

SILICON VALLEY CHEMIST

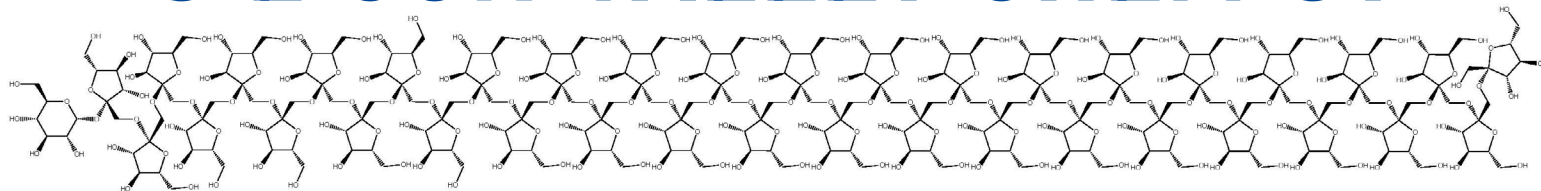


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Chair's Message

Stephanie Benight, Ph.D.



And just like that, it's May! I hope everyone is enjoying Spring, whether it be the warmer weather, gardening, wildflowers, spring cleaning and organizing or all of the above. We're continuing

with our virtual programming.

This month we have an awesome Zoom talk on May 18th. Renowned chef Nik Sharma presents The Flavor Equation, the subject of **his new book** that explains the science of good cooking, together with recipes that illustrate his points. Nik explores the chemistry of combining

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The Flavor Equation - A Conversation with Nik Sharma

By Jigisha Shah

Wednesday, May 18, 2022 7PM [Register for free Zoom link](#)

Did you know that sweet potatoes benefit from steaming to break down their stringy fibers and render them spoonable? Or that research shows that roasting the sweet potatoes produces at least 17 more aromatic molecules than boiling or microwaving, and most of them in higher concentrations? Or that doing a little bit of steam

and a little bit of roasting is a neat trick to make your sweet potatoes the star of a Thanksgiving dinner?

If you are anything like me, a Gujarati mum with a very picky eater for a son, food is on your mind all the time. Which is why I am so excited to

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Silicon Valley ACS

THE FLAVOR EQUATION

A conversation with NIK SHARMA

moderated by DICK ZARE

18 May 2022 | 7-8 pm PDT

For more information and to register for this seminar, go to <https://www.siliconvalleyacs.org/event/the-flavor-equation/>
Registration is free and required to receive a Zoom link.

[Download flyer to share](#)

The Flavor Equation, continued from previous page

announce that this month, we will have not one but two phenomenal scientist food lovers.

Nik Sharma, a molecular biologist turned cookbook author (*Season* and *The Flavor Equation*) says, “there are six basic elements that constitute the all-important flavor of a dish: emotion, sight (how a dish looks), sound (how it sounds when you eat it), mouthfeel (texture), aroma, and taste.” Mr. Sharma uses science and chemistry to explain how to manipulate each of these elements, ultimately crafting the final flavor of the dish. Using the tools Mr. Sharma provides,

you can master the art and science of cooking.

Professor Richard N. Zare, the moderator of this lively conversation, is the Marguerite Blake Wilbur Professor in Natural Science and Professor of Chemistry at Stanford University. Throughout his career, Prof. Zare has made a considerable impact in physical chemistry and analytical chemistry, particularly through the development of laser-induced fluorescence (LIF) and the study of chemical reactions at the molecular and nanoscale level. LIF is an extremely sensitive technique with applications ranging from analytical chemistry

and molecular biology to astrophysics. One of its applications was the sequencing of the human genome. Recently, Prof. Zare has been offering a course to Stanford freshman titled “Chemistry in the Kitchen”. Along with his students, he playfully explores the chemistry that turns foods into meals.

Bring your burning questions about cooking and we will let Mr. Sharma and Prof. Zare transform immutable scientific principles into practical information for food lovers. This evening promises to be fun and enlightening. I look forward to seeing you all there.

Chair's Message, continued from previous page

ingredients to produce the flavors in his recipes. Mouth-watering flavor descriptions and beautiful photographs are accompanied by attractive charts of graphic correlations of flavors and ingredients.

To make the evening even more captivating, Nik will be interviewed by Dick Zare, Professor of Chemistry at Stanford University. Professor Zare is known on the Stanford campus for his colorful freshman seminar, *Chemistry in the Kitchen*.

