	Weitz, E.	ENFL	2	Werner, J.	PMSE	587
Wegerski, C.J.	ORGN	63	Weix, D.J.	COLL	497	Werner, J.G.	INOR	475
Wegge, D.	NUCL	77	Weix, D.J.	ORGN	251	Werner, J.G.	POLY	651
Wegrzecki, M.	NUCL	48	Weizman, H.	CHAS	22	Werner, R.M.	MEDI	202
Wehrmann, C.M.	ORGN	97	Weizmann, Y.	COLL	448	Werner, R.M.	ORGN	161
Wei, G.	NUCL	25	Weizmann, Y.	ORGN	292	Wernsdorfer, W.	INOR	932
Wei, C.	NUCL	9	Weilbaum, J.	AGFD	66	Wert, A.R.	PHYS	500

Werth, C.J.	INOR	782	White, S.	PHYS	403	Wikaira, J.	INOR	484
Wesdemiotis, C.	ORGN	88	White, S.W.	MEDI	273	Wilburn, M.S.	AEI	14
Wesdemiotis, C.	POLY	82	White, T.J.	POLY	360	Wilburn, M.S.	CATL	401
Wesdemiotis, C.	POLY	454	White, T.J.	POLY	580	Wilcox, D.	INOR	30
Weselinski, L.J.	TOXI	61	White, T.J.	POLY	581	Wilcox, K.	PMSE	595
Wesemann, J.L.	CHED	41	White, T.J.	POLY	647	Wilcox, M.J.	ANYL	140
Wess, J.	MEDI	239	White, T.J.	POLY	724	Wilcox, M.J.	CHAS	9
West, A.C.	PHYS	163	White, T.J.	POLY	726	Wilcox, M.J.	SCHB	37
West, A.C.	PHYS	227	White, T.J.	POLY	767	Wild, C.	MEDI	278
West, R.	COLL	294	White, T.	PMSE	219	Wildman, E.	INOR	922
Westbrook, E.G.	POLY	614	White, T.	PMSE	322	Wildt, J.	ORGN	197
Westbrook, J.	CHED	193	White, T.	POLY	442	Wiles, R.	ORGN	641
Westerfield, J.H.	PHYS	378	White, G.	AGRO	240	Wiles, R.	ORGN	643
Westerhoff, P.K.	ENVR	40	White-Barkalow, T.	BMGT	8	Wiles, R.J.	ORGN	325
Westerhoff, P.K.	ENVR	169	Whitebread, S.	MEDI	250	Wiley, J.	ENVR	479
Westerhoff, P.K.	ENVR	266	Whitehead, B.R.	MEDI	134	Wiley, K.	PMSE	411
Westerhoff, P.K.	ENVR	267	Whiteker, G.	ORGN	495	Wiley, M.R.	MEDI	208
Westerhoff, P.K.	ENVR	402	Whiteker, G.	ORGN	523	Wilhelm, J.	COMP	49
Westerhoff, P.K.	ENVR	410	Whitener, K.E.	ORGN	673	Wilhelm, J.	PHYS	81
Westerhoff, P.K.	MPPG	7	Whiterock, V.	MEDI	358	Wilhide, J.	ANYL	30
Westhouse, R.	MEDI	335	Whiteside, K.	CHED	299	Wilhite, B.	PMSE	316
Westmoreland, A.C.	ANYL	88	Whitfield Aslund, M.	AGRO	11	Wilk, P.	NUCL	57
Westover, K.	BIOL	156	Whiting, M.	CINF	110	Wilke, J.A.	COLL	136
Westrick, V.	ORGN	390	Whiting, S.	AGRO	219	Wilke, J.A.	COLL	151
Wetzler, M.	NUCL	13	Whitley, J.	CHED	168	Wilke, J.A.	COLL	284
Wex, B.	ORGN	440	Whitnell, R.M.	CHED	86	Wilkins, L.R.	TOXI	108
Wexler, R.R.	MEDI	73	Whitten, J.E.	COLL	395	Wilker, J.J.	AEI	85
Wexler, R.R.	MEDI	308	Whittington, A.	PMSE	218	Wilker, J.J.	AEI	89
Wezenberg, S.J.	ORGN	433	Whittington, A.	PMSE	463	Wilker, J.J.	PMSE	404
Wezenberg, S.J.	ORGN	535	Whittington, A.	PMSE	464	Wilker, J.J.	PMSE	425
Whalen, M.	TOXI	36	Whittington, A.	PMSE	567	Wilker, J.J.	PMSE	431
Whang, K.	MEDI	195	Whittlesey, M.	INOR	730	Wilking, J.N.	ENVR	299
Whangbo, M.	INOR	915	Wich, P.R.	COLL	569	Wilkins, A.	POLY	221
Whangbo, M.	PHYS	364	Wich, P.R.	PMSE	506	Wilkinson, K.	AGFD	24
Wharton, W.	COLL	27	Wich, P.R.	POLY	703	Wilkinson, K.	AGFD	27
Wheeler, G.P.	ENFL	352	Wichroski, M.	MEDI	269	Wilkinson, K.L.	AGFD	1
Wheeler, K.A.	INOR	194	Wickens, J.M.	ORGN	161	Wilkinson, L.	INOR	568
Wheeler, R.A.	INOR	161	Wickmane, K.D.	MEDI	75	Wilklow-Marnell, M.	INOR	389
Wheeler, S.E.	PHYS	134	Wickramanayake, S.	PMSE	446	Wilklow-Marnell, M.	INOR	445
Wheeler, T.	NUCL	75	Wickramasekara, S.I.	ANYL	180	Wilklow-Marnell, M.	INOR	597
Whelan, C.J.	SCHB	19	Wickramasekara, S.I.	ANYL	249	Wilklow-Marnell, M.	INOR	604
Whelligan, D.	MEDI	274	Wickramasekara, S.I.	ANYL	251	Wilks, A.	MEDI	177
Whelligan, D.	PMSE	445	Wicks, S.	BIOL	79	Will, E.	PHYS	482
Whidbey, C.	ORGN	389	Wickstrom, L.B.	COMP	229	Willard, C.F.	PMSE	434
Whidbey, C.	ORGN	395	Widdup, L.	CHED	290	Willets, K.A.	COLL	41
Whisenhunt, L.	BIOL	120	Widicus Weaver, S.L.	PHYS	51	Willets, K.A.	COLL	198
Whisenhunt, L.	MEDI	338	Widmalm, G.	CARB	93	Willets, K.A.	COLL	331
Whitacre, J.	POLY	465	Widom, M.	PHYS	168	Willets, K.A.	COLL	493
Whitaker, M.R.	ENFL	75	Wibelhaus, N.	INOR	945	Willets, K.A.	PHYS	451
Whitby, J.	AGRO	271	Wiedman, G.	AEI	11	Willett, C.D.	AGRO	181
Whitby, J.G.	AGRO	272	Wiedmann, T.S.	TOXI	94	Willett, E.J.	ENVR	332
White, A.	MEDI	253	Wiedner, E.S.	ENFL	60	Willett, M.	AGRO	113
White, C.	INOR	168	Wiedner, E.S.	INOR	233	Willey, T.	PMSE	122
White, C.	INOR	176	Wiehl, N.	NUCL	48	Williams, A.	CHED	64
White, E.J.	INOR	795	Wieland, F.	POLY	455	Williams, A.	POLY	754
White, F.D.	NUCL	52	Wiemer, A.J.	MEDI	97	Williams, A.	ENVR	100
White, F.D.	NUCL	53	Wiener, D.F.	MEDI	162	Williams, A.	ENVR	525
White, H.S.	AEI	4	Wiener, D.F.	MEDI	301	Williams, A.	ANYL	52
White, H.S.	ANYL	291	Wiener, D.F.	ORGN	407	Williams, A.J.	ANYL	347
White, H.S.	ANYL	368	Wiener, C.G.	PMSE	215	Williams, A.J.	ANYL	348
White, H.S.	COLL	61	Wiener, C.G.	PMSE	413	Williams, A.J.	ANYL	435
White, H.S.	COLL	108	Wier, A.	PMSE	347	Williams, A.J.	CINF	28
White, J.L.	CATL	413	Wiersma, S.D.	PHYS	6	Williams, A.J.	ANYL	21
White, J.C.	ENVR	43	Wiesenfeld, L.	PHYS	101	Williams, A.J.	CHED	404
White, J.	AGRO	357	Wiesenfeld, L.	PHYS	542	Williams, A.J.	CINF	66
White, J.K.	INOR	959	Wiesenfeld, P.	AGFD	228	Williams, A.J.	CINF	76
White, K.K.	TOXI	108	Wiesner, U.B.	INOR	475	Williams, A.J.	CINF	93
White, K.	MEDI	72	Wiesner, U.B.	PMSE	587	Williams, A.J.	CINF	101
White, K.E.	AGRO	220	Wieting, J.M.	MEDI	75	Williams, A.J.	CINF	121
White, K.E.	AGRO	289	Wigent, R.J.	PHYS	459	Williams, A.J.	CINF	122
White, M.G.	CATL	111	Wiggin, G.	MEDI	8	Williams, A.J.	ENVR	2
White, M.G.	COMP	374	Wiggins, W.B.	CHED	245	Williams, A.J.	ENVR	206
White, P.S.	ORGN	456	Wijayanti, K.	CATL	261	Williams, A.J.	ENVR	355
White, R.B.	MEDI	192	Wijayapala, R.	PMSE	323	Williams, A.J.	ENVR	387
White, R.	ORGN	615	Wijayapala, R.	POLY	514	Williams, A.J.	ENVR	548
White, R.J.	ANYL	422	Wijerathne, N.	ANYL	243	Williams, A.J.	TOXI	56
White, S.B.	COLL	113	Wijeratne, G.B.	INOR	717	Williams, A.J.	TOXI	91
White, S.R.	PMSE	631	Wijethunga, T.K.	AEI	23	Williams, A.J.	TOXI	100
White, S.S.	BMGT	1	Wijethunga, T.K.	COLL	9	Williams, C.	POLY	187
White, S.S.	SCHB	8	Wijma, H.J.	PHYS	144	Williams, C.	POLY	190

