

Silicon Valley Chemist

Silicon Valley Section

American Chemical Society

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JULY 2019 NEWSLETTER TOPICS

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Connect with Chemists

An early morning chat with fellow chemists
Thursday, July 18th, 2019, at 7-8 am
 Coupa Café, 538 Ramona Street, Palo Alto
 Contact Ean Warren (ewarren@scvacs.org)
 for more information or ask for ACS at Coupa.

2019 Shirley B. Radding Award

Professor Mary Virginia Orna

The Radding Award committee has proudly selected Mary Virginia Orna as the 2019 Radding Award recipient.

The Radding Award selection criteria include: member of ACS for 20 years, demonstrated unselfish service to ACS members over a sustained period of time, provided leadership through elected and appointed ACS positions at local, regional and national levels, and made significant contributions to industrial, applied or academic chemistry.

Mary Virginia Orna is Professor Emerita of Chemistry at the College of New Rochelle and President of ChemSource, Inc., a major effort in chemistry teacher preparation and enhancement funded by the National Science Foundation. She is also former Director of Educational Services at the Chemical Heritage Foundation and former Publications Coordinator of the *Journal of Chemical Education*. She received her Ph.D. in analytical chemistry from Fordham University. She has lectured and published widely in the



areas of color chemistry and archaeological chemistry. Her articles have appeared in the *Journal of Chemical Education*, *Color Research and Application*, *Studies in Conservation*, *Analytical Chemistry*, *Microchemical Journal*, *Journal of Biological Chemistry*, *American Chemical Society*

monographs, and various other journals. She has also authored numerous book chapters and encyclopedia articles, seven books and edited twelve others. She is active in several divisions of the American Chemical Society, having served as Chair, Program Chair and Treasurer of the Division of the History of Chemistry, and Chair of the Division of Chemical Education. She is currently serving as ACS Councilor and a member of the ACS Divisional Activities Committee. She served as Treasurer and Member of the Examinations Institute Board of Trustees of the Division of Chemical Education for twelve years. She was also Program Chair for the 14th Biennial Conference on Chemical Education which

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Chair's Message

Grace Baysinger



Greetings! This month we were excited to learn that the Silicon Valley Section is a finalist for several *ChemLuminary Awards*. Winners will be announced

at the ACS Fall National Meeting. The July 17th issue of C&EN had an article (see pages 36-37) called *Local sections engage the public in Chemists Celebrate Earth Week*

that included "The Silicon Valley Section held an event at the San José Public Library. Volunteers discussed the chemistry of paper while showing visitors how to fold origami. More than 60 people participated in activities." Many thanks again to Liz Migicovsky for all her efforts to make this event a success!

Upcoming events: Please join us for the Silicon Valley Section's *Annual Awards Picnic and 50+ Year Member* recognition that will be held on July 13th from 4-8pm at Stanford. This event will include beer and wine tasting for people 21 years or older plus BBQ dinner catered by Armadillo Willy's. *Chemistry Trivia Night* – join the Younger

Chemists from the Silicon Valley and California Sections as they partner with the local Bay Area AIChE chapters to host a Science-themed trivia night at Freewheel Brewing in Redwood City on Wednesday, July 17th from 7-9pm. Chemistry and Water is the theme for the *ACS National Meeting and Exposition* that will be held in San Diego on August 25-29th.

New and noteworthy content on the ACS website: ACS's *Outreach Training Program* is "designed to help ACS members passionate about science outreach fully maximize Society resources through in-person

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Radding Award, continued from front page

was held at Clemson University in August, 1996. She is also former Associate Member of the Society Committee on Education, and former member of the Local Section Activities Committee, the Committee on Meetings and Expositions, the Committee on Committees, the Committee on Nominations and Elections, and the Council Policy Committee. She is a 1984 recipient of the Chemical Manufacturing Association's Catalyst Award for excellence in college chemistry teaching, the 1989 CASE (Council for the Advancement and Support of Education) New York State Professor of the Year and National Gold Medalist Award, a recipient of the 1989 Merck Innovation Award, the 1996 Western Connecticut ACS Section's Visiting Scientist Award and the 1996 recipient of the James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry. She also received the American Chemical Society's 1999 George C. Pimentel Award in Chemical Education, the 2008 Henry Hill Award, and the 2009 ACS Award for Volunteer Service. She has presented plenary lectures and named lectureships on at least a dozen different occasions. She was a Fulbright Fellow in Israel (1994-95) where she lectured at The Hebrew University, The Weizmann Institute of Science and Shenkar College of Textile Technology. She also did research

