

Silicon Valley Chemist

Silicon Valley Section

American Chemical Society

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SEPTEMBER 2019 NEWSLETTER TOPICS

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Connect with Chemists

An early morning chat with fellow chemists
Thursday, September 10th, 2019, at 7-8 am
 Coupa Café, 538 Ramona Street, Palo Alto
 Contact Ean Warren (ewarren@scvac.org)
 for more information or ask for ACS at Coupa.



Chair's Message

Grace Baysinger

Greetings!
 Hope this note finds you in good spirits and health. This summer zipped by quickly. We had a wonderful time at the Silicon Valley ACS (SVACS)

Annual Picnic and Awards where Professor Mary Virginia Orna was recognized as the Shirley B. Radding Award recipient for 2019. It was great to see Kirt McCaleb, a 70-year

Abstract

Plastics: we love them and hate them. A brief introduction and history of plastics will be presented, followed by consideration of the health, environmental and societal issues related to current plastic use. A peek at some of the exciting developments in emerging bio-sourced and biodegradable plastics will be discussed. This will be followed by a presentation of the work on PVC being pursued in the Braslau lab.

Polyvinyl chloride (PVC) is inherently a brittle, rigid material. In order to make PVC products commercially viable, PVC is traditionally mixed with small molecule plasticizers. With time, these plasticizers leach out of the PVC matrix, leaving the PVC increasingly brittle, and contaminating the environment. The most common plasticizers are phthalate esters. Phthalates

member who brought a periodic table from 1969. Many thanks to all volunteers who helped this event run so smoothly.

Wanted to give a shout out to Paul J. Karol, SVACS member and author of *The legacy of carbon dioxide: past and present impacts*. Boca Raton: CRC Press, Taylor & Francis Group, 2019. This book "provides a historical panorama on how much the world has changed over the eons and the vast influence of carbon dioxide in these changes; follows CO₂ through acidic explosive waters, volcanic episodes, sequestered reservoirs, and the chemistry of life; and examines the broad scope of chemical and physical attributes

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ACS Monterey Bay Event

More Than Just One Word on Plastics

Professor Rebecca Braslau, UC Santa Cruz



are implicated as endocrine disruptors as well as leading to other adverse health effects. To replace small molecule plasticizers, covalently-bonded internal plasticizers are being developed. The design of these internal plasticizers is explored in terms of branching and chemical composition,

with the aim of maximizing plasticization while minimizing synthetic manipulations, so that internally plasticized PVC can be scaled to industrial levels.

Biography

Rebecca Braslau is a synthetic organic chemist, working at the interface of organic and materials chemistry. She has been a professor at UC Santa Cruz since 1991, where she runs an active research lab and

continued on next page

ACS Monterey Bay Event

Date: Friday, September 27, 2019

Time: 6:00 - 9:00 PM

Speaker: Professor Rebecca Braslau,
 UC Santa Cruz
More Than Just One Word on Plastics

Location: Sesnon House
 Cabrillo College
 6500 Soquel Drive
 Aptos, CA 95003

Cost: Regular \$30, Students \$15

Registration online:
<https://www.brownpapertickets.com/event/4296961>

Monterey Bay Event, continued from front page

teaches at both the undergraduate and graduate level. She was the director of two NSF Research Experience for Undergraduate (REU) programs: one at UCSC for 6 years, and one in Bangkok, Thailand for a decade. She has been a visiting professor in France, the Netherlands, Australia, Ireland and Thailand. She received an Excellence in Teaching Award from UC Santa Cruz in 2014, and recently has focused on incorporating Active Learning into her large organic chemistry lectures. She did her undergraduate studies at Reed College, graduate work at U.W. Madison, and her postdoctoral fellowship was at the University of Basel, Switzerland.

Chair's Message, continued from front page

carbon dioxide is capable of and their impacts.”