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Williams, C.K.	PMSE	645	Willson, C.G.	POLY	597	Winkler, J.D.	ORGN	210
Williams, C.K.	POLY	135	Willson, R.C.	ENVR	34	Winkler, J.D.	ORGN	254
Williams, C.	COMP	206	Willson, T.	MEDI	123	Winkler, M.	CATL	220
Williams, C.	MEDI	50	Willson, T.	MEDI	141	Winkler, P.C.	AGRO	230
Williams, C.	MEDI	189	Wilm, B.	COLL	39	Winkler, T.	ENVR	300
Williams, C.	PMSE	55	Wilmot, C.	INOR	382	Winn, J.	POLY	426
Williams, C.	PMSE	218	Wilson, A.R.	CATL	34	Winneroski, L.L.	ORGN	470
Williams, C.	PMSE	219	Wilson, A.K.	COMP	390	Winniford, B.	ANYL	377
Williams, C.	POLY	175	Wilson, A.K.	PHYS	597	Winnik, F.M.	COLL	340
Williams, C.	POLY	315	Wilson, A.K.	INOR	130	Winnik, M.	POLY	640
Williams, C.	POLY	498	Wilson, A.M.	ANYL	109	Winograd, B.	COMP	135
Williams, C.	POLY	518	Wilson, A.M.	ORGN	631	Winograd, B.	PHYS	478
Williams, C.	POLY	674	Wilson, B.C.	CATL	311	Winstead, A.J.	INOR	576
Williams, C.G.	CATL	118	Wilson, B.C.	CHED	224	Winstead Casson, C.	ANYL	147
Williams, C.G.	COLL	251	Wilson, D.S.	POLY	743	Winter, A.	INOR	186
Williams, D.D.	POLY	153	Wilson, D.	CHED	57	Winter, A.	ORGN	674
Williams, D.D.	POLY	439	Wilson, E.K.	ENVR	520	Winter, A.	POLY	140
Williams, D.	INOR	480	Wilson, G.	CHED	66	Winter, A.	POLY	140
Williams, D.	POLY	256	Wilson, G.	CHED	371	Winter, A.	POLY	206
Williams, D.E.	ORGN	386	Wilson, J.N.	ORGN	416	Winter, C.K.	AGRO	249
Williams, D.	ANYL	356	Wilson, J.	ENFL	473	Winter-Holt, J.	MEDI	23
Williams, D.	CHED	218	Wilson, J.	ENVR	441	Winters, J.	PHYS	474
Williams, D.N.	COLL	66	Wilson, J.	INOR	960	Winters, M.P.	MEDI	34
Williams, D.	CHED	171	Wilson, K.	CATL	451	Winton, A.	COLL	349
Williams, D.	CHED	344	Wilson, K.	BIOL	113	Winton, A.	INOR	456
Williams, J.	CHED	143	Wilson, K.B.	ORGN	152	Wipf, P.	ORGN	255
Williams, J.Z.	INOR	325	Wilson, K.	COMP	288	Wirges, P.	PMSE	647
Williams, J.D.	ORGN	12	Wilson, K.R.	ENVR	286	Wirth, M.J.	ANYL	341
Williams, J.	INOR	620	Wilson, M.S.	MEDI	252	Wise, K.	POLY	312
Williams, J.	AGRO	357	Wilson, M.S.	MEDI	253	Wishard, A.	ORGN	700
Williams, J.D.	POLY	153	Wilson, M.	ORGN	538	Wishart, J.F.	I&EC	31
Williams, J.D.	POLY	439	Wilson, N.	POLY	768	Wisian-Neilson, P.	PMSE	49
Williams, K.	GEOC	33	Wilson, N.	POLY	604	Wisian-Neilson, P.	PMSE	453
Williams, L.	CHED	16	Wilson, P.	PMSE	183	Wisman, D.	CATL	20
Williams, L.	CHED	196	Wilson, P.	PMSE	644	Wisman, D.	COLL	251
Williams, M.	COLL	285	Wilson, P.	POLY	425	Wisman, D.	INOR	677
Williams, M.	COLL	611	Wilson, R.H.	PHYS	345	Wisman, D.L.	COLL	188
Williams, M.	POLY	367	Wilson, R.H.	PHYS	405	Wisniewska, H.	MEDI	258
Williams, M.	CARB	48	Wilson, S.A.	INOR	87	Wisniewski, T.	MEDI	225
Williams, N.	INOR	547	Wilson, S.	AGFD	151	Witczak, Z.J.	CARB	43
Williams, N.J.	I&EC	25	Wilson, Z.S.	PROF	13	Witczak, Z.J.	CARB	44
Williams, P.	CINF	100	Wilson, Z.S.	PROF	14	Witczak, Z.J.	CARB	45
Williams, P.	ORGN	692	Wilson, E.K.	ENVR	205	Witczak, Z.J.	CARB	46
Williams, P.	ENVR	45	Wilson, K.	BIOL	172	Witczak, Z.J.	MEDI	317
Williams, R.F.	ORGN	27	Wilson-Kennedy, Z.	PROF	6	Withka, J.	MEDI	63
Williams, R.M.	ORGN	465	Wilson-Kennedy, Z.	CHED	329	Withka, J.	MEDI	258
Williams, R.	ORGN	207	Wilton, Z.E.	ENVR	214	Witmer, M.R.	MEDI	30
Williams, R.M.	COLL	514	Wilts, E.	PMSE	171	Witschel, M.	MEDI	72
Williams, R.M.	PMSE	88	Wilts, E.	POLY	510	Witt, W.C.	PHYS	231
Williams, S.	CATL	219	Wilts, E.	POLY	708	Witte, C.	AGRO	358
Williams, S.	MPPG	18	Wiltschi, B.	PMSE	170	Wittenberg, J.	AGRO	229
Williams, T.	CHED	154	Wiltschi, B.	POLY	72	Witter, A.E.	AGFD	64
Williams, W.M.	AGRO	13	Wimalasena, K.	BIOL	64	Witter, A.E.	CHED	138
Williams, W.M.	AGRO	94	Winchell, M.	AGRO	11	Witus, L.	ORGN	318
Williams, W.M.	AGRO	128	Winchell, M.	AGRO	42	Wixtrom, A.I.	INOR	451
Williams, W.M.	AGRO	157	Winchell, M.	AGRO	81	Wixtrom, A.I.	WCC	3
Williams, E.	NUCL	48	Winchell, M.	AGRO	153	Wnek, G.E.	PMSE	164
Williamson, B.	ENFL	45	Winchell, M.	AGRO	274	Wodzanowski, K.	BIOL	150
Williamson, C.C.	PHYS	393	Winchell, M.	AGRO	381	Woell, C.	COLL	139
Williamson, C.C.	PHYS	500	Winchester, M.	ANYL	142	Woell, C.	COLL	140
Williamson, C.C.	PHYS	569	Winchester, M.	ENVR	117	Woerpel, K.A.	ORGN	109
Williamson, G.	PMSE	543	Winchester, M.	ENVR	161	Woessner, R.	MEDI	23
Williamson, G.	PMSE	643	Windmon, N.M.	ORGN	139	Wohl, C.	COLL	150
Williamson, R.	ANYL	139	Windus, T.L.	COMP	3	Wohlleben, W.	ENVR	411
Williamson, S.	MEDI	280	Windus, T.L.	COMP	4	Woisel, P.	PMSE	570
Williams-Young, D.	COMP	144	Windus, T.L.	COMP	120	Wojnarowska, Z.	PMSE	598
Williams-Young, D.	COMP	159	Winfield, I.	COMP	275	Wojtas, L.	INOR	578
Williams-Young, D.B.	COMP	157	Winfield, L.	CHED	76	Wojtas, L.	INOR	822
Willian, K.R.	CHED	317	Winfield, L.	PROF	6	Wojtecki, R.	POLY	591
Willig, G.	CATL	444	Winfield, L.	PROF	14	Wolanin, P.	POLY	342
Willighagen, E.L.	CINF	64	Winfield, S.	CINF	47	Wolczanski, P.T.	CATL	139
Willighagen, E.L.	CINF	66	Winfrey, A.	BIOL	41	Wold, E.A.	MEDI	278
Willis, C.L.	POLY	292	Wingen, L.M.	ENVR	334	Wolf, A.	COMP	104
Willis, M.	MPPG	15	Wingfield, K.	ANYL	78	Wolf, B.	ORGN	11
Willman, C.L.	COLL	27	Wingfield, K.	AGFD	107	Wolf, C.	AEI	62
Wills, M.	ORGN	42	Winikoff, S.	CATL	31	Wolf, C.	ORGN	162
Wills, M.	ORGN	117	Wink, D.J.	CHED	59	Wolf, C.	ORGN	308
Wills, M.	ORGN	141	Winkler, C.	CATL	184	Wolf, C.	ORGN	331
Willson, C.G.	MPPG	13	Winkler, D.A.	CINF	100	Wolf, C.	ORGN	447
Willson, C.G.	POLY	362	Winkler, J.R.	INOR	800	Wolf, C.	ORGN	449

Wolf, C.	ORGN	621	Woodling, K.	AGFD	56	Wu, F.	I&EC	28
Wolf, D.	AGRO	288	Woodrow, J.E.	AGRO	238	Wu, F.	ENFL	328
Wolf, H.	COLL	297	Woodruff, S.R.	POLY	261	Wu, G.	ENFL	81
Wolf, L.K.	MPPG	9	Woods, J.	INOR	960	Wu, G.	ENFL	341
Wolf, M.A.	MEDI	343	Woods, R.J.	CARB	8	Wu, G.	ENFL	429
Wolf, M.	CATL	217	Woods, R.J.	CARB	79	Wu, G.	I&EC	67
Wolf, M.	CATL	299	Woods, R.J.	CARB	84	Wu, G.	POLY	334
Wolf, M.	INOR	139	Woodside, A.	INOR	563	Wu, H.F.	POLY	109
Wolf, M.O.	INOR	395	Woodward, C.	ORGN	196	Wu, I.	AGRO	48
Wolf, T.	BIOL	113	Woodward, E.E.	AGRO	132	Wu, J.	AGFD	53
Wolfe, A.L.	CHED	35	Wooley, K.L.	PMSE	25	Wu, J.	AGFD	71
Wolfe, A.L.	MEDI	272	Wooley, K.L.	PMSE	81	Wu, J.	TOXI	13
Wolfe, J.L.	MEDI	185	Wooley, K.L.	PMSE	121	Wu, J.	ENFL	38
Wolfe, J.P.	ORGN	498	Wooley, K.L.	PMSE	642	Wu, J.	AGFD	75
Wolfe, L.	MEDI	111	Wooley, K.L.	POLY	134	Wu, J.	COMP	338
Wolfe, M.S.	MEDI	185	Wooley, K.L.	POLY	196	Wu, J.	COLL	59
Wolfgang, J.	POLY	522	Wooley, K.L.	POLY	324	Wu, J.	POLY	497
Wollan, D.	AGFD	27	Wooley, K.L.	POLY	371	Wu, J.	MEDI	83
Wolle, M.M.	AGFD	223	Wooley, K.L.	POLY	603	Wu, J.	COMP	42
Wolpers, A.	POLY	67	Woolf, T.	COMP	152	Wu, J.	POLY	542
Wolschendorf, F.	INOR	323	Woolford, S.	ANYL	180	Wu, J.	PMSE	77
Wolschendorf, F.	INOR	836	Woomer, A.	INOR	478	Wu, K.	ENFL	413
Wolverton, C.	PHYS	318	Woodsley, S.	CATL	117	Wu, K.	ORGN	677
Wolverton, C.	WCC	1	Wooster, J.	POLY	250	Wu, L.	BIOL	50
Won, W.	ENVR	89	Wooten, A.R.	ENVR	396	Wu, L.	ENFL	482
Wong, G.C.	PMSE	187	Work, H.	CHED	223	Wu, L.	MEDI	128
Wong, A.P.	CATL	399	Workie, B.	INOR	621	Wu, M.	ENVR	375
Wong, B.M.	COMP	130	Workie, B.	INOR	669	Wu, M.	COLL	487
Wong, B.M.	COMP	145	Worley, D.	PMSE	606	Wu, M.	ORGN	321
Wong, B.M.	COMP	301	Worley, D.	POLY	485	Wu, N.	COLL	444
Wong, B.M.	COMP	332	Worobo, R.W.	AGFD	137	Wu, N.	ENFL	8
Wong, B.M.	COMP	338	Worrell, B.T.	PMSE	244	Wu, N.	COLL	307
Wong, B.M.	ENVR	109	Worrell, B.T.	POLY	372	Wu, P.	BIOL	63
Wong, B.M.	PHYS	73	Worrell, B.T.	POLY	652	Wu, P.	AGFD	46
Wong, B.M.	PHYS	78	Worsnop, D.R.	ENVR	189	Wu, P.	AGFD	47
Wong, C.	AGRO	3	Worsnop, D.R.	ENVR	550	Wu, Q.	ENFL	319
Wong, C.	AGRO	304	Worsnop, D.R.	ENVR	555	Wu, Q.	PHYS	39
Wong, D.	COLL	305	Wozniak, D.	INOR	332	Wu, Q.	CATL	303
Wong, E.M.	ENVR	306	Wransky, M.	AGRO	301	Wu, Q.	ENFL	180
Wong, G.W.	INOR	598	Wrasman, C.	CATL	57	Wu, Q.	ENVR	409
Wong, H.	PMSE	237	Wrenn, S.	ORGN	634	Wu, R.	PHYS	564
Wong, J.	NUCL	40	Wright, A.	BIOL	129	Wu, R.	CHED	178
Wong, J.W.	AGRO	229	Wright, A.T.	ANYL	19	Wu, R.	MEDI	157
Wong, K.	ENVR	273	Wright, A.T.	ORGN	389	Wu, S.	POLY	276
Wong, M.	PMSE	331	Wright, A.T.	ORGN	395	Wu, T.	INOR	534
Wong, M.	PMSE	447	Wright, A.T.	TOXI	85	Wu, T.	ENVR	64
Wong, N.	ENVR	456	Wright, A.	PHYS	385	Wu, W.	CATL	405
Wong, N.L.	COLL	108	Wright, A.	INOR	197	Wu, W.	POLY	735
Wong, N.L.	PHYS	492	Wright, A.	INOR	355	Wu, W.	CATL	204
Wong, P.	MEDI	308	Wright, A.M.	INOR	325	Wu, W.	AGFD	148
Wong, S.	COLL	366	Wright, A.M.	INOR	591	Wu, W.	POLY	677
Wong, T.	MEDI	25	Wright, C.	PHYS	460	Wu, W.	CATL	486
Wong, W.	POLY	270	Wright, K.	AGFD	38	Wu, X.	AGFD	256
Wong, W.	ENFL	54	Wright, N.	CHED	167	Wu, X.	MEDI	255
Wongnate, T.	CATL	217	Wright, N.	CHED	168	Wu, X.	PHYS	504
Wong-Ng, W.	INOR	253	Wright, N.	ENFL	356	Wu, X.	PHYS	514
Wongwilai, W.	CHED	348	Wright, N.	ENFL	356	Wu, X.	PHYS	514
Woo, H.	INOR	654	Wright, S.E.	INOR	227	Wu, X.J.	ANYL	343
Woo, S.	ENVR	433	Wright, T.	INOR	395	Wu, X.J.	ANYL	370
Woo, S.	ENVR	435	Wright, T.	MEDI	112	Wu, X.	ORGN	313
Woo, S.	MEDI	92	Wright, T.	MEDI	148	Wu, X.	COMP	375
Wood, B.	CATL	280	Wright, T.	ANYL	434	Wu, Y.	ENVR	69
Wood, B.	CATL	413	Wright, T.	ORGN	478	Wu, Y.	ENVR	50
Wood, B.	ENFL	71	Wright, Z.	MEDI	254	Wu, Y.	MEDI	8
Wood, H.B.	MEDI	209	Wroblewski, C.	AGRO	50	Wu, Y.	ORGN	548
Wood, L.	AGFD	260	Wroblicky, G.	AGRO	129	Wu, Y.	PMSE	635
Wood, M.	CHED	182	Wroldstad, R.	AGFD	181	Wu, Y.	ENVR	76
Wood, T.	CATL	276	Wrublewski, D.	CINF	56	Wu, Y.	MEDI	308
Wood, T.	ENFL	17	Wu, C.	AGFD	55	Wu, Y.	ENFL	393
Wood, T.	ENFL	18	Wu, C.	COLL	416	Wu, Y.	COLL	116
Wood, T.	ENFL	18	Wu, C.	ORGN	548	Wu, Y.	PHYS	430
Wood, T.	CHED	36	Wu, C.	ENVR	430	Wu, Y.	ENFL	241
Wood, Z.A.	INOR	288	Wu, C.	COMP	243	Wu, Y.	ENFL	432
Woodall, B.E.	ENVR	482	Wu, C.	COMP	351	Wu, Y.	ANYL	179
Woodall, D.	COLL	563	Wu, C.	MEDI	297	Wu, Y.	ANYL	184
Woodard, J.L.	MEDI	295	Wu, C.	PHYS	348	Wu, Y.	ANYL	185
Woodcock, H.L.	COMP	123	Wu, C.	PHYS	590	Wu, Y.	ENVR	339
Woodcock, J.W.	ANYL	387	Wu, D.	PHYS	7	Wu, Y.	ENVR	488
Woodcock, J.W.	ENVR	158	Wu, D.	MEDI	25	Wu, Y.	ORGN	565
Woodcock, J.W.	PMSE	529	Wu, D.	MEDI	269	Wu, Y.	COLL	278
Woodcock, S.R.	ORGN	422	Wu, D.	ANYL	268	Wu, Y.	COMP	55

