

SILICON VALLEY CHEMIST

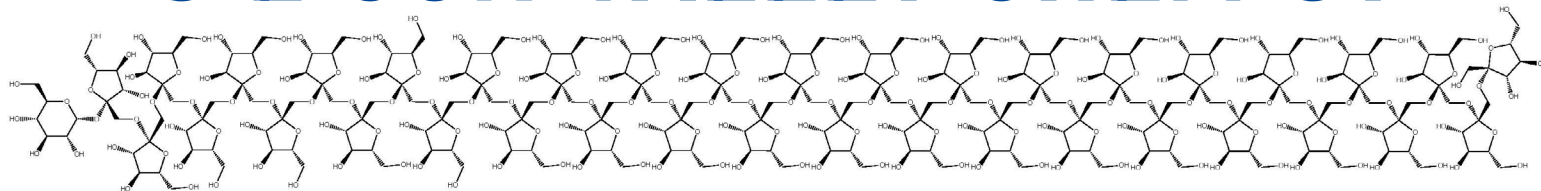


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Checkerspot: From Molecule to Material to Mountain & Beyond

Dr. Charles Rand, Ph.D., Manager of Materials Science, Checkerspot
Sponsored by the Silicon Valley ACS

December 7, 7-8pm, Online via Zoom, Free, *Registration required*

Abstract:

The world needs new, high-performance materials that are less toxic and safe for the environment. The field of materials science

is running short of molecular building blocks, having exhausted the permutations available from petrochemical and commodity vegetable oil monomers. A wealth of alternatives, however,

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Chair's Message

Jigisha Shah



Farewell with Appreciation, Pride, Humility and Gratitude

At the end of this month, I will step down as the chair of this section, so this is my last "Chair's Message". After sitting down to write this column eleven times over the past year, one would think I would run out of things to say, shout-outs to folks, ideas to share. But I am a part of an incredible organization and it hasn't been difficult to find something to highlight each month. In this last column, however, I want to share with you reflections on my time as the chair.

With appreciation

This position has afforded me the opportunity to hear from many of you. I appreciated working with a wonderful team of professionals who are dedicated to serving the chemical enterprise. I am constantly inspired by the creativity and innovation my colleagues bring to their work which spans every sector of society, within and beyond our mainstay areas of science, practice, education and public interest.

Join our SVACS leadership group as Secretary in 2022!



Image credit: *American Chemical Society*

The Secretary position for SVACS has become available for 2022. Gain valuable leadership skills, work with amazing colleagues, get a birds-eye view of SVACS activities, and make an impact on the

local chemistry community by filling this important leadership role. Please contact the *Chair* ASAP to learn more about filling this key position on the

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Checkerspot, continued from front page

are available through pathways that nature has developed over billions of years.

Checkerspot is a materials company that creates new high-performance materials by leveraging biotechnology. They do this by optimizing microbes to biomanufacture oils (and derivative fatty acids) that until now have not been accessible commercially. First materials applications that demonstrate their approach are next generation polyurethanes, designed for improved performance of skis and snowboards as animated through the WNDR Alpine outdoor brand. Checkerboard's vision is one of empowerment: to deliver unique, inspiring technologies and materials into the creative hands of fabricators and designers, the makers that conceive the next generation of high-performance products. This talk will discuss the structural organization of Checkerspot, the potential of Checkerspot's Molecular Foundry, and some of the challenges and approaches

of animating Checkerspot's new materials into skis and snowboards through the WNDR Alpine outdoor brand.

Bio:



Dr. Charles Rand is the Manager of Material Science and Application Development for Checkerspot. The material science group at Checkerspot is focused on developing materials made from Checkerspot's algal oils including the algal-derived polyols used to make polyurethanes. This includes cast and rigid foam polyurethanes

used in WNDR Alpine skis. Charles received his PhD in Polymer Science and Engineering from the University of Massachusetts, Amherst. After completing his PhD, Charles joined Rohm & Haas which was acquired by Dow Chemical. Charles has 13 granted patents, and has developed materials for photovoltaic applications, roof coatings, concrete, and insulation binders for the construction industry as well as binders for the acquisition layer in diapers.

Join our SVACS leadership, continued from front page

SVACS Executive Committee (ExComm).

Primary responsibilities include:

- Attending monthly ExComm meetings as a voting member and recording the minutes
- Submitting the section's annual report to ACS National – primarily a collation of contributed committee reports
- Conducting yearly elections by working with a contracted external electronic voting service

Chair's Message, continued from front page

With pride

Per tradition, in the December message the chair of the section summarizes some highlights of the past year. I want to stress that these accomplishments are testimony to the hard work of every single member of the executive committee. Here are some of the highlights -

- We rolled out a SVACS strategic plan, a monumental, multi-year undertaking. What we have now is a succinct, exciting, and ambitious framework for the section that aims to meet the needs of our community and deliver high levels of service. The plan not only captures the wide array of programs we offer, but it also helps us identify gaps or areas where we can expand. (**Check it out!**)
- Professor Andrew Evans was presented with the **Mosher Award** for his lifetime work on the stereoselective construction of challenging C - C bonds in the total synthesis of complex bioactive agents
- SVACS support of K-12 teachers in teaching science - **the BUBBLE Grant** - was awarded to two schools : Piedmont Hills High School in East San Jose and Brook Knoll Elementary School in Scotts Valley.
- In the midst of the pandemic in July, we were able to safely bring together in person 80 members at our annual picnic meeting. We toasted our 50-, 60- and 70- year members for their participation in the ACS and presented the **Radding Award, Ottenberg Award and Salute to Excellence Award**.
- With donations to Silicon Valley ACS in fond memory of our dear friend and colleague,

Dr Dave Parker, we created an endowment to fund our newly minted **Dave Parker Memorial Award** for excellence in middle school chemistry.

