ACS Local Section
Silicon Valley

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SILICON VALLEY CHEMIST

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Reprogramming How We Interface with the Human Body: High-Resolution 3D Printing Can Make the Unmakeable

Prof. Joseph M. DeSimone, Departments of Radiology and Chemical Engineering, Stanford University

Joint Webinar Sponsored by Golden Gate Polymer Forum and Silicon Valley ACS Section

- Networking in-person at Stanford: 5:00-6:00 pm
- Seminar presentation in-person and hybrid: 6:00-7:00 pm
- ***Register by Sunday, June 7, 1:00 pm*** Free/$5 donation
- In-person location on Stanford campus provided on ***registration***
- Zoom link provided on ***registration***

Abstract:

Throughout my career, I've been guided by the belief that transformative advances in medicine don't arise solely from new molecules, but equally from rethinking how those molecules are formulated and delivered to the body. This mindset has led to a series of unconventional dosage and delivery innovations—from biodegradable drug-eluting stents (BVS, Inc., acquired by Guidant and now part of

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Abbott; co-founded with Bob Langer), to precisely engineered microparticles for inhalation (Liquidia Technologies; NASDAQ: LQDA), to iontophoretic platforms for localized chemotherapy (Focal Medical; IND approved by the FDA, with patients treated beginning March 2026)—each opening new therapeutic frontiers.

Today, advances in high-resolution 3D printing are enabling a new chapter in this journey: the ability to engineer the skin as a programmable biological interface. Using microscale additive manufacturing, we can create intradermal delivery systems that precisely control where and how therapeutics are introduced, while simultaneously enabling access to rich biological information through interstitial fluid.

This bi-directional paradigm—delivering therapies while sampling biology—opens a fundamentally new approach to medicine. By targeting the skin and its underlying lymphatic network, we can more effectively engage the immune system, access early disease signals, and move beyond traditional blood-based diagnostics toward continuous, minimally invasive liquid biopsy.

Importantly, this is not simply a new device or formulation—it represents a scalable platform. Rather than building a traditional therapeutic pipeline molecule by molecule, these technologies enable a delivery-centric model that can be applied broadly across vaccines, biologics, and diagnostics.

In this talk, I will outline how focusing on new dosage delivery forms and new devices for liquid biopsies—now powered by high-resolution 3D printing—is redefining our interface with the human body, transforming both how we treat disease and how we measure health.

Speaker Background:

Joseph M. DeSimone
Stanford University
Sanjiv Sam Gambhir Professor of Translational Medicine and Chemical Engineering
Departments of Radiology and Chemical Engineering
Department of Chemistry (by Courtesy)
Department of Materials Science & Engineering (by Courtesy)
Graduate School of Business (by Courtesy)

Prof. DeSimone is widely known by the Bay Area polymer science community and the academic world. His background, interests, and accomplishments are extensive and wide-ranging - far too long to list here. For further information, please see Stanford links:

Stanford Profile: ***https://profiles.stanford.edu/joseph-desimone***
Research Group Website: ***https://desimonegroup.stanford.edu***

Business Coalition Warns Research Funding Chaos Is Fueling New U.S. Brain Drain

"The uncertain landscape for federal research funding is threatening critical talent pipelines and benefiting competitor nations, ***says a new report*** released by a coalition of local and regional business leaders from across the country.

The report warns that the loss of talent will hurt long-term economic growth and innovation in the United States, including areas such as artificial intelligence, quantum computing, biotechnology, and advanced manufacturing.

Global Efforts to Lure U.S.-Based Talent

The report, issued by ***Business for Federal Research Funding*** (BFRF) – a coalition of more than 80 local, regional, and state Chambers of Commerce and business organizations – summarizes initiatives from 21 nations as well as the European Union to lure U.S.-based scientists and researchers abroad.

