

Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

Volume 28 No. 5

Chair's Message

I attended a most interesting and encouraging event with Howard Peters (one of two members of our local section who serve on the National ACS Board of Directors) on April 2nd at the Great America Theme Park. No, it wasn't the opening of a new ride, IMAX movie, or show. It was the awards ceremony for the Synopsis Science & Technology Championship. In last month's newsletter, Howard told us about the Championship where he and others in our local ACS section joined other scientists and engineers and served as judges for the almost 1000 student projects.

In another article in this issue he tells us in more detail about the awards ceremony. What I found interesting and encouraging about the afternoon was that the large theater was twice filled that afternoon with hundreds of students, their families, and teachers who were excited about science and technology. It was a small oasis of encouragement and hope in the midst of depressing trends and gloomy predictions at national ACS meetings, Chemical and Engineering News, and the national and local press regarding the increasing capabilities of other countries' science and technology compared to the decreasing numbers of the same degrees issued in the United States.

It was encouraging to see corporations like Synopsis and Intel (who sponsors the International Science and

Engineering Fair) funding science competitions. It was also encouraging to see the many individuals who volunteer to organize and judge the events, as well as the students, teachers, and families who invest their time and effort. If you have the opportunity to get involved, grab it. I think you will find it rewarding and enjoyable.

You may have noticed that we do not have dinner meetings scheduled for May or June. We do have a good start on planning our annual awards and family picnic meeting tentatively scheduled for Saturday, July 15th at Stanford University. Our Chair Elect, George Lechner, has lined up beer tasting (rather than our usual wine tasting) to start off the afternoon. Dave Nehr Korn will be guiding us through the tasting. We will also be presenting awards, enjoying a picnic, and honoring members of our local section who have been ACS members for 50 years. This is a great event and I hope you can join us.

We are also trying to schedule a joint meeting, for this summer, with the California Section to honor the five members of our sections who received awards from the National ACS at the Atlanta meeting in March. We would like them to have time to tell us about their work that merited the awards they received and again offer our congratulations. When, and if, we can get their very busy schedules to coincide on one date this summer, the two local sections will schedule the event and let you know the date and location in a subsequent newsletter.

Speaking of the Newsletter, you will probably see monthly reminders to:

- join our email group at SCVACS-newsletters-subscribe@yahoogroups.com to receive a monthly reminder the newsletter has been posted on our web site, or
- mail us a letter stating you want to continue receiving hard copy of the newsletter.

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SIGN UP FOR EMAIL ALERTS!

Attention Readers: After August of this year, the newsletter will no longer be sent to all members. It will be published primarily on our website, www.scvacs.org. In order to be notified of new newsletters, subscribe to our Yahoo group by sending an email to SCVACS-newsletters-subscribe@yahoogroups.com. Every month, you will receive a short email when the newsletter is posted to the SCVACS website. This email group will be ONLY used for this purpose. You can unsubscribe at any time.

Chair's Message, continued from front page

We plan to transition from hard copy to web site posting in August and do not want you to miss an issue. We are currently receiving requests to be on the hard or soft copy lists, but still have not heard from everyone. E-mail or mail us today with your response

Enjoy your spring time and join us for the picnic in July.

Dave Parker



National Chemistry Week "Your Home, It's All Built on Chemistry"

October seems far away, but it and National Chemistry Week (NCW) will be here before we know it. Each year the American Chemical Society's NCW campaign reaches millions of people with positive messages about the contributions of chemistry to their daily lives. It is the one time during the year that chemists unite with the common goal of spreading the word that chemistry is good for our economy, our health, and our well-being. The celebration dates for 2006 are October 22 – 28 with the theme, "Your Home—It's All Built on Chemistry".

Planning starts long before NCW arrives, and the SCV local section coordinator is Abby Kennedy. Contact the NCW Coordinator at akennedy@exelixis.com.

Some ways that you can contribute to the NCW campaign are: helping at an event planned by the NCW coordinator; performing chemical demonstrations at a neighborhood school; conducting hands-on activities with children at museums, malls, or libraries; or writing articles or letters to the editor of the local paper.

NCW is sponsored by the Office of Community Activities (800-227-5558 ext. 6097, ncw@acs.org). Visit <http://chemistry.org/ncw> over the summer as more content is added!

Please join the celebration!

