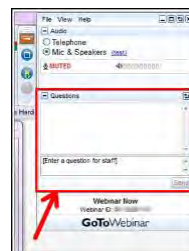


Have Questions?



Type them into questions box!

“Why am I muted?”

Don't worry. Everyone is muted except the presenter and host. Thank you and enjoy the show.

Contact ACS Webinars[®] at acswebinars@acs.org

1



@AmericanChemicalSociety



@AmerChemSociety



@AmerChemSociety



<https://www.linkedin.com/company/american-chemical-society>

Contact ACS Webinars[®] at acswebinars@acs.org

2

Check out the Archive!

An ACS member exclusive benefit



Hundreds of presentations from the best and brightest minds that chemistry has to offer are available to you on-demand. The Archive is divided into 6 different sections to help you more easily find what you are searching.

Professional Development

[▶ View the Collection](#)

Learn how to write better abstracts, deliver more engaging presentations, and network to your next dream job. Brush up on your soft skills and set a new career path by mastering what can not be taught in the lab.

Technology & Innovation

[▶ View the Collection](#)

From renewable fuels to creating the materials for the technology of tomorrow, chemistry plays a pivotal role in advancing our world. Meet the chemists that are building a better world and see how their science is making it happen.

Drug Design and Delivery

[▶ View the Collection](#)

The Drug Design Delivery Series has built a collection of the top minds in the field to explain the mechanics of drug discovery. Discover the latest research, receive an overview on different fields of study, and gain insight on how to possibly overcome your own med chem roadblocks.

Culinary Chemistry

[▶ View the Collection](#)

Why does food taste better when it is grilled or what molecular compounds make a great wine? Discover the delectable science of your favorite food and drink and don't forget to come back for a second helping.

Popular Chemistry

[▶ View the Collection](#)

Feeling burdened by all that molecular weight? Listen to experts expound on the amazing side of current hot science topics. Discover the chemistry of rockets, how viruses have affected human history, or the molecular breakdown of a hangover.

Business & Entrepreneurship

[▶ View the Collection](#)

How do ideas make it from the lab to the real world? Discover the ins and outs of the chemical industry whether you are looking to start a business or desire a priceless industry-wide perspective.

<https://www.acs.org/content/acs/en/acs-webinars/videos.html>

3



ACS Webinars®

CLICK • WATCH • LEARN • DISCUSS



Learn from the best and brightest minds in chemistry! Hundreds of webinars on diverse topics presented by experts in the chemical sciences and enterprise.

Edited Recordings are an exclusive ACS member benefit and are made available once the recording has been edited and posted.

Live Broadcasts of ACS Webinars® continue to be available to the general public on Tuesdays, Wednesdays, and Thursdays from 2-3pm ET!

A collection of the best recordings from the ACS Webinars Archive will be broadcast on Mondays and Fridays from 2-3pm ET!

www.acs.org/acswebinars

4

What is ACS on Campus?



ACS visits campuses across the world offering FREE seminars on how to be published, find a job, network and use essential tools like SciFinder. ACS on Campus presents seminars and workshops focused on how to:



- Publish in top journals
- Find a job
- Effectively use research tools like SciFinder® and ACS ChemWorx
- Communicate your science
- Write grant proposals
- Build industry partnerships
- Prepare for a changing employment landscape

<http://acsoncampus.acs.org>

5

2020 GC&E Virtual Conference



JOIN US AT THE
24th Annual Green Chemistry & Engineering Conference
Systems-Inspired Design

JUNE 15-19, 2020
VIRTUAL CONFERENCE

REGISTER FOR FREE!