It noted that the initiatives were launched "directly in response to the rise of paused and cancelled grants and steep proposed research funding cuts across many federal agencies" in the United States and have led to the loss of "early career and experienced researchers" in more than half of U.S. states."

Read full article published by the American Association of Universities

ACS Fall 2026 National Meeting

Chicago, IL & Digital, August 23-27

Housing and registration are open – ***Early registration ends June 15th***

CALENDAR OF EVENTS

https://www.siliconvalleyacs.org/events/

All Times Given are Pacific Time Zone

- June 2026 -

Jun 4 **How Scientists are Building the AI-Powered Laboratory**
Sponsored by SLAC National Accelerator Laboratory
7:00-8:00 pm, Hybrid
Register to attend at Kavli Auditorium or Join Online

Jun 7 **Empowering Academic Researchers- Strengthening Safety Culture & Risk Management Workshop**
Sponsored by ACS Chemical Health & Safety Division
Noon-3:30 pm, Online, $25/person, ***Registration required***

Jun 8 **Reprogramming How We Interface with the Human Body: How High-Resolution 3D Printing Can Make the Unmakeable**
Prof. Joseph M. DeSimone, Stanford University
Sponsored by Golden Gate Polymer Forum and Silicon Valley ACS
Networking: 5:00-6:00 pm, Seminar Presentation: 6:00-7:00 pm, Hybrid, Free/$5 Donation, ***Register by Sunday, June 7, 1:00 pm***

Jun 9 **ORCID 101: The ORCID iD and Record**
Sponsored by Lyrasis, ORCID U.S. Community
Noon-1:00 pm, Online, Free, ***Registration required***

Jun 10 **Make Your Science Stick: Why Facts Matter but Stories Move**
Sponsored by ACS Webinars and BrandLab
11:00am-Noon, Online, Free, ***Registration required***

Jun 11 **Building an Integrated Safety Approach in Your Chemistry Department**
Sponsored by ACS Webinars and ACS Office of Safety Programs
11:00 am-Noon, Online, Free, ***Registration required***

Jun 15 **Silicon Valley ACS Executive Committee Meeting**
Sponsored by the Silicon Valley ACS local section
7:00-8:30 pm, Hybrid Event, Free
Guests welcome: ***contact Chair*** to attend

Jun 17 **How to Find and Apply for a Position in the Federal Government (ACS Careers Pathways Virtual Workshop)**
Sponsored by ACS Careers
9:00 am-10:30 am, Online, Free, ***Registration required***

Jun 18 **Protecting Chemists When Data Are Sparse: NAM Based Occupational Hazard Assessment in Early Drug Discovery**
Sponsored by ACS Webinars and the ACS Green Chemistry Institute
11:00 am-Noon, Online, Free, ***Registration required***

Jun 18 **Making Your Lab Less Toxic" with Greener Alternatives for Dichloromethane (DCM) and Other Solvents**
Sponsored by ACS Division of Chemical Health and Safety Two-Year College Community of Practice
1:00-2:00 pm, Online, Free, ***Registration required***

Jun 23 **Lab Safety Showdown - Test Your Skills! Win Gift Cards! Earn Bragging Rights!**
Sponsored by ACS Division of Chemical Health and Safety
10:00 am-11:00 am, Online, Free, ***Registration required***

Jun 24 **Gut Reactions: The Molecular Science of Microbial Communication**
Sponsored by ACS Webinars and ACS Publications
8:00-9:30 am, Online, Free, ***Registration required***

- July 2026 -

Jul 2 **Flash! Bang! Boom! A History of Fireworks**
Sponsored by ACS Webinars and Science History Institute (SHI)
11:00 am-Noon, Online, Free, ***Registration required*** | ***View SHI exhibit***

Jul 6 **Silicon Valley ACS Executive Committee Meeting**
Sponsored by the Silicon Valley ACS local section
7:00-8:30 pm, Hybrid Event, Free
Guests welcome: ***contact Chair*** to attend