REMINDER - Shirley B. Radding Award

The Santa Clara Valley Section of the American Chemical Society (ACS) announces the call for nominations for the 2006 Shirley B. Radding Award.

First awarded in 1994 to its namesake, the Shirley B. Radding Award annually honors someone who has been a member of the ACS for at least 20 years. Nominees must have demonstrated dedicated, unselfish leadership, service and significant contributions over a sustained period of time to industrial, applied or academic chemistry and to the ACS through elected or appointed positions at local, district and national levels.

Award Criteria:

- Member of the American Chemical Society for more than twenty (20) years.
- Demonstrated dedicated and unselfish service to ACS and its members over a sustained period of time.
- Provided leadership through elected and appointed ACS positions at local, district and national levels.
- Made significant contributions to

industrial, applied or academic chemistry.

Previous Award Recipients:

- 1994 Shirley B. Radding
- 1995 Agnes Ann Green (deceased)
- 1996 John F. "Jack" Riley
- 1997 Howard M. Peters
- 1998 Alan C. Nixon (deceased)
- 1999 Valerie J. Kuck
- 2000 Halley A. Merrell
- 2001 Norman A. LeBel (deceased)
- 2002 Paul H. L. Walter
- 2003 Jean'ne M. Shreeve
- 2004 Maureen G. Chan
- 2005 Glenn Fuller

The award consists of an honorarium of \$1,000 and a suitably inscribed memento. Nominations must consist of at least one letter of nomination stating how the nominee's work relates to all aspects of the award. It is strongly recommended that seconding letters accompany the nomination.

Nominations are due on or before May 1, 2006, and must be mailed to:

Radding Award Committee

Santa Clara Valley Section ACS
P. O. Box 395, Palo Alto, CA 94302

ACS Online and Webcast Short Courses

Take an ACS Short Course without leaving your lab! It's a fast, efficient way to improve your skills. You'll save the expense and inconvenience of travel, while benefiting from proven courses taught by expert instructors. The classes are small with live, interactive sessions.

NEW! Manager's Special— Get five webcast course registrations for the price of four. You can sign up one person for five courses or five people for five different courses (or some combination in between). Getting the fifth course (of equal or lower value) for free is not automatic and is subject to some restrictions. To see if you qualify, contact Kevin McCue at 202-872-8728 or k_mccue@acs.org

For more information about the courses, please visit www.chemistry.org. Space is limited, so register soon for the courses you want!

The Tenuous Connection of Joseph Priestley with Stanford University

How can Joseph Priestley who died in Pennsylvania in 1804 have a connection to Stanford University, which was founded in 1891?

Therein lies an interesting story.

Joseph Priestley (1733-1804) is generally recognized as one of the key discoverers of the gas oxygen (and also 7 other gases, as well as the rubber eraser).



He is generally recognized as the Father of American chemistry, and the highest annual award of the national American Chemical Society is the Priestley Award. Most of Priestley's chemical research was performed in England while he was a minister and a teacher. He was also very outspoken in England during

the 1770-1780's, as he was in favor of the colonies position during the Revolutionary War. Later his support of the French peasants



during the French Revolution was very unpopular and eventually led to his lab

and home being burned by a mob, which forced him and his family into exile in America. He and his wife Mary were on the ship to Pennsylvania when Lavoisier, his French counterpart in the saga of the discovery of oxygen, lost his head in Paris. Priestley's home, now a National Historic Chemical Landmark, is preserved in Northumberland, PA (where the North and West branches form the Susquehanna River).

About 1800, his son William was publicly accused of trying to poison the family to gain his inheritance. Rather than face the inquiry and possible criminal trial, William left with his family for Louisiana and never returned. Because of this, the

incident never came to trial. For a brief time, a Priestley Parish existed in Louisiana.

The Priestley family in Louisiana flourished and Priestley Plantation still existed in the 1860s producing a great-grandson: Henry Hobson Richardson (1838-1886). Richardson was classically trained as an architect at Harvard and in Europe. His famous firm was centered in Boston where he popularized the Richardson



Romanesque style in the industrial East. There is urban legend that Senator and Mrs. Stanford visited the firm during their "famous" trip to Harvard - about founding a university on their Palo Alto farm. Richardson died prematurely at 47 of kidney failure in 1886. Members of his firm immediately founded the architectural firm of Shipley, Rutan & Coolidge. Twenty-seven year old Arthur Coolidge was the on-site architect dealing daily with the Stanford's to create their California vision in Richardson Romanesque - which was created and expressed by his late mentor, H. H. Richardson - a great-grandson of Joseph Priestley.