On June 15-19, from 11am-5:30pm EDT attendees will view and engage with:

- Daily keynote speakers
- 40+ technical sessions
- 80+ posters
- Networking breaks and #gcande happy hour
- Green Expo
- GC&E Fridays: Live technical sessions on Fridays leading up to the conference week

<https://www.gcande.org/register>

6

Advance YOUR CAREER


ChemIDP™



ChemIDP.org

Discover ACS PUBLICATIONS

Publishing Resources



publish.acs.org

Connect WITH CHEMISTS AND OTHER SCIENCE PROFESSIONALS

CAS SciFinder Future Leaders



171 alumni, 35 countries
and over 120 institutions

acsoncampus.acs.org/resources



From ACS Industry Member Programs

◆ Industry Matters Newsletter

Exclusive interviews with industry leaders and insights to advance your career

Preview & Subscribe: acs.org/indnews



Connect, collaborate, and stay informed about the trends leading chemical innovation

Join: bit.ly/ACSinnovationhub



**REGISTER
TODAY**

VIRTUAL

ACS Career Day Younger Chemists Committee (YCC)

Early Career Development Workshops
Q&A
ACS Career Consultants
Networking

SATURDAY, JUNE 27 / 10 AM ET

Visit www.acs.org/virtualcareerdays

ACS Efforts and Resources on COVID-19



Browse **ACS
Resources and
Initiatives!**

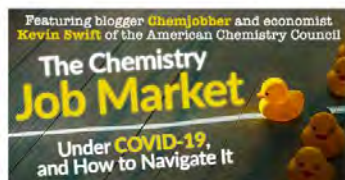
- **YOU MAY RECEIVE A ONE-YEAR WAIVER ON YOUR NATIONAL DUES** If your membership is up for renewal, but you're experiencing a special hardship, such as unemployment, furlough, reduced wages or illness.
- **RECEIVE ACCESS TO LINKEDIN LEARNING THROUGH THE END OF THIS YEAR** This powerful resource includes over 15,000 on-demand courses to support your continued learning and career advancement for active ACS members.
- **INOVA EAP/WORK-LIFE ASSISTANCE PROGRAM** 24/7 assistance on a wide range of issues, such as emotional, relationship, major life, health, wellness, educational and more for ACS members based in the United States. Confidential services are provided via telephone or comprehensive online resources.

www.acs.org/covid-19

10

Free ACS Webinars Every Weekday!

Upcoming Broadcasts



Wednesday, June 17, 2020 at 2:30pm ET
 Speakers: CJ, Chemjobber.com and Kevin Swift, American Chemistry Council
 Moderator: Linda Wang, Chemical & Engineering News

[Register for Free!](#)

What You Will Learn

- The current state of the chemistry job market in both industry and academia
- How job seekers at all levels can navigate this new and uncertain job market
- Where experts see pockets of opportunity

Co-produced with: Chemical & Engineering News, C&EN Jobs, and ACS Career Navigator



Thursday, June 18, 2020 at 2-3:30pm ET
 Speakers: Christopher Bowman, University of Colorado Boulder and Marek Urban, Clemson University
 Moderator: Brent Sumerlin, University of Florida

[Register for Free!](#)

What You Will Learn

- The current state-of-the-art and future of self-healing polymers
- Physical and chemical processes involved in self-healing of polymers and how to design polymers with these properties
- How dynamic covalent chemistry (DCC) can be used to induce healing, actuation, phase changes and other desirable attributes

Co-produced with: ACS Division of Polymer Chemistry



Friday, June 19, 2020 at 2:30pm ET
 Speakers: Supratik Guha, University of Chicago, and Argonne National Laboratory and Yi Cui, Stanford University
 Moderator: Laura Cassidy, American Chemical Society

[Register for Free!](#)

What You Will Learn

- What types of fabrics and household cloth are effective in particle filtration and why
- The basics of particle filtration and data on filtration efficiencies as a function of size for common fabrics that are used in cloth masks
- How to disinfect N95 masks and how many times you can do it without reducing filtration efficiency

Co-produced with: ACS External Affairs & Communications and ACS Publications

www.acs.org/acswebinars

11

Explore ACS Education

Promoting excellence in science education and community outreach!



Kitchen Chemistry

These hands-on physical science and chemistry activities require only materials that are typically found in the kitchen.



In's & Out's of Getting In to Grad School

In this webinar, recruiters and faculty answer your questions about getting into the right grad program.
 Tuesday, June 16 | 1:00 - 2:00 p.m. (EDT)



Student Chapter Reports

Inform ACS about your activities throughout the year. Due June 10.