- We rolled out our swanky new webpage, **siliconvalleyacs.org**
- We had **12 Zoominars** covering a wide array of topics related to advances in chemistry, chemistry in pop culture, biology, as well as topics like mental health and wellbeing. These Zoominars attracted audiences from beyond the SF Bay area and around the world.
- In collaboration with the Redwood City Library, we put together 7 outreach activities under the banner of 'Pop Up Chemistry'. For this well-received outreach activity, we won the ACS National **ChemLuminary Award** for Most Creative & Innovative Use of the 'Chemists Celebrate Earth Week' (CCEW) theme.
- In the month of November, Matt Greaney and his team revived the **Bay Area Chemistry Symposium** which was attended by 300 undergraduates, graduates and members of industry and academia.
- The SVACS younger chemists committee (YCC) in collaboration with our sister section, CalACS, successfully sponsored a trivia night in the month of July.
- We piloted **Paving the Path**, our first mentorship program for community college students interested in transferring to 4-year institutions.
- We piloted a **citizen science water-monitoring program** where we distributed kits containing materials and instructions for students to test

the quality of water in their watershed. The ultimate goal of this project is to collect vital information about our watershed as well as to raise awareness about the importance of water conservation, one of our most valuable resources.

With humility

Although there are many achievements that have given me pride during my tenure, there are certainly matters I wish had gone better. For example, we would like to increase SVACS activity for midcareer chemists, something I hope we address in the upcoming years.

As the pandemic ebbs and flows and vaccines become more widely available to us all, we are beginning to return to some sort of normalcy. While we have been able to pivot well in the last couple years, in-person networking has indeed suffered. Several nonprofit organizations like ours are beginning to meet in person and as we transition into the coming year, we hope to enjoy more face-to-face fellowship and teamwork, as CDC and local public health recommendations permit.

With gratitude

My year of leading the board has been nothing short of fulfilling. When I joined the board in 2016, I could not anticipate my impact on the organization. I had no previous board experience and the nexus between governing an organization and directly affecting change in the community was not clear to me. I went in with the intention not only to "make a difference" but also to become a better community member

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Chair's Message, continued from previous page

by giving it my all, while advancing the mission of a wonderful organization. Through guidance and others' experience and leadership, I was able to understand that for a nonprofit to be truly successful, all parts of the organization are mutually valuable and work together in a balanced and intentional way to accomplish longevity.

With that, I'd like to formally pass the torch and welcome our new officers to the section.

Here are the results of our recent elections: Natalie McClure (Chair-Elect 2022), Ihab Darwish (Treasurer 2022), Linda Brunauer, Jane Frommer and Sally Peters (Councilors 2022-2024), Megan Brophy and Anais Nguyen (Alternate Councilors 2022-2024). Please join me in congratulating this wonderful group. The section will be led by Stephanie Benight as she transitions from 2021 Chair-elect to 2022 Chair, joined by many pairs of extremely capable hands!

Let me close by urging you all — Members and “future Members” alike — to be a part of this milestone year and engage with us as often as you can. Challenge us to better serve you when you see areas where we might improve. And celebrate with us once we have reached these milestones!

Thank you for your support and for being an important part of the SVACS journey.