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Wu, Y.	ENVR	502	Xia, Y.	ENFL	383	Xie, Z.	AGFD	160
Wu, Z.	ENFL	171	Xia, Y.	POLY	645	Xie, Z.	AGFD	188
Wu, Z.	INOR	122	Xia, Z.	ANYL	116	Xie, Z.	AGFD	213
Wu, Z.	CATL	490	Xia, Z.	ENVR	222	Xie, J.	INOR	729
Wu, Z.	ENVR	397	Xia, Z.	CELL	39	Xie, X.	MEDI	151
Wu, Z.	CATL	14	Xia, Z.	ENFL	205	Ximba, B.J.	ANYL	81
Wu, Z.	CATL	76	Xian, J.	AEI	17	Xin, D.	ANYL	13
Wu, Z.	CATL	122	Xian, J.	CHED	388	Xin, D.	COMP	162
Wu, Z.	CATL	125	Xiang, A.X.	ORGN	63	Xin, H.	CATL	187
Wu, Z.	CATL	215	Xiang, D.F.	PHYS	43	Xin, H.	CATL	333
Wu, Z.	ENFL	173	Xiang, I.	CHED	174	Xin, H.	CATL	334
Wu, Z.	ENFL	294	Xiang, N.	AEI	1	Xin, H.	ENFL	132
Wu, L.	CATL	476	Xiang, N.	AEI	19	Xin, H.	ENFL	180
Wubbolt, C.	BMGT	10	Xiang, N.	COMP	345	Xin, J.	MEDI	22
Wudl, F.	ORGN	683	Xiao, X.	ENVR	170	Xin, J.	MEDI	103
Wuest, W.M.	BIOL	143	Xiao, B.	ENFL	164	Xin, Y.	ANYL	374
Wujcik, K.	CATL	273	Xiao, C.	ENVR	109	Xing, G.	MEDI	258
Wujek, D.G.	AGRO	58	Xiao, F.	ENFL	194	Xing, H.	ORGN	512
Wüster, W.	ANYL	9	Xiao, F.	ENFL	212	Xing, K.	PMSE	12
Wustholz, K.L.	ANYL	59	Xiao, F.	ENFL	216	Xing, K.	POLY	447
Wustholz, K.L.	PHYS	297	Xiao, H.	CATL	28	Xing, M.	PMSE	562
Wuttig, A.	ENFL	288	Xiao, J.	AGFD	243	Xing, X.	ORGN	554
Wuttig, A.	INOR	365	Xiao, J.	ORGN	229	Xing, X.	ORGN	555
Wyratt, B.	INOR	389	Xiao, K.	ENFL	361	Xing, Y.	ORGN	54
Wyratt, B.	INOR	391	Xiao, L.	POLY	59	Xing, Y.	ORGN	587
Wyatt, M.	POLY	604	Xiao, L.	COMP	102	Xing, Y.	ORGN	611
Wyatt, V.T.	ENFL	247	Xiao, L.	ENFL	241	Xing, Y.	ORGN	628
Wyer, M.	CHED	321	Xiao, P.	I&EC	28	Xing, Y.	COMP	11
Wykoff, D.	CARB	6	Xiao, S.	TOXI	108	Xiong, J.	ENVR	516
Wymore, T.	COMP	113	Xiao, S.	ORGN	507	Xiong, J.	ENVR	108
Wynn, J.	BIOL	48	Xiao, T.	PHYS	357	Xiong, L.	POLY	216
Wynne, J.H.	COLL	141	Xiao, X.	CATL	226	Xiong, N.	PMSE	525
Wynne, J.H.	INOR	138	Xiao, X.	CATL	74	Xiong, Q.	AGRO	135
Wynne, J.H.	PMSE	359	Xiao, X.	COLL	168	Xiong, S.	PMSE	119
Wynne, J.H.	PMSE	405	Xiao, X.	ENFL	138	Xiong, W.	POLY	271
Wynne, J.H.	PMSE	654	Xiao, X.	POLY	190	Xiong, W.	POLY	672
Wynne, J.H.	POLY	459	Xiao, Y.	TOXI	1	Xiong, Y.	COMP	212
Wynne, J.H.	POLY	679	Xiao, Z.	PMSE	221	Xiong, Y.	ENFL	246
Wynne, K.J.	PMSE	75	Xiaoqin, Y.	POLY	502	Xiong, Y.	CATL	71
Wynne, K.J.	PMSE	489	Xie, A.	ENVR	18	Xiong, Y.	MEDI	225
Wynne, K.J.	POLY	40	Xie, G.	POLY	382	Xiong, R.	PMSE	86
Wynne, K.J.	POLY	93	Xie, G.	POLY	383	Xu, A.	NUCL	20
Wysocki, V.H.	PHYS	320	Xie, G.	POLY	384	Xu, B.	AGRO	126
Wysocky, R.	ANYL	361	Xie, G.	POLY	385	Xu, B.	PMSE	190
Wyss, K.M.	INOR	638	Xie, J.	CHED	385	Xu, B.	CATL	72
Xhaard, H.	CINF	138	Xie, J.	ENFL	477	Xu, B.	CATL	435
Xi, E.	PHYS	172	Xie, K.	CATL	261	Xu, B.	CATL	436
Xi, P.	ENFL	86	Xie, L.	COMP	83	Xu, B.	CATL	442
Xi, S.	CHED	240	Xie, L.	COMP	86	Xu, B.	CATL	470
Xi, W.	POLY	372	Xie, L.	ORGN	384	Xu, B.	ENFL	296
Xi, Z.	ENFL	203	Xie, L.	ENFL	186	Xu, B.	ENVR	86
Xi, Z.	ENFL	206	Xie, L.	COLL	564	Xu, B.	ENVR	131
Xia, B.	ANYL	102	Xie, L.	PMSE	448	Xu, B.	PHYS	87
Xia, B.	ANYL	175	Xie, M.	COMP	196	Xu, B.	ORGN	583
Xia, B.	COLL	520	Xie, M.	INOR	394	Xu, C.	PMSE	231
Xia, C.	CATL	437	Xie, P.	CATL	286	Xu, C.C.	CATL	97
Xia, F.	ANYL	324	Xie, P.	CATL	351	Xu, C.	BIOL	170
Xia, H.	INOR	624	Xie, P.	ENVR	224	Xu, C.	NUCL	29
Xia, H.	INOR	761	Xie, P.	ENVR	407	Xu, E.	PHYS	313
Xia, H.	POLY	380	Xie, P.	ENVR	448	Xu, F.	AGFD	204
Xia, J.	INOR	394	Xie, Q.	AGFD	277	Xu, F.	PMSE	78
Xia, K.	ENVR	49	Xie, S.	AGFD	277	Xu, F.	ORGN	113
Xia, K.	ENVR	54	Xie, S.	GEOC	11	Xu, F.	POLY	191
Xia, S.	TOXI	61	Xie, T.	POLY	542	Xu, F.	MEDI	34
Xia, S.	ENVR	541	Xie, T.	POLY	578	Xu, F.	POLY	416
Xia, W.	PMSE	208	Xie, T.	POLY	721	Xu, F.	MEDI	156
Xia, X.	ANYL	366	Xie, T.	PMSE	84	Xu, F.	POLY	505
Xia, X.	COLL	178	Xie, T.	PMSE	114	Xu, G.	I&EC	65
Xia, X.	COLL	217	Xie, T.	ENVR	130	Xu, G.	COMP	131
Xia, Y.	PMSE	43	Xie, T.	NUCL	29	Xu, H.	PMSE	116
Xia, Y.	PMSE	326	Xie, T.	POLY	86	Xu, H.	BIOL	84
Xia, Y.	POLY	214	Xie, T.	CATL	163	Xu, J.	ORGN	40
Xia, Y.	POLY	215	Xie, T.	CATL	453	Xu, J.	POLY	507
Xia, Y.	POLY	728	Xie, W.	ENFL	84	Xu, J.	ENVR	340
Xia, Y.	ANYL	102	Xie, X.	PHYS	45	Xu, J.	AGFD	131
Xia, Y.	ANYL	175	Xie, X.	MEDI	267	Xu, J.	CATL	59
Xia, Y.	ORGN	360	Xie, Y.	INOR	899	Xu, J.	CATL	468
Xia, Y.	ANYL	4	Xie, Y.	INOR	900	Xu, J.	PMSE	222
Xia, Y.	CATL	166	Xie, Z.	ENVR	155	Xu, J.	POLY	366
Xia, Y.	ENFL	384	Xie, Z.	MEDI	253	Xu, J.	MEDI	35
			Xie, Z.	INOR	164			