Jul 8 **Turning Research into Reach: Marketing Fundamentals for Scientists**
Sponsored by ACS Webinars and BrandLab
11:00 am-Noon, Online, Free, ***Registration required***

Jul 9 **Patent Signals: Mapping the Future of Pharma Innovation**
Sponsored by ACS Webinars and CAS
11:00-12:30 pm, Online, Free, ***Registration required***

Jul 11 **Silicon Valley ACS Annual Picnic and Awards**
Sponsored by Silicon Valley ACS local section
Cuesta Park, Group BBQ Areas #1-2, Mountain View, California
4:00-7:00 pm, In-person. $10 regular, children free.
Register by July 6, 2026

Jul 28 **2D Polymers and Polymerizations**
Prof. William Dichtel, Northwestern University
Sponsored by Golden Gate Polymer Forum
Details to be announced, ***https://ggpf.org***

Silicon Valley ACS Annual Picnic and Awards

July 11, 2026

A family-friendly event, please join us with friends and family for our annual picnic and awards ceremony! ***Download flyer***

- **Date and Time:** Saturday, July 11, 2026, 4-7pm
  - 4:00-5:00 pm: Wine-tasting with hors d'oeuvres
  - 5:00 pm: Awards and Recognitions – ***SVACS Ottenberg Award*** and celebrating 50-, 60- and 70-year ACS members who live in our region
  - Dinner will immediately follow Awards & Recognitions, catered by Armadillo Willy's
- **Location:** Cuesta Park Group BBQ Areas #1-2, Mountain View, CA (***view map***, ***get directions***)
- **Cost:** $10.00/person. Children: free.
  Payment by cash or check at the door. Make checks out to "Silicon Valley ACS."

Registration is required by July 6th to be sure enough food is ordered!

Silicon Valley ACS is a Finalist for Nine ACS ChemLuminary Awards

May 19, 2026

To: The Silicon Valley Local Section ACS

Dear Dr. McClure,

On behalf of the ACS Board of Directors who will host the 2026 ChemLuminary Awards Ceremony at the ACS Fall 2026 National Meeting in Chicago, I am truly delighted to share that the Silicon Valley ACS local section has been selected as a finalist for the ACS ChemLuminary Awards in the following categories:

- Best Event or Activity Organized by, or Benefiting, the Applied Chemical Technology Professional Community
- Best New Communications Program
- Chemists with Disabilities Inclusion Award
- Local Section Partnership Award/Marinda Li Wu Award
- Most Innovative New Activity or Program
- Outstanding Local Section Career Program Award
- Outstanding Performance Award (Large Local Section)
- Most Innovative Programming at Regional Meeting
- Outstanding Regional Meeting with Greater than 1,000 Attendees

The winners will be revealed on Sunday, August 23 during the ACS Fall 2026 Meeting in Chicago IL at the McCormick Place Convention Center, Skyline Ballroom W375 B-C.

This year's ceremony, held during the American Chemical Society's landmark 150th Anniversary year, will feature a keynote address by Ping Furlan, the recipient of the 2026 Award for Volunteer Service to the American Chemical Society. Following the keynote, awards will be presented by over twenty committees of the Society, honoring and celebrating the extraordinary contributions of volunteers whose efforts advance the ACS mission to improve all people's lives through the power of chemistry.

We are pleased to invite your organization to participate in a one-hour poster session prior to the ceremony, highlighting the outstanding activities that led to your finalist selection. Posters should be 4' high x 6' wide to ensure we can accommodate all presentations. This is an excellent opportunity to showcase your exemplary work, celebrate your achievements, and connect with others in the ACS community.

Event Schedule:

Sunday, August 23

- 2:00 PM – 3:00 PM: Poster Session, outside Skyline Ballroom W375 B-C
- 3:30 PM: Doors Open
- 4:00 PM – 6:30 PM: ACS Board of Directors Open Meeting and ChemLuminary Awards, Skyline Ballroom W375 B-C
- 7:00 PM – 8:30 PM: ACS Connect Reception with dance social, Skyline Ballroom W375 B-C

Additional details about the ceremony and related activities will be shared with you in July and August.