It is sure to be a dynamic evening, thanks to arrangements made by our SVACS past Chair Jigisha Shah. See the article and poster in this month's newsletter.

We continue our partnership with the Redwood City Library in conducting *Saturday afternoon experiments* with middle school students. We need 1-2 volunteers to run an experiment in this Pop UP chemistry series at the

Redwood City Library, in person on May 14, 2-3:30. We provide all the materials. Email me to join us, chair@svacs.org.

Additional events for the months of May and beyond are posted on our new website siliconvalleyacs.org and in the Calendar of Events in this newsletter. As always, should you have any feedback or questions, please don't hesitate to reach out to me at chair@svacs.org.

ACS Joins U.S. National Academy of Sciences in Effort to Support Researchers Forced to Flee Ukraine



“With a \$500,000 donation, the American Chemical Society (ACS) has joined the U.S. National Academy of Sciences (NAS) in an effort to help researchers who are being forced to flee Ukraine because of Russia's invasion. The donation will support the NAS' Scientists and Engineers in Exile or Displaced (SEED) program, which is working to help scientists and engineers relocate and continue their work in Poland and other neighboring countries.

Under agreements with the Ukrainian and Polish academies of sciences, NAS support for researchers and their families includes providing the displaced researchers with grants and placements in appropriate research institutions for up to six months. The funding from ACS will be prioritized to assist Ukrainian chemical scientists to the extent possible.”

Read the full text (Source: ACS Press Release, April 21, 2022).

Start Your Summer Class with ACS Essentials of Lab Safety for General Chem



Free Class-Wide Access for this Summer

ACS Center for Lab Safety is offering free trial access to ACS Essentials of Lab Safety for General Chemistry for you to use with all your summer classes.

How does this work?

Submit a trial request by May 16, 2022. We will get in touch with your LMS administrator to integrate the course into your school's learning management system. This trial offer is valid for summer sessions only and access expires on the last day of class.

Get Access for This Summer



ACS Center for Lab Safety: Institutional Solutions for Research Lab Safety Instruction

As part of a growing suite of LMS-integrable courses, ACS Essentials of Lab Safety for General Chemistry provides students with authoritative safety protocols through narrated presentation and exercises accompanied by real life pictures and videos, helping you cultivate a safety-first culture among those who work and study in the lab.

CALENDAR OF EVENTS

- May 2022 -

- May 4** **The Research Landscape for Green Energy: From Hydrogen Fuel to Solar Cells and Beyond**
Leilani Lotti Diaz, CAS; Yiyang Wu, Ohio State University; Dharik Mallapragada, MIT Energy Initiative
Sponsored by ACS Webinars and CAS
11am-Noon, Online via Zoom, Free, [Registration required](#)
- May 4** **Fashion, Pharmaceuticals, Food and Fun: How Color Changed the World**
Mary Virginia Orna, Professor Emeritus of Chemistry at College of New Rochelle
Sponsored by the ACS San Diego Section
7-8:30pm, Online via Zoom, Free, [Registration required](#)
- May 5** **Virtual Office Hours – Careers in Government**
Luke Roberson, ACS Career Consultant
Sponsored by ACS Careers
9-10:30am, Online via Zoom, Free, [Registration required](#)
- May 5** **Role of Polymer Science in Water Purification Membranes**
Abhishek Roy, National Renewable Energy Laboratory (NREL) and Geoffrey Geise, University of Virginia
Sponsored by ACS Webinars and ACS Division of Polymer Chemistry
11am-12:30pm, Online via Zoom, Free, [Registration required](#)
- May 9** **Wearables for Health: Smart Bandage and Hydration Sensing**
Yuanwen Jiang, Ph.D., Postdoctoral Scholar, Chemical Engineering, Stanford University; and Michelle Hoogenhout, Ph.D., Lead Data Scientist, Hydrostasis
Sponsored by Stanford Wearable Electronics Initiative
12:15-1:15pm, Online and in person (Y2E2 Building, Rm. 299), Free, [Registration required](#)
- May 10** **The 46th Annual David M. Mason Lectures in Chemical Engineering - With Nobel Laureate Dr. Frances H. Arnold**
Dr. Frances H. Arnold, California Institute of Technology
Sponsored by Stanford's Department of Chemical Engineering
4:30-5:30pm, Jen-Hsun Huang Building, NVIDIA Auditorium, Free, [Learn more](#)
- May 11** **Adapting to Climate Change: Insights from Indigenous Peoples**
Nikki Cooley, The Institute for Tribal Environmental Professionals; Oliver Moles, U.S. Department of Education Research Office (Retired); Mary Sabuda, ACS Office of the Secretary and General Counsel
Sponsored by ACS Webinars, ACS Policy, and AAAS
11am-Noon, Online via Zoom, Free, [Registration required](#)
- May 12** **Careers in Chemical Safety for Chemists**
Joseph Pickel, Oak Ridge National Laboratory; Whitney R. Hess, MIT; Debbie Decker, University of California, Davis (Retired)
Sponsored by ACS Webinars and ACS Division of Chemical Health and Safety ACS Committee on Chemical Safety
11am-Noon, Online via Zoom, Free, [Registration required](#)
- May 12** **New Approaches to Non-Flammable Polymer Materials and Composites**
Prof. E. Bryan Coughlin, Polymer Science and Engineering Department, University of Massachusetts Amherst
Sponsored by the Golden Gate Polymer Forum
6-7pm, Online via Zoom, Free/\$5 Donation, [Registration required](#) (Registration deadline May 11th at 1pm)