UPCOMING EVENTS

- Dec 1-4 Silicon-Containing Polymers and Composites Workshop**
Sponsored by the ACS Division of Polymer Chemistry
Omni San Diego, San Diego, California
[Learn more and register](#)
- Dec 3 SLAC Virtual Public Tour**
Sponsored by the SLAC National Accelerator Laboratory
Noon-1pm, Free, [Learn more and register](#)
- Dec 7 Checkerspot: From Molecule to Material to Mountain & Beyond Webinar**
Charles Rand, Ph.D., Manager of Materials Science, [Checkerspot](#)
Sponsored by the ACS Silicon Valley Section
7-8pm, Online via Zoom, Free, [Registration required](#)
- Dec 8 Plastic Upcycling in the BOTTLE™ Consortium Webinar**
Kat Knauer, Ph.D. Research Program Manager, National Renewable Energy Laboratory and The BOTTLE Consortium
Sponsored by the Golden Gate Polymer Forum
6:30-7:30pm, Online via Zoom, \$5 donation/free,
[Registration required](#) by Dec. 6th at 1pm
- Dec 9 Chemistry and the Economy: 2022 Outlook**
Paul Hodges, New Normal Consulting (Moderator: Bill Carroll, Caroll Applied Science)
Sponsored by ACS Webinars
11am-Noon PT, Online via Zoom, Free, [Registration required](#)
- Dec 10 SLAC Virtual Public Tour**
Sponsored by the SLAC National Accelerator Laboratory
Two tours: [Noon-1pm](#) and [3-4pm](#), Free, Registration required (choose time and register)
- Dec 15 Building Your Career in the Chemical Industry, ACS Webinar**
Florian Schattenmann, Cargill / Patricia Hubbard, Cabot Corp / Bob Maughon, SABIC (Moderator: Rebekah Paul, American Chemical Society)
11am-Noon PT, Online via Zoom, Free, [Registration required](#)
- Dec 16 Not Everything Meets the Eye: Invisible Disabilities and Special Abilities**
Pepsi Holmquist, National Technical Institute for the Deaf / Rochester Institute of Technology / Melissa Postlewaite, Disability Outreach Inclusion Community / Stefan Kilyanek, University of Arkansas (Moderator: Paula Christopher, American Chemical Society)
Sponsored by ACS Webinars
11am-Noon PT, Online via Zoom, Free, [Registration required](#)
- Dec 16-21 Pacificchem 2021: A Creative Vision for the Future**
Conference sponsored by the International Chemical Congress of Pacific Basin Societies
[Changed to virtual-only event. View full schedule and register](#)
- Jan 18 Chemical Recycling of Mechanically Robust Polyacetals Synthesized by Living Cationic Ring-Opening Polymerization Webinar**
Prof. Brooks Able, UC Berkeley Chemistry Dept.
Sponsored by the Golden Gate Polymer Forum
Details TBA on the [Golden Gate Polymer Forum website](#)
- Feb 16 Applications of Coupled Rheology–FTIR to Polymer Analyses Webinar**
Dr. Sara Reynard, Arkema (& President-elect of NATAS)
Sponsored by the Golden Gate Polymer Forum
Details TBA on the [Golden Gate Polymer Forum website](#)
- March 7 Women in Data Science (WiDS) Worldwide Conference**
Sponsored by Institute for Computational and Mathematical Engineering (ICME), Stanford Data Science
8am-6pm, Francis C. Arrillaga Alumni Center, Price varies (\$50-\$400), early bird discount ends Dec. 17,
[Learn more and register](#)
- Mar 20-24 ACS Spring National Meeting 2022 (In-Person & Virtual)**
San Diego, California
Housing is now open, [Learn more and register](#)
- Jun 6-8 Green Chemistry & Engineering Conference**
Sponsored by the ACS Green Chemistry Institute
Reston, Virginia
Call for abstracts opens January 3, 2022. [Learn more](#)

Coming in 2022: Major Changes in ACS Membership Opportunities

In response to the changing world and requests from ACS members, the ACS has prepared an entirely new membership structure. Starting in January 2022, there will be three different membership packages to choose from: Premium, Standard and Basic. You will be asked in the coming days or weeks to select from three choices for your 2022 membership. These choices are summarized below and outlined in the figure.

The **Premium option** is similar to what you have now, including discounts to ACS meetings, 50 free downloads from ACS journals, C&E News, and 25 free SciFinder activities. The cost to you has been reduced to \$160 for regular members, \$80 for retired members, \$55 for graduate students and \$25 for undergraduate students. This represents a substantial savings over previous years.

Standard membership is a reduced cost

option that still provides many of the benefits. This package is ideal if you want to remain active in the Society but do not attend many events or need wider access to ACS Publications. As part of this package, you will still be able to tap into many ACS popular benefits. This package is only available to existing members or prospective members that have a degree, certification, or significant work history in the chemical or related STEM sciences, or with a certification as a teacher of a chemical science. The annual cost of the Standard membership is \$80 for all.

The **Basic membership** is free. It is designed to allow people to join the community and connect further with chemists. Anyone with an interest in chemistry or the allied sciences is invited to join the ACS community. The Basic Package is a great way to introduce yourself to ACS and its community, and to stay connected to their diverse network of professionals and

knowledgeable insights.

Impact on the Local Section: Premium and Standard members retain the opportunity to join the local section and take on active roles in local leadership such as serving on Executive Committees and in other officer roles. If you choose the Basic package, we hope you join us for all the local events, but you will be unable to vote or run for an officer position, unless you upgrade your membership. If you select the Premium or Standard membership option, please also choose to contribute to local section dues because they help support the programs that we run in the community.

You can find more information at <https://www.acs.org/newchoices>

This is an exciting innovative approach to refreshing ACS membership and should help the ACS as a whole to transition into the coming years and fulfill the needs of their members.

Find the Right Package

The Premium Package

Enjoy the Full Range of Benefits from ACS

The Premium Package gives you full access to all that the ACS Community has to offer. As a current ACS Member, this package offers identical benefits to what you enjoy today with reduced pricing.

Your Premium Package includes:

- Up to a 40% discount on ACS Meetings & Events registration fees
- Weekly delivery of *Chemical & Engineering News* (C&EN) and access to our mobile app
- Weekly delivery of the ACS Matters newsletter
- Access to ACS Career Navigator™ resources
- Quarterly delivery of C&EN Discovery Reports and archive access
- Dues waived for your first year in up to three Technical Divisions and enrollment in your Local Section or International Chemical Chapter (Some restrictions apply)
- 50 free downloads annually across over one million articles and book chapters
- SciFinder®—25 free activities through CAS
- Access to the ACS Webinars Library
- And more!