If you didn't attend the ACS National Fall 2019 Meeting in San Diego, I highly recommend watching the archived version of the *Kavli Lectures*. The speakers were: Professor Thomas Markland, Stanford University, Kavli Foundation Emerging Leader in Chemistry Lecture, Harnessing the quantum mechanics of the hydrogen bond: From atmospheric science to enzyme catalysis and Nobel Laureate, Professor Frances Arnold Laureate, California Institute of Technology Fred Kavli Innovations in Chemistry Lecture, Innovation by evolution: Bringing new chemistry to life. Archived Kavli Lectures are freely available from 2016-present.

Upcoming events include: An ACS in Monterey event, Professor Rebecca Breslau, UC-Santa Cruz, will give a talk on *More Than Just One Word on Plastics: Designing Safer Plasticizers* on September 27th. On October 5th, *SVACS' National Chemistry Week* on *Marvelous Metals* will be held at the Martin Luther King Library in San Jose. Also of interest to members, on September 28th hosted by the Ph.D. Career Support Group and Bay Area Postdoc Association, STEMPeers, an emerging hub for biotech/pharma industry, will have a series of talks and discussions on careers.

New and noteworthy safety resources on the ACS website: The *Journal of Chemical Health and Safety* is being relaunched in January 2020 as the *ACS Chemical Health and Safety*. Manuscript





The American Chemical Society

Monterey Bay

September 27, 2019

More Than Just One Word on Plastics

designing safer plasticizers

Professor Rebecca Braslau
UC Santa Cruz Chemistry Dept.

Friday, September 27, 2019
6:00 socializing/networking
7:00 dinner
8:00 seminar

Open to all students, faculty, practitioners and admirers of chemistry

Location
Seson House
Cabrillo College
6500 Soquel Drive
Aptos

Registration required
svacs.org

submissions accepted beginning August 2019. Other safety resources worth checking out include: (1) A new series of *lab safety videos* for the high school audience. (2) The *Periodic Table of Chemical Safety* was just updated for the Fall ACS Meeting. (3) The ACS Division of Chemical Education Safety Committee's *Safety Guidelines for Chemical Demonstrations* (.doc) (4) *C&EN Podcast: Lessons learned in lab safety* - Four chemists share their stories of lab accidents with Stereo Chemistry to help the scientific community become safer. (5) The webinar "Working Safely with Nanomaterials in the Laboratory" was result of collaboration between the *ACS Committee on Chemical Safety* and the *National Nanotechnology Initiative*. View

webinar description and *video and slides for this webinar*.

Please contact us: Let us know how we are doing or if you would like to become more involved in the ACS Silicon Valley Section activities. A volunteer organization, we have jobs that are large and small. Please fill out this *contact us form* or send me an email message. Stay connected - like us on *Facebook* and follow us on *Twitter*.

Many thanks for being a member of ACS!

Grace Baysinger,
ACS Fellow

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<https://profiles.stanford.edu/grace-baysinger>



The Silicon Valley and Cal Sections Join Forces to Offer YCC Trivia Nights

- Open to All -

On July 17th, the younger chemists committees (YCCs) of the Silicon Valley and California sections hosted our first Chemistry Trivia Night at Freewheel Brewing Company in Redwood City. The event drew attendees of all ages from around the Bay and 10 teams competed for the moniker of Chemistry Trivia Champion. The four rounds highlighted knowledge of general chemistry, local chemistry, chemistry tools (a picture round), and chemistry-related trivia. It was a highly competitive evening of play with several teams neck-in-neck, though Team Galway came through at the end to win it all, scoring 26 out of the possible 32 points (edging out Team East Bay Collective by a single point)! Overall a fun night — special thanks to Freewheel Brewery and to our YCC officers for planning and hosting the event.



an ACS
sponsored
event



The Silicon Valley ACS is excited to promote the upcoming Bay Area Chemistry Symposium (BACS) in partnership with the California ACS. The BACS is the culmination of long-term planning and coordination between SVACS, CalACS, Merck, AbbVie, Gilead, Novartis, Cytokinetics, UC Berkeley, Stanford, and UCSF structured as a full day symposium featuring keynote speakers Bonnie Charpentier (2019 ACS President), Carolyn Bertozzi (Stanford), Richmond Sarpong (UC Berkeley), and Bill Degrado (UCSF). The technical program, list of sponsor, organizing committee, and application to attend can be found at www.svacs.org/bacs.