- May 17** **ACS Celebrates Asian American and Pacific Islander Heritage Month - From There to Here: My Asian American Journey**
Weike Wang, Author and Dianne Xiao, University of Washington
Sponsored by ACS Webinars and ACS Office of Diversity, Equity, Inclusion & Respect
9-10am, Online via Zoom, Free, [Registration required](#)
- May 18** **The Flavor Equation: A Conversation with Nik Sharma**
Moderated by Richard N. Zare
Sponsored by the ACS Silicon Valley Section
7-8pm, Online via Zoom, Free, [Registration Required](#)
- May 19** **The Fulbright U.S. Scholar Program: Postdoctoral and Early Career Opportunities Abroad for Chemists**
Jaclyn Assarian, Institute of International Education
Sponsored by ACS Webinars and the ACS Student and Postdoctoral Scholars Office
11am-Noon, Online via Zoom, Free, [Registration required](#)
- May 19** **Executive Committee Meeting for the ACS Silicon Valley Section**
Sponsored by the ACS Silicon Valley Section
7:00-8:30pm, Online via Zoom, Free, Open to Visitors, [Learn more](#)
- May 21** **How to Thrive (Not Just Survive) As A Woman in Today's World**
Keda Edwards Pierre, True II Soul Network
Sponsored by the Women's Chemist Committee ACS California Section
10:30am-11:30am, Online via Zoom, Free, [Registration required](#)
- May 25** **Grow-Give-Gain: The Power of ACS Volunteers**
Diane Krone, ACS Committee on Committees; Julie Smist, ACS Nominations and Elections Committee; Judy Giordon, ACS President-Elect
10-11am, Online via Zoom, Free, [Registration required](#)

- June 2022 & Beyond -

- June 5-8** **Fire and Polymers Workshop**
ACS Division of Polymer Chemistry
Napa, CA
[Learn more](#)
- June 6-8** **The 26th Annual Green Chemistry & Engineering Conference**
Sponsored by the ACS Green Chemistry Institute
Held in Reston, Virginia and Online (fully hybrid meeting for speakers and attendees)
[Learn more](#)
- June 26-30** **47th National Organic Chemistry Symposium**
Sponsored by the ACS Organic Chemistry Division
La Jolla Marriott, California. [Learn more](#)
- July 16** **ACS Silicon Valley Annual Picnic and Awards Ceremony**
Sponsored by the ACS Silicon Valley Section
4-6pm, Cuesta Park, Mountain View, CA, [Learn more](#)
- Aug 22-25** **ACS Fall 2022: Sustainability in a Changing World**
Chicago, Illinois (hybrid meeting), [Learn more](#)
- Oct 19-22** **ACS Western Regional Meeting 2022: Empower the Chemist for a Better Tomorrow**
Sponsored by the ACS Southern Nevada Local Section
Flamingo Hotel & Convention Center, Las Vegas, Nevada, [Learn more](#)

Howard Peters Inducted into Inaugural Class of Keystone Central Foundation's Alumni Hall of Fame: A Late-in-Life Surprise Honor

Below is an excerpt of the newspaper article "Six KCS D graduates inducted into the KCF Hall of Fame," *The Express* (Lockhaven, PA, February 21, 2022).

"It was a night filled with cheer, congratulations, and some reminiscing as six Keystone Central School District (KCS D) graduates were inducted into the inaugural class of the Keystone Central Foundation's Alumni Hall of Fame on February 19, 2022. (KCS D is the largest geographical rural school district in Pennsylvania.)