Learn more about the Premium Package at [acs.org/newchoices](https://www.acs.org/newchoices)

The Standard Package

Stay Active in ACS and Save

The Standard Package is an option for Regular Members who want to be active in the Society but do not plan on attending events or need access to ACS Publications. It is half the cost of the Premium Package. As a part of this package, you will still be able to tap into many of ACS's most popular benefits.

NEW FOR 2022

Your Standard Package includes:

- Weekly delivery of the digital C&EN Magazine and access to our mobile app
- Weekly delivery of the ACS Matters newsletter
- Access to ACS Career Navigator™ resources
- Quarterly delivery of C&EN Discovery Reports and archive access
- Dues waived for your first year in up to three Technical Divisions and enrollment in your Local Section or International Chemical Chapter
- And more!

Learn more about the Standard Package at [acs.org/newchoices](https://www.acs.org/newchoices)

The Basic Package

Connect with ACS by Joining the Community

Anyone with an interest in chemistry or the allied sciences is invited to join the ACS Community as an Associate at no cost. The Basic Package is a great way to introduce yourself to ACS, the community, and stay connected to our diverse network of professionals and knowledgeable insights.

NEW FOR 2022

Your Basic Package includes:

- Weekly delivery of the C&EN Essential and ACS Matters newsletters
- Access to six digital C&EN articles per month
- Endless opportunities to engage with the global chemistry community on your terms
- And more!

Learn more about the Basic Package at [acs.org/newchoices](https://www.acs.org/newchoices)

The Grace Baysinger Fund for Chemistry and Chemical Engineering

Below is a *reprint of the article* published in the *October issue of ReMix*, a monthly newsletter published by the Stanford Libraries.

The American Chemical Society's initial gift was nearly matched by contributions from faculty, colleagues, and friends to create a new endowment in honor of retiring Stanford science librarian Grace Baysinger.

Since 1989, the Stanford research community has relied upon the extensive expertise and steadfast service of Grace Baysinger, librarian for Chemistry and Chemical Engineering. Beloved by students and highly regarded by faculty, Grace retired recently at a celebratory gathering of friends and colleagues outside the Sapp Center for Science Teaching and Learning.

Representatives of the American Chemical Society (ACS), attending virtually, announced the creation of an endowment for materials at Stanford Libraries: The Grace Baysinger Fund for Chemistry and Chemical Engineering. "ACS Publications became the first sponsor of the fund," said Melissa Blaney, ACS Vice President of Global Marketing & Community Development, "to express our profound appreciation for Grace and for her service to the ACS and to recognize her unwavering commitment to improving lives through the transformative power of chemistry."



Grace accepting a plaque from the American Chemical Society (ACS) during her retirement party. ACS staff are in the background via Zoom. Video still credit: Gabrielle Karampelas.

ACS also presented a plaque, sent in advance of the celebration, acknowledging Grace's roles as "a longtime partner, an ACS Fellow, a key participant in the Academic Roundtable, and an active member of the Chemical Information Division (CINF)." In total, she chaired six ACS committees, including the ACS Publications, Chemical and Engineering News Editorial Board, CAS Committee, and was named an ACS Fellow in 2017. Other ACS contributions include being chair of CINF and the Silicon Valley Local Section, a Councilor, co-editor of the *ACS Guide to Scholarly Communication*, and the editorial advisory board for the *Journal of Chemical Education* (JCE). She was guest editor for a special issue of JCE on Chemical Information. She has also served on the editorial advisory boards for the *CRC Handbook of Chemistry and Physics* and the *Science of Synthesis*.

"I am humbled and amazed to have a library endowment in my field named in my honor. Wow!"
— Grace Baysinger

"Some years ago, I came to this place, and one of the first persons I

met was Grace," said Mike Keller, the Ida M. Green University Librarian. "In a few short years we started HighWire Press, and that was our introduction to e-journals and e-publishing and e-reference works and so forth. Grace has contributed to research projects, helped students at all levels, trained many junior librarians, developed wonderful collections, and was head of our Science and Engineering Research Group from 1999-2005. In the 32 years of service for which she is now receiving emerita appointment, Grace stayed on top of changes, did everything with the patron in mind, and opened up the complexities of the literature of chemistry in which she was exceptionally knowledgeable."



Members of Stanford Libraries staff and the Science and Engineering Resource Group enjoy Grace's retirement party. Photo credit: Sonia Lee.

Grace's career could fill a highlight reel of accomplishments. In 1996, she won the Marshall D. O'Neill Award for exceptional staff contributions to Stanford's research mission. In 2006, she presented to the Faculty Senate about the serials crisis and advocated for new pricing models and proactive negotiations, at a time when Chemistry journals typically had the highest average cost of all subject areas. In 2011, she won the Wiggins-Roth Award for Outstanding Service given by the Chemistry Division of the Special Libraries Association. She spearheaded multi-year efforts at Stanford to migrate library resources and tools from print to online and to offer customized federated search tools that allow simultaneous search of multiple databases.



ACS Publications

"We are greatly encouraged by the collegiality of the contributors to The Grace Baysinger Fund, by the securing of a new endowment for our disproportionately underendowed science and engineering libraries, and by its creation at such an important time for the academy and the Libraries," Keller concluded.