Resources for Educators

Educational Resources
 Courses for Educators
 Standards & Guidelines



Resources for Students

High School
 Undergraduate
 Graduate/Postdoctorate



Explore Chemistry

Adventures in Chemistry
 Periodic Table of Elements
 Landmarks in Chemical History



Find Outreach Activities

National Chemistry Week
 Chemists Celebrate Earth Week
 Kids & Chemistry
 Science Coaches



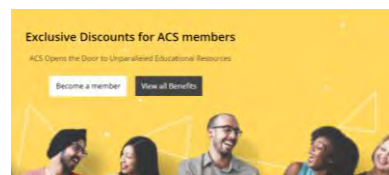
Browse Books and Magazines

ChemMatters
 Chemistry in Context
 InChemistry
 Inquiry in Action



Explore Committees

Education (SOCED)
 Professional Training (CPT)
 Technician Affairs (CTA)
 Project SEED
 Community Activities (CCA)



<https://www.acs.org/content/acs/en/education.html>

12



DIAGNOSTICS

COVID-19 antibody tests are raising as many questions as they answer

As stay-at-home orders expire, some are turning to the tests to reopen society safely. It may be too much to ask

<https://cen.acs.org>

POLICY

A statement of solidarity with communities of color

PUBLISHING

Pandemic puts preprints first

As scientists attempt to speed up COVID-19 research, attention by the public and media has changed the way preprint servers and journals handle those papers

DIAGNOSTICS

COVID-19 antigen tests have landed in the US, but not everyone is rushing out to get them

The tests are less reliable than other diagnostics, and some large labs say they won't offer them right away

13

The



ACS
Chemistry for Life®

c&en
CHEMICAL & ENGINEERING NEWS

Co-produced with ACS Education and C&EN

FUTURE

of the

CHEMISTRY

LABORATORY COURSE

Presentation slides are available now! Edited recordings are an exclusive ACS member benefit.

www.acs.org/acswebinars

14

The Future of the Chemistry Laboratory Course



Marcy Towns
Professor of Chemistry and Director of
General Chemistry, Purdue University



Justin Carmel
Assistant Professor, Department of Chemistry
and Biochemistry and STEM Transformation
Institute, Florida International University



Edgar Arriaga
Professor, Department of Chemistry, University of
Minnesota and Chair, Committee on Professional
Training, American Chemical Society



Celia Arnaud
Senior Correspondent,
Chemical & Engineering News

Presentation slides are available now! This edited recording will be made available as soon as possible.

www.acs.org/acswebinars

This ACS Webinar is co-produced with the ACS Education and Chemical & Engineering News.

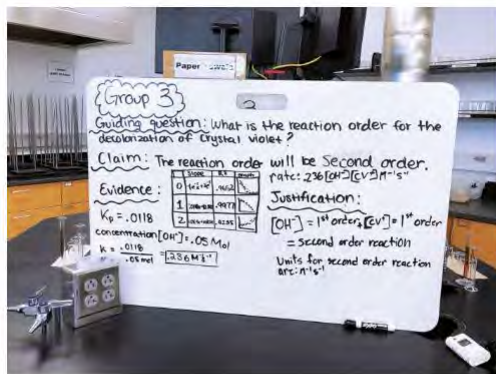
15

Disclaimer

This event is designed to explore key questions regarding the future of laboratory experiences and curricula. The opinions or views expressed in these discussions do not necessarily reflect on the current statements and guidelines of the American Chemical Society, the views or opinions of ACS's management or its members, or plans for renewed or revised policies. Chemistry departments seeking ACS Approval must continue to follow the ACS Guidelines for Bachelor's Degree Programs as stipulated by the Committee on Professional Training, including those for laboratory instruction once their campuses resume face-to-face instruction without social distancing.