on ancient middle-eastern artifacts in collaboration with the Israel Antiquities Authority, the Israel Museum and the Edelstein Center for the Analysis of Middle Eastern Textiles and Related Artifacts. She spent Spring, 1995, in Italy where she studied Italian language and examined Italian medieval manuscripts. As a hobby, she enjoys constructing crossword puzzles and has been a frequent contributor to the *Sunday New York Times*, *SciQuest*, *Clinical Chemistry News*, *American Laboratory*, *Today's Chemist* and other publications. She is an ACS tour speaker and has been an invited lecturer to every part of the United States and many countries in Europe, the Middle East, and the South Pacific. Her two recent books, *The Lost Elements: The Periodic Table's Shadow Side* (Oxford University Press) and *Science History: A Traveler's Guide* (American Chemical Society and Oxford University Press) are popular offerings. Her 2013 book, *The Chemical History of Color* (Springer), was recently very favorably reviewed in the *Journal of Chemical Education* in conjunction with the ACS National Chemistry Week theme on color; it has also been named the most popular book in the Springer series on the History of Chemistry. Her latest book, *Carl Auer von Welsbach: Chemist, Inventor, Entrepreneur*, was published by Springer in September and her 19th book, ACS

Symposium Series Volume *Chemistry's Role in Food Production and Sustainability: Past and Present*, was recently published online and will appear in print later this year.

Call for Nominations for the Executive Committee

It's that time again – time to select candidates for the Executive Committee officers for 2020-2021. We are in the process of forming a nominations committee that will be chaired by Madalyn Radlauer. We are looking for candidates for all the positions of the Executive Committee:

Chair Elect, Secretary, Treasurer, Councilor, and Alternate Councilor.

The Executive Committee meets once a month and is responsible for the oversight and implementation of section activities. All members of the Executive Committee are encouraged to attend the monthly meetings as well as other section activities. Councilors are also expected to represent the interest of our section at the National ACS meetings. Alternate councilors are asked to attend the National meetings if a councilor is not able to participate. The specific duties of these positions are outlined on our website at http://svacs.org/?page_id=4.

If you are interested in becoming involved and would like to run for one of these offices, please contact Madalyn (madalyn.radlauer@sjsu.edu) or other current ExComm members. We look forward to hearing from you.

Chair's Message, continued from front page

workshops at regional meetings or a seven-week online course." The Journal of Chemical Education announced a *call for papers for an upcoming special issue on Chemical Safety Education: Methods, Culture, and Green Chemistry*. Manuscripts must be submitted by February 3, 2020, to receive full consideration. Celebrating its *140 year anniversary*, Journal of the American Chemical Society (JACS) article gives *Cambridge Structural Database* its 1 millionth structure (Source: *Axial*, June 7, 2019). For your information, *free ACS Webinars - Live every Thursday at 2pm ET* (11am PT).

In celebration of the International Year of the Periodic Table (IYPT 2019):

Throughout 2019, the Royal Society of Chemistry is partnering with *Compound Interest* to bring you an *infographic for every element*, in Periodic Table order, from H to Og. Forthcoming book of potential interest - *Women in Their Element: Selected*

Women's Contributions to the Periodic System. Lykknes, A., Van Tiggelen, B., Eds. World Scientific, 2019. DOI: [10.1142/11442](https://doi.org/10.1142/11442) "This book offers an original viewpoint on the history of the Periodic Table: a collective volume with short illustrated papers on women and their contribution to the building and the understanding of the Periodic Table and of the elements themselves."

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
graceb@stanford.edu

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

Chemistry Quiz

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

The answer will appear in next month's newsletter.

Last Month's Chemistry Quiz

What is the name for the reaction between amino acids and reducing sugars responsible for giving browned food, such as seared meat and baked bread, their distinctive color and flavor?

The Maillard reaction is responsible for the characteristic color and flavor of browned food.

SVACS Annual Picnic, Wine and Beer-Tasting, and Awards Ceremony

Please join us for the 2019 SVACS picnic at the Stanford University Chemistry Gazebo. The event will be held on Saturday, July 13, 2019 from 4-8pm. There will be a beer and wine tasting beginning at 4pm, followed by BBQ dinner from Armadillo Willy's at 5pm. Awards will be presented starting at 7pm.

Registration fees for the entire program, including wine and beer and food, are \$20 for adults, \$10 for students, and \$5 for children 12 and under. Anyone interested in attending can register at <https://www.brownpapertickets.com/event/4251741>.

The deadline for registration is
Wednesday, July 10, 2019.