Nearly 80 people turned out to the event, held Saturday in the Central Mountain High School cafeteria, to support these accomplished individuals from all walks of life.

The alumni Hall of Fame serves as an example for the students at KCS D, showcasing just how far they can go in life and the multitude of accomplishments they can achieve — just like those who came before them.

Ron Bowes introduced his long-time friend Howard Peters, Ph.D. Peters attended via Zoom from his California home (left image below). His brother Elmer (last person on right in image below) and sister Emma attended in-person and accepted the award on behalf of Howard.



Howard and Sally Peters (AKA Mr. & Mrs. Chocolate). Image credit: Ramesh R. Bhatt, *Chemical & Engineering News*, August 23, 2016

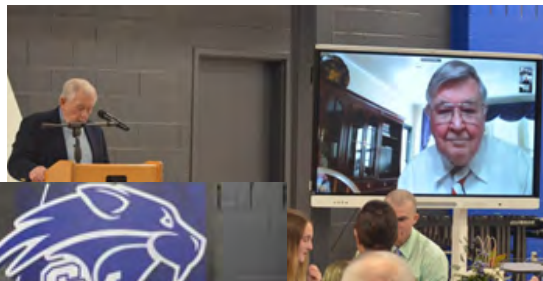


Image credits: Sarah Smeltz for *The Express* (Lockhaven, PA, newspaper).

Peters thanked the board for his nomination and said it was very unexpected.

"I would wish my parents could be here to see this. My mom and dad did all they could to provide for my siblings and I," he said. "My roots, and Malcolm Heimer's roots, go deep into Clinton and Centre counties."

Peters noted that his family has been playing a role in education since his farming ancestors helped fund and build the Beech Creek School. He also remembered a time when he was told in the tenth grade, if he kept his grades up and expanded his extra curriculars, he could continue to college and beyond.

"Make no mistake, almost all my success and many accomplishments were because of my community," he said.

In closing, Peters thanked his wife for being by his side throughout their decades of marriage. "She has made many events possible for us," he said."

KCF Hall of Fame Spotlight on Howard Peters

(Reprint of newspaper article published in *The Express* (Lockhaven, PA, April 29, 2022).

First in his family to finish high school, Howard Peters, Ph.D., Bald-Eagle Nittany Class of 1958, has had an incredibly successful career as a chemist, patent attorney and now as a chocolate lover.

Howard Peters earned a B.S. in chemistry in 1962 at Geneva College in Beaver Falls, Pa. and a Ph.D. in organic chemistry at Stanford University in 1967. He is the author or co-author of many technical and legal publications and holds several patents, mostly in high explosives on Department of Defense or Atomic Energy Commission matters. As a chemist, he led research projects on volatile anesthetics, organic fluorine compounds, herbicides, and high explosives.

In 1978, Howard received a law degree from Santa Clara University. He practiced patent law in the Silicon Valley for 30 years. During this time, he wrote and obtained over 300 patents.

He is a 50-year member of the American Chemical Society and has served as a voting member of the ACS Council for 35 years; he has served on all national ACS elected committees and was an elected member of the ACS Board of Directors for 2005-2007.

Howard has received awards for his diversity and inclusion efforts, and for his public outreach explaining science issues to general audiences. He received the ACS Henry Hill Award in 2007 for advancing chemistry as a profession. In 2006 he was elected a Fellow of the Royal Society of Chemistry (London) and a Fellow of the ACS in 2010. He has been an invited judge for chemistry for the INTEL International Science and Engineering Fair (ISEF — the world's largest high school science fair).

In 2012 the ACS Division of Chemistry and the Law created the annual Howard & Sally Peters Award to recognize long term ACS member achievements in non-traditional careers in chemistry.

Howard took an interest in researching his family history rooted in Western Clinton County. Some of his research suggests he may be a distant relative of Milton Hershey — which may have contributed to his love and passion for chocolate!

For over 20 years, Howard and his wife Sally (also a chemist) have toured the United States to present about "Chocolate, Food of the Gods." They have been invited scientist-author lecturers on Cunard's Queen Mary 2 and the Princess Cruise lines.

Their presentation and passion about chocolate earned them the 2016 Helen M. Free Award for outstanding public outreach from the American Chemical Society (ACS) for successfully explaining the wonders of chocolate's chemistry to non-scientists. A quick google search of "Howard and Sally Peters Chocolate Chemist" will result in some interesting articles!

Howard, and his wife Sally live on the outskirts of Silicon Valley in Cupertino, Calif. — about six miles from Apple headquarters.