The event will be held on Friday, November 8, 2019 from 8:30am-7:00pm at Merck in South San Francisco. Companies interested in participating and/or being featured as corporate sponsors

should email bacs@svacs.org. Students, post-docs, and industrial attendees that would like to present a poster or simply attend should complete the application to attend that can be found at www.svacs.org/bacs. Those wishing to present a poster should reach out directly to Matt Greaney (SVACS Chair-Elect, 2019) at greaney19@gmail.com. Frequent updates will be provided.

Chemistry Quiz

What element is used in home smoke detectors as a source of alpha particles and gamma radiation?

The answer will appear in next month's newsletter.

Last Month's Chemistry Quiz

What is the chemical compound added to natural gas to alert people to a gas leak?

Tert-butyl thiol, also known as 2-methyl-2-propanethiol and tert-butyl mercaptan, is used as an odorant for natural gas. It has an odor threshold under 0.33 ppb.

ChemLuminary

The Silicon Valley Local Section has been selected as a finalist for the following ChemLuminary Awards:

- Outstanding Local Section Programming Related to the Promotion of Ethics in Chemistry, for 'No Belles' performances
- Local Section Partnership Award, for 'No Belles' performances
- Best New Public Relations Program of a Local Section, for 'No Belles' performances
- Outstanding Local Section Industry Event, for YCC Speed Networking

- Outstanding Women Chemists Local Section Event, for 'No Belles' performances

Winners were announced and the presentation of awards occurred at the ACS Fall 2019 National Meeting in San Diego on Tuesday, August 27, at the Manchester Grand Hyatt San Diego (1 Market Place, San Diego). The presentations featured awards given by 20 committees of the Society.

Congratulations and thanks to our hard-working volunteers who make all of our programs possible.

Sidney Harris Cartoon

Cartoons often have many possible levels of interpretation and extrapolation. As I look at this Sidney Harris cartoon, I see many possibilities. One is as follows: The cartoon shows a department chair (far right) accompanying the university provost (far left) of international fame for his analysis of the humor in Anton Chekhov's short stories, presenting a plaque to a chemistry professor in recognition of her election to the National Academy of Sciences. The citation reads "In recognition of her seminal computational studies on the rheological properties of elastic polymers under stress: Why bubblegum bubbles break." The department chair wonders if he will ever be recognized for the elaborate custom apparatus that he designed to confirm the computational studies.

—Yvonne Connolly Martin, Abbott (retired)



Elections for 2020 Silicon Valley ACS Leadership

A message from the Nominations Committee

This fall, you have the opportunity to elect members of our section to the 2020 Silicon Valley ACS Executive Committee! The official online ballot will be sent out in October by email to all section members, but first we would like to take this opportunity to present this year's candidates and to remind all of you that if you are interested in joining the leadership team, you can still petition to be on the ballot if you submit by September 30, 2019 (instructions below).

We have nine open positions this year including Chair-Elect, Secretary, Treasurer, Councilors, and Alternate Councilors. Descriptions of these positions are available on our website (scvacs.org/?page_id=4). On behalf of the current Silicon Valley Section Executive Committee, the Nominations committee is very pleased to present the following group of candidates. We hope to get strong voter turnout. Please feel free to reach out to any of the Executive Committee members if you have questions about the election process (our contact information can, as always, be found at the end of the newsletter).

Our slate of candidates:

Chair-Elect (3-year position)

- Charlie Cox
- Jigisha Shah

Secretary (1-year position)

- Sogol Teschler
- Laura Yeager

Treasurer (2-year position)

- Ihab Darwish

Councilor (2 open positions; the two candidates with the most votes will fill 3-year positions. Vote for two.)