Award-winning Local Sections, Divisions, International Chapters, and Regional Meetings will be recognized with a replica of their award during the ceremony. Should your organization be named a ChemLuminary Award recipient, your award will be carefully shipped directly to you or your designated representative following the ceremony.

Congratulations once again on this remarkable achievement! We eagerly anticipate celebrating with you at the ACS ChemLuminary Awards ceremony made all the more special because it is taking place in our 150th anniversary year

If you have any questions, please contact Stephen Armah at ChemLuminary@acs.org.

Sincerely,
Rigoberto Hernandez
2026 President
American Chemical Society

Protecting Chemists When Data Are Sparse: New Approach Methodologies (NAM)-Based Occupational Hazard Assessment in Early Drug Discovery

Upcoming ACS Webinar

Sponsored by ACS Webinars and the ACS Green Chemistry Institute
June 18, 2026, 11:00 am-Noon, Online, Free, ***Registration required***

"During early-stage drug discovery, novel compounds and intermediates often have limited toxicological data, so how do chemists and safety professionals protect themselves?

"Join Wen Hu of AbbVie as he builds from the ground up, introducing key occupational toxicology principles, exposure banding concepts, and worker safety decision-making frameworks. Using Topoisomerase I inhibitors and their synthetic intermediates as a case study, this webinar will demonstrate how New Approach Methodologies (NAMs) can help with early occupational hazard classification. Register now to understand how NAM-based risk assessment is transforming occupational safety practices in pharmaceutical research.

This ACS Webinar is moderated by Jedd Hillegass of Bristol-Myers Squibb and co-produced by the ACS Green Chemical Institute."

Building an Integrated Safety Approach in Your Chemistry Department

Sponsored by ACS Webinars and ACS Office of Safety Programs
June 11, 2026, 11:00 am-Noon, Online, Free, ***Registration required***

"Safety in the lab shouldn't be a one-day lecture or a checklist, it should be how students think and work as scientists.

Join Daniel Jacques of SUNY Brockport for a practical, classroom-tested approach to embedding safety across the undergraduate chemistry experience. This webinar repositions safety as an active learning process, not a standalone requirement. Using the free ***Laboratory Safety for Chemistry Students (LSCS) e-Textbook***, you'll see how students can learn to recognize hazards, assess risk, and make informed decisions in real time. Grounded in authentic academic lab settings, this webinar goes beyond theory to offer strategies you can implement immediately. Discover how to create alignment across courses, student roles, and time so that safety is reinforced consistently. Following this discussion, you will understand how a safety mindset becomes intrinsic to student practice of chemistry when exposure to safety is reinforced rather than fragmented.

This ACS Webinar is moderated by Rachel Lee Bocwinski of the American Chemical Society and co-produced with the ACS Office of Safety Programs. As part of ACS's ongoing celebration of our 150th anniversary, this month we reaffirm our commitment to safety by elevating lab protocols, chemical risk awareness, and environmental health standards.

"What You Will Learn"

- Practical ways to use the LSCS e-Textbook and the ***RAMP*** framework to build student independence, confidence, and critical thinking
- Insight into where safety instruction breaks down across courses and roles, and how to create a cohesive, reinforced approach
- Actionable entry points to embed safety into your existing curriculum, leveraging TAs and student roles even within real institutional constraints"

Lab (un)safety 150 years ago vs. where we are today | ACS150

Watch the video on YouTube

Erika Milczek, Ph.D., is leading the way to safer chemistry in food, makeup, and clothing. She's the founder and CEO of Curie Co, a biotech company that makes sustainable, ecofriendly replacements for chemical ingredients now being phased out by regulators. Her work is part of the larger culture shift toward better safety awareness in the chemical industry. ***Read more about Erika in this C&EN profile***.