50+ Year ACS Members

To Be Recognized at the
2019 Silicon Valley ACS Awards Picnic

Dr. T H Geballe
Dr. Charles E Brockway
Dr. John E De Vries
Dr. Saul W Chaikin
Dr. Carol Mosher
Dr. Alice O Robertson
Dr. George Rosenkranz
John F Creedon
William B Burton
Mary Harriette Huff
Edgar S Oerman
Dr. Darleane Christian Hoffman
Dr. Kirtland Edward Mc Caleb
Dr. Robert N Anderson
Dr. Joseph A Castellano
Melvin E Ebeling
Louis K Gottwald
Dr. Roy G Hayter
Dr. John A O Malley
Dr. Ronald C Orłowski
Dr. David S Ross
M G Suryaraman
Lowell C Yeager
Frank Chambers
George Pieslak
Dr. Richard Michael Rodgers
William Lindsay Sanborn
Dr. Brock Siegel
Monica Spiller
William Frederic Taylor
Dr. Eugene Deloy Thorsett
Pui Kwan Wong
Dr. Paul Wender



an ACS
sponsored
event



The Silicon Valley ACS is excited to announce 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, and Novartis. It is 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 BACS will highlight work in the fields of biochemistry, organic, and computational chemistry from local

academic and industrial research groups with a full day of presentations and an evening poster session. A roughly 50-50 split between academia and industry is expected.

The event will be held on Friday, November 8, 2019 from 9am-7pm at Merck in South San Francisco. Companies interested in participating and/or being featured as corporate sponsors should email bacs@scvacs.org. Additional information can be found at www.svacs.org/bacs. Questions and inquiries should be sent to Matt Greaney (SVACS Chair-elect, 2019) at greaney19@gmail.com. Frequent updates will be provided.

Sidney Harris Cartoon Contest Winner

A Silicon Valley section member is the winner of the Sidney Harris cartoon contest sponsored by the ACS History Division! Congratulations to **Joe Ranish** from San Jose! He submitted the winning caption and Sidney Harris drew the cartoon to accompany it. Dr. Ranish is recently retired after more than 20 years with Applied Materials. Come meet him at the summer picnic and admire his original signed cartoon from Sidney Harris.

Joe Ranish has successfully completed his first year of retirement from a 21 year career at Applied Materials. A Distinguished Member of the Technical Staff, he has (co)authored over 100 patents in semiconductor processing. His academic training includes BS chemistry, Penn State, MS physical chemistry, University of Chicago, Bettis Reactor Engineering School courses, West Mifflin, PA, and PhD Fuel Science, Penn State. Over his 50+ year career in science and engineering, he has developed a broad background in chemistry, physics, mathematics, and computer programming and has worked in the fields of teaching, industrial water and waste analysis, nuclear materials, chemical kinetics, lamp technology, and semiconductor processing. (This does not include the early years in his lab above his parents' garage.) He is a member of the ACS, MRS, and California Rare Fruit Growers. He currently spends his time consulting, gardening, hiking, reading, and cooking.



Northern California Undergraduate Research Symposium

by Linda Brunauer

Each year the Silicon Valley and California Sections of the American Chemical Society help to sponsor a research symposium for chemistry and biochemistry undergraduates. The annual Northern California Undergraduate Research Symposium ("NCURS") gives undergraduate students a chance to present the results of their individual research projects in a supportive environment. For many students, this event serves as their first chance to interact with fellow scientists from other institutions in a professional setting. The first conference was held in 1989 at Santa Clara University with Drs. Linda Brunauer and Michael Sweeney serving as conference co-directors. What started out as a small-scale conference, with about a half-dozen oral presentations, soon blossomed into a very robust event.

The 2019 symposium, hosted by Santa Clara University under Professor Brunauer's direction, had a record turnout of nearly 250 undergraduates and faculty mentors from universities and colleges in the two sections as well as guests from the Sacramento section. The day-long event featured twenty six oral presentations in 5 concurrent sessions followed by 2 poster sessions that included nearly ninety poster presentations. The work presented by these budding scientists was extremely impressive! The event concluded with a wonderful keynote address: "What is Special About Enzymes? Catalysis, Electric Fields and Evolution" presented by Dr. Steven Boxer (Stanford University, Department of Chemistry).

The section sends special thanks to the Chemistry Club and the faculty and staff of the Santa Clara University Department of Chemistry and Biochemistry for all of their hard work in organizing and implementing the event. We also send out a special thank you to the SCU College of Arts and Sciences, the Department of Chemistry and Biochemistry, and the Chemistry Club for their financial support for NCURS 2019.