Xu, K.	ENFL	162	Xue, S.	ANYL	325	Yan, N.	CATL	4
Xu, K.	INOR	739	Xue, Y.	POLY	575	Yan, P.	ORGN	26
Xu, L.	ANYL	134	Xue, Y.	CELL	11	Yan, P.	ENFL	164
Xu, L.L.	ORGN	404	Xuehua, A.	AGRO	279	Yan, S.	CATL	302
Xu, L.	POLY	192	Yablon, L.	POLY	290	Yan, S.	ENVR	380
Xu, M.	I&EC	57	Yadav, M.	MEDI	353	Yan, X.	ORGN	446
Xu, M.	PMSE	394	Yadav, N.D.	MEDI	308	Yan, Y.	INOR	64
Xu, M.	AGRO	386	Yadav, S.	CELL	40	Yan, Y.	PHYS	381
Xu, M.	ORGN	91	Yadavalli, S.S.	PMSE	586	Yan, Y.	INOR	411
Xu, M.	PMSE	525	Yagci, Y.	POLY	61	Yan, Y.	ENFL	437
Xu, M.	ENFL	454	Yaghi, O.M.	INOR	121	Yan, Y.	PHYS	87
Xu, P.	AGRO	394	Yaguchi, M.	INOR	365	Yan, Z.	POLY	659
Xu, P.	ENFL	261	Yajin, L.	CATL	9	Yanagi, M.	ORGN	387
Xu, P.	ENFL	339	Yajin, L.	ENFL	349	Yandek, G.	CELL	37
Xu, Q.	ENVR	379	Yajouri, M.	PHYS	351	Yandek, G.	POLY	13
Xu, R.J.	PHYS	428	Yajouri, M.	PHYS	356	Yandek, G.	POLY	521
Xu, R.	CATL	226	Yakes, B.J.	AGFD	11	Yang, F.	POLY	78
Xu, S.	ENFL	308	Yakes, B.J.	AGFD	213	Yang, H.	COLL	168
Xu, S.	I&EC	48	Yakes, B.J.	ANYL	202	Yang, H.	ENFL	138
Xu, S.	BIOL	49	Yakushev, A.	NUCL	48	Yang, H.	ENVR	170
Xu, S.	ENVR	34	Yakusheva, V.	NUCL	48	Yang, Y.	ENFL	476
Xu, S.	POLY	443	Yalcin, M.	MEDI	342	Yang, Y.	ANYL	188
Xu, S.	INOR	623	Yalcintas, E.	ENVR	230	Yang, Y.	ANYL	189
Xu, S.	ENVR	76	Yalcintas, E.	ENVR	412	Yang, Z.	ENFL	303
Xu, T.	CATL	200	Yalin, A.P.	I&EC	42	Yang, Z.	ENFL	431
Xu, T.	AGRO	14	Yamada, H.	PMSE	377	Yang, A.	BIOL	47
Xu, T.	AGRO	82	Yamada, H.	ORGN	223	Yang, A.	CATL	57
Xu, T.	AGRO	268	Yamada, R.	INOR	732	Yang, B.	ANYL	369
Xu, T.	AGRO	273	Yamada, Y.	PMSE	254	Yang, B.	ANYL	372
Xu, T.	AGRO	274	Yamada, Y.	PMSE	449	Yang, B.	CATL	46
Xu, T.	AGRO	357	Yamagishi, J.	MEDI	125	Yang, B.	INOR	294
Xu, T.	ENVR	466	Yamago, S.	POLY	67	Yang, C.	CATL	210
Xu, W.	ANYL	343	Yamago, S.	POLY	406	Yang, C.	PMSE	626
Xu, W.	ORGN	212	Yamaguchi, E.	ORGN	595	Yang, C.	COMP	74
Xu, W.	AEI	91	Yamamoto, A.	AGFD	135	Yang, C.	COMP	157
Xu, W.	COLL	84	Yamamoto, K.	POLY	21	Yang, C.	ORGN	39
Xu, W.	COLL	460	Yamamoto, K.	MEDI	53	Yang, C.	PHYS	279
Xu, W.	PMSE	491	Yamamoto, T.	POLY	441	Yang, C.	ENVR	73
Xu, W.	ENVR	555	Yamamoto, T.	PMSE	450	Yang, C.	ENVR	98
Xu, W.	ENVR	467	Yamamoto, T.	ORGN	174	Yang, C.	COLL	139
Xu, W.	ENVR	35	Yamamoto, T.	ORGN	585	Yang, C.	CINF	34
Xu, W.	ENFL	332	Yamamoto, T.	ANYL	239	Yang, C.	CINF	42
Xu, X.N.	ANYL	3	Yamano, Y.	MEDI	175	Yang, C.	TOXI	89
Xu, X.N.	ANYL	38	Yamanoi, Y.	INOR	732	Yang, D.	POLY	466
Xu, X.N.	ANYL	209	Yamaoka, T.	PMSE	564	Yang, D.	POLY	732
Xu, X.N.	ANYL	237	Yamasaki, A.	ENVR	60	Yang, D.	MEDI	310
Xu, X.	COLL	238	Yamasaki, A.	ENVR	96	Yang, D.	COLL	315
Xu, X.	COLL	467	Yamashita, M.	ORGN	223	Yang, D.	CATL	19
Xu, X.	PMSE	499	Yamashita, S.	COLL	544	Yang, F.	PMSE	371
Xu, Y.	AGFD	197	Yamauchi, M.	CATL	175	Yang, F.	PMSE	93
Xu, Y.	AGFD	264	Yamawaki, K.	MEDI	175	Yang, G.	CATL	305
Xu, Y.	ORGN	358	Yamshchikov, L.F.	INOR	639	Yang, G.	CATL	475
Xu, Y.	CATL	254	Yan, H.	MEDI	111	Yang, G.	ENVR	495
Xu, Y.	CATL	489	Yan, X.	MEDI	187	Yang, G.	POLY	632
Xu, Y.	PHYS	235	Yan, X.	MEDI	199	Yang, H.	POLY	80
Xu, Y.	ENFL	227	Yan, A.	ENFL	234	Yang, H.	ORGN	664
Xu, Y.	CARB	69	Yan, A.	ENVR	347	Yang, H.	ENFL	301
Xu, Y.	ORGN	184	Yan, B.	INOR	537	Yang, H.	MEDI	17
Xu, Y.	ANYL	173	Yan, B.	CATL	303	Yang, H.	INOR	827
Xu, Z.	ENFL	308	Yan, B.	ENFL	180	Yang, H.	ENFL	128
Xu, Z.	I&EC	57	Yan, B.	PHYS	401	Yang, H.	ENFL	385
Xu, Z.	AGFD	118	Yan, B.	PHYS	436	Yang, H.	MEDI	127
Xu, M.	CELL	41	Yan, C.	ENVR	156	Yang, H.	CATL	250
Xu, Y.	ENVR	392	Yan, C.	MEDI	269	Yang, H.	PMSE	543
Xu, Y.	ENVR	398	Yan, F.	ENFL	89	Yang, H.	PMSE	558
Xu, Z.	COLL	215	Yan, G.X.	CATL	279	Yang, H.	PMSE	643
Xuan, S.	COLL	365	Yan, J.J.	INOR	87	Yang, H.	ANYL	138
Xue, B.	COLL	596	Yan, J.	COLL	425	Yang, J.	PMSE	545
Xue, C.	CATL	301	Yan, J.	POLY	378	Yang, J.Y.	CATL	271
Xue, C.	INOR	685	Yan, J.	POLY	380	Yang, J.Y.	INOR	299
Xue, F.	MEDI	64	Yan, J.	POLY	390	Yang, J.	PMSE	232
Xue, F.	MEDI	127	Yan, J.	POLY	393	Yang, J.	PMSE	397
Xue, F.	MEDI	177	Yan, J.	POLY	394	Yang, J.	PMSE	500
Xue, F.	ORGN	39	Yan, J.	POLY	431	Yang, J.	ORGN	214
Xue, F.	ORGN	597	Yan, J.	ANYL	165	Yang, J.	INOR	945
Xue, G.	ENFL	216	Yan, J.	ENFL	186	Yang, J.	ENVR	73
Xue, J.	ORGN	696	Yan, J.	INOR	555	Yang, J.	COLL	85
Xue, L.	AGFD	59	Yan, K.	POLY	129	Yang, J.	COLL	237
Xue, L.	MEDI	334	Yan, L.	MEDI	134	Yang, J.	ORGN	145
Xue, L.	CINF	30	Yan, L.	MEDI	245	Yang, J.	MEDI	323

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Yang, K.	POLY	117	Yang, Y.	CATL	208	Yasuda, N.	ORGN	256
Yang, K.	COLL	33	Yang, Y.	COLL	179	Yasuhiro, T.	MEDI	343
Yang, K.	COLL	80	Yang, Y.	COLL	423	Yates, E.	PMSE	312
Yang, K.	COLL	148	Yang, Y.	ENVR	9	Yates, M.	MEDI	132
Yang, K.	COLL	233	Yang, Y.	ORGN	253	Yates, M.D.	ENVR	301
Yang, K.	TOXI	83	Yang, Y.	PHYS	184	Yates, M.D.	ENVR	535
Yang, L.	PMSE	451	Yang, Y.	PMSE	554	Yates, M.D.	ENVR	561
Yang, L.	ENFL	319	Yang, Y.	COLL	2	Yates, S.R.	AGRO	149
Yang, L.	MEDI	134	Yang, Y.	ENVR	171	Yates, S.R.	AGRO	362
Yang, L.	TOXI	99	Yang, Y.	MEDI	153	Yates, S.R.	ENVR	561
Yang, L.	COLL	123	Yang, Y.	INOR	412	Yatsunyk, L.A.	CHED	31
Yang, L.	ENFL	424	Yang, Y.	COLL	603	Yatsunyk, L.A.	CHED	32
Yang, L.	BIOL	68	Yang, Y.	MEDI	71	Yatsunyk, L.A.	CHED	174
Yang, L.	MEDI	13	Yang, Y.	PHYS	370	Yawn, A.	ANYL	237
Yang, M.	ENFL	301	Yang, Y.	PMSE	71	Yazdanparast, M.	COLL	158
Yang, M.	CARB	90	Yang, Y.	PMSE	278	Ye, D.	ANYL	232
Yang, M.	BIOL	175	Yang, Y.	ORGN	105	Ye, G.	NUCL	34
Yang, M.	COLL	206	Yang, Y.	PMSE	105	Ye, H.	ANYL	366
Yang, M.	COLL	321	Yang, Y.	POLY	593	Ye, H.	COLL	178
Yang, M.	ENFL	6	Yang, Y.	COLL	580	Ye, J.	PMSE	122
Yang, N.	COLL	168	Yang, Y.	PHYS	8	Ye, J.	POLY	409
Yang, N.	ENFL	138	Yang, Y.	ENVR	43	Ye, J.	CATL	146
Yang, N.	PMSE	414	Yang, Y.	ENFL	281	Ye, J.	INOR	292
Yang, P.	CATL	228	Yang, Y.	AGFD	123	Ye, J.	INOR	350
Yang, P.	CATL	256	Yang, Y.	AGFD	269	Ye, M.	MEDI	313
Yang, P.	ANYL	327	Yang, Y.Y.	PMSE	617	Ye, Q.	ORGN	548
Yang, P.	COLL	59	Yang, Y.	COMP	309	Ye, Q.	ANYL	136
Yang, P.	NUCL	19	Yang, Y.	PMSE	33	Ye, S.	ENFL	251
Yang, P.	NUCL	28	Yang, Y.	PMSE	272	Ye, T.	ANYL	287
Yang, P.	NUCL	50	Yang, Z.	BIOL	61	Ye, X.	PHYS	216
Yang, P.	NUCL	60	Yang, Z.	MEDI	25	Ye, Y.	ENFL	328
Yang, P.	PHYS	65	Yang, Z.	PHYS	564	Ye, Z.	ENVR	414
Yang, Q.	COMP	92	Yang, Z.	ANYL	268	Yeap, K.	MEDI	22
Yang, Q.	COLL	238	Yang, Z.	COMP	158	Yeap, K.	MEDI	103
Yang, Q.	COLL	467	Yang, Z.	PMSE	457	Yeap, Y.	MEDI	17
Yang, Q.	CATL	1	Yang, Z.	AGRO	347	Yeates, T.	PMSE	255
Yang, Q.	ORGN	512	Yang, J.	ENVR	150	Yeddanapudi, M.V.	MEDI	289
Yang, Q.	ENFL	364	Yang, J.	ENFL	410	Yee, D.	PMSE	560
Yang, R.A.	CATL	194	Yanlong, G.	ORGN	98	Yee, G.	CATL	391
Yang, R.	ANYL	404	Yanming, C.	ENFL	226	Yeh, I.	PMSE	152
Yang, R.	ANYL	434	Yano, J.	CATL	28	Yeh, T.	BIOL	148
Yang, R.	ENFL	433	Yano, J.	CATL	379	Yeh, Y.	INOR	244
Yang, S.H.	ANYL	384	Yao, B.	PHYS	357	Yeh, Y.	ENVR	131
Yang, S.	CATL	125	Yao, B.	AGFD	268	Yehezkeli, O.	ORGN	675
Yang, S.	ENFL	68	Yao, C.	AGRO	7	Yekhanin, S.	I&EC	35
Yang, S.	ENFL	383	Yao, C.	AGRO	135	Yeliseev, A.	PHYS	591
Yang, S.	POLY	154	Yao, C.	AGRO	390	Yelvington, P.	ENVR	93
Yang, S.	POLY	448	Yao, C.	ORGN	369	Yempally, V.	INOR	449
Yang, S.	POLY	645	Yao, F.	ORGN	105	Yen, E.M.	CHED	61
Yang, S.	ANYL	392	Yao, H.	PMSE	248	Yen, S.	ENVR	504
Yang, S.	POLY	366	Yao, H.	ENFL	181	Yeo, J.	CELL	18
Yang, S.	COLL	474	Yao, J.	ANYL	431	Yeomans, J.	PHYS	17
Yang, S.	CATL	49	Yao, L.	I&EC	49	Yepez, G.	PMSE	231
Yang, T.	INOR	244	Yao, Q.	AGRO	115	Yepez, X.	AGFD	10
Yang, T.	AGFD	248	Yao, Q.	AGRO	347	Yerabolu, R.	ENFL	420
Yang, T.	ORGN	175	Yao, S.	AGFD	277	Yerneni, P.	ENVR	481
Yang, T.	ANYL	11	Yao, W.	ORGN	459	Yetter, R.	ENFL	450
Yang, T.	COLL	212	Yao, X.	POLY	648	Yeung, K.	MEDI	269
Yang, T.	COLL	353	Yao, Y.	ENFL	188	Yeung, K.	PMSE	237
Yang, T.S.	COLL	348	Yao, Y.	ORGN	411	Yeung, K.	BIOL	115
Yang, W.	COMP	101	Yao, Z.	PMSE	614	Yeung, K.	ENVR	345
Yang, W.	MEDI	64	Yao, Z.	ENFL	46	Yeung, K.	ENVR	363
Yang, W.	MEDI	127	Yao, Z.	CATL	248	Yeung, K.	ENVR	456
Yang, W.	ENFL	196	Yao, Z.	MEDI	14	Yeung, K.	INOR	265
Yang, W.	ENVR	262	Yao, Z.	MEDI	275	Yeung, K.	INOR	266
Yang, W.	ENVR	64	Yap, M.C.	AGRO	385	Yezerets, A.	CATL	243
Yang, W.	MEDI	23	Yapp, C.	COLL	261	Yezerets, A.	ENFL	73
Yang, W.	MEDI	8	Yarkony, D.R.	PHYS	584	Yeziarski, E.J.	CHED	70
Yang, W.	MEDI	248	Yarnall, Y.	PHYS	395	Yeziarski, E.J.	CHED	96
Yang, W.	MEDI	308	Yarnall, Y.	PHYS	441	Yeziarski, E.J.	CHED	97
Yang, X.	MEDI	39	Yarnell, J.	INOR	180	Yhap, C.	CHED	257
Yang, X.	ENFL	129	Yarnell, J.	INOR	693	Yi, C.	COLL	296
Yang, X.	CINF	128	Yaron, D.	CHED	59	Yi, C.	COLL	429
Yang, X.	CATL	157	Yarosh, C.A.	SOCED	1	Yi, H.	COMP	261
Yang, X.	COLL	307	Yarosh, C.A.	YCC	18	Yi, H.	COMP	265
Yang, X.	INOR	144	Yaseen, W.	INOR	618	Yi, N.	POLY	135
Yang, X.	INOR	457	Yashiro, S.	PHYS	245	Yifru, A.	MEDI	250
Yang, Y.	INOR	886	Yasir, M.W.	ENVR	474	Yildirim, E.	PMSE	201

