

Silicon Valley Chemist

Santa Clara Valley Section

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DECEMBER 2011 NEWSLETTER TOPICS

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The 2011 Harry and Carol Mosher Award Winner

William F. Carroll, Jr. Ph.D.

The Best Newsprints and K. M. Reese

If you're like me, you probably read the beginning and end of Chemical and Engineering News before (and maybe instead of) the stuff in the middle. The back page of C&EN, Newsprints, was the province of Ken Reese for nearly 35 years. His eclectic and wry sense of humor made that section the place many of us turned first.

This talk, which is an extension of a presentation made in the late Professor Jack Stocker's symposium "Whimsy in Chemistry" is a compilation of and commentary on of some of the best and funniest blurbs presented in Newsprints between 1930 and 2000.



Biography

Dr. William F. Carroll, Jr. holds a Ph.D. in Organic Chemistry from Indiana University in Bloomington. He is currently Vice President, Industry Issues, for Occidental Chemical Corporation and also an Adjunct Professor of Chemistry at Indiana.

Bill is a Past President (2005) of the American Chemical Society, and a current member of its Board of Directors. He is a

continued on next page

January Dinner Meeting

Date: Thursday, January 19, 2012

Time: 6:00 Social Hour

7:00 Dinner

8:00 Presentation

Speaker: Dr. William Carroll
Former President of the American Chemical Society

Location: Biltmore Hotel & Suites
2151 Laurelwood Boulevard
Santa Clara, CA

Cost: \$26.00, Chicken Monterey or Vegetarian Crepes

Reservations: www.scvacs.org
Sally Peters 650-812-4994

Reservations should be made by January 16th stating your name, address, company/school affiliation, number of people in party. Watch the web site for more information. If you are unable to honor your reservation and do not cancel by Wednesday, January 18th, you will be invoiced following the dinner meeting.

Chair's Message

As the year 2012 is wrapping up, (no Christmas pun intended!) I hope that you will indulge me as I reminisce about the fun and unforgettable events this year has held for me as Chair of Santa Clara Valley ACS. In late-night style, here is my Top Ten List of Notable Chair Moments 2012:



10. Learning how to navigate Facebook during the wee hours of the night in order to create and embellish the Santa Clara Valley ACS Facebook page. This is my last plug ...for 2012! Click on "Like" to have the page updates stream directly to you!
9. Presenting Santa Clara Valley ACS Awards to bright young high school scientists at the Synopsis Championships

Award Ceremony. Science fair projects have come a long way since I did "How to Dust Fingerprints" in middle school!

8. Teaching my fellow Chairs Elect how to two-step while listening to Loretta Lynn croon live during the weekend of the Leadership Development

Conference in Fort Worth, TX. I treasure the new friendships that sprung from this helpful and thought-provoking conference.

7. Conceiving and rolling out the first-ever IYC Treasure Hunt at the Annual Summer Picnic. I'm continually striving to make our family events inclusive to you busy professionals that have munch-

continued on next page

2011 Mosher Award, continued from front page

Fellow of the Royal Society of Chemistry, and chair or member of a number of committees for the National Research Council of the National Academy of Sciences. He is a member of the advisory board for the Tulane University School of Science and Engineering. In 2009, he was chair of the Council of Scientific Society Presidents.

On behalf of OxyChem he has chaired numerous committees for industry associations, including the American Chemistry Council and the Vinyl Institute. He has served on expert groups commissioned by the United Nations Environment Programme, the US Environmental Protection Agency and three states—most recently the California Green Ribbon Science Panel.

Bill holds two patents, and has over sixty publications in the fields of organic electrochemistry, polymer chemistry, combustion chemistry, incineration and plastics recycling.

Bill has received the Henry Hill Award, sponsored by the ACS Division of Professional Relations, the Michael Shea Award from the Division of Chemical Technicians, Distinguished Alumni Awards from both Indiana and DePauw University and the Vinyl Institute's Roy T. Gottesman Leadership Award for lifetime achievement.

And he is now the winner of the Santa Clara Valley Section's highest award, the Harry and Carol Mosher award. This award was established in 1980 by our Section to:

1. Recognize and encourage outstanding work in chemistry,
2. Advance chemistry as a profession, and
3. Recognize service to ACS.

The award is named for the late Dr. Harry S. Mosher of Stanford University, and Carol W. Mosher of the Stanford Research Institute International, Menlo

Park, husband and wife and charter members and long-time supporters of this Section.

The award currently consists of an engraved plaque and a check for \$2000. Bill has very generously decided to donate his stipend back to our Section to support the Community College Teacher Scholar Award, for which he receives our heartfelt thanks.

The first scientists to receive this award were Drs. Harry and Carol Mosher themselves in recognition of the inspiration of their example. The committee noted that the Moshers, including a brother, Dr. William A. Mosher, also a chemist, are outstanding examples of the qualities to be recognized and honored by this award.