Madalyn Radlauer Receives SJSU Early-Career Investigator Award



Madalyn Radlauer, Assistant Chemistry Professor (Organometallic, Inorganic, and Polymer Chemistry) at San Jose State University.

The text below is a partial reprint of the article “**Celebration of Research Event Salutes Faculty and Student Success**” that was published in the *SJSU NewsCenter*, April 18, 2022. Dr. Radlauer is an active member of the Silicon Valley ACS, including section councilor, Strategic Planning Chair, and Younger Chemists Committee co-Chair.

From digital art installations to wildfire tornadoes to eco-friendly chemical reactions, San José State University honored an array of research, scholarship and creative activity on April 14.

The annual Celebration of Research event, held by the university’s Division of Research and Innovation at the SJSU Diaz Compean Student Union Ballroom, drew more than 200 attendees. This was the first in-person celebration since the beginning of the pandemic, and the gathering allowed students and faculty to share their ongoing

projects with one another through conversations, poster presentations and formal recognition.

“Through the great research work of our faculty and students, we are able to contribute to solving today’s problems and mitigating tomorrow’s challenges alongside our industry and community partners,” said Mohamed Abousalem, vice president for Research and Innovation, as he welcomed attendees.

“This celebration is our way of demonstrating our unique ability as the public university of Silicon Valley to do critical research work on important topics and develop creative scholarship in areas that touch our lives.”

Madalyn Radlauer, assistant professor of chemistry at SJSU, was presented with a 2022 SJSU Research Foundation Early-Career Investigator Award (ECIA) — one of the most prestigious honors bestowed by the university. The ECIA recognizes tenure-track faculty members who have excelled in research, scholarship and creative activity at an early point in their careers.

Radlauer investigates ways to make certain chemical reactions more environmentally friendly. She studies chemical reactions driven by catalysts, in which each catalyst molecule can do the reaction hundreds or thousands of times.

“It’s about being selective and energy efficient in a chemical reaction,” explained Radlauer in a video highlighting her work, which was shown at the event. “Any time you’re energy efficient, that’s

more green, more environmentally friendly, and anytime you’re selective, that means you’re not having to purify away things that you don’t want.

“The process of research is really slow,” Radlauer said. “But the process of learning through research can be really fast. I involve students in the work so they can learn how to be scientists and take it to the next stage.”



Watch the video: SJSU Early Career Investigator Award 2022 - Assistant Professor Madalyn Radlauer. (YouTube, accessed 2022-04-29).

For more information, please see:

- “**What Early-Career Funding Means to 3 SJSU Researchers**,” *SJSU NewsCenter*, February 21, 2022.
- NSF Award 2137584: **Confinement of Organometallic Complexes within Structured Polymers for Site-Isolated Tandem Catalysis**, PI: Madalyn Radlauer, Award amount: \$249,678.00.
- **Madalyn Radlauer, SJSU Profile, Radlauer Research Group Page**

ACS Publications to Transform All Their Hybrid Journals to Open Access



ACS Publications commits its entire hybrid journal portfolio to become transformative journals.

“The Publications Division of the American Chemical Society (ACS) has committed its full portfolio of more than 60 hybrid journals, which offers both open access and subscription-only content, to become **Plan S**-aligned transformative journals. This development represents a major step in ACS’ long-standing commitment to open science, signaling a future in which all publications are open access (OA), and ensures that more authors can continue to publish in their chosen journal.” (ACS Press Release, April 26, 2022). [Read the full text](#)

See also: [ACS Transformative Journals: Another Way for Plan S funded Authors to Publish with ACS](#) (Axial, April 26, 2022) and the [ACS Open Science website](#).

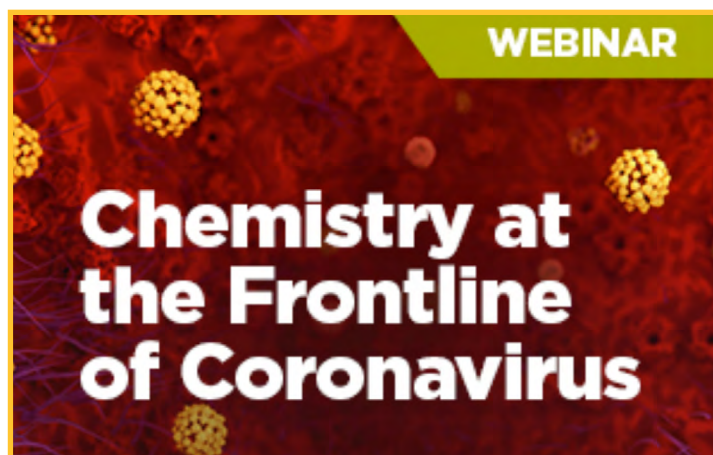
More details from [Sybille Geisenheyner, Director Open Science Strategy & Licensing, ACS Publications that were posted on the CHMINF-L, April 28, 2022](#) (see below):