16

Articles and Editorials



Credit: Joi Walker
This whiteboard, created by a group of four students in East Carolina University's argument-driven inquiry lab, presents the guiding question, claim, evidence, and justification for the final rate law for the decolorization of crystal violet with sodium hydroxide. Groups present their arguments to other students in a structured argumentation session.

Depending on the size of the college, hundreds or even thousands of students will take an institution's general chemistry labs each semester. The dedicated lab space, equipment, reagents, waste disposal, and instructional time required to accommodate that many students, typically in their first or second year of study, make general chemistry labs among the most expensive educational undertakings on a university campus.

Questioning the value of general chemistry labs

Celia Henry Arnaud

Chemical & Engineering News

MAY 10, 2020 | APPEARED IN [VOLUME 98, ISSUE 18](#)

Evidence for the Importance of Laboratory Courses

Stacey Lowery Bretz

Journal of Chemical Education **2019** 96 (2), 193-195

DOI: 10.1021/acs.jchemed.8b00874

Investing in Laboratory Courses

Rebecca Sansom and Joi P. Walker

Journal of Chemical Education **2020** 97 (1), 308-309

DOI: 10.1021/acs.jchemed.9b00714

Establishing the Laboratory as the Place to Learn How to Do Chemistry

Michael K. Seery

Journal of Chemical Education Article ASAP

DOI: 10.1021/acs.jchemed.9b00764

17

Discussion Topics



- Essential skills and knowledge that students develop in (and only in) laboratory courses
- Approaches for determining what students are gaining from laboratory experiences
- Strategies for building laboratory curricula that develop essential knowledge and skills

18

Additional Resources



ACS GUIDELINE QUESTIONS

- ✓ General descriptions of the ACS Guidelines Adjustments - <https://drive.google.com/file/d/1aE5m9tgf3Eawb55ZyIRu1iugsYr5dtd/view>
- ✓ Feedback on Proposal to ACS Guidelines Adjustments - https://fs12.formsite.com/acs_cpt/GLMods/index.html
- ✓ CPT- Laboratory Experiences that Require Hands-on Experience, a proposal from CPT - <https://drive.google.com/file/d/1h8EUVJ752K0XbY1lwM40peVMnsPqVdI6/view>

EQUITY QUESTIONS

- ✓ 3 Myths Plus a Few Best Practices for Achieving Diversity - https://medicine.arizona.edu/sites/medicine/files/invoke_everyone_in_sci_am_2014.pdf and <https://www.scientificamerican.com/author/victoria-plaut/>
- ✓ Creating community in the classroom - https://disability.umn.edu/sites/disability.dl.umn.edu/files/media/creating_community_in_the_classroom_1.pdf
- ✓ Navigating the 'Decolonising' process: Avoiding pitfalls and some Do's and Don't's - <https://discoversociety.org/2019/02/06/navigating-the-decolonising-process-avoiding-pitfalls-and-some-dos-and-donts/>
- ✓ Sloan Equity and Inclusion in STEM Introductory Courses - <https://sites.google.com/umich.edu/SEISMIC/home?authuser=0>

FACEMASK SAFETY QUESTIONS

- ✓ CDC Recommendations for wearing a facemask properly - <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-to-wear-cloth-face-coverings.html>

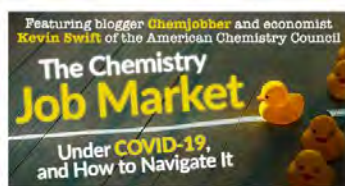
FREE REMOTE INSTRUCTION RESOURCES

- ✓ Stacey Lowery Bretz's curated list of online animations, videos, simulations, and demos to support colleagues as we move to #remoteinstruction #online learning - <http://chemistry.miamioh.edu/bretzsl>
- ✓ Brittlund DeKorver's Facebook page for teaching chemistry in times of COVID - <https://www.facebook.com/groups/84942775469472>
- ✓ The Journal of Chemical Education special issue "Insights Gained While Teaching Chemistry in the Time of COVID-19" - <https://pubs.acs.org/doi/10.1021/acs.jchemed.0c00378>
- ✓ The Beyond Labz virtual labs are a set of realistic and sophisticated simulations covering general chemistry, organic chemistry, biology, physics, and physical science - <https://www.beyondlabz.com>

19

Free ACS Webinars Every Weekday!