Yildiz, B.	COLL	539	Yoon, S.	PMSE	409	Yu, G.	GEOC	19
Yilixiati, S.	COLL	125	Yoon, S.	ANYL	187	Yu, G.	TOXI	58
Yilixiati, S.	COLL	605	Yoon, S.	ENVR	491	Yu, G.	TOXI	59
Yilmaz, G.	POLY	61	Yoon, S.H.	CATL	409	Yu, A.	CARB	42
Yim, D.	COLL	237	Yoon, S.	CATL	389	Yu, B.	INOR	526
Yin, L.	INOR	259	Yoon, S.	ENVR	404	Yu, B.	NUCL	34
Yin, G.	POLY	528	Yoon, T.	MEDI	46	Yu, C.	MEDI	33
Yin, G.	POLY	81	Yoon, T.P.	AEI	61	Yu, C.	MEDI	25
Yin, G.	ENFL	152	Yoon, Y.	CATL	174	Yu, C.	ENVR	404
Yin, G.	INOR	908	Yoon, Y.	ENFL	288	Yu, C.	POLY	656
Yin, G.	ORGN	58	Yoon, Y.	INOR	365	Yu, C.	INOR	358
Yin, H.	COLL	543	York, D.M.	CHED	102	Yu, D.	INOR	263
Yin, H.	INOR	364	York, E.	CHED	38	Yu, D.	COLL	193
Yin, H.	INOR	398	York, W.S.	CELL	16	Yu, D.	MEDI	128
Yin, H.	BIOL	49	Yoshida, A.	MEDI	343	Yu, F.	BIOL	1
Yin, H.	COLL	24	Yoshida, K.	ENFL	71	Yu, G.	ENVR	103
Yin, H.	ENVR	124	Yoshida, R.	POLY	25	Yu, G.	ENVR	221
Yin, H.	MEDI	159	Yoshida, R.	MEDI	265	Yu, G.	ENFL	266
Yin, J.	ORGN	256	Yoshinaka, Y.	POLY	758	Yu, H.	INOR	748
Yin, J.	ORGN	256	Yoshizawa, H.	MEDI	175	Yu, H.	ORGN	105
Yin, L.	PMSE	78	Yoshizawa, K.	PHYS	409	Yu, H.	PHYS	290
Yin, L.	COMP	276	Yoshizawa, T.	MEDI	343	Yu, H.	ORGN	530
Yin, L.	MEDI	221	Yoshizawa-Fujita, M.	ENFL	184	Yu, H.	POLY	396
Yin, L.	MEDI	225	Yoshizawa-Fujita, M.	ENFL	189	Yu, H.	POLY	397
Yin, Q.	CATL	18	Yoshizawa-Fujita, M.	PMSE	378	Yu, I.	COMP	79
Yin, Q.	CATL	85	Yoshizawa-Fujita, M.	PMSE	433	Yu, I.	PHYS	442
Yin, X.	POLY	353	Yoshizumi, T.	MEDI	125	Yu, J.	BIOL	175
Yin, X.	ENVR	125	Yoshizumi, T.T.	INOR	246	Yu, J.	COLL	321
Yin, X.	ENVR	126	You, F.	MEDI	87	Yu, J.	PMSE	388
Ying, H.	PMSE	73	You, F.	MEDI	89	Yu, J.	INOR	818
Ying, J.	PHYS	288	You, F.	MEDI	90	Yu, J.	ENFL	183
Yingling, Y.G.	COMP	155	You, J.	POLY	242	Yu, J.	ORGN	172
Yingling, Y.G.	PMSE	34	You, L.	ORGN	542	Yu, J.	ORGN	431
Yin Ting, H.	AGFD	52	You, S.	ANYL	1	Yu, K.	COLL	366
Yin Ting, H.	COLL	170	You, S.S.	ANYL	144	Yu, K.	CATL	173
Yip, N.Y.	ENVR	365	You, W.	COMP	87	Yu, L.L.	AGFD	184
Yip, N.	ENVR	142	You, W.	POLY	586	Yu, L.L.	AGFD	227
Yi Wang, S.	CATL	253	You, W.	POLY	661	Yu, M.	INOR	829
Yli-Kaahuoma, J.T.	CINF	138	You, W.	POLY	731	Yu, M.	ENVR	17
Ylisirniö, A.	ENVR	191	You, Y.	BIOL	40	Yu, M.	ENFL	432
Yochem, K.	INOR	448	Youn, Y.	NUCL	6	Yu, P.	ENVR	36
Yoder, N.C.	MEDI	157	Younas, M.	PMSE	423	Yu, R.	ENFL	409
Yoganathan, S.	MEDI	347	Younas, M.	PMSE	424	Yu, R.	ANYL	425
Yoho, M.D.	NUCL	85	Young, A.	MEDI	295	Yu, S.	ANYL	436
Yoho, M.D.	NUCL	88	Young, A.	MEDI	22	Yu, S.	CELL	39
Yokley, R.A.	CHED	51	Young, A.	MEDI	103	Yu, S.	ENFL	439
Yokley, T.	INOR	602	Young, B.	BIOL	131	Yu, T.	ENVR	75
Yokley, T.J.	INOR	500	Young, B.G.	AGRO	408	Yu, T.	CATL	329
Yokoi, H.	ORGN	676	Young, C.	MEDI	253	Yu, T.	CATL	338
Yokoo, K.	MEDI	175	Young, D.	ORGN	279	Yu, T.	CATL	341
Yoluk, O.	COMP	235	Young, D.	AGRO	7	Yu, T.	CHED	359
Yonchuk, J.	MEDI	111	Young, D.	AGRO	151	Yu, T.	ENFL	235
Yong, F.	CATL	486	Young, D.	AGRO	152	Yu, T.	ENFL	258
Yong, J.	CATL	173	Young, D.	AGRO	155	Yu, T.	COLL	223
Yong, J.	CATL	208	Young, D.	AGRO	220	Yu, T.	BIOL	67
Yong, K.	ORGN	549	Young, D.	AGRO	289	Yu, T.	COLL	365
Yong, W.	MEDI	25	Young, D.	ORGN	393	Yu, T.	WCC	1
Yonke, B.	INOR	671	Young, D.D.	CHED	169	Yu, W.	COMP	281
Yonkos, L.	AGRO	345	Young, D.D.	CHED	250	Yu, W.	COMP	284
Yonkos, L.	ENVR	278	Young, J.	CINF	125	Yu, W.	COMP	292
Yoo, H.	CATL	428	Young, M.A.	PMSE	453	Yu, W.	ORGN	597
Yoo, J.	COLL	239	Young, M.S.	AGRO	43	Yu, X.	COLL	60
Yoo, J.	CINF	146	Young, M.S.	AGRO	336	Yu, X.	INOR	460
Yoo, S.	CATL	90	Young, M.	ENVR	18	Yu, X.	ANYL	425
Yoo, Y.	PMSE	452	Young, N.P.	ORGN	63	Yu, X.	ANYL	428
Yoo, Y.	POLY	242	Young, R.	CARB	85	Yu, X.	ANYL	432
Yoon, B.	COLL	252	Young, R.	ENVR	121	Yu, X.	COLL	139
Yoon, B.	POLY	274	Young, T.	PMSE	171	Yu, X.	ANYL	424
Yoon, C.	CATL	291	Young, W.B.	MPPG	14	Yu, X.	ANYL	425
Yoon, J.	CELL	31	Youngblood, J.P.	CELL	13	Yu, X.	ANYL	426
Yoon, J.	ENVR	167	Youngs, W.J.	MEDI	290	Yu, X.	ANYL	427
Yoon, K.S.	AGRO	175	Young Tanir, J.	ENVR	420	Yu, X.	ANYL	428
Yoon, K.S.	AGRO	312	Yousaf, A.	INOR	652	Yu, X.	ANYL	431
Yoon, K.S.	AGRO	366	Yousefi, N.	ENVR	273	Yu, X.	ANYL	432
Yoon, L.H.	PHYS	484	Yousif, M.	INOR	360	Yu, X.	PHYS	325
Yoon, M.	ENFL	361	Yousry, M.	COLL	197	Yu, X.	PMSE	599
Yoon, M.	INOR	819	Yousry, M.	PMSE	361	Yu, Y.	ENFL	425
Yoon, M.	MEDI	93	Yu, C.	ENFL	202	Yu, Y.	ENFL	228
Yoon, P.	INOR	479	Yu, C.	ENFL	203	Yu, Y.	CARB	55
Yoon, S.J.	INOR	410	Yu, C.	INOR	665	Yu, Y.	CARB	58