Did you know ACS turns 150 in 2026? This video is part of a yearlong series shaped by the American Chemical Society's enduring core values — passion for science, inclusion and belonging, lifelong learning, and sustainability — celebrating ACS' 150th anniversary and featuring ACS members from around the world. Learn more about ***ACS' 150th Anniversary***"

ACS Guide to Scholarly Communication
2026 Updates to Communicate More Clearly, Confidently, and Accessibly

"In today's fast-evolving research landscape, the ***ACS Guide to Scholarly Communication*** remains an indispensable reference for scientists communicating across many different formats. Whether presenting to stakeholders or publishing findings in a peer-reviewed journal, the ***ACS Guide*** provides step-by-step instruction across the full scholarly communication journey.

To meet the changing needs of modern researchers, the ***ACS Guide*** is updated annually through an expert-driven, peer-reviewed process. Each update reflects best practices while addressing emerging standards in accessibility, usability, and scientific communication.

The 2026 updates focus on enhanced accessibility, improved usability, and expanded examples designed to make complex guidance easier to understand and apply."

New and expanded sections include:

1.7 ***Poster Presentations***

1.8 ***Effective Slide Presentations***

5.1 ***Effective Writing & Word Usage***

4.3 ***ACS Quick Style Guide*** (free to read)

Access content from the ***ACS Guide*** via an institutional subscription or using your ACS ID if you are a premium ACS member. In addition to the ***ACS Quick Style Guide, Chapter 1.5 Open Access*** is free to read.

Learn more about 2026 updates | ***Learn more about the ACS Guide to Scholarly Communication***

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Communicating Science
Current and Recent Grad Students: Apply Now for ComSciCon Create-a-Thon

Application Deadline: June 15, 2026

The Communicating Science Conference workshops - ***ComSciCon*** - support current and recent graduate students who are interested in communicating science and related topics to the general public, students, and chemical professionals and who are already planning on attending ACS Fall 2026. Little or no previous professional science communication experience required.

On Tuesday, August 24, 2026 at the ACS Fall 2026 National Meeting, the ComSciCon programl features two sessions. The morning session is open to all ACS Fall 2026 participants and features a career panel, outreach workshop, and more. The afternoon is a closed working session for Create-a-thon participants only.

Selected participants are paired with a mentor to refine an idea into a professional-quality article, script, or other form of communication, as well as learn how to build a career in science communication. Participants may also be able to publish their work.

To be eligible, you must be:

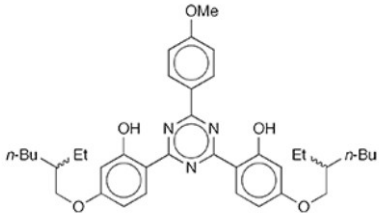
- Enrolled in a master's or doctoral program in chemistry or an allied field, or have completed such a program within the past year
- Current ACS member - student or regular - with a premium package membership
- Attending ACS Fall 2026 in-person

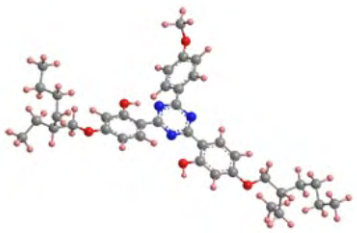
Please note that there are no funds available to support travel. Applicants must secure their own travel and registration.