To discuss contributing to the Grace Baysinger Fund or endowing a library materials fund in honor or memory of family, faculty, or friend, please contact Gabrielle Karampelas in the Library Development Office: gkaram@stanford.edu, 650-492-9855.

New Silicon Valley ACS Science Fair Awards Honoring David Parker



Image credit: Carol Ann Parker

Dr. David Parker, a long-term contributing member and active participant in the SVACS Local Section, passed away in November, 2020. [Dave's obituary](#) can be read online on the Dignity Memorial website. His obituary also appeared in the San Jose Mercury News on December 12, 2020, detailing his long-term involvement with the City

of Santa Clara Fire Department HAZMAT program.

Dave's passions within the SVACS Local Section included judging at our annual Synopsys Science Fair Championship, the South Valley Science and Engineering Fair, and the local Chemistry Olympiad competition. Accordingly, his family suggested that in lieu of flowers, people make donations to our Silicon Valley ACS Local Section to continue to support science education for children.

SVACS has received numerous generous donations, prompting it to match the donations in a newly created David Parker Fund to annually

support chemistry education for children. Additional donations are welcome. Donors should send a check to the ACS Silicon Valley Section (noting purpose is for SVACS-David Parker Fund). Our address is Silicon Valley ACS Local Section, P.O. Box 395, Palo Alto CA 94302. These tax-deductible donations will be acknowledged in writing. Many thanks for considering this request!

After thoughtful deliberation, your SVACS Executive Committee created the David Parker Awards for middle school students at the local annual Synopsys Science Fair (held in San Jose each March). In March 2021, the Synopsys Science Fair was held virtually. Two local middle school students - Atharva Manjunath (6th grade) and Viraj Pandey (7th grade) - were selected as the inaugural Dave Parker Awardees. Each received recognition and a \$125.00 award. Reports describing our SVACS involvement in the March 2021 Science Fair appeared in the [April 2021 \(page 4\)](#) and [May 2021 \(page 3\)](#) Silicon Valley ACS newsletters.

THE FIRST DAVE PARKER LEGACY EVENT

The SVACS Local Section is in discussion with the City of Santa Clara Fire Department to create a Dave Parker Legacy Event, where the annual Parker Awardees will have a special tour of the SCFD facilities each December and discuss the interactions of fires and chemicals. Carol Ann Parker, Dave's wife, is pleased to take part in these events.

The SVACS BUBBLE Grant Supports K-12 Teachers with Funds to Facilitate Teaching Science



The Silicon Valley ACS is proud to award 2021 BUBBLE grants to two schools in our region:

- Piedmont Hills High School, East San Jose
- Brook Knoll Elementary School, Scotts Valley

The annual BUBBLE grant program was created to provide elementary and secondary school educators with the tools they need for science programs. Grants are awarded for projects that enhance the teaching of science, technology and engineering. Qualified uses of the funds include scientific equipment, instructional aids, materials and supplies.

A summary of the two funded 2021 programs:

Piedmont Hills High School will acquire a pair of Go Direct® Spectrophotometers, cuvettes and a cuvette rack from Vernier Software and Technology to carry out solution concentration

and identification studies. These 2 units will serve all of the school's chemistry classes, totaling ~450 students (divided into 16 to 18 classes) annually.

Brook Knoll Elementary School will acquire two digital microscopes of two different magnification ranges to study vermiculture, decomposition, and soil biology. One of the microscopes will be used out 'in the field' (vermiculture bins) and one will circulate among classrooms.

The recipients of these grants are congratulated for writing succinct and thorough applications, with end goals clearly supporting their students in hands-on science experimentation.

The BUBBLE grant is an annual award – please encourage K-12 teachers to [apply!](#)



Yule Log for Nerds



Watch the video

Yule Log Chemistry Trivia - 4 Hours of Cozy Fireplace for Your Nerdy Holiday Parties

"Ready to kick back and relax by the fire this holiday season? We've got you covered. Enjoy our chemistry-themed yule log trivia with a cup of hot cocoa at home, in the background at work, or at this year's annual ugly sweater party.

Ever wonder why dogs sniff each others' butts? Or how Adderall works? Or whether it's OK to pee in the pool? We've got you covered: [Reactions](#) is a web series about the chemistry that surrounds you every day."

Produced by the American Chemical Society

Sunsetting the ACS Periodic Table Blanket

Join the ACS before December 31, 2021 and get a periodic table blanket!

The periodic table blanket is a perk of an ACS membership promotion that sunsets in December 2021. January 2022 marks the launch of a *new ACS membership structure* featuring several different participation and payment levels.

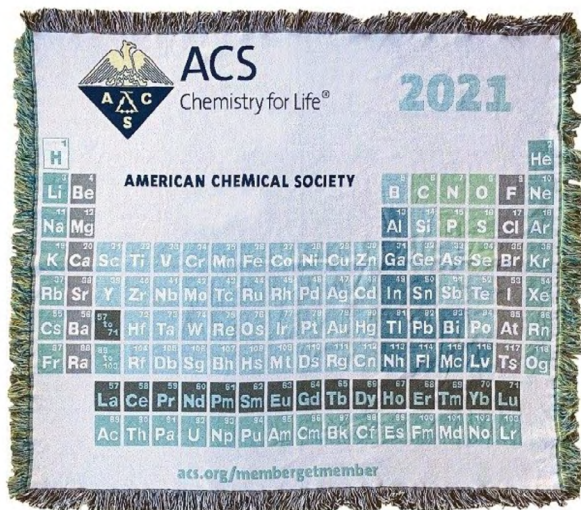
The periodic table blanket offer is available only to new members (or long lapsed members). Download [this form](#) and follow its directions.