And therein lies the connection between Joseph Priestley and Stanford University.

Sources:

<http://www.stanford.edu/dept/registrar/bulletin/bulletin05-06/pdf/AcademicPolicy.pdf>
http://www.bc.edu/bc_org/avp/cas/fnart/fa267/hhr.html
<http://www.homestead.com/hereibe/HHR.html>
<http://www.britannica.com/eb/article-9063568>

The Synopsis Championship

The Santa Clara Valley local Section and the Division of Chemistry and the Law (CHAL) cooperated with local science fair project "Sciencepalooza" for first time entrants at the Santa Clara County fairgrounds in February, 2006 and at the Synopsis Championship held at the San Jose Convention Center on March 9, 2006.

Awards totaling \$600.00 were made by the local section to the winners on Sunday, April 2, 2006 at the Science Fair day at Paramount Great America. Winners, teachers, some parents and presenters received a full day of admission to the amusement park. Our winners were as follows:

- First Prize of \$300 was awarded to Jaya Iyer of the Harker School (teacher/Daniel Matthews/Harker School) for "Cross-Linked Conjugate Polymers for Dry Actuators"
- Second Prize of \$200 was awarded to Rachel Moncton of the Castilleja

School (Doris Mourad) for "The Perfect Souffle: Eggs, Sugar and a Little Copper"

- Third Prize of \$100 was awarded to Akila Kadembi of Pinewood Junior School (Teacher, 8th Grade/ Sarah Broadbent) for "Lead and Arsenic Levels in Playground Equipment of Different Neighbors"
- Fourth Prize of \$25 each was awarded to Nhu Le, Remie Mandawe and Rheshellyn Ramos of Oak Grove High School (Carol Evans/ Teacher) for "Flavonoids in Wine"

SCV members were active for this and other local science fairs, and plan to serve as Category and ACS judges for the Intel International Science and Engineering Fair (INTEL - ISEF) www.sciserv.org for US and foreign high school students held in Indianapolis IN on May 7 to May 12, 2006.

Councilors' Corner from the Atlanta Meeting

March 26-30th seems like such a long time ago! Atlanta was a friendly, but not warm, city for the 231st Annual Meeting. Georgia was having unseasonably cold weather with snow flurries, like we had 2 weeks before in the Bay Area. And this Californian did not take a coat!

Our section was fully represented by 5 returning councilors, 2 newbies, and an eager alternate councilor! Councilors on committees had governance meetings on Saturday and Sunday before the actual meeting began. My committee assignment is on LSAC (Local Section Activities Committee). A good bit of the time was spent discussing Innovative Grant Projects and deciding which local sections that had submitted applications, would be funded. We distributed over \$55,000 in grants to 25 sections for projects in 2006. We will distribute the remaining monies in September at the next meeting. I am pleased to announce that the Santa Clara Valley's proposal to continue the Student Interview Workshops was fully funded for \$3k thanks to Natalie McClure's well written proposal and Bonnie Charpentier's project leadership. I attended 2 focus groups: one on the needs of local sections and the other on customer desires for the new ACS website.

Our new councilors were impressed by the degree of organization at the council meeting. The meeting usually does move like clockwork, unless a really controversial topic comes up. Then the questions from the floor can become tedious!

Herb Silber from M&E (Meetings & Exposition Com.) discussed future national meetings. You can plan to visit Denver in March and Boston in August of 2015, for these were the two sites that were selected for that year!! Don't forget that everyone will be in San Francisco in September, 2006!

Peter Rusch from the exciting Committee on Nomenclature, Terminology and Symbols reports that the field of nanotechnology has no

unified terminology. He proposed that the committee sponsor an editorial board for rapid development of the terminology using the Wikipedia chemistry project as a model. This suggestion was accepted and calendared for the next meeting in San Francisco. This is something to look forward to!

Abby Kennedy, one of our new councilors, was impressed with the easy access members have to the officers of the society, when they are at a meeting. Events like the Women in Industry Breakfast, TownHall discussions, and Speaker Service Receptions give ample opportunities to talk with members and officers.