Chair's Message, continued from front page

- kins at home, so this may have to become an annual event!
6. Accosting Joe Francisco in a random BART train, and in a short 10-minute ride, convincing him to speak at our College Teacher Award dinner. Being Chair-Elect gave me the confidence to approach him, and a chance to update the then President of the ACS on SCV happenings.
 5. Expecting to give a National Chemical Historic Landmark speech to about 20 people at Agilent Technologies to cele-

brate the creation of NMR—and finding myself in front of a room of ~250 scientists and NMR enthusiasts. This definitely sent my adrenaline coursing and was a great experience to represent our local section and National ACS.

4. Collaborating with the very energetic Palo Alto AWIS group to hold our first-ever joint dinner meeting. I hope this will become a regular event!
3. Successfully convincing talented local scientists to come speak at our monthly dinner meetings. I chose topics that intrigued me, and I hope they intrigued you too! During 2012, we are reinvigorating our Programming Committee to continue to bring interesting local meetings to you—so please email me with your suggestions and requests for 2013! Or better yet, email me to let me know you'd like to be on this important committee. And you, too, can plan meetings that intrigue YOU!
2. Indulging my (and your) taste buds with Chinese food, Indian food and beer! The Programming Committee also seeks your suggestions for new dinner venues—so give us your best ideas!
1. Leading eleven ExComm meetings with the brightest, most selfless and caring individuals a Chair could hope to work with! A hearty thanks to my colleagues on the Executive Committee for your help and advice and for making this year such a rewarding one for me!



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Call for Proposals for a Bubble Grant

The Santa Clara Valley Section of the American Chemical Society wants to provide elementary and secondary school educators with tools they can use to revitalize science programs. The section is pleased to announce a call for proposals from K-12 science teachers to apply for a BUBBLE grant of up to \$500 for worthwhile science projects. Grants will be awarded for projects that enhance the teaching of physical, life or earth science. This grant program will consider funding of amounts requested in a proposal, but reserves the right to fund some proposals partially. Budget items may include, but are not limited to scientific equipment, instructional materials, and supplies related to the proposed project.

Below is a letter from Alice Bristol, a past winner of the SCVACS Bubble Grant. Letters like this remind everyone of the power that grants like this can have on people. The photos also show some of the



great items that the money has funded for the kindergarten class taught by Ms. Bristol.

“Thank you so much for funding my classroom. In today's budget crisis and educational focus on testing in language arts and math, science is often overlooked. There is no money for supplies or enrichment. I teach Kindergarten children and they LOVE science. Live creatures and tools to observe them in our classroom was always an important part of teaching science in previous years before the money was no longer available. With your generous contribution I have been able to bring this magic back into my classroom. We started the year with live monarch caterpillars feasting on milkweed plants and turning into beautiful butterflies. We planted a garden that children tend each day and planted seasonal seeds and bulbs. I plan to keep a constant supply of creatures and their habitats in our Science Center for students to observe and learn about throughout the year. It is so nice to be able to plan the school year and include these hands on activities once again. I have enclosed a couple of pictures of items that have been purchased so far and I look forward to adding more live creatures throughout the year.” In appreciation, Alice Bristol”



Welcome to the Santa Clara 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 dinner 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 spouse (or friend) will be our

guests. The dinner meetings are often the 3rd Thursday of the month at a local spot, somewhat convenient to the entire section. If you are unable to attend in the evening, perhaps you would join us for an outreach event, like judging a science fair, participating in the Chemistry Olympiad, or 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 Members List for November

Tori Bahe	Dr. Florence Jovic	Holger Saul Perez
Mark S. Bailey	Hee Jong Kim	Luu Pham
Kenneth W. Benner	Gerd G. Kochendoerfer	Steven Quintero
Christine Chabot	Rama K. Kondru	Richard L. Remmele Jr.
Dr. Daniel Gregory Chan	Dr. David Lechuga-Ballesteros	Dr. Emma Ellen Rennie
Jason Chang	Gerald Thomas Lisowski	Donald Stephan Ripatti
Dr. Kyra Juliana Cowan	Yulin Lu	Dr. Ananthkrshnan
Juan Culebro	Dr. Jingyuan Ma	Sankaranarayanan
Jessica Douglas	Dr. Steven Magnuson	Dhruv Seshadri
Dr. M Peter Dreyfuss	Dr. Parag Mallick	Geoffrey Thomas Slaughter
James Flanagan	Dr. Lisa Milstein	Sarah M. Sterling
Andrew Gentile	Dr. Mingyu Ngai	Dr. Thomas T. Tidwell
Cynthia Ann Gonsalves	Tan Minh Nguyen	Dr. Irina S. Touloukhonova
Stephen Frank Hahn	Kingsley O. Odigie	Dr. Martha L. Tse
Bradley Jean-Baptiste	Miss Chia-Ling Pai	Dr. Peter M. Yehl
Dr. Lisa R. Jones	Rachel Parke-Houben	Dr. Mark Zak



Highlights from The National Science Week

Photos Courtesy of Lois Durham



Abby Kennedy and Linda Brunauer



Color-Changing UV Beads



Freezing Point Depression



Fen Xu, Linda Brunauer and Myat Ni



Kishan Patel and Coren Randall




Bruce Raby and Abby Kennedy



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How To Grow a Borax Crystal Snowflake

Do real snowflakes melt too quickly?