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Yu, Y.	PHYS	190	Zabula, A.	INOR	733	Zarifi, N.	PHYS	216
Yu, Y.	CATL	393	Zabula, A.	INOR	813	Zarifi, N.	PHYS	426
Yu, Y.	PMSE	614	Zacarias, O.	MEDI	311	Zarket, B.C.	POLY	646
Yu, Y.	BIOL	76	Zachara, N.E.	BIOL	20	Zarras, P.	POLY	720
Yu, Z.	ENVR	485	Zacharia, N.	PMSE	165	Zarras, P.	YCC	10
Yu, Z.	ENVR	241	Zacharia, N.	PMSE	267	Zarrinmayeh, H.	MEDI	38
Yu, Z.	INOR	574	Zacharia, N.	PMSE	379	Zarrinmayeh, H.	MEDI	307
Yu, Z.	COLL	406	Zacharia, N.	PMSE	539	Zarth, A.T.	TOXI	39
Yu, L.	CATL	173	Zacharia, N.	PMSE	594	Zarth, A.T.	TOXI	40
Yu, Q.	ENFL	445	Zacharia, N.	POLY	222	Zarth, A.T.	TOXI	52
Yuan, C.	ENVR	463	Zacharia, N.	POLY	445	Zarzar, L.D.	COLL	87
Yuan, D.	PMSE	13	Zacharia, N.	POLY	445	Zarzar, L.D.	COLL	471
Yuan, D.	POLY	560	Zachariah, M.R.	ANYL	297	Zarzar, L.D.	COLL	471
Yuan, D.	POLY	562	Zachariah, M.R.	CATL	17	Zaslavsky, L.	CINF	136
Yuan, D.	POLY	563	Zachariah, M.R.	COLL	580	Zastawny, R.	ANYL	338
Yuan, F.	AGFD	6	Zachariah, M.R.	ENFL	453	Zaug, J.M.	NUCL	64
Yuan, H.	CATL	300	Zachariah, M.R.	INOR	534	Zavadil, K.R.	CATL	427
Yuan, H.	ANYL	240	Zachariah, S.	ORGN	179	Zavadil, K.R.	PHYS	190
Yuan, H.	INOR	325	Zacher, A.	CATL	8	Zavalij, P.Y.	INOR	426
Yuan, H.	INOR	592	Zacher, A.	ENFL	268	Zavalij, P.Y.	INOR	545
Yuan, H.	INOR	592	Zadrozny, J.	INOR	342	Zavalij, P.Y.	INOR	735
Yuan, J.	PMSE	528	Zadrozny, J.M.	INOR	358	Zavalij, P.Y.	INOR	770
Yuan, J.	POLY	565	Zadvornyy, O.	CATL	224	Zavalij, P.Y.	INOR	954
Yuan, J.	POLY	777	Zaengle-Barone, J.	INOR	582	Zavalij, P.Y.	ORGN	508
Yuan, J.	PMSE	20	Zaengle-Barone, J.M.	INOR	585	Zavalij, P.Y.	ORGN	510
Yuan, J.	PMSE	526	Zaera, F.	CATL	23	Zavarin, M.	ENVR	227
Yuan, J.	POLY	765	Zafian, P.	MEDI	245	Zavarin, M.	NUCL	40
Yuan, M.	CELL	29	Zager, D.	CATL	461	Zavgorodnya, O.	POLY	504
Yuan, Q.	ENVR	379	Zagorodko, O.	COLL	371	Zawaski, C.	POLY	175
Yuan, R.	POLY	385	Zahed, M.	PHYS	299	Zawodny, W.	ORGN	43
Yuan, R.	POLY	390	Zahid, M.	ENFL	42	Zbieg, J.	ORGN	644
Yuan, S.	INOR	144	Zahid, M.	PHYS	301	Zboril, R.	CATL	462
Yuan, S.	INOR	458	Zahid, O.	ANYL	420	Zbylut, S.	AGFD	213
Yuan, X.	PMSE	329	Zahmakiran, M.	CATL	317	Zdyrko, B.	PMSE	606
Yuan, Y.	AGRO	136	Zahmakiran, M.	COLL	209	Zebaze Ndjendjo, S.	ORGN	453
Yuan, Y.	ENFL	479	Zaim Wadghiri, Y.	PMSE	310	Zeh, S.	ENVR	250
Yuan, Y.	AGRO	158	Zaininger, K.	COLL	555	Zehr, J.	ANYL	353
Yuan, Z.	POLY	737	Zaino, A.	MEDI	66	Zeiger, M.	ENFL	378
Yue, M.	PHYS	400	Zajc, B.	ORGN	128	Zeineddine, N.	ANYL	92
Yue, L.	PMSE	13	Zakharov, A.	COMP	358	Zeineddine, N.	ENVR	111
Yue, L.	POLY	560	Zakharov, D.	COLL	592	Zeininger, L.	COLL	10
Yue, L.	POLY	561	Zakharov, R.	CINF	20	Zeininger, L.	POLY	88
Yue, L.	POLY	562	Zakharov, R.	CINF	35	Zeiss, M.	AGRO	129
Yue, P.	ENVR	120	Zaleski, J.M.	INOR	8	Zeitler, H.E.	INOR	767
Yue, P.	ENVR	477	Zaleski, J.M.	INOR	312	Zeller, M.	INOR	488
Yue, Z.	INOR	965	Zaleski-Ejgierd, P.	PHYS	210	Zeller, M.	NUCL	31
Yue, Q.	ENVR	28	Zaman, K.	AGFD	94	Zeman, C.	INOR	886
Yueh, C.	COMP	269	Zaman, S.	CHED	16	Zeman, C.J.	PHYS	412
Yuen, A.K.	INOR	183	Zaman, S.	CHED	196	Zeman, C.J.	POLY	535
Yuen, A.K.	INOR	553	Zamani, S.	COLL	159	Zenasni, O.	COLL	222
Yuen, M.	CHED	368	Zamarbide, M.	ANYL	438	Zenasni, O.	COLL	223
Yuen, P.K.	CHED	61	Zamfir, S.G.	PHYS	345	Zenasni, O.	COLL	224
Yuen, P.K.	INOR	183	Zamkov, M.	COLL	75	Zenasni, O.	COLL	612
Yuen, P.K.	INOR	553	Zamkov, M.	COLL	220	Zeng, C.	PMSE	614
Yuen, P.K.	INOR	630	Zamkov, M.	INOR	336	Zeng, C.	COLL	73
Yuen, P.K.	INOR	631	Zamkov, M.	INOR	875	Zeng, C.	PHYS	132
Yuen-Zhou, J.	PHYS	555	Zamora, I.	ANYL	105	Zeng, D.	BIOL	30
Yuge, K.	CATL	237	Zamora, I.	ORGN	284	Zeng, D.	ENFL	382
Yujun, Z.	CATL	6	Zamora, R.	AGFD	150	Zeng, D.	CATL	302
Yujun, Z.	ENFL	41	Zamora, R.	AGFD	220	Zeng, J.	ENVR	467
Yuksel Imer, D.	POLY	57	Zamperini, S.	NUCL	8	Zeng, J.	ENVR	35
Yulaev, A.	COLL	590	Zampino, A.P.	BIOL	118	Zeng, S.	PMSE	599
Yun, B.	TOXI	108	Zander, N.	PMSE	454	Zeng, S.	PMSE	605
Yun, E.	AGFD	231	Zander, N.	POLY	83	Zeng, T.	PHYS	554
Yun, H.	INOR	655	Zander, Z.	INOR	907	Zeng, X.	ORGN	506
Yun, H.	INOR	837	Zander, Z.	PMSE	215	Zeng, X.	ORGN	583
Yun, H.	CHED	272	Zander, Z.	PMSE	455	Zeng, X.	ENFL	231
Yun, M.	INOR	544	Zane, V.	ENFL	477	Zeng, X.	ENFL	234
Yun, S.	CATL	205	Zanette, C.	WCC	5	Zeng, Y.	AEI	7
Yun, T.	ORGN	571	Zang, L.	AGRO	191	Zeng, Y.	TOXI	50
Yung, M.	ENFL	79	Zang, T.	MEDI	193	Zeng, Z.	PHYS	445
Yurderi, M.	COLL	209	Zang, X.	MEDI	250	Zeng, Z.	COLL	99
Yurko, R.	MEDI	255	Zangmeister, C.	ENVR	196	Zengeya, T.T.	BIOL	178
Yuryev, A.	CINF	84	Zangmeister, C.	ENVR	487	Zengeya, T.T.	ORGN	35
Yusa, S.I.	COLL	370	Zapata, A.G.	ENVR	390	Zengotita, F.	ENVR	415
Yusov, A.	ENVR	284	Zapol, P.	CATL	46	Zenobi-Wong, M.	PMSE	288
Yusuf, M.	ORGN	444	Zaragoza, A.	COMP	198	Zenova, A.	MEDI	252
Yuwen, J.	INOR	230	Zaragoza, J.	INOR	416	Zenova, A.	MEDI	253
Zaborenko, N.	ORGN	471	Zardecki, C.	CHED	193	Zenyuk, I.	CATL	432

Zenyuk, I.	PHYS	83	Zhang, D.	POLY	361	Zhang, J.	ANYL	186
Zepp, R.G.	ENVR	411	Zhang, D.	PHYS	430	Zhang, J.	ANYL	318
Zeradjanin, A.	ENFL	350	Zhang, D.	AGFD	128	Zhang, J.	PHYS	529
Zerbetto, F.	ORGN	445	Zhang, D.	PMSE	599	Zhang, J.	COLL	174
Zercher, B.	AGRO	40	Zhang, D.	PMSE	605	Zhang, J.	ENVR	494
Zestos, A.G.	ANYL	440	Zhang, D.	CELL	12	Zhang, J.	POLY	630
Zetterlund, P.	POLY	553	Zhang, D.	COLL	365	Zhang, J.	POLY	715
Zewge, D.	ORGN	383	Zhang, D.	PMSE	70	Zhang, J.Z.	COMP	58
Zgid, D.	COMP	44	Zhang, D.	PMSE	302	Zhang, J.	CATL	453
Zgid, D.	COMP	136	Zhang, D.	PMSE	328	Zhang, K.	AGFD	234
Zgid, D.	COMP	326	Zhang, D.	TOXI	33	Zhang, K.	AGRO	229
Zgid, D.	PHYS	30	Zhang, D.	COLL	119	Zhang, K.	CELL	36
Zgid, D.	PHYS	31	Zhang, D.	PMSE	135	Zhang, K.	ENFL	195
Zgid, D.	PHYS	32	Zhang, E.	COLL	613	Zhang, K.	POLY	70
Zgid, D.	PHYS	82	Zhang, E.	INOR	919	Zhang, K.	POLY	637
Zgid, D.	PHYS	402	Zhang, F.	CATL	124	Zhang, K.	POLY	643
Zgid, D.	PHYS	472	Zhang, F.	ANYL	432	Zhang, K.	INOR	692
Zgid, D.	PHYS	473	Zhang, F.	ENFL	125	Zhang, K.	ENFL	193
Zgid, D.	PHYS	479	Zhang, F.	CARB	27	Zhang, K.	ENFL	194
Zgid, D.	PHYS	481	Zhang, F.	CARB	40	Zhang, K.	PMSE	370
Zhai, H.	ENFL	281	Zhang, F.	CARB	55	Zhang, K.	PMSE	648
Zhai, J.	INOR	369	Zhang, F.	CARB	81	Zhang, K.	ANYL	384
Zhai, P.	ENVR	107	Zhang, F.	I&EC	65	Zhang, K.	PMSE	293
Zhai, S.	INOR	650	Zhang, F.	POLY	685	Zhang, K.	POLY	474
Zhai, S.	COLL	155	Zhang, G.	BIOL	172	Zhang, K.	ENVR	515
Zhan, W.	CATL	114	Zhang, G.	INOR	122	Zhang, L.	PMSE	439
Zhan, X.	ENVR	166	Zhang, G.	COLL	553	Zhang, L.	ORGN	223
Zhan, N.	BIOL	115	Zhang, G.	MEDI	143	Zhang, L.	POLY	734
Zhan, N.	ENVR	345	Zhang, G.	AGFD	154	Zhang, L.	AGFD	19
Zhan, N.	ENVR	456	Zhang, G.	INOR	950	Zhang, L.	ANYL	175
Zhan, N.	INOR	265	Zhang, H.	GEOC	25	Zhang, L.	MEDI	128
Zhan, N.	INOR	266	Zhang, H.	MEDI	335	Zhang, L.	ENVR	370
Zhang, F.	ENVR	523	Zhang, H.	ENVR	43	Zhang, L.	ENFL	276
Zhang, J.	POLY	390	Zhang, H.	ORGN	122	Zhang, L.	INOR	782
Zhang, J.	ENFL	303	Zhang, H.	PHYS	401	Zhang, L.	ORGN	445
Zhang, J.	ENVR	406	Zhang, H.	PHYS	436	Zhang, L.	ORGN	570
Zhang, L.	COLL	168	Zhang, H.	PHYS	517	Zhang, L.	PMSE	283
Zhang, L.	ENFL	138	Zhang, H.	CARB	55	Zhang, L.	ANYL	434
Zhang, L.	ENVR	170	Zhang, H.	INOR	624	Zhang, L.	TOXI	94
Zhang, X.	AEI	15	Zhang, H.	ORGN	370	Zhang, L.	PMSE	376
Zhang, X.	ENFL	316	Zhang, H.	MEDI	131	Zhang, L.	ANYL	380
Zhang, Y.	CELL	10	Zhang, H.	ENVR	50	Zhang, L.	CATL	407
Zhang, A.J.	AGFD	242	Zhang, H.	COLL	115	Zhang, L.	COLL	414
Zhang, A.	ANYL	1	Zhang, H.	ORGN	209	Zhang, L.	MEDI	147
Zhang, A.	ANYL	144	Zhang, H.	PMSE	594	Zhang, L.	POLY	325
Zhang, A.	ENFL	237	Zhang, H.	ANYL	392	Zhang, L.	ENFL	91
Zhang, A.	ENFL	240	Zhang, H.	ORGN	565	Zhang, L.	POLY	417
Zhang, B.	COMP	300	Zhang, H.	ORGN	566	Zhang, L.	ENFL	303
Zhang, B.	ENVR	6	Zhang, H.	ENVR	80	Zhang, L.	ENFL	431
Zhang, B.	ENVR	95	Zhang, H.	ENVR	83	Zhang, L.	INOR	393
Zhang, B.	PMSE	394	Zhang, H.	ANYL	55	Zhang, L.	POLY	587
Zhang, B.	CATL	158	Zhang, J.	MEDI	255	Zhang, M.	TOXI	60
Zhang, B.	CATL	216	Zhang, J.	ANYL	55	Zhang, M.	ENVR	43
Zhang, B.	COLL	533	Zhang, J.	ENVR	171	Zhang, M.	PMSE	470
Zhang, B.	ENFL	482	Zhang, J.	CHAS	34	Zhang, M.	ORGN	628
Zhang, B.	ENFL	205	Zhang, J.	CINF	45	Zhang, M.	AGRO	12
Zhang, B.	INOR	69	Zhang, J.	ENFL	41	Zhang, M.	AGRO	91
Zhang, B.	PMSE	7	Zhang, J.	PHYS	411	Zhang, M.	AGRO	92
Zhang, B.	PMSE	243	Zhang, J.	PMSE	77	Zhang, M.	AGRO	97
Zhang, B.	PMSE	456	Zhang, J.	COLL	425	Zhang, M.	AGRO	124
Zhang, B.	POLY	472	Zhang, J.	POLY	378	Zhang, M.	AGRO	125
Zhang, C.	ENFL	201	Zhang, J.	CHED	203	Zhang, M.	AGRO	126
Zhang, C.	CATL	28	Zhang, J.	ENVR	58	Zhang, M.	AGRO	163
Zhang, C.	ENVR	56	Zhang, J.	CATL	33	Zhang, M.	INOR	740
Zhang, C.	CATL	285	Zhang, J.	ENFL	311	Zhang, M.	INOR	704
Zhang, C.	CATL	287	Zhang, J.	I&EC	41	Zhang, M.	CATL	393
Zhang, C.	CATL	307	Zhang, J.	PMSE	285	Zhang, M.	AGRO	219
Zhang, C.	CATL	308	Zhang, J.	COLL	348	Zhang, M.	PMSE	268
Zhang, C.	CATL	309	Zhang, J.	CATL	230	Zhang, N.	CATL	293
Zhang, C.	ENFL	43	Zhang, J.	ENFL	332	Zhang, N.	COLL	142
Zhang, C.	COLL	299	Zhang, J.	ENFL	474	Zhang, N.	PHYS	436
Zhang, C.	PMSE	232	Zhang, J.	TOXI	3	Zhang, P.	PHYS	130
Zhang, C.	COMP	372	Zhang, J.Z.	COLL	330	Zhang, P.	CATL	291
Zhang, C.	PMSE	165	Zhang, J.Z.	ENFL	47	Zhang, P.	ENFL	206
Zhang, C.	POLY	452	Zhang, J.	ENFL	76	Zhang, P.	POLY	614
Zhang, C.	MEDI	33	Zhang, J.	MEDI	8	Zhang, P.	ENFL	45
Zhang, C.	COLL	418	Zhang, J.	CATL	212	Zhang, P.	ENFL	179
Zhang, C.	BIOL	128	Zhang, J.	I&EC	57	Zhang, P.	ENVR	180
Zhang, C.	ENVR	163	Zhang, J.	AGFD	273	Zhang, P.	ENVR	466
Zhang, C.	MEDI	123	Zhang, J.	CATL	315	Zhang, Q.	AGFD	277