Learn more and apply

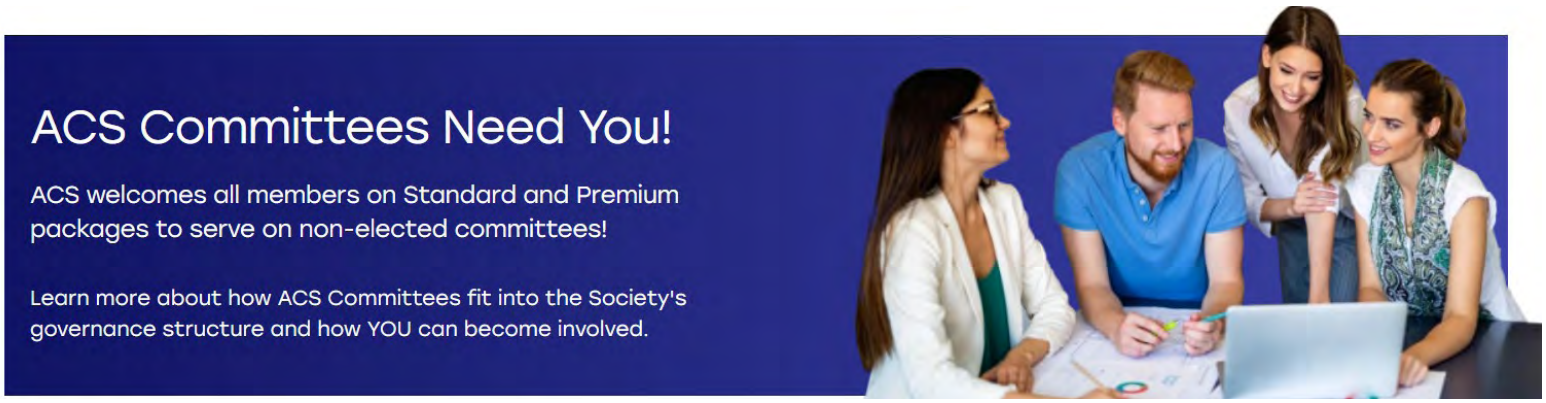
CHEMISTRY *Quiz*

I offer better sun protection than you probably have now. What molecule am I?





Answer



Interested in Serving on an ACS National Committee in 2027?

Deadline: July 6, 2026

The process for selecting ***ACS Council–related committee*** appointments for 2027 is now underway. If you are interested in serving on an ACS National Committee, please complete the ***online committee preference form***, which allows you to indicate your committee interests, background, and relevant experience.

The form is available at ***http://www.cmte.acs.org*** and will remain open through July 6, 2026. As you submit your preferences, please keep the following in mind:

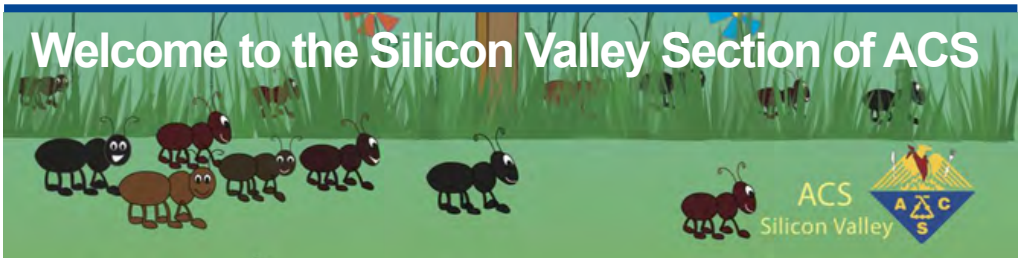
- Individuals completing a term or reaching a committee's statutory limit are asked to submit the form to reaffirm their interest in continued service.
- Your ACS membership must be in good standing to complete your committee preferences.
- Select only those committees for which you can actively engage and attend meetings, whether virtually or in-person. ACS committees are working committees; attendance (virtually or in-person) and participation at committee and subcommittee meetings are important.
- Most initial appointments are one-year, non-voting associate positions. Associates submit the form each year to be considered for reappointment.
- Consultants are appointed for one-year terms and must have a clearly defined role or project.
    - Associates and consultants participate fully in discussions and subcommittee work but do not vote on official committee motions.

As part of the appointment process, the Committee on Committees (ConC) seeks broad representation across the Society. Diverse backgrounds, experiences, and perspectives help ensure ACS remains effective and forward-looking.