- Matt Greaney
- Madalyn Radlauer

Alternate Councilor (4 open positions: two 3-year terms, 2020-2022, one 2-year term, 2020-2021, and one 1-year term, 2020; the two candidates with the most votes will fill the 3-year positions. The candidate with the 3rd-most votes will fill the 2-year position. The candidate with the 4th-most votes will fill the 1-year position. Vote for 4.)

- Todd Eberspacher
- Avni Gandhi
- Heddie Nichols
- Howard Peters
- Prasad Raut
- Dipti Shingnapurkar

How to petition to be on the ballot:

This is a call for nominations of petition

candidates. Properly completed petitions received by the due date of September 30, 2019 at 5 p.m. local time will appear on the ballot. Petitions can be sent to the attention of our section secretary, Jigisha Shah at P.O. Box 395, Palo Alto, CA 94302. You can also contact Jigisha with questions (jssbeth@syr.edu).

Requirements for petition candidates include:

- the name of the proposed candidate
- the proposed position

- 15 supporting SVACS member names, signatures, and ACS membership numbers
- submission by email of the completed petition (as a PDF) by September 30, 2019 at 5 p.m. local time to the SVACS Secretary.

All candidates must be members of the Section and must be willing to serve. According to ACS bylaws, affiliate members may not participate in the election. Student members may vote and sign petitions, but they may not run for office.



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! To encourage you to attend a monthly section seminar meeting, we would like you to be our guest. When you register, 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 a number of local venues. If you are unable to attend in the evening, perhaps you would join us for an outreach event, like judging a science fair, proctoring the Chemistry Olympiad or participating in a National Chemistry Week event in October. Then, there is our annual wine tasting and awards picnic in July. The local section is a volunteer organization. Please attend an event, volunteer to help and get to know your local fellow chemists. Welcome!

New SVACS Members

Aisulu Aitbekova	Curt Fischer	Molly Nolan
Gabriella Amberchan	Gabriella Gerlach	Daniel Ong
Aykut Aydin	Noah Tribe Goldberg	Chao Pan
Noa Bar Ziv	Dr. Mich Bradley Hein	Yagya Narayan Regmi
Kerry Betz	Afton Hiscox	Dr. Graham W. Piburn
Divija Bhimaraju	Adam Hoffman	John M. Pigos
Professor Alexandria Boehm	Dr. Martin Holan	Dr. Graham W. Piburn
Haley Booth	Cindy R. Hu	Carlos David Quintanilla Jr.
Steven D. Brown	Johnson Huynh	Dr. Vijaya Raghavan
Thomas Burgoyne	Ishita Jain	Fiorella Ruggiu
Christiane Cabrerros	Dr. Ashutosh S. Jogalekar	Dr. Florentine Uwamahoro
Jacob Cha	Dr. Konstantinos Kalogerakis	Rutaganira
Christian Chamberlayne	Uma Gayathri Kamakolanu	Nora Safabakhsh
Samantha Erin Champ	Aaron Kempema	Andrew C. Serino
Megha Chandrashekhar	Sara Kenkare	Xiaohan Shao
Hanson Chang	Patrick D. Kirk	Lalit Kumar Sharma
Elbert Chin	Eric Kreidler	Tepei Shirakura
Chern Chuang	Haruhiko Kuramochi	Motasim Sirhan
Andrew Chung	Dr. Michael Lambrecht	Izaak Sit
Brandon Clark	Wendy Lampart	Eleanor Spielman-Sun
Michael Cole	Tao Large	Neil H. Squires
Lonnie Coplen	John Lee	Uma Sridhar
Dylan Corry	Hector Lopez Hernandez	Dr. Uma Sridhar
Dr. Joelson Cott	Joseph Mann	Dr. Norbert Keith Tavares
Liyang Cui	Ashanti Matlock	Roberto Tovar
Caroline Ding	Dr. Maria T. Matyska-Pesek	Neelam Vaidya
Arpit B. Doshi	Kenia Mejia Escobar	Chloe Wong
Dr. Da Duan	Dr. Rohan Merchant	Jinghang Xie
Vivian Feig	Ajit Narang	Ian Young
Dr. Darren Finkelstein	Jeff Ng	Zixuan Zhang

ACS Annual Picnic, Wine/Beer-Tasting, and Awards Ceremony

July 13, 2019

Blessed with delightful weather and company, a picnic dinner was held at the Stanford Gazebo on July 13, 2019. The Silicon Valley Section of ACS enjoyed a catered BBQ dinner from Armadillo Willy's and honored with 50, 60, and 70-year members of ACS.