Sunday evening the councilors from the Western Region (Local Sections west of, and including Salt Lake City) met to share committee reports and more localized information. This meeting was chaired by our own Herb Silber. There was a presentation by the newest board member, Bonnie Charpentier, on the 'Board-Council Policy Committee Governance Review Task Force.' A long discussion followed the presentation and Bonnie emphasized that the task force was just gathering information and that there is no present agenda to change the structure of the society.

Wednesday's council meeting began promptly at 8 a.m. and concluded just before noon. There was a brief humorous interlude when past chair, Bill Carroll, discussed his previous year at the helm of the society. He showed an enlightening video of his year's experiences. As he is from Texas, it was of a cowboy herding cats!

A few selected points from the council meeting:

- Bruce Bursten and Bassam Shkhashiri were selected by written ballot to run for the ACS presidency in 2007. (Both are from academia)
- The Society realized \$21.0 million in investment gains. In total, unrestricted net assets increased just over \$26 million in 2005 to \$211 million.

- The meeting had attracted 12,546 registrants as follows: Regular attendees 6,323; Students 4,158; Exhibitors 1,288.
- More discussion about the aforementioned task force - the Task Force was charged with reviewing the Society's governance, and Constitution and Bylaws, to ensure that the Society has a governing framework to enable it to best fulfill its mission, meet member needs, and remain a world-class organization. The task force developed a framework that emphasized five key elements of the Society's governance, which are: membership, geographical organization, disciplinary organization, governance structure, and governance operations.
- ACS closed 2005 with 158,422 members.
- The Council VOTED to set the member dues for 2007 at the fully escalated rate of \$132.

A few of us had some time to attend technical sessions during the meeting. Atlanta's convention center is huge and we were spread into 2 halls, as well as some hotel meeting rooms. Tuesday night was the formal awards dinner. Paul Anderson was honored with the highest ACS award, the Priestly medal (he was the recipient of our Mosher Award for 2004). Three Stanford professors also were recognized - Edward Solomon, Hans C. Andersen, and Justin DuBois (Justin spoke at our last teacher's workshop).

ACS unveiled its new 'vision statement'/slogan, "Improving People's Lives through the Transforming Power of Chemistry" at the meeting. The slogan fit nicely on the sides of Atlanta city buses, on tee shirts, and many signs. The slogan could have been "Improving Life through Chemistry" or "Better Living through Chemistry" but it isn't. One unnamed councilor suggested that perhaps the marketing consultants were paid by the word!

In conclusion, the Spring meeting was a long and busy week for us all.

continued on next page

Councilors' Corner, continued from front page
The San Francisco Fall meeting, which is right around the corner, will be even busier. Plan to attend the Fall meeting in San Francisco, and don't forget to get involved with your society.

Sally Peters



Councilor Report from Atlanta

As a continuing associate member of the Committee on Nomenclature, Terminology and Symbols, we met in Atlanta to discuss a few items.

One of the fastest growing fields of chemistry is nanotechnology. No unified terminology exists as the field has grown so rapidly. Consequently, all of the interested groups from researchers to patent attorneys are using subsets of terminology with no consensus on definitions. I proposed that the committee sponsor an editorial board for rapid development of the

terminology using the Wikipedia chemistry project as a model. This suggestion was accepted and calendared for the next meeting in San Francisco.

It is anticipated that the announcement of several new elements will be forthcoming with a corresponding review of proposed names and symbols.

The open discussion topic at the Council meeting (membership requirements) has proven to be an extremely useful part of the meeting, as many thoughtful views are aired quickly. This meeting's theme was aimed at finding ways to make Society membership "more welcoming" to those who are not traditional chemists but practice chemistry.

In other news, the web project to update chemistry.org continues, and is on track to spend \$9.4 million. Finances of the Society are fine with unrestricted net assets returning to levels last seen in 2000. Unhappily, the adjusted inflation value of these assets is 12.5% below the 2000 level. Dues for 2007 were set at \$132 using the long-since approved dues escalator formula.

Peter Rusch

2005 Annual Report On the Web Now!

It's that time of year again - Winter is turning into Spring, clear rain-free days are just around the corner, and the much anticipated 2005 Annual Report is now available on the section's website! To view the report, simply go to www.scvacs.org. From there, scroll to the bottom of the list of links on the left side of the home page. Happy viewing!