Please keep in mind that getting a periodic

table blanket by joining before December 31, 2021 requires paying full dues. On January 1, 2022, dues in the new membership structure will be lower and refunds will not be given.



2021 MGM Periodic Table of the Elements Blanket



All 118 elements laid out over a 50" x 60", 100% cotton blanket. Shades of soft aqua, grey, green, and light blues on a background of cream.

Nominate an ACS Materials Au Rising Star

"ACS Materials Au" is looking for early-career investigators who are pushing scientific boundaries and conducting research at the forefront of fundamental or applied research and at the interface between materials and other disciplines. Generally, these are scientists who are in the first six years of their initial independent appointment (Assistant Professor or equivalent). However, investigators beyond this six-year period who have taken career breaks or those significantly impacted by the ongoing pandemic will also be considered. These "Rising Stars" will be invited to submit a Perspective, Letter, or Research Article to ACS Materials Au. The "Rising Star" publications will appear in issues throughout 2022 and then will be collected in a virtual issue at the end of the year, which will be widely promoted.

If you know someone you feel deserves this recognition, please reach out to [Stephanie Brock](mailto:Stephanie.Brock@journals.acs.org) by **December 15th, 2021** with the name of the candidate, their institution and contact information, and a brief statement on why you think they should be considered. A link to an online CV or publication list would be greatly appreciated.

Self-Nominations Will Also Be Accepted!

In addition to the required information listed above, self-nominations should include a CV, an

indication of the publication type (Perspective, Letter, or Article), planned submission date (late 2021 to September 2022), and a statement about the work to be submitted and why it is suitable for ACS Materials Au."

This article is a reprint written by Stephanie Brock, Maksym Kovalenko, and Mary Ann Meador for ACS Axial that was published on November 18, 2021.



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

Alyssa Cortes
Sheng-Yao Dai
Aakash Davasam
Luisa Dell
Curt R. Fischer
Raymond Futia
Ernest Gregory Gargas
Cheryl A. Grice
Jay Hanson
Chey Marcel Jones

Catherine Kasse
Mattaues Joseph Klonowski
Rao Kolluri
Jessica Lu
Alpana Naresh
Marc Navre
DCVC Management Co LLC
Colin O'Bryan
Alberto Rascon Jr.
Gayathri Renganathan

Sonia Renteria
Roman Sarott
Anuska Shrestha
David Stokoe
Christopher M. Tegley
Kathryn Woodburn
Shiyan Xu
Marcella Yu
Liusheng Zhu

ACS Publications Appoints an Ombudsperson to Support Authors in the Peer Review Process

This press release was published by ACS on November 11, 2021.

The Publications Division of the American Chemical Society (ACS) is pleased to announce the appointment of Kathleen H. Canul, Ph.D., as the ACS Publications' ombudsperson. Her appointment fulfills a crucial element of ACS' commitment to confronting racism and discrimination within our journals and strengthens efforts to increase diversity throughout our author and reviewer communities.

As an ombudsperson, Canul will serve as an impartial, independent and confidential channel for concerns regarding the peer review process. In the event that an author or reviewer has concerns over issues such as editor bias, editorial advisory board member or reviewer misconduct, or editorial professionalism, Canul would act as a resource, providing guidance, and as an outlet for the expression of concerns. The ombudsperson will not, however, be conducting formal investigations into complaints. In the event that a complaint requires an investigation, Canul will be available to provide guidance to the relevant journal or institution.

"As the ACS Publications ombudsperson, I'm available to hear concerns, help find answers to authors' questions and discuss options when facing challenges," says Canul. "Communications with an ombudsperson are confidential, and I welcome the opportunity to be of service."

Selected after a five-months-long public search, Canul brings significant expertise to the new position. Since 2007, she has served as the Director of Ombuds Services at the University of California, Los Angeles. She has additional experience as an ombudsperson at the University of California, Irvine, and has consulted as an ombudsperson for a number of societies and institutions. Canul is a licensed psychologist and received a Ph.D. in clinical psychology from Washington State University. A member of the International Ombudsman Association (IOA), Canul will adhere to IOA's code of ethics and standards of practice in her duties with ACS.

"Confronting issues of racism and discrimination is a top priority for ACS Publications, and Dr. Canul's appointment helps us to ensure a fair and equitable system for authors and reviewers," says James Milne, Ph.D., president, ACS Publications. "At ACS, we keep our authors at the center of everything we do, and I am confident this change will improve our authors' experience."

Those who wish to reach Canul with any concerns arising from their experiences can contact her at kathleen.canul@services.acs.org.

2021 SVACS ExComm Election Results

Many thanks to the members who supported the Silicon Valley ACS by voting for its 2022 leadership team. Your participation as members is appreciated.