Preference submissions are reviewed by ConC as it prepares recommendations during the ACS Fall Meeting. Final appointments are made by the ACS President and/or Board Chair in late fall. While not all applicants can be appointed, each submission will receive full consideration.

If you need assistance, please contact the Office of the Secretary at ***secretary@acs.org***. Thank you for your interest and for your service to the Society.

Sincerely,
Brian Mathes, Chair
ACS Committee on Committees (ConC) and
Carmen Valdez Gauthier, Chair
Committee Appointment Systems Improvement (CASI) Working Group



Each month, our Silicon Valley local ACS section receives a spreadsheet from national ACS with the names of members new to our section. The members are either new to ACS, have transferred in from other areas, or are our newest scientists - students. As a welcoming gesture, the SVACS Executive Committee offers new members free attendance at a catered SVACS event. Come join us at our in-person gatherings. ***The annual July picnic*** is a great opportunity to mingle and meet fellow ACSers. Kid- and pet-friendly, too! To register as our guest for a catered event, ***contact us*** directly to receive complimentary admission for you and a friend.

Join us for an outreach activity, like judging at a local science fair, proctoring the high school Chemistry Olympiad, or participating in National Chemistry Week hands-on experiments.

The Silicon Valley local section is a volunteer organization.

Attend an event, volunteer to help, and get to know your local fellow chemists!

New SVACS Members

Adili Alafate
Alexander Bimm
Keenan Brayer
Jennifer Cassano
Kevin Somerville Currie
Julie Deichert
Devin Doty
John Huynh
Serin Lee
Alex Yen Mai
Daniel McCauley-Walden
Daniel Poon
Aishwarya Sriraman
Joanne Tan
Wenhan Zhang

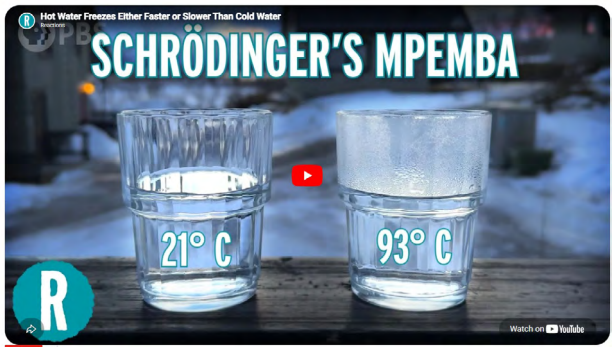
Contributors to this Issue

Grace Baysinger
Eefei Chen
Jane Frommer
Natalie McClure
Jigisha Shah

ACS Annual Report for 2025

Read the report

Hot Water Freezes Either Faster or Slower Than Cold Water A Reactions Science Video



Watch Video on YouTube | *View sources*

"The Mpemba Effect happens when hot water freezes more quickly than room temperature water, or does it? Alex goes on an exhaustive journey to replicate the Mpemba effect and hits a few snags on the way, including a paper being released the week this video was supposed to come out. Does this paper finally resolve all existing ambiguities about measuring relaxation speeds in the Mpemba Effect? Well, it claims to."