CHEMPLOYMENT ABSTRACTS MAY 2006

CHEMPLOYMENT ABSTRACT 3850

Position Title: Chemical Engineer Senior Consultant
Job Description: A chem engineer to join its Process Economics Program (PEP) as a senior consultant. The job location is either in Woodlands, TX or Menlo Park, CA. PEP develops models & costs commercially-viable process designs for the chemical & other major industries, and conducts private research and process evaluations for individual clients.

QUALIFICATIONS DESIRED

Education: MS or BS in chem engrg or chem or equivalent exp. MBA is a plus.
Experience: 5-8 years of exp in process design. In addition, knowledge in evaluating chem proc technologies with a major chem company is preferable. Excellent written and verbal communication skills are required. Knowledge of AspenPlus and other process design and simulation and costing software is an advantage.

Job Location: Menlo Park, CA or Houston, TX
Salary: Competitive salary with employee benefits
Employer Description: SRI Consulting is a division of Access Intelligence LLC with offices in Menlo Park, CA, Houston, TX, Zurich, Beijing and Tokyo. For more information, please visit our Web site at www.sriconsulting.com.

Application Instructions: please send your resume to: Sandi Lucas, SRI Consulting, jobs@sriconsulting.com, Phone: 650-384-4318, Fax: 650-384-4273

CHEMPLOYMENT ABSTRACT 3852

Position Title: PhD Research Associate - Biochemistry
Job Description: Research position is available for a PhD graduate in the lab D.K. Eggers. This position will pursue a research proj in one of two areas: (a) exp detection of protein folding intermediates that precede aggregation using sol-gel glass encapsulation, or (b) thermodynamic studies related to the role of backbone hydration in protein folding using calorimetric techniques. Also serve as a mentor to undergrad & graduate research students in addition to pursuing an independent project.

QUALIFICATIONS DESIRED

Education: PhD in biochem, physl chem, or chemical engineering

Experience: Some exp in preparing and analyzing protein solutions is expected.

Job Location: San Jose, CA
Salary: \$40K plus full benefits, renewable each year of satisfactory performance

Employer Description: San Jose State is a comprehensive-type educational university.

Application Instructions: Send a letter of interest with a statement of career objectives by email to: deggers@science.sjsu.edu. Also send a hardcopy of the letter and a CV with the contact information of two or more references to: Daryl Eggers, Chemistry Department, SJSU, San Jose, CA 95192-0101. Further information may be found on the PI's website, www.chemistry.sjsu.edu/deggers/homepage.htm

CHEMPLOYMENT ABSTRACT 3853

Position Title: RESEARCH ANALYST

Job Description: Access Intelligence is looking for a Research Analyst who will be a part of the Directory of Chemical Producers (DCP) team. Major responsibilities for this business research position include: Researching and updating of the DCP publication database. Preparing annual surveys of large numbers of inter-national chemical companies. Serving as a liaison for follow up with chemical companies. Monitoring trade literature and company Web sites. Organizing research material. Responding to client inquiries. Ensuring the published materials are of the highest quality

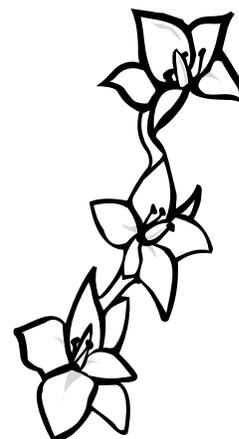
QUALIFICATIONS DESIRED

Education: Science degree (Chem or Bioll Sciences preferred) or equivalent experience a plus.

Experience: Must have excellent organizational skills, ability to meet deadlines, strong analytical skills and top notch communication skills. A working knowledge of MS Word and Excel is desirable.

Job Location: Menlo Park, CA
Salary: \$35,000-\$40,000 depending on experience
Employer Description: Access Intelligence provides business intelligence to the chemical and wide variety of other industries products, services and solutions.

Application Instructions: Send your resume to: jobs@sriconsulting.com Fax: 650.384.4273





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Newsletter

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FUTURE MEETINGS

No SCV Dinner Meeting Scheduled for May

- May 10** Intel International Science and Engineering Fair
Indianapolis, IN
- May 10-12** Ninth World Congress on Biosensors
Toronto, Canada
- May 21-24** 2006 Biennial Polymer Conference
Key Biscayne, FL
- Jun 12-16** 39th National Organic Chemistry Symposium
Salt Lake City, UT
- Jul 15** Summer Picnic, Awards and 50 Year Member Recognition
Stanford University

For the latest information, please visit SCV/ACS web site: www.scvacs.org



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