Sidney Harris Cartoon

It is impossible to imagine what the world around us would look like without chemistry. Whether producing high-performance athletic apparel or commercializing paint with less environmental impact, chemistry is central to everything! For me, having spent much of my career at DuPont, I continue to be personally and professionally committed to DuPont's onetime vision of making "Better Things, for Better Living, through Chemistry." Now, leading the American Chemical Society whose mission is "Improving people's lives through the transforming power of chemistry," I'm inspired to see the power of innovative chemistry harnessed worldwide. I challenge those in the chemistry enterprise to follow the lead of this cartoon and clearly communicate the wonders and benefits of this central science to everyone around them.

--Thomas M. Connelly, Ph.D., ACS Executive Director and Chief Executive Officer



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

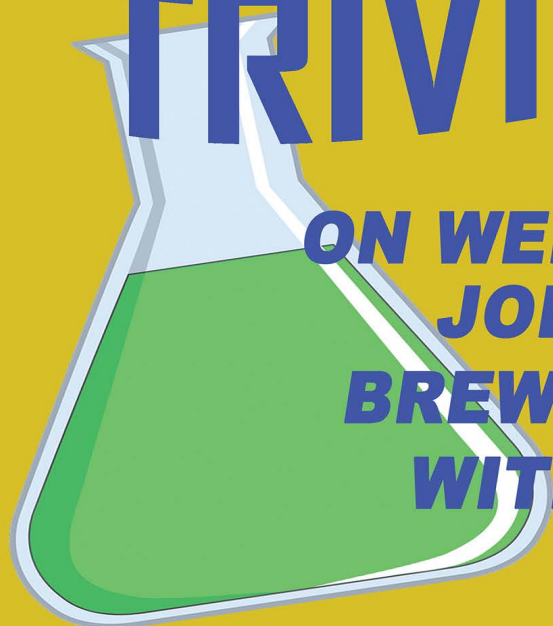
Jasmine Amerson
Stephen E. Ammann
Apparao Bokka
Dr. Allyson Brooks
Dr. Margaret Butko
Dr. Frederick T. Chin
Bridget Connor
Nick DeMello
Serge Faguet
Kirin Furst
Marta Garcia
Natalie Gumataotao
Xuanrong Guo

Jacob Calvin Hickey
Robian Ho
Brittanie Hoang
Kimberly Huckaby
Dr. Michael Kappler
Daniel Kimm
Jacob Feldman King
Sandija Linde
Steven Mancini
Eugene Marsh
Dr. Alison McQuilken
Jana Meiser
John Mulcahy

Katsuyuki Murase
Roshy Pakdaman
Bryan Reynolds
Alan Jeffrey Smith
Cameron Smith
Jeffrey Smyth
Alex Szczuka
Maoqun Tian
Sarah Vespremi
David Ray Wagner
Wenyi Wang
Zhong Zhang

**YOUNGER CHEMISTS COMMITTEE
HOSTS**

CHEMISTRY TRIVIA NIGHT



**ON WEDNESDAY, JULY 17TH
JOIN US AT FREEWHEEL
BREWERY FOR TRIVIA FUN
WITH PLENTY OF PRIZES**

3736 Florence St, Redwood City

Quiz round #1 will start at 7 pm
Come early to assemble your team
and grab some refreshments!



COSPONSORS



Register at <https://www.brownpapertickets.com/event/4278317>

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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

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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@svacs.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
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2019-2019	Todd Eberspacher	650-723-2505	eberspacher@stanford.edu
2019-2021	Laura Yeager	626-826-3145	laura.yeager123@gmail.com
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2019-2021	John Goeltz	831-582-4661	jgoeltz@csuumb.edu

Newsletter

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ChemPloyment Abstracts

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

- Jul 13** *SVACS Annual Picnic, Wine/Beer-Tasting and Awards Ceremony*
Stanford Chemistry Dept., Stanford, CA
- Jul 17** *YCC Chemistry Trivia Night*
Freewheel Brewing
Redwood City, CA
- Jul 17** *The Code: Silicon Valley and the Remaking of America*
Margaret O'Mara
Computer History Museum
Mountain View, CA
- Sep 7** *Flavors of Chemistry*
Sacramento Local ACS Section
UC Davis
- Sep 27** Monterey Bay ACS sub-section
Dr. Rebecca Braslau, UCSC
Safe Alternatives to Phthalates Used in Plastics
Cabrillo College, Sesnon House
Aptos, CA
Saragerhar@cabrillo.edu
- Oct** National Chemistry Week
Theme: Marvelous Metals
Date TBD, MLK Library, San Jose, CA
- For more details and to register,
go to the Calendar page at <https://svacs.org>