Upcoming Broadcasts



Wednesday, June 17, 2020 at 2:30pm ET
Speakers: CJ Chemjobber.com and Kevin Swift, American Chemistry Council
Moderator: Linda Wang, Chemical & Engineering News

[Register for Free!](#)

What You Will Learn

- The current state of the chemistry job market in both industry and academia
- How job seekers at all levels can navigate this new and uncertain job market
- Where experts see pockets of opportunity

Co-produced with: Chemical & Engineering News, CB&N Jobs, and ACS Career Navigator



Thursday, June 18, 2020 at 2:30pm ET
Speakers: Christopher Bowman, University of Colorado Boulder and Marek Urban, Clemson University
Moderator: Brent Sumner, University of Florida

[Register for Free!](#)

What You Will Learn

- The current state-of-the-art and future of self-healing polymers
- Physical and chemical processes involved in self-healing of polymers and how to design polymers with these properties
- How dynamic covalent chemistry (DCC) can be used to induce healing, actuation, phase changes and other desirable attributes

Co-produced with: ACS Division of Polymer Chemistry



Friday, June 19, 2020 at 2:30pm ET
Speakers: Supratik Gulha, University of Chicago, and Argonne National Laboratory and Yi Cui, Stanford University
Moderator: Laura Cassidy, American Chemical Society

[Register for Free!](#)

What You Will Learn

- What types of fabrics and household cloth are effective in particle filtration and why
- The basics of particle filtration and data on filtration efficiencies as a function of size for common fabrics that are used in cloth masks
- How to disinfect N95 masks and how many times you can do it without reducing filtration efficiency

Co-produced with: ACS External Affairs & Communications and ACS Publications

www.acs.org/acswebinars

20

ACS Efforts and Resources on COVID-19



Browse **ACS Resources** and **Initiatives!**

- **YOU MAY RECEIVE A ONE-YEAR WAIVER ON YOUR NATIONAL DUES** If your membership is up for renewal, but you're experiencing a special hardship, such as unemployment, furlough, reduced wages or illness.
- **RECEIVE ACCESS TO LINKEDIN LEARNING THROUGH THE END OF THIS YEAR** This powerful resource includes over 15,000 on-demand courses to support your continued learning and career advancement for active ACS members.
- **INOVA EAP/WORK-LIFE ASSISTANCE PROGRAM** 24/7 assistance on a wide range of issues, such as emotional, relationship, major life, health, wellness, educational and more for ACS members based in the United States. Confidential services are provided via telephone or comprehensive online resources.

www.acs.org/covid-19

21

The
FUTURE
of the
CHEMISTRY
LABORATORY COURSE

ACS
Chemistry for Life®

c&en
Chemistry & Environmental News

Co-produced with ACS Education and C&EN

Presentation slides are available now! Edited recordings are an exclusive ACS member benefit.

www.acs.org/acswebinars

22

Explore ACS Education

Promoting excellence in science education and community outreach!



Kitchen Chemistry

These hands-on physical science and chemistry activities require only materials that are typically found in the kitchen.



In's & Out's of Getting In to Grad School

In this webinar, recruiters and faculty answer your questions about getting into the right grad program. Tuesday, June 16 | 1:00 - 2:00 p.m. (EDT)



Student Chapter Reports

Inform ACS about your activities throughout the year. Due June 10.