ORCID 101: THE ORCID ID & RECORD

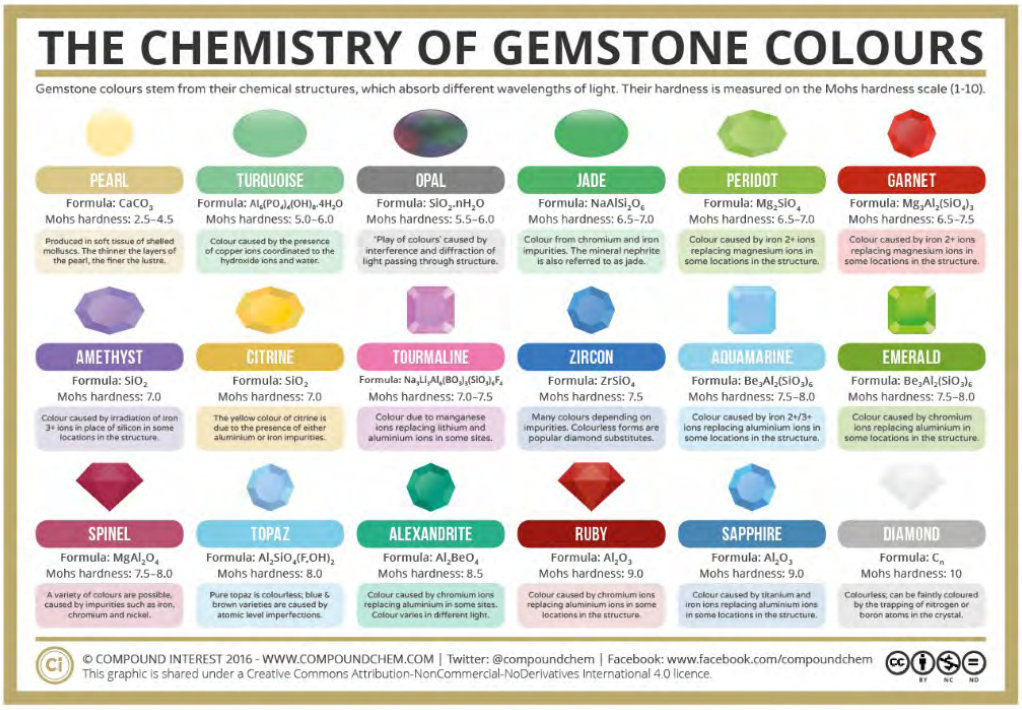
When: June 09, 2026 at 3pm ET/ 2pm CT/ 1pm MT/ 12pm PT
Where: Online - Register at orcidus.lyrasis.org/events/

Getting and using your free ORCID iD and ORCID record can help you save time and get credit for your work in funding, publishing, and research reporting workflows. Funding organizations, publishers, and research institutions are increasingly requiring or asking for ORCID iDs from researchers, so this workshop will help you make sure you are ahead of the game.

Get your ORCID iD | **Populate your ORCID Record** | **Connect your ORCID iD**

find us: orcidus.lyrasis.org
email us: orcidus@lyrasis.org

ORCID US Community | Lyrasis KNOWLEDGE CONNECTED



Enlarge this image | *Download image (PDF)* | *Read associated article*
Learn more about Mohs Hardness Scale

2026 Silicon Valley ACS Executive Committee

Section Officers	Chair	2026	Natalie McClure
	Chair-Elect	2026	Karan Dikshit
	Past-Chair	2026	Amanda Nelson
	Secretary	2025-2026	Jigisha Shah
	Treasurer	2026-2027	Ihab Darwish
	Councilors	2024-2026	Grace Baysinger
		2024-2026	Natalie McClure
		2025-2027	Linda Brunauer
		2025-2027	Jane Frommer
		2026-2028	Ihab Darwish
		2026-2028	Madalyn Radlauer
	Alternate Councilors	2024-2026	Karan Dikshit
		2024-2026	Howard Peters
		2025-2027	Eefei Chen
		2025-2027	Jose Ramirez
		2026-2028	Maria Dulay
		2026-2028	Maureen Scharberg
Newsletter	Editor	2026	Grace Baysinger
	Sr. Assoc. Editor	2026	Jane Frommer

ACS Local Section
Silicon Valley
P.O. Box 395, Palo Alto, CA 94302

Contact us: *https://www.siliconvalleyacs.org/about/contact/*

Website: *https://www.siliconvalleyacs.org/*

Sign up: *Newsletter*

Bluesky

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facebook.com/SiValleyACS

@SiValleyACS

Useful ACS Links

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Upcoming Events | Webinars
C&EN Jobs | Career Resources

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Communities | Green Chemistry
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