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Zhang, Q.	ENVR	193	Zhang, X.	CARB	40	Zhang, Z.	ORGN	512
Zhang, Q.	ENVR	225	Zhang, X.	CARB	69	Zhang, Z.	ENFL	179
Zhang, Q.	ENFL	82	Zhang, X.	ORGN	649	Zhang, Z.	POLY	118
Zhang, Q.	ENFL	126	Zhang, X.	PHYS	280	Zhang, Z.	ANYL	344
Zhang, Q.	ENFL	205	Zhang, X.	PHYS	235	Zhang, Z.	ANYL	374
Zhang, Q.	ENFL	326	Zhang, X.	COLL	273	Zhang, Z.	CATL	1
Zhang, Q.	ORGN	328	Zhang, X.	ANYL	240	Zhang, Z.	ENFL	426
Zhang, Q.	PMSE	376	Zhang, X.	PHYS	369	Zhang, Y.	ENVR	7
Zhang, Q.	AGRO	149	Zhang, X.	POLY	645	Zhang, Y.	ENVR	505
Zhang, Q.	ENVR	561	Zhang, X.	TOXI	2	Zhang, J.	ENFL	393
Zhang, Q.	ENVR	166	Zhang, X.	ENVR	460	Zhang, Z.	COLL	124
Zhang, Q.	COLL	404	Zhang, X.	ENVR	461	Zhang, G.	ENFL	129
Zhang, Q.	PMSE	437	Zhang, X.	ENFL	414	Zhao, G.	POLY	530
Zhang, Q.	ANYL	22	Zhang, X.	AGFD	230	Zhao, K.	ENVR	462
Zhang, Q.	POLY	199	Zhang, X.	MEDI	37	Zhao, X.	ENFL	97
Zhang, R.	CATL	260	Zhang, Y.	COLL	297	Zhao, B.	BIOL	30
Zhang, R.	CATL	398	Zhang, Y.	COLL	480	Zhao, B.	POLY	400
Zhang, R.	ENFL	300	Zhang, Y.	CATL	297	Zhao, B.	POLY	552
Zhang, R.	COLL	596	Zhang, Y.	ENVR	475	Zhao, B.	PMSE	465
Zhang, R.	COMP	84	Zhang, Y.	AGRO	179	Zhao, B.	POLY	449
Zhang, R.	AGFD	47	Zhang, Y.	PMSE	268	Zhao, B.	BIOL	50
Zhang, R.	CATL	298	Zhang, Y.	PMSE	265	Zhao, C.	ANYL	126
Zhang, S.	INOR	248	Zhang, Y.	ANYL	425	Zhao, C.	COLL	273
Zhang, S.	INOR	867	Zhang, Y.	ANYL	426	Zhao, C.	CATL	110
Zhang, S.	COLL	429	Zhang, Y.	ANYL	428	Zhao, C.	CATL	489
Zhang, S.	MEDI	78	Zhang, Y.	POLY	695	Zhao, C.	COLL	238
Zhang, S.	INOR	895	Zhang, Y.	PHYS	235	Zhao, C.	COLL	467
Zhang, S.	AGFD	119	Zhang, Y.	CATL	200	Zhao, F.	PMSE	137
Zhang, S.	ORGN	434	Zhang, Y.	ORGN	693	Zhao, F.	PMSE	283
Zhang, S.	COMP	286	Zhang, Y.	CINF	30	Zhao, H.	CATL	128
Zhang, S.	CATL	167	Zhang, Y.	MEDI	104	Zhao, H.	ENFL	48
Zhang, S.	ENFL	205	Zhang, Y.	MEDI	220	Zhao, H.	CATL	114
Zhang, S.	ENVR	50	Zhang, Y.	NUCL	20	Zhao, H.	COLL	609
Zhang, S.	ENVR	74	Zhang, Y.	TOXI	46	Zhao, H.	COLL	155
Zhang, S.	COMP	216	Zhang, Y.	CATL	208	Zhao, H.	INOR	211
Zhang, S.	MEDI	133	Zhang, Y.	INOR	144	Zhao, H.	INOR	442
Zhang, T.	POLY	557	Zhang, Y.	ANYL	385	Zhao, J.	CATL	487
Zhang, T.	INOR	587	Zhang, Y.	PMSE	508	Zhao, J.	PHYS	401
Zhang, T.	INOR	796	Zhang, Y.	COLL	125	Zhao, J.	PHYS	436
Zhang, T.	CINF	19	Zhang, Y.	COLL	605	Zhao, J.	PHYS	517
Zhang, T.	COMP	24	Zhang, Y.	POLY	609	Zhao, J.	CARB	81
Zhang, T.	MEDI	39	Zhang, Y.	COLL	90	Zhao, J.	CATL	327
Zhang, T.	POLY	702	Zhang, Y.	COLL	173	Zhao, J.	COLL	202
Zhang, W.	AGRO	117	Zhang, Y.	ENVR	475	Zhao, J.	COLL	267
Zhang, W.	ANYL	165	Zhang, Y.	INOR	697	Zhao, J.	COLL	398
Zhang, W.	COLL	544	Zhang, Y.	ENVR	253	Zhao, J.	COLL	491
Zhang, W.	COMP	216	Zhang, Y.	COLL	355	Zhao, J.	COLL	556
Zhang, W.	MEDI	102	Zhang, Y.	ENVR	25	Zhao, J.	PHYS	578
Zhang, W.	MEDI	133	Zhang, Y.	AGFD	176	Zhao, J.	INOR	1
Zhang, W.	PHYS	189	Zhang, Y.	CATL	277	Zhao, K.	ENFL	483
Zhang, W.	PMSE	584	Zhang, Y.	ENVR	522	Zhao, L.	AGRO	341
Zhang, W.	ORGN	541	Zhang, Y.	INOR	182	Zhao, L.	MEDI	128
Zhang, W.	ENVR	460	Zhang, Y.	ORGN	411	Zhao, L.	TOXI	98
Zhang, W.	GEOC	28	Zhang, Y.	ORGN	424	Zhao, L.	PHYS	443
Zhang, W.	INOR	276	Zhang, Y.	PMSE	256	Zhao, M.	PMSE	267
Zhang, W.	PMSE	249	Zhang, Y.	ANYL	284	Zhao, M.	PMSE	379
Zhang, W.	PMSE	581	Zhang, Y.	ENVR	189	Zhao, M.	PMSE	284
Zhang, W.	POLY	366	Zhang, Y.	ENVR	555	Zhao, N.	PMSE	525
Zhang, W.	PHYS	517	Zhang, Y.	PHYS	203	Zhao, N.	ENFL	193
Zhang, W.	AGRO	389	Zhang, Y.	COMP	80	Zhao, N.	ENFL	194
Zhang, W.	BIOL	128	Zhang, Y.	COLL	365	Zhao, N.	ENFL	212
Zhang, W.	INOR	888	Zhang, Y.	PMSE	572	Zhao, N.	ENFL	216
Zhang, X.	COLL	216	Zhang, Y.	POLY	594	Zhao, P.	INOR	769
Zhang, X.	PHYS	365	Zhang, Y.	CINF	138	Zhao, P.	ANYL	40
Zhang, X.	ORGN	269	Zhang, Y.	COLL	116	Zhao, P.	ENVR	227
Zhang, X.	ENFL	452	Zhang, Y.	COLL	183	Zhao, Q.	MEDI	267
Zhang, X.	ORGN	266	Zhang, Y.	COLL	396	Zhao, Q.	MEDI	269
Zhang, X.	CATL	54	Zhang, Y.	MEDI	269	Zhao, Q.	MEDI	365
Zhang, X.	POLY	455	Zhang, Y.	MEDI	251	Zhao, Q.	POLY	542
Zhang, X.	COLL	538	Zhang, Y.	PMSE	457	Zhao, Q.	POLY	721
Zhang, X.	ENVR	130	Zhang, Y.	COLL	55	Zhao, Q.	ENVR	269
Zhang, X.	COMP	288	Zhang, Z.	ORGN	560	Zhao, Q.	POLY	571
Zhang, X.	COLL	402	Zhang, Z.	POLY	81	Zhao, Q.	COMP	142
Zhang, X.	COLL	489	Zhang, Z.	ENVR	189	Zhao, Q.	I&EC	28
Zhang, X.	INOR	297	Zhang, Z.	ENVR	555	Zhao, Q.	AGRO	355
Zhang, X.	CATL	173	Zhang, Z.	BIOL	121	Zhao, R.	ENVR	378
Zhang, X.	CATL	208	Zhang, Z.	POLY	325	Zhao, S.	CATL	231
Zhang, X.	CATL	392	Zhang, Z.	PHYS	244	Zhao, S.	ENFL	140
Zhang, X.	ENFL	66	Zhang, Z.	INOR	248	Zhao, S.	COLL	73
Zhang, X.	AGFD	190	Zhang, Z.	INOR	249	Zhao, S.	INOR	56