“The ultimate goal of ACS’ transformative journals program is to move our portfolio even further towards open access. This is intended to be a multi-year transition; the ‘flip’ to full open access is triggered when individual titles reach 75% of their research content published under a CC-BY license each year. Targets and criteria for transformative journals are set out on the Plan S website (<https://www.coalition-s.org/addendum-to-the-coalition-s-guidance-on-the-implementation-of-plan-s/>), and we provide more information about journal-specific targets for 2022 on our Open Science site: <https://acsopscience.org/open-access/transformative-journals/>.

Similar to transformative agreements (such as ACS’ Read + Publish Agreements), transformative journals status gives many authors even greater choice in where they publish their research while meeting their research funders’ requirements for open access. While costs are still incurred for publication, the transformative status gives funders who support transformative journals the opportunity to take these over directly without the author being involved in handling them.”

In the News: Interesting & Cool Science

- *A nanoscale look at coronavirus infection* (Stanford News, March 1, 2022).
- *Crystal Growth & Design introduces 3D structure viewers on its articles* (ACS Axial, March 16, 2022)
- *Getting bacteria and yeast to talk to each other, thanks to a 'nanotranslator'* (ACS Press Release, March 16, 2022).
- *3D printing smart clothes with a new liquid metal-alginate ink (video)* (ACS Press Release, April 13, 2022)
- *Coronaviruses evolve to recognize glycans of their host species* (ACS Press Release, April 13, 2022)
- *Nanoparticles could enable a more sensitive and durable rapid COVID-19 test* (ACS Press Release, April 13, 2022)
- *What's next for AlphaFold and the AI protein-folding revolution* (Nature, April 13, 2022)
- *Nylon cooking bags, plastic-lined cups can release nanoparticles into liquids* (ACS Press Release, April 21, 2022)
- *New cocoa processing method produces fruitier, more 'flowery' dark chocolate* (ACS Press Release, April 27, 2022)
- *Preventing infection with an improved silver coating for medical devices* (ACS Press Release, April 27, 2022)
- *Your dog's breed doesn't determine its personality, study suggests* (Science, April 28, 2022)



A two-session virtual event featuring eight speakers and their highly cited articles on the characterization, detection, and prevention of COVID-19.

Wednesday, May 4, 2022

Session 1: 8:00AM EDT | 7:00AM CDT | 6:00AM MDT | 5:00AM PDT

Session 2: 4:00PM EDT | 3:00PM CDT | 2:00PM MDT | 1:00PM PDT

register: <https://connect.acspubs.org/frontlinecoronavirus>

ICYMI – 2022 Stanford Drug Discovery Symposium



[Day 1 Event Recordings >](#)

[Day 2 Event Recordings >](#)

(Recordings of the panel discussions and Fireside Chat session will be posted soon)

[Download the Poster](#) | [Download the Program](#) | [Download the Agenda](#)

“This symposium provides a valuable and important platform for inspiring interdisciplinary exchange at the forefront of drug research and supports a fantastic networking experience. It provides a great resource for researchers, pharmaceutical companies, investment groups, and those in the wider biomedical community interested in discovering new drugs and improving patient care.” — Joseph C. Wu, MD, PhD | Director, Stanford Cardiovascular Institute

[View recordings from SDDS 2022](#)

Toilet to Tap (video)



[Watch video and learn more](#)

“How are we able to safely drink water that we’ve flushed down our toilets? In areas where water is scarce, reusing wastewater is one way to increase the supply. But to do that safely, water has to undergo lots of cleaning procedures, including some new innovations using edible materials like okra! In this video, we’ll walk through how humans have cleaned water over centuries, and how we’ve managed to get so good at it that we can turn wastewater into a refreshing drink again!”

Source: ACS' *Reactions* Science videos, published April 20, 2022.

Interested in Serving on an ACS National Committee?



The ACS Committee on Committees is pleased to announce the launch of the new and improved online national committee preference form. If you are interested in serving on an ACS national committee, the online committee preference form is the perfect way to let us know which committees are of interest to you and how your skills and background will contribute to the committees' work.