Voting was open from 12:01am, October 22, 2021, to 11:59pm, November 14, 2021. Total voters for ballot: 214 (9.5% of 2,253 eligible voting members and 5 additional abstentions, 0.2%) as of 10:07pm on Monday, November 15, 2021 (U.S. Pacific).

We thank all the candidates who ran for office and look forward to an exciting and eventful 2022. Please consider ways to participate and to support the ACS, the Silicon Valley Local Section, and the various committees that accomplish our MISSION: "Engaging the chemistry community by providing professional development, educational opportunities, networking, and recognition; and by sharing innovative, exciting, and fun chemistry with our diverse broader community through education and outreach."

Chair Elect (209 voters indicated a choice on this ballot; vote for 1):

| Votes | Name | % | | | | |
|-------|-----------------|--------|---|--|--|--|
| 209 | Natalie McClure | 100.0% | █ | | | |
| 0 | Write-in | 0.0% | | | | |

Treasurer (207 voters indicated a choice on this ballot; vote for 1):

| Votes | Name | % | | | | |
|-------|--------------|--------|---|--|--|--|
| 207 | Ihab Darwish | 100.0% | █ | | | |
| 0 | Write-in | 0.0% | | | | |

Councilor (212 voters indicated a choice on this ballot; vote for 3):

| Votes | Name | % | | | | |
|-------|---------------|-------|---|--|--|--|
| 182 | Linda Brunaue | 85.8% | █ | | | |
| 180 | Jane Frommer | 84.9% | █ | | | |
| 179 | Sally Peters | 84.4% | █ | | | |
| 58 | Ihab Darwish | 27.4% | █ | | | |
| 3 | Write-in A | 1.4% | | | | |
| 1 | Write-in B | 0.5% | | | | |
| 0 | Write-in C | 0.0% | | | | |
| 4 | Write-ins | | | | | |

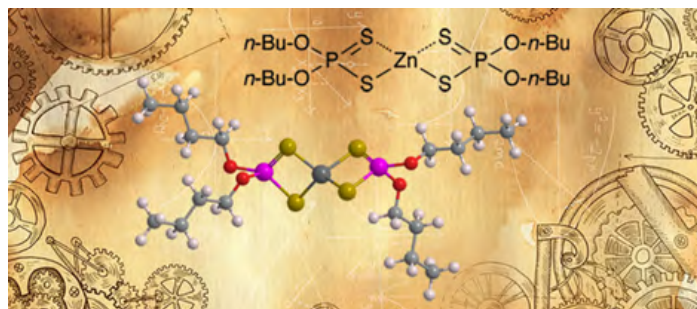
Alternate Councilor (203 voters indicated a choice on this ballot; vote for 2):

| Votes | Name | % | | | | |
|-------|--------------|-------|---|--|--|--|
| 194 | Megan Brophy | 95.6% | █ | | | |
| 193 | Anais Nguyen | 95.1% | █ | | | |
| 2 | Write-in A | 1.0% | | | | |
| 1 | Write-in B | 0.5% | | | | |
| 3 | Write-ins | | | | | |

CHEMISTRY

Quiz

We are a key to making your engine run smoothly. What molecules are we?



Answer

Introducing JACS in Conversation With...



"In this new video interview series from the *Journal of the American Chemical Society* (JACS), Editor-in-Chief Professor Erick Carreira speaks with accomplished scientists in chemistry. Through a series of fascinating interviews Professor Carreira explores their views on the future of chemistry; delves into their professional history, discussing their greatest accomplishments and exploring the variety of career progressions; gains insight into

their personal hobbies and how that influences their research; and seeks their insight into what JACS is doing well – and what it could do better – to continue serving the chemistry community."

Interviews available December 1, 2021:

- Professor Jack D. Dunitz (1923 – 2021)
- Professor Jacqueline K. Barton, California Institute of Technology (Caltech)
- Theodore Goodson III, University of Michigan

- Professor Laura Gagliardi
- Professor Thomas A. Holme, Iowa State University
- Professor Dame Carol V. Robinson, University of Oxford
- Professor Scott E. Denmark, University of Illinois at Urbana-Champaign

Written by Ellie Key, this blog article was published in ACS Axial on November 15, 2021.

ACS Reviewer Lab is Now Part of the ACS Institute



"ACS Reviewer Lab, a flagship learning course from ACS Publications, *is now available on the ACS Institute*. The ACS Institute is a comprehensive learning platform providing educational opportunities spanning topics such as scientific communication, lab safety, and professional development. ACS Reviewer Lab will remain free to all learners.

With this transition, ACS Reviewer Lab features an all-new experience with narration and interactive elements to guide you through the key concepts of peer review. The course was

also designed with accessibility in mind, and we have updated and expanded the downloadable resources that summarize each module. You will find the same six modules and rigorous final assessment, which unlocks when the content in all other modules has been viewed.

Whether you are new to peer review, looking to sharpen your skills, or actively mentoring the next generation of reviewers, ACS Reviewer Lab is a great resource! For more information about ACS Reviewer Lab and everything the ACS Institute has to offer, please visit institute.acs.org today!"

This announcement was written by Andrew Clinton and published in ACS Axial on November 10, 2021.