Grow a borax crystal snowflake, color it blue if you like, and enjoy the sparkle all year long!

What You Need:

- string
- wide mouth jar (pint)
- white pipe cleaners
- borax (see tips)
- pencil
- boiling water
- blue food coloring (optional)
- scissors

Here's How:

- The first step of making borax crystal snowflakes is to make the snowflake shape. Cut a pipe cleaner into three equal sections.
- Twist the sections together at their centers to form a six-sided snowflake shape. Don't worry if an end isn't even, just trim to get the desired shape. The snowflake should fit inside the jar.
- Tie the string to the end of one of the snowflake arms. Tie the other end of the string to the pencil. You want the length to be such that the pencil hangs the snow-

flake into the jar.

- Fill the wide mouth pint jar with boiling water.
- Add borax one tablespoon at a time to the boiling water, stirring to dissolve after each addition. The amount used is 3 tablespoons borax per cup of water. It is okay if some undissolved borax settles to the bottom of the jar.
- If desired, you may tint the mixture with food color.
- Hang the pipe cleaner snowflake into the jar so that the pencil rests on top of the jar and the snowflake is completely covered with liquid and hangs freely (not touching the bottom of the jar).
- Allow the jar to sit in an undisturbed location overnight.
- Look at the pretty crystals! You can hang your snowflake as a decoration or in a window to catch the sunlight.

Tips:

- Borax is available at grocery stores in the laundry soap section, such as 20 Mule Team Borax Laundry Booster. Do not use

Boraxo soap.

- If you can't find borax, you can use sugar or salt (may take longer to grow the crystals, so be patient). Add sugar or salt to the boiling water until it stops dissolving. Ideally you want no crystals at the bottom of the jar.



CHEMEMPLOYMENT ABSTRACTS DECEMBER 2011

For a complete list of current abstracts, please visit: www.scvacs.org/Local_Folder/abstract.htm

CHEMEMPLOYMENT ABSTRACT 3973

Position Title: Scientist – Analytical Chemist

Job Description: The candidate will be responsible for leading QA and QC work for the company on all products and creating analytical equipment base for stable control of incoming and outgoing chemical materials.

QUALIFICATIONS DESIRED:

Education: MSc/PhD in analytical chemistry

Experience:

- 5 years or more in analytical lab
- Good knowledge of organic chemistry and general analytical chemistry
- Direct experience running the instruments and interpreting data using HPLC, MS, H1-NMR, IR, UV-Vis spectrophotometry, DSC/TG
- Proficient with MS Office (Word, Excel, Power Point, Project)

LOCATION, SALARY, EMPLOYER:

Job Location: South San Francisco, CA

Salary: DOE

Employer: Crysoptix has developed coatable materials for commercial production of Thin Birefringent Film™ (TBF™)* retarders via slot-die technology. Please refer to website www.crysoptix.com

Application Instructions: Please send your resume to info@cryscade.com. Thank you.

CHEMEMPLOYMENT ABSTRACT 3974

Position Title: Senior Scientist/Associate Director - Antibody Drug Conjugation (ADC)

Job Description: Candidates should have extensive experience in protein and antibody conjugations and be a demonstrated thought leader in the ADC field. The successful candidate will interface with both chemist and biologist in developing new technologies for the production of ADCs as well as optimizing current strategies. The position allows the successful candidate to play a pivotal role in augmenting Genentech's strong clinical pipeline of new therapeutic ADC candidates.

QUALIFICATIONS DESIRED:

Education: PhD in Biochemistry, Molecular Biology or Chemistry

Experience: 10 or more years of experience working with proteins, antibodies and conjugation technologies. The candidate must have strong biochemical, analytical and biophysical skills including mass spectrometry and all chromatographic techniques.

LOCATION, SALARY, EMPLOYER:

Job Location: South San Francisco, CA

Salary: DOE

Employer: For more than 30 years, Genentech has been at the forefront of the biotechnology industry, using innovative science to develop breakthrough medicines that improve the lives of people with serious or life-threatening diseases.

Application Instructions: To apply for this job, visit <https://roche.taleo.net/career-section/test/jobapply.ftl?lang=en&cjob=00380053&src=JB-11480>. EOE



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ChemPloyment Abstracts

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FUTURE MEETINGS

Dec 15	AWIS Meeting PARC It's All About Networking <i>www.pa-awis.org</i>
Jan 19	Dr. William Carroll Former President of the American Chemistry Society Biltmore Hotel & Suites Santa Clara, CA
Feb 16	Dr. Ripudaman Malhotra A Cubic Mile of Oil Location TBD
Mar 15	Dr. Peter Rusch New Definition of the Kilogram Biltmore Hotel & Suites Santa Clara, CA
Mar 25-29	Spring National Meeting San Diego, CA
Mar-Apr	Santa Clara Valley Chemistry Olympiad