You can also use this system to update much of your contact and biographical information in ACS records throughout the year.

Get started now to access the [committee](#)

preference form. The form for committee assignments will be open from April 15 through July 15, 2022. Learn more: [About ACS Committees](#), [About the Committee Appointment Process](#), and view [Council Agendas](#) which include committee reports.

What's new about the preference form?

- Now open to all ACS Members
- New features like filtering and search make it easier to review committees
- Make your choices based on how your interests and skills match the work of the committees
- New user-friendly features like auto-save
- And much more...

Why Join an ACS Committee?

- Make an impact in

areas important to you

- Expand your knowledge of ACS governance
- Develop new skills
- Participate virtually or in-person

What Do Committees Do?

- Advance the mission and vision of the Society
- Represent, involve, and serve members
- Develop and deliver potential policies for the Society

STEM professionals providing high quality education to close achievement gaps for students in low income communities

EnCorps

Application Deadline: May 13, 2022
More information about EnCorps

Through a Glass Darkly: Alchemy and the Ripley Scrolls 1400-1700

"If you have plans to be in the Princeton, New Jersey area or are looking for an online exhibition, the Princeton University Library welcomes you to the new exhibition: "Through a Glass Darkly: Alchemy and the Ripley Scrolls 1400-1700" <https://library.princeton.edu/alchemy>

The exhibition is open daily from noon to 6 p.m. in the Milberg Gallery, Firestone Library. Open to the public; vaccination self-attestation and sign-in required.

Through a Glass Darkly: Alchemy and the Ripley Scrolls 1400-1700," a Princeton University Library (PUL) exhibition shows how European alchemists built on Greco-Egyptian, Islamic, and late medieval foundations to create a golden age of alchemy from the 15th century to the time of Sir Isaac Newton. The exhibition will be on display in the Ellen and Leonard Milberg Gallery (<https://library.princeton.edu/milberg-gallery>), located in the Firestone Library lobby, from April 6 through July 17, 2022."

Learn more by exploring the accompanying digital exhibition <https://dpul.princeton.edu/alchemy>

Virtually join us for a PUL Author Talk with Jennifer Rampling, exhibition curator and author of "The Experimental Fire: Inventing English Alchemy 1300-1700"--on April 27 at 3 p.m. <https://libcal.princeton.edu/event/9082289>

Related: read the article in *Nature* written by



Jennifer Rampling. <https://www.nature.com/articles/d41586-020-01223-w>

As the chemistry, geosciences and environmental studies librarian here in the Princeton University Library, Emily C. Wild's favorites within the exhibit, which may also be of interest to chemists and geoscientists:

- The "pelican" flask <https://dpul.princeton.edu/alchemy/feature/the-philosophers-glass>
- The Chemical Wedding <https://dpul.princeton.edu/alchemy/feature/the-chemical-wedding>
- The use of rocks/minerals <https://dpul.princeton.edu/alchemy/feature/prime-matter>

Source: Announcement posted on *CHMINF-L*, April 14, 2022

Welcome to the Silicon Valley Section of ACS

Each month, the 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 the newest members -- students. To welcome you to the section and get to know you, the Executive Committee offers new members a free dinner at a monthly section seminar meeting, once we return to meeting in person! When you register for the event, make certain to mention that you are a new member and you and a friend will be our guests. The seminar meetings are held at several local venues. We hope you will also join us for an outreach event, like judging a science fair, proctoring the Chemistry Olympiad, or participating in a National Chemistry Week event in the autumn. The local section is a volunteer organization. Attend an event, volunteer to help, and get to know your local fellow chemists. Welcome!

NEW ACS MEMBERS

Lauren Abbott	Nicky Hwang	Suzette Pangrle
Amna Trinity Adam	Andrew Jasniewski	Lizzie Paulus
Neel K. Anand	Yuan Jia	Matthew D. Peters
Matthew Batz	Jindong Kang	Sameer Phadke
Junjie Chen	Raana Kashfi Sadabadi	Brooke C. Reaser
Xi Chen	Yair Kaufman	Nicolas A. Robalin
Elbert Chin	Katherine Keenan	Grant Rotskoff
Jeff Chinn	Kenneth Kroenlein	Wendy Sandoval
Sidhanth Chinnakotla	Shigemasa Kuwata	Jan J. Sciacinski
Seok-Ki Choi	Alyssa Kwon	Sophie Shevick
Chien-Hung Chou	Daniel Labunsky	Vyom Shukla
Carlos Cienfuegos Garcia	Alissa Lance-Byrne	Sandra Maria Simon
Jennifer Cordoza	Alton Lee	Taylor Spivey
Santiago Correa	Michelle Lee	Nawal Sugul
Trevor Del Castillo	Robert Kazimierz Lesniak	Haley L. Swanson
Michael Cole Detels	Ieva Liepuoniute	Karol Sytwu
Camil Diaz	Qiming Liu	Chester Tsze
Pingyu Ding	Matthias Loipersberger	Mehran Umerani
Emily Dong	Hao Lyu	Ryan Waldheim
Rachel Dorin	Anna Makar-Limanov	Siyao Wang
Maya Engel	Justin S. Marcum	Korin Wheeler
Kaiyu Fu	Daniel P. Marron	Jack Wilson
Lily Gordon	Amy McKeown-Green	Elizabeth Wu
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Elsevier Releases “Research Futures 2.0” Report