Resources for Educators

Educational Resources
Courses for Educators
Standards & Guidelines



Resources for Students

High School
Undergraduate
Graduate/Postdoctorate



Explore Chemistry

Adventures in Chemistry
Periodic Table of Elements
Landmarks in Chemical History



Find Outreach Activities

National Chemistry Week
Chemists Celebrate Earth Week
Kids & Chemistry
Science Coaches



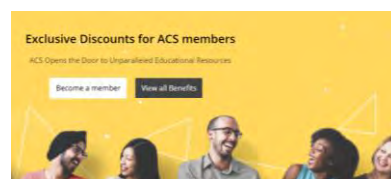
Browse Books and Magazines

ChemMatters
Chemistry in Context
inChemistry
Inquiry in Action



Explore Committees

Education (SOCEd)
Professional Training (CPT)
Technician Affairs (CTA)
Project SEED
Community Activities (CCA)



<https://www.acs.org/content/acs/en/education.html>

23



COVID-19 antibody tests are raising as many questions as they answer

As stay-at-home orders expire, some are turning to the tests to reopen society safely. It may be too much to ask

<https://cen.acs.org>

POLICY

A statement of solidarity with communities of color

PUBLISHING

Pandemic puts preprints first

As scientists attempt to speed up COVID-19 research, attention by the public and media has changed the way preprint servers and journals handle those papers

DIAGNOSTICS

COVID-19 antigen tests have landed in the US, but not everyone is rushing out to get them

The tests are less reliable than other diagnostics, and some large labs say they won't offer them right away

24



ACS Webinars[®]

CLICK • WATCH • LEARN • DISCUSS



Learn from the best and brightest minds in chemistry! Hundreds of webinars on diverse topics presented by experts in the chemical sciences and enterprise.

Edited Recordings are an exclusive ACS member benefit and are made available to once the recording has been edited and posted.

Live Broadcasts of ACS Webinars[®] continue to be available to the general public on Tuesdays, Wednesdays, and Thursdays from 2-3pm ET!

A **collection of the best recordings** from the ACS Webinars Archive will be broadcast on Mondays and Fridays from 2-3pm ET!

www.acs.org/acswebinars

25



ACS Webinars[®]

CLICK • WATCH • LEARN • DISCUSS



ACS

Chemistry for Life[®]

ACS Webinars[®] does not endorse any products or services. The views expressed in this presentation are those of the presenter and do not necessarily reflect the views or policies of the American Chemical Society.



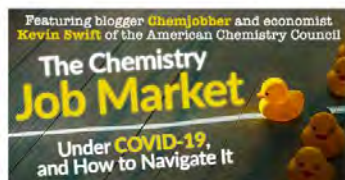
Mike Russell Erik

Contact ACS Webinars[®] at acswebinars@acs.org

26

Free ACS Webinars Every Weekday!

Upcoming Broadcasts



Wednesday, June 17, 2020 at 2:3pm ET
Speakers: CJ, Chemjobber.com and Kevin Swift, American Chemistry Council
Moderator: Linda Wang, *Chemical & Engineering News*

[Register for Free!](#)

What You Will Learn

- The current state of the chemistry job market in both industry and academia
- How job seekers at all levels can navigate this new and uncertain job market
- Where experts see pockets of opportunity

Co-produced with: *Chemical & Engineering News*, *C&EN Jobs*, and ACS Career Navigator



Thursday, June 18, 2020 at 2-3:30pm ET
Speakers: Christopher Bowman, University of Colorado Boulder and Marek Urban, Clemson University
Moderator: Brent Sumerlin, University of Florida

[Register for Free!](#)

What You Will Learn

- The current state-of-the-art and future of self-healing polymers
- Physical and chemical processes involved in self-healing of polymers and how to design polymers with these properties
- How dynamic covalent chemistry (DCC) can be used to induce healing, actuation, phase changes and other desirable attributes

Co-produced with: ACS Division of Polymer Chemistry



Friday, June 19, 2020 at 2:3pm ET
Speakers: Supratik Guha, University of Chicago, and Argonne National Laboratory and Yi Cui, Stanford University
Moderator: Laura Cassidy, American Chemical Society

[Register for Free!](#)

What You Will Learn

- What types of fabrics and household cloth are effective in particle filtration and why
- The basics of particle filtration and data on filtration efficiencies as a function of size for common fabrics that are used in cloth masks
- How to disinfect N95 masks and how many times you can do it without reducing filtration efficiency

Co-produced with: ACS External Affairs & Communications and ACS Publications

www.acs.org/acswebinars

27