Zhao, S.	PHYS	132	Zheng, W.	COLL	559	Zhou, S.	ENVR	193
Zhao, S.	MEDI	35	Zheng, X.	PHYS	506	Zhou, T.	CELL	17
Zhao, T.	INOR	136	Zheng, X.	ORGN	548	Zhou, T.	INOR	202
Zhao, T.	COMP	358	Zheng, X.	AGFD	118	Zhou, T.	INOR	445
Zhao, W.	CATL	466	Zheng, X.	AGFD	89	Zhou, T.	COMP	14
Zhao, W.	COLL	565	Zheng, X.	ENVR	52	Zhou, T.	COMP	193
Zhao, W.	PMSE	307	Zheng, Y.	CATL	262	Zhou, W.	BIOL	86
Zhao, W.	POLY	507	Zheng, Y.	POLY	690	Zhou, W.	CATL	6
Zhao, W.	COLL	144	Zheng, Y.	INOR	965	Zhou, W.	ENVR	328
Zhao, X.	POLY	285	Zheng, Y.	CATL	465	Zhou, W.	MEDI	273
Zhao, X.	ORGN	548	Zheng, Y.	ORGN	683	Zhou, W.	AEI	55
Zhao, X.	AGRO	141	Zheng, Z.	PMSE	531	Zhou, W.	PHYS	517
Zhao, X.	ENVR	174	Zheng, Z.	COLL	355	Zhou, X.	AGRO	131
Zhao, X.	ORGN	122	Zheng, Z.	POLY	502	Zhou, X.	INOR	594
Zhao, X.	INOR	904	Zheng, Z.	MEDI	365	Zhou, X.	INOR	595
Zhao, X.	MEDI	118	Zherebker, A.Y.	CINF	32	Zhou, X.	ENVR	382
Zhao, Y.	ORGN	554	Zhi, B.	COLL	355	Zhou, Y.	COLL	47
Zhao, Y.	ORGN	555	Zhi, W.	GEOC	33	Zhou, Y.	INOR	340
Zhao, Y.	ORGN	559	Zhi, Y.	PMSE	458	Zhou, Y.	CATL	294
Zhao, Y.	ORGN	702	Zhi, Y.	PMSE	508	Zhou, Y.	PMSE	482
Zhao, Y.	COLL	458	Zhishang, L.	ENVR	225	Zhou, Y.	POLY	519
Zhao, Y.	AGFD	143	Zholobenko, V.	ENFL	443	Zhou, Y.	INOR	413
Zhao, Y.	AGFD	148	Zhong, C.	CATL	302	Zhou, Y.	COMP	260
Zhao, Y.	PMSE	376	Zhong, J.	COLL	592	Zhou, Y.	AGFD	78
Zhao, Y.	POLY	394	Zhong, J.	PHYS	399	Zhou, Y.	ANYL	426
Zhao, Y.	AGFD	239	Zhong, L.	COMP	231	Zhou, Y.	ANYL	431
Zhao, Y.	INOR	121	Zhong, S.	ENVR	83	Zhou, Y.	CATL	128
Zhao, Y.	CELL	17	Zhong, S.	MEDI	25	Zhou, Y.	ENFL	48
Zhao, Y.	ENVR	409	Zhong, W.	CHED	259	Zhou, Y.	POLY	443
Zhao, Y.	PHYS	401	Zhong, W.	BIOL	19	Zhou, Y.	CATL	11
Zhao, Y.	PHYS	436	Zhong, W.	ANYL	414	Zhou, Z.	ENFL	66
Zhao, Y.	MEDI	25	Zhong, X.	COMP	205	Zhou, Z.	ENFL	262
Zhao, Y.	ANYL	1	Zhong, X.	COMP	214	Zhou, Z.	ENFL	414
Zhao, Y.	ANYL	144	Zhong, X.	COMP	316	Zhou, Z.	ENFL	426
Zhao, Y.	ENVR	328	Zhong, Y.	ORGN	256	Zhou, Z.	ENFL	427
Zhao, Z.	MEDI	245	Zhong, Y.	POLY	143	Zhou, Z.	PMSE	28
Zhao, W.	CATL	235	Zhong, Z.	PMSE	77	Zhou, Z.	COLL	586
Zhao, X.	ENFL	481	Zhong, Z.	MEDI	22	Zhou, Z.	ORGN	446
Zhao, T.	POLY	189	Zhou, D.	ORGN	431	Zhou, Z.	INOR	190
Zhao, Y.	ANYL	362	Zhou, L.	ENFL	56	Zhu, Y.	COLL	166
Zhaoxuan, W.	I&EC	36	Zhou, A.	COLL	520	Zhu, B.	COLL	179
Zharkov, D.	COMP	31	Zhou, A.	CATL	361	Zhu, C.	PMSE	183
Zhen, B.	COLL	603	Zhou, C.	ENVR	541	Zhu, C.	PMSE	621
Zhen, X.	MEDI	352	Zhou, C.	ENVR	558	Zhu, D.	POLY	575
Zheng, C.	ORGN	617	Zhou, C.	PHYS	536	Zhu, F.	ORGN	175
Zheng, C.	PHYS	365	Zhou, C.	ENFL	237	Zhu, G.	COLL	147
Zheng, D.	ENFL	183	Zhou, C.	ENFL	240	Zhu, G.	ENFL	458
Zheng, F.	AGFD	262	Zhou, C.	PMSE	637	Zhu, G.	POLY	222
Zheng, F.	ENFL	136	Zhou, D.	ANYL	389	Zhu, G.	PHYS	218
Zheng, F.	ENFL	137	Zhou, D.	POLY	189	Zhu, H.	INOR	369
Zheng, F.	ENFL	139	Zhou, D.	MEDI	225	Zhu, H.	MEDI	322
Zheng, F.	INOR	272	Zhou, G.	ENVR	225	Zhu, H.	TOXI	12
Zheng, F.	POLY	341	Zhou, G.	ENVR	225	Zhu, H.	ENVR	295
Zheng, G.	POLY	125	Zhou, H.	COLL	345	Zhu, H.	ENVR	565
Zheng, H.	ENVR	466	Zhou, H.	INOR	123	Zhu, H.	ENFL	211
Zheng, H.	CATL	302	Zhou, H.	INOR	144	Zhu, H.	CELL	35
Zheng, J.	ENFL	335	Zhou, H.	INOR	370	Zhu, H.	ENFL	463
Zheng, J.	ANYL	179	Zhou, H.	INOR	457	Zhu, H.	COLL	235
Zheng, J.	ANYL	184	Zhou, H.	COMP	116	Zhu, H.	CATL	336
Zheng, J.	ANYL	185	Zhou, H.	COMP	238	Zhu, H.	ENFL	179
Zheng, J.	ANYL	248	Zhou, H.	COMP	239	Zhu, H.	ENFL	179
Zheng, J.J.	MEDI	308	Zhou, H.	COMP	622	Zhu, J.	ORGN	521
Zheng, K.	COLL	402	Zhou, H.	POLY	8	Zhu, J.	MEDI	365
Zheng, K.	COLL	489	Zhou, H.	COMP	380	Zhu, J.	MEDI	126
Zheng, L.	CARB	27	Zhou, H.	ENVR	380	Zhu, J.	CINF	126
Zheng, L.	AGFD	118	Zhou, H.	MEDI	278	Zhu, J.	ANYL	441
Zheng, L.	ENVR	45	Zhou, J.	PMSE	190	Zhu, J.	COLL	187
Zheng, L.	TOXI	18	Zhou, J.	BIOL	68	Zhu, J.	INOR	352
Zheng, L.	TOXI	71	Zhou, J.	MEDI	13	Zhu, J.	INOR	353
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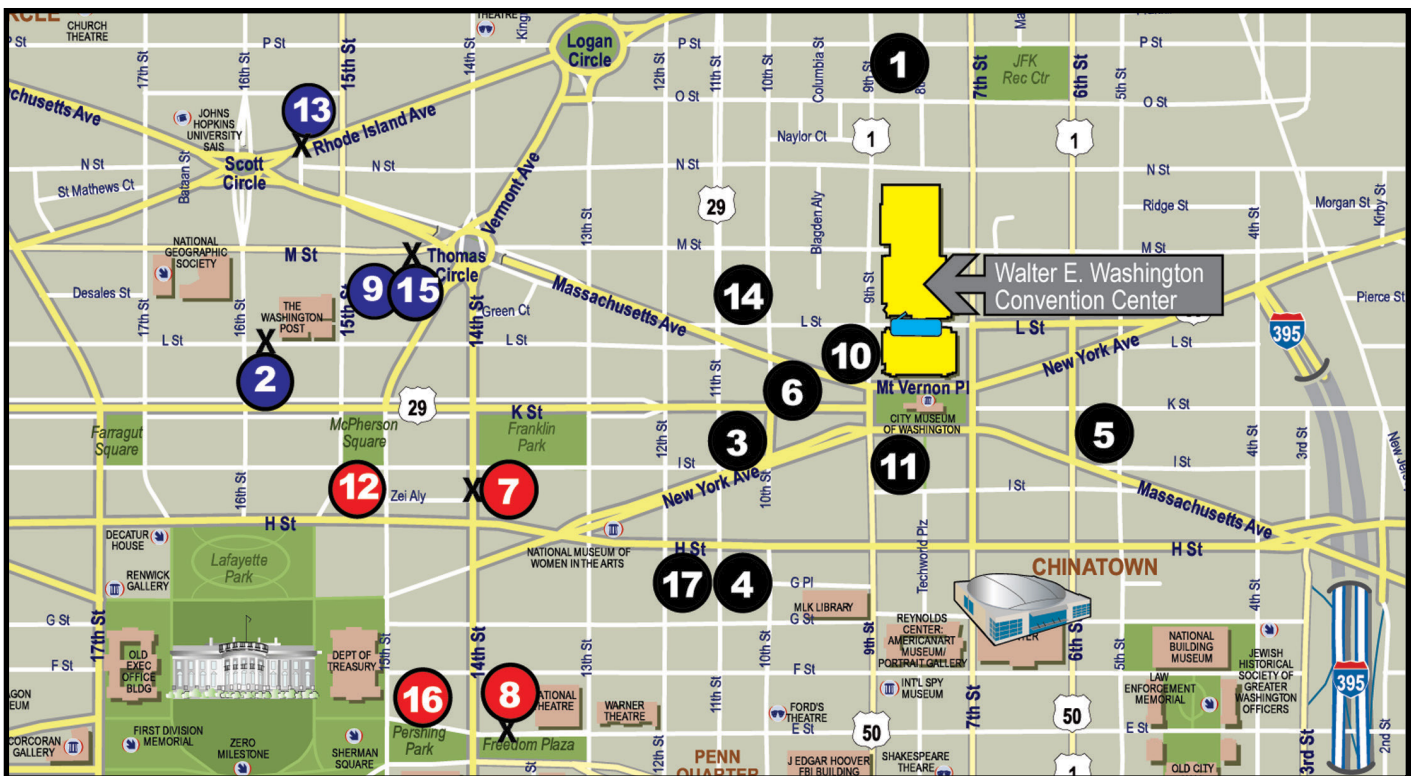
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 7:00 PM – 11:00 PM 30 minute intervals

MONDAY, AUGUST 21

7:00 AM – 10:00 AM 15 minute intervals
 10:00 AM – 4:00 PM 30 minute intervals
 4:00 PM – 11:00 PM 15 minute intervals

TUESDAY, AUGUST 22

7:00 AM – 10:00 AM 15 minute intervals
 10:00 AM – 4:00 PM 30 minute intervals
 4:00 PM – 11:00 PM 15 minute intervals



WEDNESDAY, AUGUST 23

6:30 AM – 11:00 PM 30 minute intervals


THURSDAY, AUGUST 24

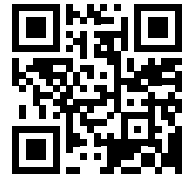
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American Chemical Society

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.

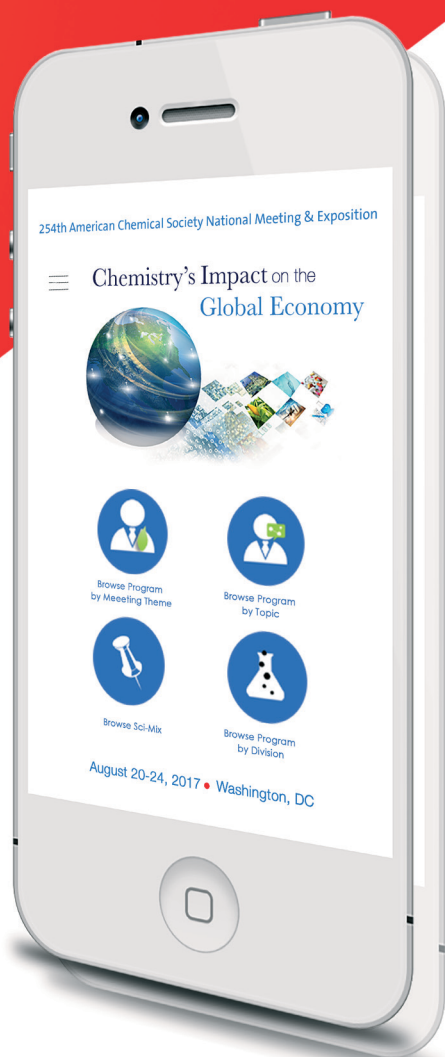
Accordingly, and to foster a positive environment built upon a foundation of trust, respect, open communications, and ethical behavior, the ACS Board of Directors has issued this Conduct Policy. It applies to ACS Volunteers, i.e., it applies to individuals conducting the business and affairs of the ACS 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:

1. Volunteers should understand and support ACS's vision and mission.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.

Adopted by the Board of Directors 12/6/13

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