Researchers lay bare the challenges and opportunities they face in a post-COVID world



[Download the full report](#) (148 pages, PDF)

Below is a short excerpt from a [blog post](#) written by Adrian Mulligan, Elsevier Research Director, that was published in the Elsevier Connect newsletter on April 20, 2022.

“The research ecosystem has been undergoing rapid and profound change, accelerated by COVID-19. This transformation is being fueled by many factors, including advances in technology, funding challenges and opportunities, political uncertainty, and new pressures on women in research.

At Elsevier, we have been working with the global research community to better understand these changes and what the world of research might look like in the future. The results were published today in Elsevier’s new Research Futures Report 2.0. The report is free to read and download.”

Key Findings:

- Publishing moves faster, with more open knowledge.
- Funding is harder, but new opportunities emerge.
- Women in research face new pressures — and adapt.
- Researchers are collaborating more.
- More researchers are embracing AI.

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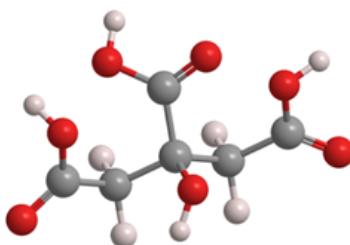
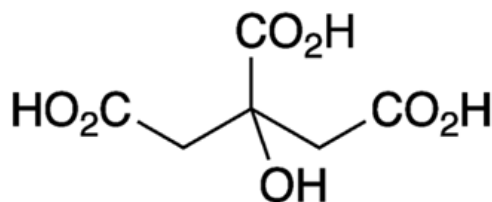
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CHEMISTRY

Quiz

My name may make you think of fruit juice, but I’m so much more.
What molecule am I?



Answer

THE CHEMISTRY OF EGGS & EGG SHELLS

Eggs are one of the most versatile kitchen ingredients; there are numerous ways of cooking them on their own, and they can also be used to help create a range of other foods. Here, we take a look at what they're made of, and how they change during cooking.

EGG COLOUR & COMPOSITION



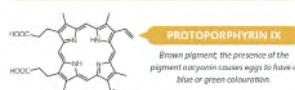
The yellow colour of egg yolks is due to the presence of the carotenoid pigments lutein and zeaxanthin. Artificial additives aren't permitted, but additives such as beta-carotene and marigold petals can be added to chicken feed to influence the yolk's colour.



EGG SHELL COMPOSITION



Calcium carbonate is the main component of eggshells. Nanoparticles of calcium carbonate are arranged into ordered crystals by proteins, forming a calcite shell. The colour of the eggshell comes from porphyrin pigments on the shell's surface.



EGG WHITE PROTEINS



About 90% of the egg white is water; the rest of its mass is mostly protein. Ovalbumin's purpose is thought to be nutrition for the developing chick; Ovomucin helps thicken the egg white; and conalbumin binds iron & guards against infection.

COOKING EGGS



Egg proteins begin in the raw egg as folded chains, but as they are heated they begin to denature and unfold. Interactions between the unfolded proteins create a three-dimensional network, trapping the water and causing the egg to solidify.



Hydrogen sulfide, formed by the reaction of sulfur-containing proteins in the albumen, is the compound that gives cooked eggs their characteristic smell. When eggs are cooked for a long time it can react with iron in the yolk, forming iron sulfide, and giving a green hue to the yolk surface.

7.6

ALBUMEN pH OF FRESHLY LAID EGGS

9.2

pH AFTER SEVERAL DAYS OF STORAGE

Albumen pH increases as CO₂ diffuses out through the shell. Albumen adheres more strongly to the shell at lower pH, making it harder to peel boiled eggs.

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