Natalie and Jim McClure along with Bonnie Charpentier and Lee Latimer enjoying catered picnic dinner on Stanford Campus.



Matt Greeney, ACS Chair-elect with long-standing members of ACS: Bill Taylor, Ronald Orłowski, and Kirt McCaleb



2019 Radding Award Recipient, Mary Virginia Orna and Heddie L. Nichols, Radding Award Chair



Grace Baysinger and picnic attendees.



Sogol and Jigisha at ACS picnic



Past and Present Radding Award Recipients: Bonnie Charpentier, Lee Latimer, Mary Virginia Orna, Sally Peters, Peter Rusch, and Howard Peters



Natalie McClure and Matt Greeney looking at periodic table. Let's celebrate the International Year of the Periodic Table of Chemical Elements (IYPT 2019)!



Matt Greeney and Ronald Orłowski. A favorite moment of the picnic is when long-standing ACS members share their career experiences.



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SILICON VALLEY SECTION
AMERICAN CHEMICAL SOCIETY
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To receive an email when our newsletter
is published on our web site, sign up at:

<https://svacs.org>

SILICON VALLEY SECTION

2019 Section Officers

Chair	Grace Baysinger	650-725-1039	graceb@stanford.edu
Chair-Elect	Matt Greaney	510-410-0195	greaney19@gmail.com
Past Chair	Melody Esfandiari	408-924-4973	melody.esfandiari@sjsu.edu
Secretary	Jigisha Shah	315-289-5115	jssheth@syr.edu
Treasurer	Ihab Darwish	650-624-1389	darwishis@yahoo.com

Councilors

2017-2019	George Lechner	408-226-7262	glechner@aol.com
2017-2019	Matt Greaney	510-410-0195	greaney19@gmail.com
2018-2020	Ean Warren	650-714-5133	ewarren@scvacs.org
2018-2020	Natalie McClure	650-906-7831	nmclure@drugregulatoryaffairs.com
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

Alternate Councilors

2017-2019	Elizabeth Migicovsky	408-924-5012	elizabeth.migicovsky@sjsu.edu
2018-2020	Madalyn Radlauer	408-924-5482	madalyn.radlauer@sjsu.edu
2019-2019	Dave Parker	408-605-2116	drdparker@gmail.com
2019-2019	Todd Eberspacher	650-723-2505	eberspacher@stanford.edu
2019-2021	Laura Yeager	626-826-3145	laura.yeager123@gmail.com
2019-2021	Sogol Teschler	408-896-2367	sgyahyazadeh@gmail.com

Newsletter

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ChemPloyment Abstracts

Director:	Liang Cao	liang.cao@aol.com
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FUTURE EVENTS

- Sep 7** *Flavors of Chemistry*
Sacramento Local ACS Section
UC Davis
- Sep 27** Monterey Bay ACS sub-section
More Than Just One Word on Plastics
Dr. Rebecca Braslau, UCSC
Cabrillo College, Sesnon House
Aptos, CA
sagerhar@cabrillo.edu
- Sep 28** STEMPeers
Career Development Symposium
for STEM Professionals
Genetech Hall, UCSF (600 16th St., SF)
- Oct 5** National Chemistry Week
Theme: Marvelous Metals
MLK Library, San Jose, CA
elizabeth.migicovsky@sjsu.edu
- Nov 2** *Bay Area Science Festival*
Oracle Park, San Francisco
- Nov 8** Bay Area Chemistry Symposium
Merck Research Laboratories
South San Francisco, CA
greaney19@gmail.com

For more details and to register,
go to the Calendar page at <https://svacs.org>