A screenshot of the ACS Reviewer Lab interface. The title is "INTRODUCTION TO PEER REVIEW". The main heading is "Peer Review Process". Below the heading, it says "Peer review is critical to the advancement of science and helps maintain the quality of the published literature." and "Select each process step to learn more. A pop-up will open describing each step." There are four profile icons representing different roles: Author, Editor-in-Chief, Associate Editor, and Peer Reviewer. A pop-up window is open, showing a text box with the following text: "Only when the Associate Editor determines that the manuscript should undergo additional peer review does the external peer review process begin, and this is where you come in. The Associate Editor will select appropriate reviewers using search tools available through the journal's peer review system, such as examining author lists from recent related publications or contacting known subject-matter experts." The pop-up has a "CLOSE X" button. On the left, there is a "MENU" and "TRANSCRIPT" section with a list of 14 items, including "1. Peer Review Overview", "2. Check Your Understanding", and "14. Glossary". At the bottom, there are navigation buttons for "BACK" and "NEXT".

2 ACS Publications Journals Announce Transparent Peer Review Pilot



"Peer review is a critical part of the journal submission process. ACS Publications is always looking for new ways to improve peer review to serve the ACS community most effectively and demonstrate our commitment to open science.

ACS Publications is excited to announce a transparent peer review pilot in two of our journals, *ACS Central Science* and *The Journal of Physical Chemistry Letters*. This pilot program will provide increased transparency around the peer-review process."

Learn more about open peer review and this pilot by reading the rest of this ACS Axial article written by Katy Roberts on November 3, 2021.

GOLD, FRANKINCENSE & MYRRH

These three substances are brought as gifts by the Three Wise Men in the Christmas story - in this graphic, we examine the uses and chemistry behind them.



Gold

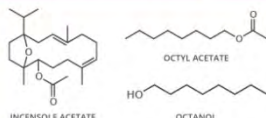


Electron Configuration: $[\text{Xe}]4f^{14}5d^{10}6s^1$

Gold's structure consists of a lattice of cations with a 'sea' of delocalised electrons. Its golden colour is due to it having the correct energy difference between its 5d and 6s electron subshells to absorb photons of blue light.



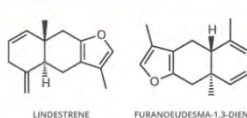
Frankincense



Frankincense resin is used as incense, with its smell the result of various compounds produced when it is burned. These include those shown above, as well as several terpenoid compounds. Research suggests that the compound incensole acetate could help alleviate anxiety & depression.



Myrrh



Myrrh resin, like frankincense, can be used in incense & perfumes, though it also has medicinal applications. Its aroma comes from a family of compounds called furanosesquiterpenes. Animal studies have suggested some compounds in myrrh can have an analgesic effect.

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ACS Local Section
Silicon Valley

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Learn more about the [Chemistry of Gold, Frankincense & Myrrh](#). [Enlarge image](#)

2021 Section Officers

| | | | |
|-----------------------|-------------------|--------------|---------------------|
| Chair | Jigisha Shah | 315-289-5115 | jssheth@syr.edu |
| Chair-Elect | Stephanie Benight | 206-604-3163 | sbenight@gmail.com |
| Past-Chair | Matt Greaney | 510-410-0195 | greaney19@gmail.com |
| Secretary (2021) | Prasad Raut | 330-780-3689 | prsrout@gmail.com |
| Treasurer (2020-2021) | Ihab Darwish | 650-624-1389 | darwishis@yahoo.com |

Councilors

| | | | |
|-----------|------------------|--------------|-----------------------------------|
| 2019-2021 | Linda Brunauer | 408-554-6947 | lbrunauer@scu.edu |
| 2019-2021 | Jane Frommer | 408-927-2225 | jane@collabra.net |
| 2019-2021 | Sally Peters | 650-447-3027 | sallybrownpeters@gmail.com |
| 2020-2022 | Matt Greaney | 510-410-0195 | greaney19@gmail.com |
| 2020-2022 | Madalyn Radlauer | 408-924-5482 | madalyn.radlauer@sjsu.edu |
| 2021-2023 | Grace Baysinger | 650-725-1039 | graceb@stanford.edu |
| 2021-2023 | Natalie McClure | 650-906-7831 | nmclure@drugregulatoryaffairs.com |

Alternate Councilors

| | | | |
|-----------|---------------------|--------------|---------------------------|
| 2019-2021 | Sogol Teschler | 408-896-2367 | sgyahyazadeh@gmail.com |
| 2019-2021 | Laura Yeager | 626-826-3145 | laura.yeager123@gmail.com |
| 2020-2022 | Todd Eberspacher | 650-723-2505 | eberspacher@stanford.edu |
| 2020-2022 | Avni Gandhi | 626-831-8230 | avni.caltech@gmail.com |
| 2020-2022 | Heddie Nichols | 310-435-2133 | hnichols105@gmail.com |
| 2021-2023 | Howard Peters | 650-447-3027 | Peters4pa@sbcglobal.net |
| 2021-2023 | Dipti Shingnapurkar | 408-242-0674 | doc.dipti@yahoo.com |

Newsletter

| | | | |
|---------------|-----------------|--------------|-------------------|
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| Assoc. Editor | Jane Frommer | 408-927-2225 | jane@collabra.net |

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